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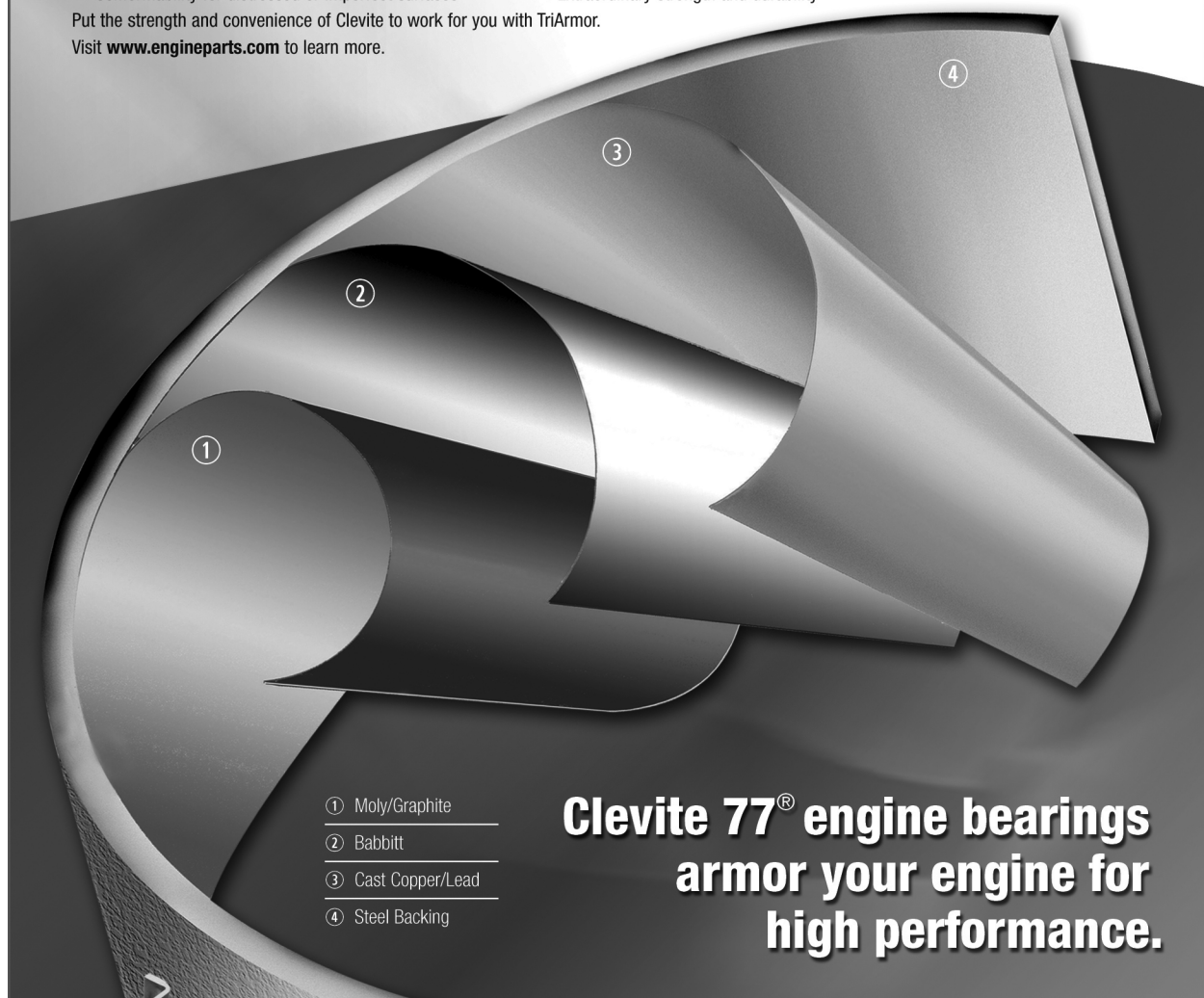
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New Camshaft Additions

Part Number	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-2328	LV	ST	GMC Trk.:262(1996-2002) IsuTrk:262(1997-2000)
229-2329	LV	ST	Ford:332(1958-1959),352(1958-1962),390(1961-1962)
229-2331	LV	ST	Ford:281(1991-1999) FordTrk:281(1997-1999)
229-2332	LV	ST	Ford:281(1991-1999) FordTrk:281(1997-1999)
229-2333	LV	ST	Ford:281(1991-1999) FordTrk:281(1997-1999)
229-2334	LV	ST	Ford:281(1991-1999) FordTrk:281(1997-1999)
229-2335	LV	ST	GMC:98(1988-1992) Toy:1587(1988-1991)
229-2336	LV	ST	GMC:98(1988-1992) Toy:1587(1988-1991)
229-2337	LV	ST	GMC:346(1998-2000)
229-2338	LV	ST	DodTrk:150(1996-2002) Jeep:150(1996-2002)
229-2339	LV	ST	Toy:1998(1987-1991),2164(1990-1992)
229-2340	LV	ST	Toy:1998(1987-1991),2164(1990-1992)
229-2341	LV	ST	GMC:61(1989-2000)
229-2342	LV	ST	Toy:2954(1986-1992)
229-2343	LV	ST	Toy:2954(1986-1992)
229-2344	LV	ST	GMC:98(1989-1992) Toy:1587(1988-1993)
229-2345	LV	ST	GMC:98(1989-1992) Toy:1587(1988-1993)
229-2346	LV	ST	GMC:98(1993-1997) Toy:1587(1993-1997)
229-2347	LV	ST	GMC:98(1993-1997) Toy:1587(1993-1997)
229-2348	LV	ST	Chry:122(1989-1994) Eagle:122(1989-1994) Mits:1997(1989-1994)
229-2349	LV	ST	MazTrk:2606(1989-1994)
229-2350	LV	MR	GMCMar:262
229-2351	LV	MR	GMCMar:305,350
229-2353	LV	MR	GMCMar:454
229-2354	LV	ST	GMC Trk.:305(1996-2002),350(1996-2002) IsuTrk:350(1996-2002)
229-2355	LV	P	GMC:262(1987-1993) GMC Trk.:262(1987-1993)
229-2356	LV	P	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:454(1981-1995)
229-2357	LV	SP	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:454(1981-1995)
229-2358	LV	P	Ford:302(1985-1994)
229-2359	LV	P	Ford:302(1985-1994)
229-2360	LV	MPG	Checker:305(1978-1980),350(1969-1979) GMC:267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980)
229-2361	LV	ST	GMC:231(1995-2003)
229-2362	LV	ST	Ford:232(1996-1998) FordTrk:232(1996-2001)
229-2363	LV	ST	GMC:350(1995-1997)
229-2364	LV	ST	GMC:350(1994-1996)
229-2365	LV	ST	GMC:350(1992-1994)
229-2366	LV	P	GMC:305(1987-1992),350(1987-1993) GMC Trk.:350(1996-2002)
229-2367	LV	P	GMC:346(1998-2000)
229-2368	LV	SP	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2369	LV	CP	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2370	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976),402(1970-1972) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1968),350(1969-1995),400(1974-1980),402(1970-1972)
229-2373	LV	ST	GMC:134(2002-2004) Sat:134(2002-2004) Saturn Truck:134(2002-2004)
229-2374	LV	ST	GMC:134(2002-2004) Sat:134(2002-2004) Saturn Truck:134(2002-2004)
229-2375	LV	ST	GMC:134(1998-2002)
229-2376	LV	ST	DodTrk:360(1998-2002)
229-2377	LV	P	Ford:302(1985-1995) FordTrk:302(1994-2000) GMC:350(1984-1986)
229-2378	LV	SP	Ford:302(1985-1995) FordTrk:302(1994-2000)
229-2379	LV	ST	Ford:1989(1996-2003)
229-2380	LV	ST	Ford:1989(1996-2003)
229-2381	LV	ST	Ford:1989(1995-1997)
229-2382	LV	ST	Ford:1989(1995-1997)
229-2383	LV	ST	FordTrk:415(1997-2003)
229-2384	LV	ST	FordTrk:415(1997-2003)
229-2385	LV	ST	Hon:1590(1992-1995)

New Camshaft Additions

Part Number	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-2386	LV	ST	Hon:1590(1996-2000)
229-2387	LV	ST	Hon:1595(1994-2000)
229-2388	LV	ST	Hon:1595(1994-2000)
229-2389	LV	MPG	GMC:305(1987-1993),350(1987-1993) GMC Trk.:305(1996-2002),350(1996-2002)
229-2390	LV	P	GMC:305(1987-1993),350(1987-1993) GMC Trk.:305(1996-2002),350(1996-2002)
229-2391	LV	P	GMC:305(1987-1993),350(1987-1993) GMC Trk.:305(1996-2002),350(1996-2002)
229-2392	LV	SP	GMC:305(1987-1993),350(1987-1993) GMC Trk.:305(1996-2002),350(1996-2002)
229-2393	LV	MPG	GMC:350(1994-1997)
229-2394	LV	P	GMC:350(1994-1997)
229-2395	LV	SP	GMC:350(1994-1997)
229-2396	LV	P	GMC Trk.:454(1996-2000)
229-2397	LV	P	GMC Trk.:454(1996-2000)
229-2398	LV	SP	GMC Trk.:454(1996-2000)
229-2399	LV	ST	ToyTrk:1998(1984-1985),2237(1986-1990)
229-2400	LV	MPG	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995) VolPen:302
229-2401	LV	P	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995) VolPen:302
229-2402	LV	SP	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995) VolPen:302
229-2403	LV	MPG	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995) VolPen:302
229-2404	LV	P	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2405	LV	P	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2406	LV	SP	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2407	HV	ST	John Deere Series "300" 4 Cyl. Eng.
229-2408	HV	ST	John Deere Series "300" 6 Cyl. Eng.
229-2409	LV	ST	Chry. Pass. 122 (2.0L) SOHC 4 Cyl. Eng. (1996-2001)
229-2410	LV	ST	Chry. Pass. 122 (2.0L) SOHC 4 Cyl. Eng. (1995)
229-2411	LV	ST	GM Trk. 262 (4.3L) VIN "W" V6 Eng. (1995)
229-2412	LV	ST	GM Pass. 189 (3.1L) 207 (3.4L) V6 Eng. (2000-2002)
229-2413	LV	ST	Dodge Trk. 201 (3.3L) V6 Eng. (2001-2003)
229-2414	LV	ST	Dodge Trk. 230 (3.8L) V6 Eng. (2001-2003)
229-2415	HV	ST	Cummins V8, V903-VT903 (Use W/1:2 Ratio Injector Rocker levers)

Engine Index

Engine	Year	Block
2997CC (3.0L) J30A1 V-TEC SOHC Honda	1997-1999	1

Engine	Year	Block
3210CC (3.2L) J32A1 V-TEC SOHC	1999-2003	2

1 2997CC (3.0L) J30A1 V-TEC SOHC Honda V6 Cyl, 3.386in./86mm (1997-1999) 1

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lash Adj., Hyd.	1997-1999		Intake	213-1785	6
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2 3210CC (3.2L) J32A1 V-TEC SOHC V6 Cyl, 3.504in./89mm (1999-2003) 2

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lash Adj., Hyd.	1999-2003		Intake	213-1785	6
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American Motors

Engine Index

Engine	Year	Block
150 CID (2.5L) OHV	1983-1986	1
151 CID (2.5L) Carbureted Pontiac	1980-1983	2
196 CID (3.2L) OHV	1961-1965	3
199 CID (3.3L)	1965-1970	4
232 CID (3.8L)	1964-1979	5
250 CID (4.1L)	1958-1961	6
258 CID (4.2L)	1971-1988	7
287 CID (4.7L)	1963-1966	8

Engine	Year	Block
290 CID (4.8L)	1966-1969	9
304 CID (5.0L)	1970-1979	10
327 CID (5.4L)	1957-1966	11
343 CID (5.6L)	1967-1969	12
360 CID (5.9L)	1970-1978	13
390 CID (6.4L)	1968-1970	14
401 CID (6.6L)	1971-1976	15

1 150 CID (2.5L) OHV 4 Cyl, 3.875in./98.4mm (1983-1986) 1

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1983-1986			229-1905	1
Valve Lifter, Hyd.	1983-1986			213-1679	8

2 151 CID (2.5L) Carbureted Pontiac 4 Cyl, 4.000in./101.6mm (1980-1983) 2

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1980-1983		190 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1697	1
Valve Lifter, Hyd.	1980-1983			213-1719	8

3 196 CID (3.2L) OHV 6 Cyl, 3.125in./79.4mm (1961-1965) 3

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1961-1965		Aluminum Cylinder Heads	213-1679	12
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4 199 CID (3.3L) 6 Cyl, 3.750in./95.3mm (1965-1970) 4

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1965-1970			229-2269	1
Valve Lifter, Hyd.	1965-1970			213-1679	12
			Requires Adjustable Valve Train, (Performer, Special Size Reamer Required)	213-1705	12

5 232 CID (3.8L) 6 Cyl, 3.750in./95.3mm (1964-1979) 5

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1964-1979			229-2269	1
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American Motors

5 (cont.)	232 CID (3.8L) 6 Cyl, 3.750in./95.3mm (1964-1979)					5 (cont.)
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lifter, Hyd.	1964-1979			213-1679	12	
			Requires Adjustable Valve Train, (Performer, Special Size Reamer Required)	213-1705	12	
6	250 CID (4.1L) V8 Cyl, 3.500in./88.9mm (1958-1961)					6
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1958-1961			213-1675	12	
7	258 CID (4.2L) 6 Cyl, 3.750in./95.3mm (1971-1988)					7
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1981-1988			229-1643	1	
	1971-1980			229-2269	1	
Valve Lifter, Hyd.	1981-1988		Requires Adjustable Valve Train, (Performer, Special Size Reamer Required)	213-1705	12	
	1971-1988			213-1679	12	
8	287 CID (4.7L) V8 Cyl, 3.750in./95.3mm (1963-1966)					8
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1963-1966			213-1679	16	
9	290 CID (4.8L) V8 Cyl, 3.750in./95.3mm (1966-1969)					9
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1966-1969			229-1651	1	
Valve Lifter, Hyd.	1966-1969			213-1679	16	
			Requires Adjustable Valve Train, (Performer, Special High R.P.M. Design)	213-1705	16	
10	304 CID (5.0L) V8 Cyl, 3.750in./95.3mm (1970-1979)					10
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1970-1979			229-1651	1	
Valve Lifter, Hyd.	1970-1979			213-1679	16	
			Requires Adjustable Valve Train, (Performer, Special High R.P.M. Design)	213-1705	16	
11	327 CID (5.4L) V8 Cyl, 4.000in./101.6mm (1957-1966)					11
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1961-1966			213-1679	16	
	1957-1960			213-1662	16	
12	343 CID (5.6L) V8 Cyl, 4.080in./103.6mm (1967-1969)					12
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1967-1969			229-1651	1	
Valve Lifter, Hyd.	1967-1969			213-1679	16	
			Requires Adjustable Valve Train, (Performer, Special High R.P.M. Design)	213-1705	16	

13 360 CID (5.9L) V8 Cyl, 4.080in./103.6mm (1970-1978) 13

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1970-1978			229-1651	1
Valve Lifter, Hyd.	1971-1978			213-1679	16
	1974-1975		Except Police Car	213-1679	16
	1970-1973			213-1679	16

14 390 CID (6.4L) V8 Cyl, 4.165in./105.8mm (1968-1970) 14

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1968-1970			229-1651	1
Valve Lifter, Hyd.	1968-1970			213-1679	16
			Requires Adjustable Valve Train, (Performer, Special High R.P.M. Design)	213-1705	16

15 401 CID (6.6L) V8 Cyl, 4.165in./105.8mm (1971-1976) 15

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1971-1976			229-1651	1
Valve Lifter, Hyd.	1971-1976		Except Police Car	213-1679	16
			Requires Adjustable Valve Train, (Performer, Special High R.P.M. Design)	213-1705	16

Audi

Engine Index

Engine	Year	Block	Engine	Year	Block
1471CC (1.5L) ZD SOHC	1973	1	1588CC (1.6L) YH Volkswagen	1975-1980	5
1471CC (1.5L) ZE SOHC	1973	2	1588CC (1.6L) YK Volkswagen	1975-1980	6
1471CC (1.5L) XV/XW/XY/XZ Gas Volkswagen	1974	3	1715CC (1.7L) WT Volkswagen	1981-1984	7
1588CC (1.6L) YG Volkswagen	1975-1980	4	1780CC (1.8L) MG	1985-1987	8
			1780CC (1.8L) JN Volkswagen	1984	9

1 1471CC (1.5L) ZD SOHC 4 Cyl, 3.012in./76.5mm (1973) 1

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1973			229-1716	1

2 1471CC (1.5L) ZE SOHC 4 Cyl, 3.012in./76.5mm (1973) 2

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1973			229-1716	1

3 1471CC (1.5L) XV/XW/XY/XZ Gas Volkswagen 4 Cyl, 3.012in./76.5mm (1974) 3

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1974			229-1716	1

4 1588CC (1.6L) YG Volkswagen 4 Cyl, 3.130in./79.5mm (1975-1980) 4

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1975-1980			229-1716	1

Audi

5	1588CC (1.6L) YH Volkswagen 4 Cyl, 3.130in./79.5mm (1975-1980)					5
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1975-1980			229-1716	1	
6	1588CC (1.6L) YK Volkswagen 4 Cyl, 3.130in./79.5mm (1975-1980)					6
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1975-1980			229-1716	1	
7	1715CC (1.7L) WT Volkswagen 4 Cyl, 3.130in./79.5mm (1981-1984)					7
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1981-1984			229-1716	1	
8	1780CC (1.8L) MG 4 Cyl, 3.189in./81mm (1985-1987)					8
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1985-1987			229-1945	1	
9	1780CC (1.8L) JN Volkswagen 4 Cyl, 3.189in./81mm (1984)					9
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1984			229-1945	1	

Checker Motors

Engine Index

Engine	Year	Block	Engine	Year	Block
229 CID (3.8L) Chevrolet	1980	1	305 CID (5.0L) Chevrolet	1978-1980	6
230 CID (3.8L) Chevrolet	1964-1968	2	307 CID (5.0L) Chevrolet	1968-1969	7
250 CID (4.1L) Chevrolet	1969-1979	3	327 CID (5.4L) Chevrolet	1965-1969	8
267 CID (4.4L) Chevrolet	1980	4	350 CID (5.7L) Carbureted Chevrolet	1969-1979	9
283 CID (4.6L) Chevrolet	1965-1967	5			
1	229 CID (3.8L) Chevrolet V6 Cyl, 3.736in./95mm (1980)				1
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1980			229-1703	1
Valve Lifter, Hyd.	1980			213-1638	12
2	230 CID (3.8L) Chevrolet 6 Cyl, 3.875in./98.4mm (1964-1968)				2
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1964-1968		172 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1394	1
Valve Lifter, Hyd.	1964-1968			213-1638	6
3	250 CID (4.1L) Chevrolet 6 Cyl, 3.875in./98.4mm (1969-1979)				3
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1969-1979		172 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1394	1
Valve Lifter, Hyd.	1969-1979			213-1638	12

4	267 CID (4.4L) Chevrolet V8 Cyl, 3.500in./88.9mm (1980)					4
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1980			229-1666	1	
Valve Lifter, Hyd.	1980			213-1638	16	
5	283 CID (4.6L) Chevrolet V8 Cyl, 3.875in./98.4mm (1965-1967)					5
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1965-1967			229-1274	1	
Valve Lifter, Hyd.	1965-1967			213-1638	16	
6	305 CID (5.0L) Chevrolet V8 Cyl, 3.736in./95mm (1978-1980)					6
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1980			229-1666	1	
	1978-1979			229-1668	1	
Valve Lifter, Hyd.	1978-1980			213-1638	16	
7	307 CID (5.0L) Chevrolet V8 Cyl, 3.875in./98.4mm (1968-1969)					7
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1968-1969			229-1274	1	
Valve Lifter, Hyd.	1968-1969			213-1638	16	
8	327 CID (5.4L) Chevrolet V8 Cyl, 4.000in./101.6mm (1965-1969)					8
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1965-1969			229-1274	1	
Valve Lifter, Hyd.	1965-1969			213-1638	16	
9	350 CID (5.7L) Carbureted Chevrolet V8 Cyl, 4.000in./101.6mm (1969-1979)					9
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1969-1979			229-1274	1	
	1972		Except California	229-1274	1	
Valve Lifter, Hyd.	1969-1979			213-1638	16	

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Engine Index

Engine	Year	Block	Engine	Year	Block
86 CID (1.4L) SOHC "J" Mitsubishi	1979-1984	1	122 CID/1997CC (2.0L) SOHC "U" Mitsubishi	1978	14
92 CID (1.5L) 12 Valve "Q" Mitsubishi	1991-1994	2	135 CID (2.2L) SOHC	1981-1994	15
92 CID (1.5L) SOHC 8 Valve "Q" Fuel Injected Mitsubishi	1987-1988	3	144 CID (2.4L) 4G64 SOHC 16 Valve Mitsubishi	1993-1994	16
92 CID (1.5L) SOHC Jet Valve "Q" Carbureted Mitsubishi	1985-1991	4	144 CID (2.4L) 4G64 SOHC 8 Valve Mitsubishi	1992	17
98 CID (1.6L) SOHC Mitsubishi	1984	5	148 CID/2429CC (2.4L) DOHC	1995-2000	18
98 CID (1.6L) SOHC K & Z Mitsubishi	1981-1990	6	2351CC (2.4L) EY7 SOHC Mitsubishi	2001	19
105 CID (1.7L) SOHC Volkswagen	1978-1983	7	153 CID (2.5L) SOHC	1986-1995	20
107 CID (1.8L) 8 Valve (4G37) Mitsubishi	1989-1994	8	153 CID (2.5L) SOHC Flex	1993-1994	21
122 CID (2.0L) DOHC	1995-1999	9	2497CC (2.5L) EEB Mitsubishi	1995-2000	22
122 CID (2.0L) SOHC	1995-2001	10	156 CID (2.6L) SOHC "F" Mitsubishi	1978-1989	23
122 CID (2.0L) 4G63 DOHC Mitsubishi	1989-1994	11	167 CID/2736CC (2.7L) DOHC	1998-2003	24
122 CID (2.0L) 4G63T DOHC TURBO Mitsubishi	1990-1994	12	167 CID/2736CC (2.7L) DOHC Flex	2003	25
122 CID (2.0L) SOHC "A" Mitsubishi	1984-1991	13	170 CID (2.8L) OHV	1960-1969	26
			181 CID (3.0L) DOHC Mitsubishi	1991-1996	27

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Engine Index (cont.)

Engine	Year	Block	Engine	Year	Block
181 CID (3.0L) SOHC Mitsubishi	1988-1995	28	340 CID (5.6L) OHV	1968-1973	41
181 CID/2972CC (3.0L) EF7 SOHC Mitsubishi	2001	29	350 CID (5.7L) OHV	1958	42
198 CID (3.2L) OHV	1970-1974	30	354 CID (5.8L) Hemispherical	1956-1958	43
201 CID (3.3L)	1990-1997	31	354 CID (5.8L) OHV	1956-1958	44
201 CID (3.3L) Flex	1994-1995	32	360 CID (5.9L)	1971-1980	45
225 CID (3.7L) OHV	1960-1983	33	361 CID (5.9L) OHV	1958-1966	46
230 CID (3.8L)	1991-1993	34	383 CID (6.3L) OHV	1959-1961	47
270 CID (4.4L) Hemispherical	1955	35	383 CID (6.3L) OHV	1959-1971	48
270 CID (4.4L) OHV	1955-1956	36	392 CID (6.4L) Hemispherical	1957-1958	49
273 CID (4.5L) OHV	1964-1969	37	400 CID (6.6L) OHV	1972-1978	50
277 CID (4.5L) OHV	1956-1957	38	413 CID (6.8L) OHV	1959-1965	51
318 CID (5.2L)	1957-1989	39	426 CID (7.0L) Wedge	1963-1965	52
326 CID (5.3L) OHV	1959	40	440 CID (7.2L) OHV	1966-1978	53

1 86 CID (1.4L) SOHC "J" Mitsubishi 4 Cyl, 2.913in./74mm (1979-1984) 1

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1979-1984			229-2152	1
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2 92 CID (1.5L) 12 Valve "Q" Mitsubishi 4 Cyl, 2.972in./75.5mm (1991-1994) 2

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1991-1994			229-2234	1
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3 92 CID (1.5L) SOHC 8 Valve "Q" Fuel Injected Mitsubishi 4 Cyl, 2.972in./75.5mm (1987-1988) 3

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1987-1988			229-2152	1
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4 92 CID (1.5L) SOHC Jet Valve "Q" Carbureted Mitsubishi 4 Cyl, 2.972in./75.5mm (1985-1991) 4

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1985-1991			229-2152	1
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5 98 CID (1.6L) SOHC Mitsubishi 4 Cyl, 3.028in./76.9mm (1984) 5

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1984		Except Canadian Models	229-2116	1
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6 98 CID (1.6L) SOHC K & Z Mitsubishi 4 Cyl, 3.028in./76.9mm (1981-1990) 6

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1985-1990			229-2116	1
	1982-1984		Except Canadian Models	229-2116	1
	1981		Except Canadian Models, From 11/81	229-2116	1

7 105 CID (1.7L) SOHC Volkswagen 4 Cyl, 3.130in./79.5mm (1978-1983) 7

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1978-1983			229-1716	1
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8	107 CID (1.8L) 8 Valve (4G37) Mitsubishi 4 Cyl, 3.173in./80.6mm (1989-1994)					8
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1989-1994			213-1753	8

9	122 CID (2.0L) DOHC 4 Cyl, 3.445in./87.5mm (1995-1999)					9
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1995-1999			213-1767	16

10	122 CID (2.0L) SOHC 4 Cyl, 3.445in./87.5mm (1995-2001)					10
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1996-2001				229-2409	1
	1995				229-2410	1

11	122 CID (2.0L) 4G63 DOHC Mitsubishi 4 Cyl, 3.346in./85mm (1989-1994)					11
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Cam, Hyd. Roller, Ex		1989-1994			229-2322	1
Cam, Hyd. Roller, In		1989-1994			229-2348	1

12	122 CID (2.0L) 4G63T DOHC TURBO Mitsubishi 4 Cyl, 3.346in./85mm (1990-1994)					12
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Cam, Hyd. Roller, Ex	1990-1994		Manual Transmission		229-2320	1
			Automatic Transmission		229-2322	1
Cam, Hyd. Roller, In	1990-1994		Manual Transmission		229-2319	1
			Automatic Transmission		229-2321	1
Valve Lash Adj., Hyd.		1990-1994			213-1763	16

13	122 CID (2.0L) SOHC "A" Mitsubishi 4 Cyl, 3.346in./85mm (1984-1991)					13
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1985-1991		Colt Vista		229-1948	1
	1984		Thru 4/84		229-1947	1
			From 4/84		229-1948	1
Camshaft, Hyd. Roller		1989-1990	2000 GTX		229-2235	1
Valve Lash Adj., Hyd.		1985-1991			213-1753	8

14	122 CID/1997CC (2.0L) SOHC "U" Mitsubishi 4 Cyl, 3.307in./84mm (1978)					14
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1978			229-1747	1

15	135 CID (2.2L) SOHC 4 Cyl, 3.445in./87.5mm (1981-1994)					15
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1984-1987		Turbocharged		229-1877	1
			Turbocharged	.020" Oversize Bearing Journals	229-1903	1
	1981-1987		Naturally Aspirated		229-1755	1
			Naturally Aspirated	.020" Oversize Bearing Journals	229-1837	1
Camshaft, Hyd. Roller	1988-1994				229-1922	1
				.020" Oversize Bearing Journals	229-1940	1
Valve Lash Adj., Hyd.		1981-1994			213-1722	8

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16	144 CID (2.4L) 4G64 SOHC 16 Valve Mitsubishi 4 Cyl, 3.405in./86.5mm (1993-1994)					16
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1993-1994			213-1753 8	
17	144 CID (2.4L) 4G64 SOHC 8 Valve Mitsubishi 4 Cyl, 3.405in./86.5mm (1992)					17
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller		1992			229-2235 1	
Valve Lash Adj., Hyd.		1992			213-1753 8	
18	148 CID/2429CC (2.4L) DOHC 4 Cyl, 3.445in./87.5mm (1995-2000)					18
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1995-2000			213-1767 16	
19	2351CC (2.4L) EY7 SOHC Mitsubishi 4 Cyl, 3.406in./86.5mm (2001)					19
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		2001			213-1753 16	
20	153 CID (2.5L) SOHC 4 Cyl, 3.445in./87.5mm (1986-1995)					20
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1986-1987			229-1755 1	
				.020" Oversize Bearing Journals	229-1837 1	
Camshaft, Hyd. Roller		1988-1995			229-1922 1	
				.020" Oversize Bearing Journals	229-1940 1	
Valve Lash Adj., Hyd.		1986-1995			213-1722 8	
21	153 CID (2.5L) SOHC Flex 4 Cyl, 3.445in./87.5mm (1993-1994)					21
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller		1993-1994			229-1922 1	
				.020" Oversize Bearing Journals	229-1940 1	
Valve Lash Adj., Hyd.		1993-1994			213-1722 8	
22	2497CC (2.5L) EEB Mitsubishi V6 Cyl, 3.290in./83.5mm (1995-2000)					22
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1995-2000			213-1753 24	
23	156 CID (2.6L) SOHC "F" Mitsubishi 4 Cyl, 3.587in./91.1mm (1978-1989)					23
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1986-1989		Conquest	229-1934 1	
				(Aftermarket Replacement With Oversize Bearing Journals, Special)	229-2226 1	
Camshaft, Mech.		1982-1985		Front Wheel Drive	229-1887 1	
		1981-1985		(Aftermarket Replacement With Oversize Bearing Journals, Special)	229-2227 1	
		1978-1985		Rear Wheel Drive	229-1747 1	
		1981		Front Wheel Drive, Original Equipment Water Pump Drive Pulley Must Be Purchased when replacing camshaft In Engines Manufactured before 12/80	229-1887 1	
Valve Lash Adj., Hyd.		1986-1989			213-1753 8	

24	167 CID/2736CC (2.7L) DOHC V6 Cyl, 3.386in./86mm (1998-2003)					24
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1998-2003			213-1776		24
25	167 CID/2736CC (2.7L) DOHC Flex V6 Cyl, 3.386in./86mm (2003)					25
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	2003			213-1776		24
26	170 CID (2.8L) OHV 6 Cyl, 3.400in./86.4mm (1960-1969)					26
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1960-1969			229-1380		1
Valve Lifter, Mech.	1960-1969			213-1675		12
27	181 CID (3.0L) DOHC Mitsubishi V6 Cyl, 3.587in./91.1mm (1991-1996)					27
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1991-1996			213-1763		24
28	181 CID (3.0L) SOHC Mitsubishi V6 Cyl, 3.587in./91.1mm (1988-1995)					28
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1990-1995		Front, Left Head	229-1962		1
			Right Head Rear	229-1963		1
	1988-1995		(Aftermarket Replacement With Oversize Bearing Journals), Front, Left Head .040" Oversize Bearing Journals	229-2249		1
	1988-1989		Right Head	229-1938		1
			Left Head	229-1939		1
Valve Lash Adj., Hyd.	1988-1995			213-1753		12
29	181 CID/2972CC (3.0L) EF7 SOHC Mitsubishi V6 Cyl, 3.587in./91.1mm (2001)					29
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	2001			213-1753		24
30	198 CID (3.2L) OHV 6 Cyl, 3.400in./86.4mm (1970-1974)					30
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1970-1974			229-1380		1
Valve Lifter, Mech.	1970-1974			213-1675		12
31	201 CID (3.3L) V6 Cyl, 3.661in./93mm (1990-1997)					31
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1990-1997			229-2266		1
Valve Lifter, Hyd. Roller	1990-1996			213-1750		12
32	201 CID (3.3L) Flex V6 Cyl, 3.661in./93mm (1994-1995)					32
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1994-1995			229-2266		1

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32 (cont.)	201 CID (3.3L) Flex V6 Cyl, 3.661in./93mm (1994-1995)					32 (cont.)
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lifter, Hyd. Roller	1994-1995			213-1750	12	
33	225 CID (3.7L) OHV 6 Cyl, 3.400in./86.4mm (1960-1983)					33
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1981-1983			229-1712	1	
Camshaft, Mech.	1960-1980			229-1380	1	
Valve Lifter, Hyd.	1981-1983			213-1721	12	
Valve Lifter, Mech.	1960-1980			213-1675	12	
34	230 CID (3.8L) V6 Cyl, 3.780in./96mm (1991-1993)					34
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1991-1993			229-2266	1	
Valve Lifter, Hyd. Roller	1991-1992			213-1750	12	
35	270 CID (4.4L) Hemispherical V8 Cyl, 3.625in./92.1mm (1955)					35
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1955			213-1635	16	
36	270 CID (4.4L) OHV V8 Cyl, 3.625in./92.1mm (1955-1956)					36
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1955-1956			213-1635	16	
37	273 CID (4.5L) OHV V8 Cyl, 3.625in./92.1mm (1964-1969)					37
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1968-1969			229-1645	1	
Valve Lifter, Hyd.	1968-1969			213-1679	16	
Valve Lifter, Mech.	1964-1967			213-1675	16	
38	277 CID (4.5L) OHV V8 Cyl, 3.750in./95.3mm (1956-1957)					38
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1956-1957			229-1198	1	
Valve Lifter, Mech.	1956-1957			213-1675	16	
39	318 CID (5.2L) V8 Cyl, 3.910in./99.3mm (1957-1989)					39
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1985-1989		Except Roller Lifter	229-1645	1	
	1968-1984			229-1645	1	
	1967		Except CC318 Canadian Built Engines	229-1645	1	
Camshaft, Hyd. Roller	1985-1989		2 Barrel Carburetor 191 Degree Intake And Exhaust Duration	229-2153	1	
Camshaft, Mech.	1957-1966			229-1198	1	
Valve Lifter, Hyd.	1968-1988			213-1679	16	
	1967			213-1662	16	

39 (cont.)	318 CID (5.2L) V8 Cyl, 3.910in./99.3mm (1957-1989)					39 (cont.)
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lifter, Hyd. Roller	1985-1989		Except 4 Barrel Police Car	213-1750	16	
Valve Lifter, Mech.	1957-1966			213-1675	16	
40	326 CID (5.3L) OHV V8 Cyl, 3.953in./100.4mm (1959)					40
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1959		Taxi	229-1198	1	
Valve Lifter, Hyd.	1959		Except Taxi	213-1662	16	
Valve Lifter, Mech.	1959		Taxi	213-1675	16	
41	340 CID (5.6L) OHV V8 Cyl, 4.040in./102.6mm (1968-1973)					41
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1968-1973		4 Barrel Carburetor	229-1654	1	
Valve Lifter, Hyd.	1968-1973			213-1679	16	
42	350 CID (5.7L) OHV V8 Cyl, 4.063in./103.2mm (1958)					42
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1958			229-1327	1	
Valve Lifter, Hyd.	1958			213-1635	16	
43	354 CID (5.8L) Hemispherical V8 Cyl, 3.938in./100mm (1956-1958)					43
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1956-1958			213-1635	16	
44	354 CID (5.8L) OHV V8 Cyl, 3.938in./100mm (1956-1958)					44
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1956-1958			213-1635	16	
45	360 CID (5.9L) V8 Cyl, 4.000in./101.6mm (1971-1980)					45
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1975-1980		203 Degree Intake And Exhaust Duration	229-1663	1	
	1971-1974			229-1654	1	
Valve Lifter, Hyd.	1971-1980			213-1679	16	
46	361 CID (5.9L) OHV V8 Cyl, 4.125in./104.8mm (1958-1966)					46
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1958-1966			229-1327	1	
Valve Lifter, Hyd.	1958-1966			213-1635	16	
47	383 CID (6.3L) OHV V8 Cyl, 4.031in./102.4mm (1959-1961)					47
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1959-1961		2 Barrel Carburetor	229-1327	1	

Chrysler

47 383 CID (6.3L) OHV V8 Cyl, 4.031in./102.4mm (1959-1961) 47 (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS (cont.)					
Valve Lifter, Hyd.	1959-1960			213-1635	16
48 383 CID (6.3L) OHV V8 Cyl, 4.250in./108mm (1959-1971) 48					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1968-1971		4 Barrel Carburetor	229-2323	1
	1962-1971		2 Barrel Carburetor	229-1327	1
	1959-1960		2 Barrel Carburetor	229-1327	1
Valve Lifter, Hyd.	1968-1971			213-1686	16
	1959-1967			213-1635	16
49 392 CID (6.4L) Hemispherical V8 Cyl, 4.000in./101.6mm (1957-1958) 49					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1957-1958			213-1635	16
50 400 CID (6.6L) OHV V8 Cyl, 4.342in./110.3mm (1972-1978) 50					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1976-1978			229-1327	1
	1972-1975		2 Barrel Carburetor	229-1327	1
			4 Barrel Carburetor	229-2323	1
	1972-1974		2 Barrel Carburetor	229-1327	1
Valve Lifter, Hyd.	1972-1978			213-1686	16
51 413 CID (6.8L) OHV V8 Cyl, 4.188in./106.4mm (1959-1965) 51					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1959-1965			229-1327	1
Valve Lifter, Hyd.	1959-1965			213-1635	16
Valve Lifter, Mech.	1962-1964			213-1675	16
52 426 CID (7.0L) Wedge V8 Cyl, 4.250in./108mm (1963-1965) 52					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1963-1965			229-1327	1
Valve Lifter, Hyd.	1963-1965		Except Maximum Performance	213-1635	16
53 440 CID (7.2L) OHV V8 Cyl, 4.320in./109.7mm (1966-1978) 53					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1968-1978		High Performance Engine	229-2323	1
	1966-1978		Except High Performance	229-1327	1
Valve Lifter, Hyd.	1968-1978		4 Barrel Carburetor	213-1686	16
	1966-1967			213-1635	16

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Engine Index

Engine	Year	Block	Engine	Year	Block
105 CID (1.7L) SOHC Volkswagen	1982-1983	1	122 CID/1997CC (2.0L) SOHC "U" Mitsubishi	1979-1982	3
122 CID (2.0L) SOHC "A" Mitsubishi	1983-1989	2	135 CID (2.2L) SOHC Chrysler	1982-1988	4

Engine Index (cont.)

Engine	Year	Block
144 CID (2.4L) 4G64 SOHC 8 Valve Mitsubishi	1990-1993	5
148 CID/2429CC (2.4L) DOHC Chrysler	1996-2000	6
150 CID (2.5L) Jeep	1996-2002	7
153 CID (2.5L) SOHC Chrysler	1987-1995	8
156 CID (2.6L) SOHC "F" Mitsubishi	1984-1987	9
156 CID (2.6L) SOHC "W" Mitsubishi	1979-1989	10
170 CID (2.8L) OHV Chrysler	1961-1969	11
181 CID (3.0L) SOHC Mitsubishi	1987-2000	12
198 CID (3.2L) OHV Chrysler	1970-1971	13
201 CID (3.3L) Chrysler	1990-2005	14
201 CID (3.3L) Chrysler CNG	1994-1996	15
201 CID (3.3L) EGM Chrysler Flex	1998-2003	16
225 CID (3.7L) OHV Chrysler	1961-1987	17
226 CID/3701CC (3.7L) EKG SOHC 12 Valve Chrysler	2002-2003	18
230 CID (3.8L) Chrysler	1994-2005	19
239 CID (3.9L) Dodge	1987-2003	20
241 CID (3.9L) Hemispherical Chrysler	1954	21

Engine	Year	Block
259 CID (4.2L) Dodge	1955-1956	22
270 CID (4.4L) OHV Dodge	1955-1956	23
273 CID (4.5L) OHV Chrysler	1965-1966	24
287 CID (4.7L) SOHC Chrysler	2000-2003	25
315 CID (5.2L) Dodge	1957-1958	26
315 CID (5.2L) Hemispherical Dodge	1958	27
318 CID (5.2L) Chrysler	1959-2003	28
318 CID (5.2L) Chrysler CNG	1992-2003	29
354 CID (5.8L) Hemispherical Chrysler	1958-1959	30
359 CID (5.9L) ETC 24 Valves Cummins Diesel	1998-2002	31
360 CID (5.9L) Chrysler	1969-2003	32
361 CID (5.9L) OHV Chrysler	1960-1977	33
383 CID (6.3L) Chrysler LPG	1967-1971	34
383 CID (6.3L) OHV Chrysler	1967-1971	35
400 CID (6.6L) OHV Chrysler	1972-1980	36
413 CID (6.8L) OHV Chrysler	1963-1977	37
440 CID (7.2L) OHV Chrysler	1973-1980	38
488 CID (8.0L) Iron Block Dodge	1994-2003	39

1 105 CID (1.7L) SOHC Volkswagen 4 Cyl, 3.130in./79.5mm (1982-1983)**1**

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1982-1983			229-1716	1
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2 122 CID (2.0L) SOHC "A" Mitsubishi 4 Cyl, 3.346in./85mm (1983-1989)**2**

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1985-1989			229-1948	1
	1984		Thru 4/84	229-1947	1
			From 4/84	229-1948	1
	1983			229-1947	1
Valve Lash Adj., Hyd.	1985-1989			213-1753	8

3 122 CID/1997CC (2.0L) SOHC "U" Mitsubishi 4 Cyl, 3.307in./84mm (1979-1982)**3**

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1979-1982		203 Degree Intake Duration, 204 Degree Exhaust Duration, All Durations Measured At .050"	229-1747	1
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4 135 CID (2.2L) SOHC Chrysler 4 Cyl, 3.445in./87.5mm (1982-1988)**4**

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1982-1987			229-1755	1
			.020" Oversize Bearing Journals	229-1837	1
Camshaft, Hyd. Roller	1988			229-1922	1
			.020" Oversize Bearing Journals	229-1940	1
Valve Lash Adj., Hyd.	1982-1988			213-1722	8

5 144 CID (2.4L) 4G64 SOHC 8 Valve Mitsubishi 4 Cyl, 3.405in./86.5mm (1990-1993)**5**

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1990-1993			229-2236	1
Valve Lash Adj., Hyd.	1990-1993			213-1753	8

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6	148 CID/2429CC (2.4L) DOHC Chrysler 4 Cyl, 3.445in./87.5mm (1996-2000)					6
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1996-2000			213-1767 16	
7	150 CID (2.5L) Jeep 4 Cyl, 3.875in./98.4mm (1996-2002)					7
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1996-2002			229-2338 1	
Valve Lifter, Hyd.		1996-2002			213-1679 8	
8	153 CID (2.5L) SOHC Chrysler 4 Cyl, 3.445in./87.5mm (1987-1995)					8
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1987			229-1755 1	
				.020" Oversize Bearing Journals	229-1837 1	
Camshaft, Hyd. Roller		1988-1995			229-1922 1	
				.020" Oversize Bearing Journals	229-1940 1	
Valve Lash Adj., Hyd.		1987-1995			213-1722 8	
9	156 CID (2.6L) SOHC "F" Mitsubishi 4 Cyl, 3.587in./91.1mm (1984-1987)					9
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1987		Grand Caravan	229-1887 1	
		1984-1987		Caravan, Mini Ram, Voyager	229-1887 1	
				(Aftermarket Replacement With Oversize Bearing Journals, Special) .020" Oversize Bearing Journals	229-2227 1	
10	156 CID (2.6L) SOHC "W" Mitsubishi 4 Cyl, 3.590in./91.2mm (1979-1989)					10
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1985-1989			229-1934 1	
Camshaft, Mech.		1984		Thru 5/84	229-1747 1	
		1979-1983			229-1747 1	
Valve Lash Adj., Hyd.		1985-1989			213-1753 8	
11	170 CID (2.8L) OHV Chrysler 6 Cyl, 3.400in./86.4mm (1961-1969)					11
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1963-1969			229-1380 1	
		1961			229-1380 1	
Valve Lifter, Mech.		1963-1968			213-1675 12	
12	181 CID (3.0L) SOHC Mitsubishi V6 Cyl, 3.587in./91.1mm (1987-2000)					12
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1990-2000		Left Head	229-1962 1	
				Right Head	229-1963 1	
		1987-1989		Right Head	229-1938 1	
				Left Head	229-1939 1	
				(Aftermarket Replacement With Oversize Bearing Journals), Left Head .040" Oversize Bearing Journals	229-2249 1	
Valve Lash Adj., Hyd.		1987-2000			213-1753 12	

13 198 CID (3.2L) OHV Chrysler 6 Cyl, 3.400in./86.4mm (1970-1971) 13					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1970-1971			229-1380	1
Valve Lifter, Mech.	1970-1971			213-1675	12
14 201 CID (3.3L) Chrysler V6 Cyl, 3.661in./93mm (1990-2005) 14					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	2001-2005			229-2413	1
	1990-2000			229-2266	1
Valve Lifter, Hyd. Roller	1990-2003			213-1750	12
15 201 CID (3.3L) Chrysler CNG V6 Cyl, 3.661in./93mm (1994-1996) 15					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1994-1996			229-2266	1
Valve Lifter, Hyd. Roller	1994-1996			213-1750	12
16 201 CID (3.3L) EGM Chrysler Flex V6 Cyl, 3.661in./93mm (1998-2003) 16					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	2001-2003			229-2413	1
	1998-2000			229-2266	1
Valve Lifter, Hyd. Roller	1998-2003			213-1750	12
17 225 CID (3.7L) OHV Chrysler 6 Cyl, 3.400in./86.4mm (1961-1987) 17					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1981-1987			229-1712	1
Camshaft, Mech.	1961-1980			229-1380	1
Valve Lifter, Hyd.	1981-1987			213-1721	12
Valve Lifter, Mech.	1961-1980			213-1675	12
18 226 CID/3701CC (3.7L) EKG SOHC 12 Valve Chrysler V6 Cyl, 3.661in./93mm (2002-2003) 18					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lash Adj., Hyd.	2002-2003			213-1766	12
19 230 CID (3.8L) Chrysler V6 Cyl, 3.780in./96mm (1994-2005) 19					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	2001-2005			229-2414	1
	1994-2000			229-2266	1
Valve Lifter, Hyd. Roller	1994-2005			213-1750	12
20 239 CID (3.9L) Dodge V6 Cyl, 3.910in./99.3mm (1987-2003) 20					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1987			229-2173	1
Camshaft, Hyd. Roller	1992-2003			229-2273	1
	1988-1991			229-2276	1

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20 (cont.)	239 CID (3.9L) Dodge V6 Cyl, 3.910in./99.3mm (1987-2003)					20 (cont.)
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lifter, Hyd.	1987			213-1679	12	
Valve Lifter, Hyd. Roller	1988-2003			213-1750	12	
21	241 CID (3.9L) Hemispherical Chrysler V8 Cyl, 3.438in./87.3mm (1954)					21
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1954			213-1635	16	
22	259 CID (4.2L) Dodge V8 Cyl, 3.563in./90.5mm (1955-1956)					22
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1955-1956			213-1635	16	
23	270 CID (4.4L) OHV Dodge V8 Cyl, 3.625in./92.1mm (1955-1956)					23
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1955-1956			213-1635	16	
24	273 CID (4.5L) OHV Chrysler V8 Cyl, 3.625in./92.1mm (1965-1966)					24
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1965-1966			213-1675	16	
25	287 CID (4.7L) SOHC Chrysler V8 Cyl, 3.661in./93mm (2000-2003)					25
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	2000-2003			213-1766	16	
26	315 CID (5.2L) Dodge V8 Cyl, 3.625in./92.1mm (1957-1958)					26
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1957-1958			213-1635	16	
27	315 CID (5.2L) Hemispherical Dodge V8 Cyl, 3.625in./92.1mm (1958)					27
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1958			213-1635	16	
28	318 CID (5.2L) Chrysler V8 Cyl, 3.910in./99.3mm (1959-2003)					28
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1967-1987			229-1645	1	
Camshaft, Hyd. Roller	1994-2003			229-2324	1	
	1992-1993			229-2274	1	
	1988-1991			229-2257	1	
Camshaft, Mech.	1959-1968		Except 318LA Engine	229-1198	1	
Valve Lifter, Hyd.	1968-1987			213-1679	16	
	1968		Thru Engine Serial Number PM21800000	213-1662	16	
			From Engine Serial Number PM21800000	213-1679	16	

28 318 CID (5.2L) Chrysler V8 Cyl, 3.910in./99.3mm (1959-2003) 28					
(cont.) (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS (cont.)					
Valve Lifter, Hyd. (cont.)	1959-1967			213-1662	16
Valve Lifter, Hyd. Roller	1988-2003			213-1750	16
Valve Lifter, Mech.	1959-1968			213-1675	16
29 318 CID (5.2L) Chrysler CNG V8 Cyl, 3.910in./99.3mm (1992-2003) 29					
(cont.) (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1994-2003			229-2324	1
	1992-1993			229-2274	1
Valve Lifter, Hyd. Roller	1992-2003			213-1750	16
30 354 CID (5.8L) Hemispherical Chrysler V8 Cyl, 3.938in./100mm (1958-1959) 30					
(cont.) (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1958-1959			213-1635	16
31 359 CID (5.9L) ETC 24 Valves Cummins Diesel 6 Cyl, 4.016in./102mm (1998-2002) 31					
(cont.) (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1998-2002			213-1782	24
32 360 CID (5.9L) Chrysler V8 Cyl, 4.000in./101.6mm (1969-2003) 32					
(cont.) (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1988			229-1663	1
	1987-1988		6000 Pound And Under Gross Vehicle Weight, Light Duty	229-1645	1
			Except High Performance, Except Light Duty Engine And Gross Vehicle Weight 6000 Pound And Under	229-1663	1
	1974-1988			229-1663	1
	1978-1980		High Performance Engine	229-1654	1
	1971-1977			229-1654	1
Camshaft, Hyd. Roller	1998-2002			229-2376	1
	1993-1997			229-2274	1
	1989-1992			229-2258	1
Valve Lifter, Hyd.	1969-1988			213-1679	16
Valve Lifter, Hyd. Roller	1989-2003			213-1750	16
33 361 CID (5.9L) OHV Chrysler V8 Cyl, 4.125in./104.8mm (1960-1977) 33					
(cont.) (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1972-1977		193 Degree Intake Duration, 194 Degree Exhaust Duration	229-1664	1
	1960-1971		193 Degree Intake Duration, 194 Degree Exhaust Duration	229-1442	1
Valve Lifter, Hyd.	1969-1977			213-1686	16
	1968		Thru Serial Number 21680000	213-1635	16
			From Serial Number 21680000	213-1686	16
	1960-1967			213-1635	16

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34	383 CID (6.3L) Chrysler LPG V8 Cyl, 4.250in./108mm (1967-1971)	34
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967-1971		206 Degree Intake Duration, 209 Degree Exhaust Duration	229-1327	1
Valve Lifter, Hyd.	1969-1971			213-1686	16
	1968		Thru Serial Number 21680000	213-1635	16
			From Serial Number 21680000	213-1686	16
	1967			213-1635	16

35	383 CID (6.3L) OHV Chrysler V8 Cyl, 4.250in./108mm (1967-1971)	35
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967-1971			229-1327	1
Valve Lifter, Hyd.	1969-1971			213-1686	16
	1968		Thru Serial Number 21680000	213-1635	16
			From Serial Number 21680000	213-1686	16
	1967			213-1635	16

36	400 CID (6.6L) OHV Chrysler V8 Cyl, 4.342in./110.3mm (1972-1980)	36
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1972-1980			229-1327	1
Valve Lifter, Hyd.	1972-1980			213-1686	16

37	413 CID (6.8L) OHV Chrysler V8 Cyl, 4.188in./106.4mm (1963-1977)	37
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1972-1977			229-1664	1
	1963-1971		193 Degree Intake Duration, 194 Degree Exhaust Duration	229-1442	1
Valve Lifter, Hyd.	1969-1977			213-1686	16
	1968		Thru Serial Number 21680000	213-1635	16
			From Serial Number 21680000	213-1686	16
	1963-1967			213-1635	16

38	440 CID (7.2L) OHV Chrysler V8 Cyl, 4.320in./109.7mm (1973-1980)	38
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1973-1980			229-1327	1
Valve Lifter, Hyd.	1973-1980			213-1686	16

39	488 CID (8.0L) Iron Block Dodge V10 Cyl, 4.000in./101.6mm (1994-2003)	39
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	1994-2003			213-1750	20

Eagle Chrysler

Engine Index

<i>Engine</i>	<i>Year</i>	<i>Block</i>	<i>Engine</i>	<i>Year</i>	<i>Block</i>
92 CID (1.5L) 12 Valve "Q" Mitsubishi	1991-1996	1	122 CID (2.0L) SOHC "A" Mitsubishi	1989-1992	7
92 CID (1.5L) SOHC Jet Valve "Q"	1989-1991	2	144 CID (2.4L) 4G64 SOHC 16 Valve Mitsubishi	1993-1996	8
Carbureted Mitsubishi			144 CID (2.4L) 4G64 SOHC 8 Valve Mitsubishi	1992	9
107 CID (1.8L) 8 Valve (4G37) Mitsubishi	1993-1994	3	150 CID (2.5L) SOHC Renault	1988-1989	10
122 CID (2.0L) DOHC Chrysler	1995-1998	4	201 CID (3.3L) Chrysler	1993-1997	11
122 CID (2.0L) 4G63 DOHC Mitsubishi	1989-1994	5			
122 CID (2.0L) 4G63T DOHC TURBO Mitsubishi	1990-1997	6			

1	92 CID (1.5L) 12 Valve "Q" Mitsubishi 4 Cyl, 2.972in./75.5mm (1991-1996)					1
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1991-1996			229-2234		1
2	92 CID (1.5L) SOHC Jet Valve "Q" Carbureted Mitsubishi 4 Cyl, 2.972in./75.5mm (1989-1991)					2
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1989-1991			229-2152		1
3	107 CID (1.8L) 8 Valve (4G37) Mitsubishi 4 Cyl, 3.173in./80.6mm (1993-1994)					3
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1993-1994			213-1753		8
4	122 CID (2.0L) DOHC Chrysler 4 Cyl, 3.445in./87.5mm (1995-1998)					4
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1995-1998			213-1767		16
5	122 CID (2.0L) 4G63 DOHC Mitsubishi 4 Cyl, 3.346in./85mm (1989-1994)					5
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Cam, Hyd. Roller, Ex	1989-1994			229-2322		1
	1992		2000 GTX	229-2320		1
Cam, Hyd. Roller, In	1989-1994			229-2348		1
6	122 CID (2.0L) 4G63T DOHC TURBO Mitsubishi 4 Cyl, 3.346in./85mm (1990-1997)					6
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Cam, Hyd. Roller, Ex	1990-1994		Manual Transmission	229-2320		1
			Automatic Transmission	229-2322		1
Cam, Hyd. Roller, In	1990-1994		Manual Transmission	229-2319		1
			Automatic Transmission	229-2321		1
Valve Lash Adj., Hyd.	1990-1997			213-1763		16
7	122 CID (2.0L) SOHC "A" Mitsubishi 4 Cyl, 3.346in./85mm (1989-1992)					7
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1989-1991		Vista	229-1948		1
Camshaft, Hyd. Roller	1991-1992		2000 GTX	229-2235		1
Valve Lash Adj., Hyd.	1989-1992			213-1753		8
8	144 CID (2.4L) 4G64 SOHC 16 Valve Mitsubishi 4 Cyl, 3.405in./86.5mm (1993-1996)					8
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1993-1996			213-1753		16
9	144 CID (2.4L) 4G64 SOHC 8 Valve Mitsubishi 4 Cyl, 3.405in./86.5mm (1992)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1992			229-2235		1
Valve Lash Adj., Hyd.	1992			213-1753		8

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10	150 CID (2.5L) SOHC Renault 4 Cyl, 3.875in./98.4mm (1988-1989)				10
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1988-1989			213-1679	8
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11	201 CID (3.3L) Chrysler V6 Cyl, 3.661in./93mm (1993-1997)				11
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hyd. Roller	1993-1997			229-2266	1
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Valve Lifter, Hyd. Roller	1993-1996			213-1750	12
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Engine Index

Engine	Year	Block	Engine	Year	Block
81 CID (1.3L) SOHC Mazda	1988-1993	1	255 CID (4.2L)	1980-1982	38
98 CID (1.6L) SOHC	1981-1985	2	256 CID (4.2L)	1954	39
98 CID (1.6L) SOHC High Output	1982-1985	3	260 CID (4.3L)	1962-1965	40
98 CID (1.6L) SOHC Mazda	1987-1989	4	272 CID (4.5L)	1955-1957	41
1599CC (1.6L) OHV	1978-1980	5	281 CID (4.6L) DOHC	1993-2003	42
116 CID (1.9L) SOHC	1985-1996	6	281 CID (4.6L) SOHC	1991-2004	43
122 CID (2.0L) SOHC	1997-2003	7	281 CID (4.6L) SOHC CNG	1995-2004	44
122 CID (2.0L) SOHC	1971-1974	8	289 CID (4.7L)	1963-1968	45
1989CC (2.0L) Zetec/DOHC/16 Valve	1995-2003	9	292 CID (4.8L)	1955-1962	46
1989CC (2.0L) Zetec/DOHC/16 Valve CNG	1996-2000	10	302 CID (5.0L)	1968-1991	47
134 CID (2.2L) SOHC Mazda	1989-1992	11	302 CID (5.0L) High Output	1982-1995	48
140 CID (2.3L) High Swirl Combustion	1984-1994	12	312 CID (5.1L)	1956-1960	49
140 CID (2.3L) SOHC	1974-1993	13	332 CID (5.4L)	1958-1959	50
140 CID (2.3L) SOHC LPG	1984-1985	14	351 CID (5.8L) 351M	1975-1979	51
140 CID (2.3L) Special Vehicle Operation	1984-1986	15	351 CID (5.8L) 351C Ford Cleveland	1970-1974	52
144 CID (2.4L)	1960-1964	16	351 CID (5.8L) Boss Ford Cleveland	1971	53
153 CID (2.5L) High Swirl Combustion	1986-1990	17	351 CID (5.8L) Cobra Jet Ford Cleveland	1973-1974	54
155 CID (2.5L) Duratec/DOHC/24 Valve	1995-2002	18	351 CID (5.8L) High Output Ford Cleveland	1972	55
159 CID (2.6L)	1972-1973	19	351 CID (5.8L) 351W Ford Windsor	1969-1991	56
170 CID (2.8L)	1961-1972	20	352 CID (5.8L)	1958-1966	57
171 CID (2.8L) German	1974-1979	21	361 CID (5.9L) Super Express	1958-1959	58
2900CC (2.9L) Merkur	1988-1990	22	390 CID (6.4L)	1961-1971	59
181 CID/2967CC (3.0L) Duratec/DOHC/24 Valve	1996-2003	23	400 CID (6.6L) OHV	1971-1979	60
183 CID (3.0L) OHV	1986-2003	24	406 CID (6.7L)	1962-1963	61
183 CID (3.0L) OHV Flex	1993-2004	25	410 CID (6.7L)	1966-1967	62
200 CID (3.3L) OHV	1963-1983	26	427 CID (7.0L) High Performance	1963-1968	63
215 CID (3.5L)	1952-1953	27	427 CID (7.0L) Super High Output	1963-1967	64
221 CID (3.6L)	1932-1942	28	428 CID (7.0L) Cobra Jet	1966-1970	65
221 CID (3.6L)	1962-1963	29	428 CID (7.0L) Super Cobra Jet	1969-1970	66
223 CID (3.7L)	1954-1964	30	428 CID (7.0L) Thunderbird	1966-1968	67
232 CID (3.8L)	1982-2004	31	429 CID (7.0L) Cobra Jet	1970-1971	68
238 CID (3.9L) OHV	2004	32	429 CID (7.0L) Special	1969	69
239 CID (3.9L) L-Head	1939-1953	33	429 CID (7.0L) Super Cobra Jet	1971	70
239 CID (3.9L) OHV	1954	34	429 CID (7.0L) Thunder Jet	1968-1973	71
240 CID (4.0L) OHV	1965-1972	35	430 CID (7.0L)	1958-1965	72
250 CID (4.1L)	1969-1980	36	460 CID (7.5L)	1968-1978	73
255 CID (4.2L) L-Head	1949-1953	37	462 CID (7.6L)	1966-1968	74

1	81 CID (1.3L) SOHC Mazda 4 Cyl, 2.795in./71mm (1988-1993)				1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1990-1993			229-2172	1
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	1989		Automatic Transmission	229-2172	1
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Camshaft, Mech.	1988-1989		Manual Transmission	229-2166	1
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Valve Lash Adj., Hyd.	1990-1993			213-1749	8
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2 98 CID (1.6L) SOHC 4 Cyl, 3.147in./79.94mm (1981-1985) 2					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1981-1985		Except Electronic Fuel Injection, Except High Output Engine	229-1745	1
				229-1827	1
Valve Lifter, Hyd.	1981-1985			213-1723	8
3 98 CID (1.6L) SOHC High Output 4 Cyl, 3.147in./79.94mm (1982-1985) 3					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1982-1985		Electronic Fuel Injection, High Output Engine	229-1836	1
Valve Lifter, Hyd.	1982-1985			213-1723	8
4 98 CID (1.6L) SOHC Mazda 4 Cyl, 3.071in./78mm (1987-1989) 4					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1988-1989		205 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-2172	1
Camshaft, Mech.	1987		206 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-2166	1
Valve Lash Adj., Hyd.	1988-1989			213-1749	8
	1987		From 11/1/87	213-1749	8
5 1599CC (1.6L) OHV 4 Cyl, 3.188in./80.98mm (1978-1980) 5					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1978-1980			229-1709	1
6 116 CID (1.9L) SOHC 4 Cyl, 3.226in./81.94mm (1985-1996) 6					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1987-1989		Electronic Fuel Injection	229-1907	1
			Central Fuel Injection	229-1908	1
			Electronic Fuel Injection, (Special) .015" Or .38mm Oversize Bearing Journals	229-2237	1
			(Special), Central Fuel Injection .015" Or .38mm Oversize Bearing Journals	229-2238	1
	1985-1986		Electronic Fuel Injection, High Output Engine, (Canted Valve Head)	229-1910	1
			Except High Output Engine, 2 Barrel Carburetor	229-1911	1
			Canted Valve Head And Same Size Journals, Except High Output Engine .015" Or .38mm Oversize Bearing Journals	229-1927	1
	1991-1996			229-2253	1
	1988-1990		Central Fuel Injection	229-2195	1
			Electronic Fuel Injection	229-2196	1
Camshaft, Hyd. Roller	1987-1990		Electronic Fuel Injection, (Special) .015" Or .38mm Oversize Bearing Journals	229-2239	1
			(Special), Central Fuel Injection .015" Or .38mm Oversize Bearing Journals	229-2241	1
	1987		From 12/86, Central Fuel Injection	229-2195	1
			Electronic Fuel Injection, From 12/86	229-2196	1
	1985-1989			213-1723	8
	1987-1996			213-1743	8

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7 122 CID (2.0L) SOHC 4 Cyl, 3.339in./84.8mm (1997-2003) 7

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1997-2003			229-2253	1
Valve Lifter, Hyd. Roller	1997-2003			213-1743	8

8 122 CID (2.0L) SOHC 4 Cyl, 3.578in./90.8mm (1971-1974) 8

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1971-1974			229-1652	1

9 1989CC (2.0L) Zetec/DOHC/16 Valve 4 Cyl, 3.339in./84.8mm (1995-2003) 9

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Cam, Hyd. Roller, Ex	1995-1997			229-2381	1
Cam, Hyd. Roller, In	1995-1997			229-2382	1
Camshaft, Mech.	2000-2003		Exhaust	229-2379	1
			Intake	229-2380	1

10 1989CC (2.0L) Zetec/DOHC/16 Valve CNG 4 Cyl, 3.339in./84.8mm (1996-2000) 10

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Cam, Hyd. Roller, Ex	1996-1997			229-2381	1
Cam, Hyd. Roller, In	1996-1997			229-2382	1
Camshaft, Mech.	1996-2000		Exhaust	229-2379	1

11 134 CID (2.2L) SOHC Mazda 4 Cyl, 3.386in./86mm (1989-1992) 11

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1989-1992			229-2231	1
Valve Lash Adj., Hyd.	1989-1992			213-1749	12

12 140 CID (2.3L) High Swirl Combustion 4 Cyl, 3.680in./93.5mm (1984-1994) 12

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1992-1994			229-2275	1
	1985-1991		High Output Engine	229-1918	1
	1984-1991		Except High Output Engine	229-1785	1
Valve Lifter, Hyd.	1984-1994			213-1667	8

13 140 CID (2.3L) SOHC 4 Cyl, 3.780in./96mm (1974-1993) 13

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1985-1990			229-1839	1
	1983-1984		Naturally Aspirated	229-1679	1
			Turbocharged	229-1839	1
	1974-1982			229-1679	1
Camshaft, Hyd. Roller	1991-1993			229-2194	1
Valve Lash Adj., Hyd.	1974-1993			213-1703	8

14 140 CID (2.3L) SOHC LPG 4 Cyl, 3.780in./96mm (1984-1985) 14

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1984			229-1839	1

14 (cont.)	140 CID (2.3L) SOHC LPG 4 Cyl, 3.780in./96mm (1984-1985)					14 (cont.)
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lash Adj., Hyd.	1984-1985			213-1703	8	
15	140 CID (2.3L) Special Vehicle Operation 4 Cyl, 3.780in./96mm (1984-1986)					15
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1985-1986			229-1839	1	
	1984		Turbocharged	229-1839	1	
16	144 CID (2.4L) 6 Cyl, 3.500in./88.9mm (1960-1964)					16
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1963-1964			229-1640	1	
Camshaft, Mech.	1960-1962			229-2279	1	
Valve Lifter, Hyd.	1963-1964			213-1669	12	
Valve Lifter, Mech.	1960-1962			213-1656	12	
17	153 CID (2.5L) High Swirl Combustion 4 Cyl, 3.680in./93.5mm (1986-1990)					17
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1986-1990			229-1785	1	
Valve Lifter, Hyd.	1986-1990			213-1667	8	
18	155 CID (2.5L) Duratec/DOHC/24 Valve V6 Cyl, 3.240in./82.3mm (1995-2002)					18
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1995-2002			213-1766	24	
19	159 CID (2.6L) V6 Cyl, 3.543in./90mm (1972-1973)					19
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1972-1973			213-1656	12	
20	170 CID (2.8L) 6 Cyl, 3.500in./88.9mm (1961-1972)					20
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1963-1972			229-1640	1	
Valve Lifter, Hyd.	1963-1972			213-1669	12	
Valve Lifter, Mech.	1961-1962			213-1656	12	
21	171 CID (2.8L) German V6 Cyl, 3.661in./93mm (1974-1979)					21
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1974-1979			229-1675	1	
Valve Lifter, Mech.	1974-1979			213-1656	12	
22	2900CC (2.9L) Merkur V6 Cyl, 3.661in./93mm (1988-1990)					22
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1988-1990			229-1952	1	
Valve Lifter, Hyd.	1988-1989			213-1669	12	

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23 181 CID/2967CC (3.0L) Duratec/DOHC/24 Valve V6 Cyl, 3.504in./89mm (1996-2003) 23

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lash Adj., Hyd.	1996-2003			213-1766	24
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24 183 CID (3.0L) OHV V6 Cyl, 3.504in./89mm (1986-2003) 24

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1990-1992		Probe	229-1926	1
	1986-1991			229-1926	1
Camshaft, Hyd. Roller	1992-1999		Sable, Taurus	229-2317	1
	1992-1994		Tempo, Topaz, Automatic Transmission	229-2316	1
			Tempo, Topaz, Manual Transmission	229-2317	1
Valve Lifter, Hyd.	1990-1992		Probe	213-1667	12
	1986-1991			213-1667	12
Valve Lifter, Hyd. Roller	1992-2003		Sable, Taurus	213-1742	12
	1992-1994		Tempo, Topaz	213-1742	12

25 183 CID (3.0L) OHV Flex V6 Cyl, 3.504in./89mm (1993-2004) 25

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hyd. Roller	1993-1999		Taurus	229-2317	1
Valve Lifter, Hyd. Roller	1993-2004		Taurus	213-1742	12

26 200 CID (3.3L) OHV 6 Cyl, 3.680in./93.5mm (1963-1983) 26

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1973-1983			229-1665	1
	1963-1972			229-1640	1
Valve Lifter, Hyd.	1963-1983			213-1669	12

27 215 CID (3.5L) 6 Cyl, 3.563in./90.5mm (1952-1953) 27

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1952-1953			213-1629	12
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28 221 CID (3.6L) V8 Cyl, 3.063in./77.8mm (1932-1942) 28

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1932-1942		(Requires Spanner Wrench To Adjust Lash), Use With Part Numbers 213-1615	213-1614	16
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29 221 CID (3.6L) V8 Cyl, 3.500in./88.9mm (1962-1963) 29

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1962-1963		Stock	229-1402	1
Valve Lifter, Hyd.	1962-1963			213-1667	16

30 223 CID (3.7L) 6 Cyl, 3.625in./92.1mm (1954-1964) 30

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1962-1964		(Cross Drilled), Use With Part Numbers SH-533S	229-1608	1
	1961-1964		Requires Zero Lash Rocker Arms, (Cross Drilled), Use With Part Numbers SH-533S	229-1608	1

30 223 CID (3.7L) 6 Cyl, 3.625in./92.1mm (1954-1964) 30 (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS (cont.)					
Camshaft, Mech. (cont.)	1954-1961		Except Zero Lash Rocker Arms, (Cross Drilled), Use With Part Numbers SH-533S	229-1609	1
	1960		(Cross Drilled), Use With Part Numbers SH-533S	229-1609	1
Valve Lifter, Mech.	1954-1964			213-1629	12
31 232 CID (3.8L) V6 Cyl, 3.811in./96.8mm (1982-2004) 31					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1988		Multi-Port Fuel Injection	229-1925	1
	1984-1987			229-1793	1
	1982-1983			229-1744	1
Camshaft, Hyd. Roller	1996-1998			229-2362	1
	1989-1997		Manual Transmission, Naturally Aspirated	229-2193	1
	1994-1995		Supercharged	229-2315	1
	1991-1995		Naturally Aspirated	229-2192	1
	1989-1993		Supercharged	229-2193	1
	1989-1990		Automatic Transmission, Naturally Aspirated	229-2192	1
Valve Lifter, Hyd.	1982-1988			213-1667	12
Valve Lifter, Hyd. Roller	1989-2004			213-1742	12
32 238 CID (3.9L) OHV V6 Cyl, 3.811in./96.8mm (2004) 32					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	2004			213-1742	12
33 239 CID (3.9L) L-Head V8 Cyl, 3.188in./80.98mm (1939-1953) 33					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1946-1953		(Requires Spanner Wrench To Adjust Lash), Use With Part Numbers 213-1615	213-1614	16
	1939-1942		(Requires Spanner Wrench To Adjust Lash), Use With Part Numbers 213-1615	213-1614	16
34 239 CID (3.9L) OHV V8 Cyl, 3.500in./88.9mm (1954) 34					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1954			213-1629	16
35 240 CID (4.0L) OHV 6 Cyl, 4.000in./101.6mm (1965-1972) 35					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1965-1972			229-1840	1
Valve Lifter, Hyd.	1965-1972			213-1667	12
36 250 CID (4.1L) 6 Cyl, 3.680in./93.5mm (1969-1980) 36					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1969-1980			229-1665	1
Valve Lifter, Hyd.	1969-1980			213-1669	12

Ford

37 255 CID (4.2L) L-Head V8 Cyl, 3.188in./80.98mm (1949-1953) 37

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1949-1953		(Requires Spanner Wrench To Adjust Lash), Use With Part Numbers 213-1615	213-1614	16
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38 255 CID (4.2L) V8 Cyl, 3.680in./93.5mm (1980-1982) 38

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1980-1982			229-1686	1
Valve Lifter, Hyd.	1980-1982			213-1667	16

39 256 CID (4.2L) V8 Cyl, 3.625in./92.1mm (1954) 39

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1954			213-1629	16
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40 260 CID (4.3L) V8 Cyl, 3.800in./96.5mm (1962-1965) 40

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1962-1965		Stock	229-1402	1
Valve Lifter, Hyd.	1962-1965			213-1667	16

41 272 CID (4.5L) V8 Cyl, 3.625in./92.1mm (1955-1957) 41

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1956-1957			229-1210	1
	1955		Grooved NO 3 Camshaft Journal	229-1210	1
Valve Lifter, Mech.	1955-1957			213-1629	16

42 281 CID (4.6L) DOHC V8 Cyl, 3.551in./90.2mm (1993-2003) 42

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lash Adj., Hyd.	1993-2003			213-1766	32
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43 281 CID (4.6L) SOHC V8 Cyl, 3.551in./90.2mm (1991-2004) 43

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hyd. Roller	1991-1999	W	Right Head	229-2331	1
		W	Left Head	229-2332	1
		W	Right Head .020" Oversize Bearing Journals	229-2333	1
		W	Left Head .020" Oversize Bearing Journals	229-2334	1
	1996	6	Right Head	229-2331	1
		6	Left Head	229-2332	1
		6	Right Head .020" Oversize Bearing Journals	229-2333	1
		6	Left Head .020" Oversize Bearing Journals	229-2334	1
Valve Lash Adj., Hyd.	1991-2004			213-1766	16

44 281 CID (4.6L) SOHC CNG V8 Cyl, 3.551in./90.2mm (1995-2004) 44

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hyd. Roller	1995-1999	9	Right Head	229-2331	1
		9	Left Head	229-2332	1
		9	Right Head .020" Oversize Bearing Journals	229-2333	1
		9	Left Head .020" Oversize Bearing Journals	229-2334	1

44 (cont.)	281 CID (4.6L) SOHC CNG V8 Cyl, 3.551in./90.2mm (1995-2004)					44 (cont.)
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lash Adj., Hyd.		1995-2004			213-1766	16
45	289 CID (4.7L) V8 Cyl, 4.000in./101.6mm (1963-1968)					45
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1963-1968		Except Special 4 Barrel Carburetor	229-1601	1
Valve Lifter, Hyd.		1963-1968		Except Special 4 Barrel Carburetor	213-1667	16
Valve Lifter, Mech.		1963-1967		Special 4 Barrel Carburetor, (Oil Metering)	213-1694	16
46	292 CID (4.8L) V8 Cyl, 3.750in./95.3mm (1955-1962)					46
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1956-1962			229-1210	1
		1955		Grooved NO 3 Camshaft Journal	229-1210	1
Valve Lifter, Mech.		1955-1962			213-1629	16
47	302 CID (5.0L) V8 Cyl, 4.000in./101.6mm (1968-1991)					47
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1976-1985			229-1686	1
		1975		Automatic Transmission, Thru 5/19/75 184 Degree Intake Duration, 189 Degree Exhaust Duration, All Durations Measured At .050"	229-1601	1
				From 5/19/75	229-1686	1
		1973-1974		Automatic Transmission 184 Degree Intake Duration, 189 Degree Exhaust Duration, All Durations Measured At .050"	229-1601	1
				Manual Transmission 184 Degree Intake Duration, 189 Degree Exhaust Duration, All Durations Measured At .050"	229-1601	1
		1972		Except California 184 Degree Intake Duration, 189 Degree Exhaust Duration, All Durations Measured At .050"	229-1601	1
		1968-1971		184 Degree Intake Duration, 189 Degree Exhaust Duration, All Durations Measured At .050"	229-1601	1
Camshaft, Hyd. Roller		1985-1991			229-1773	1
Valve Lifter, Hyd.		1968-1985			213-1667	16
Valve Lifter, Hyd. Roller		1985-1991			213-1742	16
48	302 CID (5.0L) High Output V8 Cyl, 4.000in./101.6mm (1982-1995)					48
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1982-1984			229-2155	1
Camshaft, Hyd. Roller		1993-1995		Except Cobra	229-1774	1
		1985-1992			229-1774	1
Valve Lifter, Hyd.		1982-1984			213-1667	16
Valve Lifter, Hyd. Roller		1985-1995			213-1742	16
49	312 CID (5.1L) V8 Cyl, 3.800in./96.5mm (1956-1960)					49
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1956-1960			229-1210	1
Valve Lifter, Mech.		1956-1960			213-1629	16

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50 332 CID (5.4L) V8 Cyl, 4.000in./101.6mm (1958-1959) 50

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1958-1959			229-2329	1
Valve Lifter, Hyd.	1958-1959			213-1669	16

51 351 CID (5.8L) 351M V8 Cyl, 4.000in./101.6mm (1975-1979) 51

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1979		Except High Altitude	229-1647	1
	1975-1978			229-1647	1
Valve Lifter, Hyd.	1975-1979			213-1667	16

52 351 CID (5.8L) 351C Ford Cleveland V8 Cyl, 4.000in./101.6mm (1970-1974) 52

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1971-1974		2 Barrel Carburetor	229-1647	1
	1970-1972		4 Barrel Carburetor	229-1883	1
Valve Lifter, Hyd.	1970-1974			213-1667	16

53 351 CID (5.8L) Boss Ford Cleveland V8 Cyl, 4.000in./101.6mm (1971) 53

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1971			229-1883	1
Valve Lifter, Mech.	1971		(Oil Metering, Performer, Requires Adjustable Valve Train)	213-1694	16

54 351 CID (5.8L) Cobra Jet Ford Cleveland V8 Cyl, 4.000in./101.6mm (1973-1974) 54

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1973-1974			229-1883	1
Valve Lifter, Hyd.	1973-1974			213-1667	16

55 351 CID (5.8L) High Output Ford Cleveland V8 Cyl, 4.000in./101.6mm (1972) 55

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1972			229-1883	1
Valve Lifter, Hyd.	1972		(Oil Metering)	213-1667	16

56 351 CID (5.8L) 351W Ford Windsor V8 Cyl, 4.000in./101.6mm (1969-1991) 56

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1987-1991			229-1833	1
	1980-1986		High Output Engine, Police, Taxi Or Trailer Towing Package	229-1833	1
	1969-1986		Except High Output Engine, Except Police, Taxi And Trailer Towing Package	229-1655	1
Valve Lifter, Hyd.	1969-1991			213-1667	16

57 352 CID (5.8L) V8 Cyl, 4.000in./101.6mm (1958-1966) 57

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1963-1966			229-1443	1
	1958-1962			229-2329	1
Valve Lifter, Hyd.	1958-1966			213-1669	16
Valve Lifter, Mech.	1960-1962		Special 4, And 6 Barrel Carburetor	213-1656	16

58 361 CID (5.9L) Super Express V8 Cyl, 4.050in./102.9mm (1958-1959) 58					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1958-1959			213-1669	16
59 390 CID (6.4L) V8 Cyl, 4.050in./102.9mm (1961-1971) 59					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967-1971		2 Barrel Carburetor	229-1633	1
	1967-1969		4 Barrel Carburetor	229-1634	1
	1968		Except Mustang, 2 Barrel Carburetor	229-1633	1
			Mustang	229-1634	1
			Mustang	229-1634	1
	1966-1968			229-1634	1
	1966-1967		2 Barrel Carburetor	229-1633	1
	1963-1965			229-1443	1
Valve Lifter, Hyd.	1961-1962			229-2329	1
	1966-1971			213-1669	16
	1961-1968		Except Special 4 And 6 Barrel Carburetors	213-1669	16
Valve Lifter, Mech.	1966-1967			213-1669	16
	1961-1968		Engines With Mechanical Lifters, Police Car, Special 4, And 6 Barrel Carburetor	213-1656	16
60 400 CID (6.6L) OHV V8 Cyl, 4.000in./101.6mm (1971-1979) 60					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1971-1979			229-1647	1
Valve Lifter, Hyd.	1971-1979			213-1667	16
61 406 CID (6.7L) V8 Cyl, 4.130in./104.9mm (1962-1963) 61					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1962-1963			213-1656	16
62 410 CID (6.7L) V8 Cyl, 4.050in./102.9mm (1966-1967) 62					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1966-1967			229-1634	1
Valve Lifter, Hyd.	1966-1967			213-1669	16
63 427 CID (7.0L) High Performance V8 Cyl, 4.233in./107.5mm (1963-1968) 63					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1968			213-1669	16
Valve Lifter, Mech.	1963-1967			213-1656	16
64 427 CID (7.0L) Super High Output V8 Cyl, 4.233in./107.5mm (1963-1967) 64					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1963-1967			213-1656	16
65 428 CID (7.0L) Cobra Jet V8 Cyl, 4.130in./104.9mm (1966-1970) 65					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1966-1968		Except High Performance, Except Police Car	229-1634	1

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65 (cont.)	428 CID (7.0L) Cobra Jet V8 Cyl, 4.130in./104.9mm (1966-1970)					65 (cont.)
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lifter, Hyd.	1966-1970		Except Police Car	213-1669	16	
Valve Lifter, Mech.	1966		Police Car	213-1656	16	
66	428 CID (7.0L) Super Cobra Jet V8 Cyl, 4.130in./104.9mm (1969-1970)					66
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1969-1970			213-1669	16	
67	428 CID (7.0L) Thunderbird V8 Cyl, 4.130in./104.9mm (1966-1968)					67
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1966-1968		Except High Performance, Except Police Car	229-1634	1	
Valve Lifter, Hyd.	1966-1968		Except Police Car	213-1669	16	
68	429 CID (7.0L) Cobra Jet V8 Cyl, 4.360in./110.7mm (1970-1971)					68
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1970-1971			213-1667	16	
69	429 CID (7.0L) Special V8 Cyl, 4.360in./110.7mm (1969)					69
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1969		(Oil Metering)	213-1694	16	
70	429 CID (7.0L) Super Cobra Jet V8 Cyl, 4.360in./110.7mm (1971)					70
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1971		(Oil Metering)	213-1694	16	
71	429 CID (7.0L) Thunder Jet V8 Cyl, 4.360in./110.7mm (1968-1973)					71
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1968-1973		Except Police Car 193 Degree Intake Duration, 206 Degree Exhaust Duration, All Durations Measured At .050"	229-1649	1	
Valve Lifter, Hyd.	1968-1973			213-1667	16	
72	430 CID (7.0L) V8 Cyl, 4.300in./109.2mm (1958-1965)					72
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1958-1965			213-1669	16	
73	460 CID (7.5L) V8 Cyl, 4.360in./110.7mm (1968-1978)					73
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1968-1978		Except Police Car	229-1649	1	
Valve Lifter, Hyd.	1968-1978			213-1667	16	

74 462 CID (7.6L) V8 Cyl, 4.380in./111.3mm (1966-1968)**74**

<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1966-1968			213-1669	16

Ford Truck*Engine Index*

<i>Engine</i>	<i>Year</i>	<i>Block</i>	<i>Engine</i>	<i>Year</i>	<i>Block</i>
110 CID (1.8L) SOHC Mazda	1972-1978	1	330 CID (5.4L) OHV Ford	1964-1978	36
121 CID (2.0L) Ford	1983-1988	2	330 CID (5.4L) Triton DOHC Ford Windsor	1999-2002	37
122 CID (2.0L) SOHC Mazda	1979-1982	3	330 CID (5.4L) Triton SOHC Ford Windsor	1997-2003	38
140 CID (2.3L) SOHC Ford	1977-1997	4	330 CID (5.4L) Triton SOHC Ford Windsor	1997-2003	39
144 CID (2.4L) Ford	1960-1964	5	CNG		
153 CID (2.5L) SOHC Ford	1998-2001	6	330 CID (5.4L) Triton SOHC Ford Windsor	1998-2003	40
170 CID (2.8L) Ford	1961-1972	7	Bi-Fuel Gas/CNG; Gas/LPG		
171 CID (2.8L) German Ford	1983-1986	8	351 CID (5.8L) 351M Ford	1975-1982	41
177 CID (2.9L) OHV Ford	1986-1992	9	351 CID (5.8L) 351C Ford Cleveland	1970-1974	42
181 CID/2967CC (3.0L) Duratec/DOHC/24 Valve Ford	2001-2003	10	351 CID (5.8L) 351W Ford Windsor	1969-1997	43
183 CID (3.0L) OHV Ford	1986-2004	11	351 CID (5.8L) High Performance Ford Windsor	1993-1996	44
2960CC (3.0L) VG30E SOHC Nissan	1993-1995	12	352 CID (5.8L) Ford	1965-1967	45
200 CID (3.3L) OHV Ford	1965-1974	13	359 CID (5.9L) OHV Ford	1974-1975	46
3275CC (3.3L) SOHC Nissan	1999-2002	14	360 CID (5.9L) Ford	1968-1976	47
215 CID (3.5L) Ford	1952-1953	15	361 CID (5.9L) OHV Ford	1964-1978	48
223 CID (3.7L) Ford	1954-1964	16	370 CID (6.1L) OHV Ford	1979-1991	49
232 CID (3.8L) Ford	1982-2003	17	389 CID (6.4L) OHV Ford	1975-1978	50
239 CID (3.9L) L-Head Ford	1939-1953	18	390 CID (6.4L) Ford	1968-1976	51
239 CID (3.9L) OHV Ford	1954-1955	19	400 CID (6.6L) OHV Ford	1972-1982	52
240 CID (4.0L) OHV Ford	1965-1974	20	400 CID (6.6L) OHV Ford LPG	1972-1982	53
244 CID (4.0L) OHV Ford	1990-2000	21	415 CID (6.8L) SOHC Ford Windsor	1997-2003	54
250 CID (4.1L) Ford	1969-1974	22	420 CID (6.9L) Navistar Diesel	1983-1987	55
255 CID (4.2L) Ford	1981-1982	23	428 CID (7.0L) Cobra Jet Ford	1969	56
256 CID (4.2L) OHV Ford	1997-2001	24	429 CID (7.0L) Cobra Jet Ford	1970-1973	57
256 CID (4.2L) Ford	1954-1955	25	429 CID (7.0L) OHV Ford	1979-1997	58
262 CID (4.3L) OHV Ford	1961-1964	26	429 CID (7.0L) OHV Ford LPG	1995-1997	59
272 CID (4.5L) Ford	1956-1958	27	429 CID (7.0L) Thunder Jet Ford	1970-1973	60
281 CID (4.6L) SOHC Ford	1997-2001	28	444 CID (7.3L) Indirect Injection Navistar Diesel	1988-1994	61
281 CID (4.6L) SOHC Ford LPG	1997-1998	29	444 CID (7.3L) Indirect Injection	1994	62
289 CID (4.7L) Ford	1966-1968	30	Turbocharged Navistar Diesel		
292 CID (4.8L) Ford	1958-1964	31	444 CID (7.3L) T444E (Power Stroke) D.I.	1994-2001	63
300 CID (4.9L) Ford	1965-1996	32	Turbo Navistar Diesel		
300 CID (4.9L) Ford LPG	1995-1996	33	460 CID (7.5L) Ford	1973-1997	64
302 CID (5.0L) Ford	1969-2000	34			
302 CID (5.0L) Ford LPG	1981-1986	35			

1 110 CID (1.8L) SOHC Mazda 4 Cyl, 3.071in./78mm (1972-1978)**1**

<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1972-1978			229-1748	1

2 121 CID (2.0L) Ford 4 Cyl, 3.516in./89.3mm (1983-1988)**2**

<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1983-1988			229-1839	1
Valve Lash Adj., Hyd.	1983-1988			213-1703	8

3 122 CID (2.0L) SOHC Mazda 4 Cyl, 3.150in./80mm (1979-1982)**3**

<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1979-1982			229-1748	1

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4 140 CID (2.3L) SOHC Ford 4 Cyl, 3.780in./96mm (1977-1997) 4					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1983-1987		Except Roller Lifter	229-1839	1
	1977-1982			229-1679	1
Camshaft, Hyd. Roller	1987-1997			229-2194	1
Valve Lash Adj., Hyd.	1977-1994			213-1703	8
5 144 CID (2.4L) Ford 6 Cyl, 3.500in./88.9mm (1960-1964) 5					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1960-1964			229-2279	1
Valve Lifter, Mech.	1960-1964			213-1656	12
6 153 CID (2.5L) SOHC Ford 4 Cyl, 3.780in./96mm (1998-2001) 6					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1998-2001			229-2194	1
Valve Lash Adj., Hyd.	1998-2001			213-1703	8
7 170 CID (2.8L) Ford 6 Cyl, 3.500in./88.9mm (1961-1972) 7					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1961-1972			229-2279	1
Valve Lifter, Mech.	1961-1972			213-1656	12
8 171 CID (2.8L) German Ford V6 Cyl, 3.661in./93mm (1983-1986) 8					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1983-1986			229-1772	1
Valve Lifter, Mech.	1983-1986			213-1656	12
9 177 CID (2.9L) OHV Ford V6 Cyl, 3.661in./93mm (1986-1992) 9					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1986-1992			229-1952	1
Valve Lifter, Hyd.	1986-1992			213-1669	12
10 181 CID/2967CC (3.0L) Duratec/DOHC/24 Valve Ford V6 Cyl, 3.504in./89mm (2001-2003) 10					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lash Adj., Hyd.	2001-2003			213-1766	24
11 183 CID (3.0L) OHV Ford V6 Cyl, 3.504in./89mm (1986-2004) 11					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1986-1991			229-1926	1
Camshaft, Hyd. Roller	1993-2003		Ranger	229-2318	1
	1995-1998		Windstar	229-2317	1
	1995-1997		Aerostar	229-2318	1
	1992-1994		Aerostar	229-2317	1
	1992		Ranger	229-2317	1
Valve Lifter, Hyd.	1986-1991			213-1667	12
Valve Lifter, Hyd. Roller	1992-2004			213-1742	12

12 2960CC (3.0L) VG30E SOHC Nissan V6 Cyl, 3.425in./87mm (1993-1995) 12					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1993-1995		Left	229-2147	1
			Right	229-2148	1
Valve Lifter, Hyd.	1993-1995			213-1730	12
13 200 CID (3.3L) OHV Ford 6 Cyl, 3.680in./93.5mm (1965-1974) 13					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1973-1974			229-1665	1
	1965-1968			229-1640	1
Valve Lifter, Hyd.	1973-1974			213-1669	12
	1965-1968			213-1669	12
14 3275CC (3.3L) SOHC Nissan V6 Cyl, 3.602in./91.5mm (1999-2002) 14					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1999-2002			213-1730	12
15 215 CID (3.5L) Ford 6 Cyl, 3.563in./90.5mm (1952-1953) 15					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1952-1953			213-1629	12
16 223 CID (3.7L) Ford 6 Cyl, 3.625in./92.1mm (1954-1964) 16					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1961-1964		Zero Lash Rocker Arms, (Cross Drilled)	229-1608	1
	1954-1961		Except Zero Lash Rocker Arms, (Cross Drilled)	229-1609	1
Valve Lifter, Mech.	1954-1964			213-1629	12
17 232 CID (3.8L) Ford V6 Cyl, 3.811in./96.8mm (1982-2003) 17					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1982-1983			229-1744	1
Camshaft, Hyd. Roller	1996-2003			229-2362	1
	1995			229-2192	1
Valve Lifter, Hyd.	1982-1983			213-1667	12
Valve Lifter, Hyd. Roller	1995-2003			213-1742	12
18 239 CID (3.9L) L-Head Ford V8 Cyl, 3.188in./80.98mm (1939-1953) 18					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1939-1953		(Requires Spanner Wrench To Adjust Lash), Use With Part Numbers 213-1615	213-1614	16
19 239 CID (3.9L) OHV Ford V8 Cyl, 3.500in./88.9mm (1954-1955) 19					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1954-1955			213-1629	16

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20	240 CID (4.0L) OHV Ford 6 Cyl, 4.000in./101.6mm (1965-1974)					20
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1965-1974			229-1840	1	
Valve Lifter, Hyd.	1965-1974			213-1667	12	
21	244 CID (4.0L) OHV Ford V6 Cyl, 3.953in./100.4mm (1990-2000)					21
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1993-2000		Except California Emission	229-2251	1	
			California Emission	229-2285	1	
	1990-1992		Manual Transmission	229-2251	1	
			Automatic Transmission	229-2252	1	
Valve Lifter, Hyd. Roller	1990-2000			213-1752	12	
22	250 CID (4.1L) Ford 6 Cyl, 3.680in./93.5mm (1969-1974)					22
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1969-1974			229-1665	1	
Valve Lifter, Hyd.	1969-1974			213-1669	12	
23	255 CID (4.2L) Ford V8 Cyl, 3.680in./93.5mm (1981-1982)					23
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1981-1982		183 Degree Intake Duration, 192 Degree Exhaust Duration, All Durations Measured At .050"	229-1686	1	
Valve Lifter, Hyd.	1981-1982			213-1667	16	
24	256 CID (4.2L) OHV Ford V6 Cyl, 3.811in./96.8mm (1997-2001)					24
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1997-2001			229-2192	1	
Valve Lifter, Hyd. Roller	1997-2001			213-1742	12	
25	256 CID (4.2L) Ford V8 Cyl, 3.625in./92.1mm (1954-1955)					25
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1954-1955			213-1629	12	
26	262 CID (4.3L) OHV Ford 6 Cyl, 3.719in./94.5mm (1961-1964)					26
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1961-1964			213-1629	12	
27	272 CID (4.5L) Ford V8 Cyl, 3.625in./92.1mm (1956-1958)					27
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1956-1958			229-1210	1	
Valve Lifter, Mech.	1956-1958			213-1629	16	

28	281 CID (4.6L) SOHC Ford V8 Cyl, 3.551in./90.2mm (1997-2001)	28
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1997-1999		Right Head	229-2331	1
			Left Head	229-2332	1
			Right Head .020" Oversize Bearing Journals	229-2333	1
			Left Head .020" Oversize Bearing Journals	229-2334	1
Valve Lash Adj., Hyd.	1997-2001			213-1766	16

29	281 CID (4.6L) SOHC Ford LPG V8 Cyl, 3.551in./90.2mm (1997-1998)	29
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1997-1998		Right Head	229-2331	1
			Left Head	229-2332	1
			Right Head .020" Oversize Bearing Journals	229-2333	1
			Left Head .020" Oversize Bearing Journals	229-2334	1
Valve Lash Adj., Hyd.	1997-1998			213-1766	16

30	289 CID (4.7L) Ford V8 Cyl, 4.000in./101.6mm (1966-1968)	30
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1966-1968			229-1601	1
Valve Lifter, Hyd.	1966-1968			213-1667	16

31	292 CID (4.8L) Ford V8 Cyl, 3.750in./95.3mm (1958-1964)	31
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1958-1964			229-1210	1
Valve Lifter, Mech.	1958-1964			213-1629	16

32	300 CID (4.9L) Ford 6 Cyl, 4.000in./101.6mm (1965-1996)	32
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1965-1996		192 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1840	1
Valve Lifter, Hyd.	1965-1996			213-1667	12

33	300 CID (4.9L) Ford LPG 6 Cyl, 4.000in./101.6mm (1995-1996)	33
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1995-1996			213-1667	12

34	302 CID (5.0L) Ford V8 Cyl, 4.000in./101.6mm (1969-2000)	34
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1976-1991		From Serial Number A50, 001 183 Degree Intake Duration, 192 Degree Exhaust Duration, All Durations Measured At .050"	229-1686	1
	1976		Except California, Thru Serial Number A50, 001	229-1601	1
			California 183 Degree Intake Duration, 192 Degree Exhaust Duration, All Durations Measured At .050"	229-1686	1
	1969-1975			229-1601	1
Camshaft, Hyd. Roller	1994-2000			229-2283	1
	1992-1993			229-1773	1
Valve Lifter, Hyd.	1969-1992			213-1667	16

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34 (cont.)	302 CID (5.0L) Ford V8 Cyl, 4.000in./101.6mm (1969-2000)					34 (cont.)
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lifter, Hyd. Roller	1992-2000			213-1742	16	
35	302 CID (5.0L) Ford LPG V8 Cyl, 4.000in./101.6mm (1981-1986)					35
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1981-1986			213-1667	16	
36	330 CID (5.4L) OHV Ford V8 Cyl, 3.875in./98.4mm (1964-1978)					36
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1964-1978			229-1621	1	
Valve Lifter, Hyd.	1964-1978			213-1669	12	
37	330 CID (5.4L) Triton DOHC Ford Windsor V8 Cyl, 3.550in./90.1mm (1999-2002)					37
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1999-2002			213-1766	32	
38	330 CID (5.4L) Triton SOHC Ford Windsor V8 Cyl, 3.551in./90.2mm (1997-2003)					38
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1997-2003			213-1766	16	
39	330 CID (5.4L) Triton SOHC Ford Windsor CNG V8 Cyl, 3.551in./90.2mm (1997-2003)					39
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1997-2003			213-1766	16	
40	330 CID (5.4L) Triton SOHC Ford Windsor Bi-Fuel Gas/CNG; Gas/LPG V8 Cyl, 3.551in./90.2mm (1998-2003)					40
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1998-2003			213-1766	16	
41	351 CID (5.8L) 351M Ford V8 Cyl, 4.000in./101.6mm (1975-1982)					41
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1975-1982			229-1647	1	
Valve Lifter, Hyd.	1975-1982			213-1667	16	
42	351 CID (5.8L) 351C Ford Cleveland V8 Cyl, 4.000in./101.6mm (1970-1974)					42
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1971-1974			229-1647	1	
	1970-1971		4 Barrel Carburetor	229-1883	1	
Valve Lifter, Hyd.	1970-1974			213-1667	16	

43	351 CID (5.8L) 351W Ford Windsor V8 Cyl, 4.000in./101.6mm (1969-1997)	43
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1985-1993			229-1833	1
	1985		4 Barrel Carburetor, Electronic Fuel Injection	229-1833	1
	1984-1985		Except 4 Barrel Carburetor, Except Electronic Fuel Injection	229-1655	1
	1971-1983			229-1655	1
	1969-1970		Except High Output Engine, Except Police, Taxi And Trailer Towing Package	229-1655	1
Camshaft, Hyd. Roller	1994-1997		Except Lightning	229-2283	1
Valve Lifter, Hyd.	1969-1993			213-1667	16
Valve Lifter, Hyd. Roller	1994-1997			213-1742	16
Valve Lifter, Mech.	1975-1993		(Oil Metering, Performer, Requires Positive Adjuster Type Rocker Arm Nut)	213-1694	16

44	351 CID (5.8L) High Performance Ford Windsor V8 Cyl, 4.000in./101.6mm (1993-1996)	44
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1993-1996	R	Lightning	229-2155	1
Valve Lifter, Hyd.	1993-1996			213-1667	16

45	352 CID (5.8L) Ford V8 Cyl, 4.000in./101.6mm (1965-1967)	45
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967		Before Serial Number A84, 001 186 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1443	1
			From Serial Number A84, 001 192 Degree Intake Duration, 199 Degree Exhaust Duration, All Durations Measured At .050"	229-1633	1
	1965-1966			229-1443	1
Valve Lifter, Hyd.	1965-1967			213-1669	16

46	359 CID (5.9L) OHV Ford V8 Cyl, 4.050in./102.9mm (1974-1975)	46
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1974-1975		B600, B700, C600, C700	229-1621	1
			F700, LN600, LN700	229-1621	1
			F600, Except Rental	229-1621	1
Valve Lifter, Hyd.	1974-1975			213-1669	16

47	360 CID (5.9L) Ford V8 Cyl, 4.050in./102.9mm (1968-1976)	47
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1968-1976			229-1633	1
Valve Lifter, Hyd.	1968-1976			213-1669	16

48	361 CID (5.9L) OHV Ford V8 Cyl, 4.050in./102.9mm (1964-1978)	48
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1970-1978		LN600, LN700	229-1621	1
	1964-1978		B600, B700, C600, C700	229-1621	1
			F700	229-1621	1
			F600, Except Rental	229-1621	1
	1964-1969		N600	229-1621	1
Valve Lifter, Hyd.	1964-1978			213-1669	16

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49	370 CID (6.1L) OHV Ford V8 Cyl, 4.046in./102.8mm (1979-1991)					49
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1979-1990				229-1649	1
Valve Lifter, Hyd.	1979-1991				213-1667	16
50	389 CID (6.4L) OHV Ford V8 Cyl, 4.050in./102.9mm (1975-1978)					50
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1975-1978				229-1621	1
Valve Lifter, Hyd.	1975-1978				213-1669	16
51	390 CID (6.4L) Ford V8 Cyl, 4.050in./102.9mm (1968-1976)					51
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1975-1976		F150, P550		229-1633	1
	1973-1976		M450		229-1633	1
	1972-1976		M400, M500		229-1633	1
	1968-1976		F100, F250, F350		229-1633	1
	1968-1969		Ranchero		229-1634	1
Valve Lifter, Hyd.	1968-1976				213-1669	16
52	400 CID (6.6L) OHV Ford V8 Cyl, 4.000in./101.6mm (1972-1982)					52
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1972-1982				229-1647	1
Valve Lifter, Hyd.	1972-1982				213-1667	16
53	400 CID (6.6L) OHV Ford LPG V8 Cyl, 4.000in./101.6mm (1972-1982)					53
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1972-1982				229-1647	1
Valve Lifter, Hyd.	1972-1982				213-1667	16
54	415 CID (6.8L) SOHC Ford Windsor V10 Cyl, 3.550in./90.1mm (1997-2003)					54
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1997-2003		Left		229-2383	1
			Right		229-2384	1
Valve Lash Adj., Hyd.	1997-2003				213-1766	20
55	420 CID (6.9L) Navistar Diesel V8 Cyl, 4.000in./101.6mm (1983-1987)					55
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1983-1987				229-1872	1
Valve Lifter, Hyd. Roller	1983-1987				213-1725	16
56	428 CID (7.0L) Cobra Jet Ford V8 Cyl, 4.130in./104.9mm (1969)					56
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1969				213-1669	16

57	429 CID (7.0L) Cobra Jet Ford V8 Cyl, 4.360in./110.7mm (1970-1973)					57
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1970-1973			213-1667	16	
Valve Lifter, Mech.	1970-1973		(Oil Metering)	213-1694	16	
58	429 CID (7.0L) OHV Ford V8 Cyl, 4.360in./110.7mm (1979-1997)					58
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1991-1994			229-2217	1	
	1979-1990			229-1649	1	
Valve Lifter, Hyd.	1979-1997			213-1667	16	
59	429 CID (7.0L) OHV Ford LPG V8 Cyl, 4.360in./110.7mm (1995-1997)					59
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1995-1997			213-1667	16	
60	429 CID (7.0L) Thunder Jet Ford V8 Cyl, 4.360in./110.7mm (1970-1973)					60
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1970-1973			229-1649	1	
Valve Lifter, Hyd.	1970-1973			213-1667	16	
61	444 CID (7.3L) Indirect Injection Navistar Diesel V8 Cyl, 4.110in./104.4mm (1988-1994)					61
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1988-1994			229-1872	1	
Valve Lifter, Hyd. Roller	1988-1994			213-1725	16	
62	444 CID (7.3L) Indirect Injection Turbocharged Navistar Diesel V8 Cyl, 4.110in./104.4mm (1994)					62
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1994			229-1872	1	
Valve Lifter, Hyd. Roller	1994			213-1725	16	
63	444 CID (7.3L) T444E (Power Stroke) D.I. Turbo Navistar Diesel V8 Cyl, 4.110in./104.4mm (1994-2001)					63
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd. Roller	1994-2001			213-1725	16	
64	460 CID (7.5L) Ford V8 Cyl, 4.360in./110.7mm (1973-1997)					64
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1973-1997			229-1649	1	
Valve Lifter, Hyd.	1973-1997			213-1667	16	

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Engine	Year	Block
61 CID (1.0L) LP2 Suzuki	1989-2000	1
61 CID (1.0L) LS3 Turbo Suzuki	1987-1988	2
61 CID (1.0L) LY9 Suzuki	1985-1988	3
85 CID (1.4L) LX3 Chevrolet	1976-1977	4
92 CID (1.5L) LC0 SOHC Isuzu	1986-1989	5
92 CID (1.5L) LC5 Isuzu	1985-1989	6
98 CID (1.6L) Chevrolet	1976-1987	7
98 CID (1.6L) L73 Daewoo	1988-1993	8
98 CID (1.6L) LC9 SOHC Toyota	1985-1988	9
98 CID (1.6L) LO1 DOHC Toyota	1989-1997	10
98 CID (1.6L) LW0 DOHC Toyota	1988-1992	11
110 CID (1.8L) LA5 OHC Turbo Pontiac	1984-1986	12
110 CID (1.8L) LH8 OHC Pontiac	1982-1986	13
112 CID (1.8L) L46 Chevrolet	1982	14
121 CID (2.0L) LL8 Chevrolet	1987-1989	15
121 CID (2.0L) LQ5 Chevrolet	1983-1986	16
121 CID (2.0L) LR9 Chevrolet	1983-1984	17
122 CID (2.0L) OHC Pontiac	1987-1994	18
122 CID (2.0L) OHC Turbo Pontiac	1987-1990	19
134 CID (2.2L) LM3 Chevrolet	1990-1991	20
134 CID (2.2L) LN2/KL6 Chevrolet Bi-fuel Gas/CNG	2000-2002	21
134 CID (2.2L) OHV Chevrolet	1992-2002	22
134 CID (2.2L) L61 DOHC General Motors	2002-2004	23
134 CID (2.2L) L42 DOHC Saturn Bi-fuel Gas/CNG	2003	24
138 CID (2.3L) DOHC Oldsmobile	1988-1995	25
138 CID (2.3L) L40 SOHC Oldsmobile	1992-1994	26
140 CID (2.3L) Chevrolet Corvair	1960-1961	27
145 CID (2.4L) Chevrolet Corvair	1961-1963	28
146 CID (2.4L) LD9 DOHC Oldsmobile	1996-2002	29
151 CID (2.5L) Carbureted Pontiac	1977-1983	30
151 CID (2.5L) Fuel Injected Pontiac	1982-1992	31
153 CID (2.5L) Chevrolet	1962-1970	32
164 CID (2.7L) Chevrolet Corvair	1964-1969	33
173 CID (2.8L) Chevrolet	1980-1989	34
181 CID (3.0L) Buick	1982-1988	35
189 CID (3.1L) Chevrolet	1988-2003	36
194 CID (3.2L) Chevrolet	1962-1966	37
195 CID (3.2L) Pontiac	1961-1963	38
196 CID (3.2L) LC9 Buick	1978-1979	39
198 CID (3.2L) Buick	1962-1963	40
200 CID (3.3L) L26 Chevrolet	1978-1979	41
204 CID (3.3L) LG7 Buick	1989-1993	42
207 CID (3.4L) L32 Chevrolet	1993-1995	43
207 CID (3.4L) LA1 Chevrolet	1999-2003	44
207 CID (3.4L) LQ1 DOHC Chevrolet	1991-1997	45
212 CID (3.5L) LX5 Oldsmobile	1999-2002	46
215 CID (3.5L) Pontiac	1964-1965	47
215 CID (3.5L) Aluminum Block & Heads Buick	1961-1963	48
216 CID (3.5L) Chevrolet	1937-1952	49
225 CID (3.7L) Buick	1964-1967	50
229 CID (3.8L) LC3 Chevrolet	1980-1984	51
230 CID (3.8L) Chevrolet	1964-1970	52
231 CID (3.8L) Carbureted Buick	1975-1987	53
231 CID (3.8L) Fuel Injected Buick	1984-2004	54
231 CID (3.8L) L26 Buick	2004	55
231 CID (3.8L) L32 Buick	2004	56
231 CID (3.8L) Supercharged Buick	1991-2004	57
231 CID (3.8L) Turbo Buick	1978-1989	58
235 CID (3.9L) Chevrolet	1953-1962	59
235 CID (3.9L) Corvette Chevrolet	1953-1955	60
244 CID (4.0L) L47 Oldsmobile	1995-2002	61
250 CID (4.1L) Chevrolet	1966-1979	62
252 CID (4.1L) LC4 Buick	1980-1984	63

Engine	Year	Block
252 CID (4.1L) Cadillac	1982-1988	64
260 CID (4.3L) Oldsmobile Diesel	1982-1985	65
260 CID (4.3L) LF7 Oldsmobile Diesel	1979	66
260 CID (4.3L) LV8 Oldsmobile	1975-1982	67
262 CID (4.3L) Chevrolet	1985-1993	68
262 CID (4.3L) Chevrolet	1975-1976	69
265 CID (4.3L) Chevrolet	1955-1957	70
265 CID (4.3L) L99 Chevrolet	1994-1995	71
265 CID (4.3L) LS5 Pontiac	1980-1981	72
267 CID (4.4L) L39 Chevrolet	1979-1982	73
273 CID (4.5L) Cadillac	1988-1992	74
281 CID (4.6L) Cadillac	1993-2004	75
283 CID (4.6L) Chevrolet	1957-1967	76
300 CID (4.9L) Buick	1964-1967	77
300 CID (4.9L) L26 Cadillac	1991-1995	78
301 CID (4.9L) Pontiac	1977-1981	79
302 CID (5.0L) Chevrolet	1967-1969	80
305 CID (5.0L) Chevrolet	1976-1993	81
307 CID (5.0L) Chevrolet	1968-1973	82
307 CID (5.0L) Oldsmobile	1980-1990	83
322 CID (5.3L) Buick	1956	84
326 CID (5.3L) Pontiac	1964-1967	85
327 CID (5.4L) Chevrolet	1962-1969	86
330 CID (5.4L) OHV Oldsmobile	1964-1967	87
340 CID (5.6L) Buick	1966-1967	88
346 CID (5.7L) LS1 Chevrolet	1997-2003	89
346 CID (5.7L) LS6 Chevrolet	2001-2003	90
348 CID (5.7L) Chevrolet	1958-1961	91
350 CID (5.7L) Buick	1968-1981	92
350 CID (5.7L) Carbureted Chevrolet	1967-1987	93
350 CID (5.7L) Fuel Injected Chevrolet	1982-1997	94
350 CID (5.7L) Oldsmobile	1968-1980	95
350 CID (5.7L) Oldsmobile Diesel	1978-1985	96
350 CID (5.7L) Pontiac	1968-1977	97
364 CID (6.0L) Buick	1957-1961	98
365 CID (6.0L) Cadillac	1957-1958	99
368 CID (6.0L) Cadillac	1980-1984	100
370 CID (6.1L) Pontiac	1958	101
371 CID (6.1L) Oldsmobile	1957-1960	102
389 CID (6.4L) Pontiac	1959-1966	103
390 CID (6.4L) Cadillac	1959-1963	104
394 CID (6.5L) Oldsmobile	1959-1964	105
396 CID (6.6L) Chevrolet	1965-1971	106
400 CID (6.6L) Buick	1967-1969	107
400 CID (6.6L) Chevrolet	1970-1976	108
400 CID (6.6L) Oldsmobile	1968-1969	109
400 CID (6.6L) Oldsmobile	1965-1967	110
400 CID (6.6L) Pontiac	1967-1979	111
401 CID (6.6L) Buick	1959-1966	112
402 CID (6.6L) Chevrolet	1970-1972	113
403 CID (6.6L) L80 Oldsmobile	1977-1979	114
409 CID (6.7L) Chevrolet	1961-1965	115
421 CID (6.9L) Pontiac	1963-1966	116
425 CID (7.0L) Buick	1963-1966	117
425 CID (7.0L) Cadillac	1977-1979	118
425 CID (7.0L) Oldsmobile	1965-1967	119
427 CID (7.0L) Chevrolet	1966-1969	120
428 CID (7.0L) Pontiac	1967-1969	121
429 CID (7.0L) Cadillac	1964-1967	122
430 CID (7.0L) Buick	1967-1969	123
454 CID (7.4L) Chevrolet	1970-1976	124
455 CID (7.5L) Buick	1970-1976	125
455 CID (7.5L) Oldsmobile	1968-1976	126
455 CID (7.5L) Pontiac	1970-1976	127
472 CID (7.7L) Cadillac	1968-1974	128
500 CID (8.2L) Cadillac	1970-1976	129

1	61 CID (1.0L) LP2 Suzuki 3 Cyl, 2.913in./74mm (1989-2000)					1
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1989-2000			229-2341		1
Valve Lifter, Hyd.	1989-2000			213-1754		6
2	61 CID (1.0L) LS3 Turbo Suzuki 3 Cyl, 2.913in./74mm (1987-1988)					2
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1987-1988			213-1754		6
3	61 CID (1.0L) LY9 Suzuki 3 Cyl, 2.913in./74mm (1985-1988)					3
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1985-1988			213-1754		6
4	85 CID (1.4L) LX3 Chevrolet 4 Cyl, 3.228in./82mm (1976-1977)					4
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1976-1977			229-1710		1
Valve Lash Adj., Hyd.	1976-1977			213-1710		8
5	92 CID (1.5L) LC0 SOHC Isuzu 4 Cyl, 3.031in./77mm (1986-1989)					5
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1986-1989			229-2146		1
6	92 CID (1.5L) LC5 Isuzu 4 Cyl, 3.031in./77mm (1985-1989)					6
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1985-1989			229-2146		1
7	98 CID (1.6L) Chevrolet 4 Cyl, 3.228in./82mm (1976-1987)					7
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1976-1987			229-1710		1
Valve Lash Adj., Hyd.	1976-1987			213-1710		8
8	98 CID (1.6L) L73 Daewoo 4 Cyl, 3.110in./79mm (1988-1993)					8
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1988-1993			229-2206		1
Valve Lash Adj., Hyd.	1988-1993			213-1710		8
9	98 CID (1.6L) LC9 SOHC Toyota 4 Cyl, 3.189in./81mm (1985-1988)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1985-1988			229-1892		1
10	98 CID (1.6L) LO1 DOHC Toyota 4 Cyl, 3.189in./81mm (1989-1997)					10
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1993-1997		(Cam To Cam Gear Not Included), Intake	229-2346		1

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10 (cont.)	98 CID (1.6L) LO1 DOHC Toyota 4 Cyl, 3.189in./81mm (1989-1997)					10 (cont.)
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS (cont.)					
Camshaft, Mech. (cont.)	1993-1997		(Cam To Cam Gear Not Included), Exhaust	229-2347	1
	1989-1992		(Cam To Cam Gear Not Included), Intake	229-2344	1
			(Cam To Cam Gear Not Included), Exhaust	229-2345	1

11	98 CID (1.6L) LW0 DOHC Toyota 4 Cyl, 3.189in./81mm (1988-1992)					11
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1990-1992		Intake	229-2335	1
			Exhaust	229-2336	1
	1988		Intake	229-2335	1
			Exhaust	229-2336	1

12	110 CID (1.8L) LA5 OHC Turbo Pontiac 4 Cyl, 3.339in./84.8mm (1984-1986)					12
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1984-1986			229-1949	1
Valve Lash Adj., Hyd.	1984-1986			213-1710	8

13	110 CID (1.8L) LH8 OHC Pontiac 4 Cyl, 3.339in./84.8mm (1982-1986)					13
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1982-1986			229-1886	1
Valve Lash Adj., Hyd.	1982-1986			213-1710	8

14	112 CID (1.8L) L46 Chevrolet 4 Cyl, 3.504in./89mm (1982)					14
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1982		196 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1797	1
Valve Lifter, Hyd.	1982			213-1638	8

15	121 CID (2.0L) LL8 Chevrolet 4 Cyl, 3.504in./89mm (1987-1989)					15
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1987-1989			229-1935	1
Valve Lifter, Hyd.	1987-1989			213-1685	8

16	121 CID (2.0L) LQ5 Chevrolet 4 Cyl, 3.504in./89mm (1983-1986)					16
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1984-1986			229-1797	1
	1983			229-1794	1
Valve Lifter, Hyd.	1983-1986			213-1685	8

17	121 CID (2.0L) LR9 Chevrolet 4 Cyl, 3.504in./89mm (1983-1984)					17
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1984			229-1797	1
	1983			229-1794	1
Valve Lifter, Hyd.	1983-1984			213-1685	8

18 122 CID (2.0L) OHC Pontiac 4 Cyl, 3.386in./86mm (1987-1994) 18					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1992-1994			229-1936	1
	1987-1991			229-1946	1
Valve Lash Adj., Hyd.	1987-1994			213-1710	8
19 122 CID (2.0L) OHC Turbo Pontiac 4 Cyl, 3.386in./86mm (1987-1990) 19					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1987-1990			229-1936	1
Valve Lash Adj., Hyd.	1987-1990			213-1710	8
20 134 CID (2.2L) LM3 Chevrolet 4 Cyl, 3.504in./89mm (1990-1991) 20					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1990-1991		194 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1935	1
Valve Lifter, Hyd.	1990-1991			213-1685	8
21 134 CID (2.2L) LN2/KL6 Chevrolet Bi-fuel Gas/CNG 4 Cyl, 3.504in./89mm (2000-2002) 21					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	2000-2002			229-2375	1
Valve Lifter, Hyd. Roller	2000-2002			213-1756	8
22 134 CID (2.2L) OHV Chevrolet 4 Cyl, 3.504in./89mm (1992-2002) 22					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1992-1993			229-1935	1
Camshaft, Hyd. Roller	1998-2002			229-2375	1
	1994-1997			229-2325	1
Valve Lifter, Hyd.	1992-1993			213-1685	8
Valve Lifter, Hyd. Roller	1994-2002			213-1756	8
23 134 CID (2.2L) L61 DOHC General Motors 4 Cyl, 3.386in./86mm (2002-2004) 23					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	2002-2004			229-2373	1
				229-2374	1
Valve Lash Adj., Hyd.	2002-2004			213-1780	16
24 134 CID (2.2L) L42 DOHC Saturn Bi-fuel Gas/CNG 4 Cyl, 3.386in./86mm (2003) 24					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lash Adj., Hyd.	2003			213-1780	16
25 138 CID (2.3L) DOHC Oldsmobile 4 Cyl, 3.622in./92mm (1988-1995) 25					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd., Exh.	1989-1994	A		229-2219	1
	1988-1994	D		229-1942	1
Camshaft, Hyd., Int.	1989-1994	A		229-2218	1

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25 (cont.)		138 CID (2.3L) DOHC Oldsmobile 4 Cyl, 3.622in./92mm (1988-1995)				25 (cont.)
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Camshaft, Hyd., Int. (cont.)	1988-1994	D		229-1941	1	
Valve Lifter, Hyd.	1995			213-1765	16	
	1988-1994			213-1747	16	
26		138 CID (2.3L) L40 SOHC Oldsmobile 4 Cyl, 3.622in./92mm (1992-1994)				26
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1992-1994			213-1747	8	
27		140 CID (2.3L) Chevrolet Corvair 6 Cyl, 3.375in./85.7mm (1960-1961)				27
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1960-1961			213-1638	12	
28		145 CID (2.4L) Chevrolet Corvair 6 Cyl, 3.438in./87.33mm (1961-1963)				28
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1961-1963			213-1638	12	
29		146 CID (2.4L) LD9 DOHC Oldsmobile 4 Cyl, 3.543in./90mm (1996-2002)				29
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1996-2002			213-1765	16	
30		151 CID (2.5L) Carbureted Pontiac 4 Cyl, 4.000in./101.6mm (1977-1983)				30
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1980-1983		(2 Gears)	229-1697	1	
	1979-1980	V	(2 Gears)	229-1697	1	
	1979	9	(2 Gears)	229-1697	1	
	1978-1979	1	(1 Gear)	229-1708	1	
	1977-1978	V	(1 Gear)	229-1708	1	
Valve Lifter, Hyd.	1980-1983			213-1719	8	
	1979-1980	V		213-1719	8	
	1979	9		213-1719	8	
	1978-1979	1		213-1685	8	
	1977-1978	V		213-1685	8	
31		151 CID (2.5L) Fuel Injected Pontiac 4 Cyl, 4.000in./101.6mm (1982-1992)				31
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1982-1984		(2 Gears)	229-1697	1	
Camshaft, Hyd. Roller	1991-1992	R		229-2261	1	
	1991	U		229-2262	1	
	1990	R		229-2260	1	
	1989-1990	U	2nd Design, Chain Driven	229-2264	1	
	1989	U	1st Design, Gear Driven	229-2263	1	
	1985-1989	R		229-1875	1	
	1985-1988	U		229-2263	1	
	1982-1984			213-1719	8	

31 (cont.)	151 CID (2.5L) Fuel Injected Pontiac 4 Cyl, 4.000in./101.6mm (1982-1992)					31 (cont.)
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lifter, Hyd. Roller	1985-1992			213-1738	8	
32	153 CID (2.5L) Chevrolet 4 Cyl, 3.875in./98.4mm (1962-1970)					32
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1962-1970			229-1708	1	
Valve Lifter, Hyd.	1962-1970			213-1638	8	
33	164 CID (2.7L) Chevrolet Corvair 6 Cyl, 3.438in./87.3mm (1964-1969)					33
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1964-1969			213-1638	12	
34	173 CID (2.8L) Chevrolet V6 Cyl, 3.504in./89mm (1980-1989)					34
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1987-1989			229-2280	1	
	1982-1986		High Output Engine	229-2280	1	
	1980-1986		Except High Output Engine	229-1720	1	
Valve Lifter, Hyd.	1980-1989			213-1724	12	
35	181 CID (3.0L) Buick V6 Cyl, 3.800in./96.5mm (1982-1988)					35
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1987-1988			229-1937	1	
	1985-1986	L		229-1933	1	
	1982-1985	E		229-1701	1	
Valve Lifter, Hyd.	1982-1988			213-1685	12	
36	189 CID (3.1L) Chevrolet V6 Cyl, 3.504in./89mm (1988-2003)					36
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1993	W		229-2280	1	
	1988-1993	T		229-2280	1	
	1989-1990	V		229-2280	1	
Camshaft, Hyd. Roller	2000-2002	J		229-2412	1	
	1999	J		229-2326	1	
	1993-1999	M		229-2326	1	
Valve Lifter, Hyd.	1988-1994	T		213-1724	12	
	1993	W		213-1724	12	
	1989-1990	V		213-1724	12	
Valve Lifter, Hyd. Roller	1999-2003	J		213-1756	12	
	1993-1999	M		213-1756	12	
37	194 CID (3.2L) Chevrolet 6 Cyl, 3.563in./90.5mm (1962-1966)					37
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1962-1966			229-1394	1	
Valve Lifter, Hyd.	1962-1966			213-1638	12	

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38 195 CID (3.2L) Pontiac 4 Cyl, 4.063in./103.2mm (1961-1963) 38					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1961-1963		Manual Transmission	213-1674	8
39 196 CID (3.2L) LC9 Buick V6 Cyl, 3.500in./88.9mm (1978-1979) 39					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1978-1979		Except Production Carburetor 17058188 And PB Engine	229-1701	1
	1978		Production Carburetor 17058188 And PB Engine	229-1702	1
Valve Lifter, Hyd.	1978-1979			213-1685	12
40 198 CID (3.2L) Buick V6 Cyl, 3.625in./92.1mm (1962-1963) 40					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1962-1963			229-1657	1
Valve Lifter, Hyd.	1962-1963			213-1664	12
41 200 CID (3.3L) L26 Chevrolet V6 Cyl, 3.500in./88.9mm (1978-1979) 41					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1978-1979			229-1703	1
Valve Lifter, Hyd.	1978-1979			213-1638	12
42 204 CID (3.3L) LG7 Buick V6 Cyl, 3.701in./94mm (1989-1993) 42					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1991-1993			229-2278	1
	1989-1990			229-2256	1
Valve Lifter, Hyd. Roller	1989-1993			213-1738	12
43 207 CID (3.4L) L32 Chevrolet V6 Cyl, 3.622in./92mm (1993-1995) 43					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1993-1995			213-1724	12
44 207 CID (3.4L) LA1 Chevrolet V6 Cyl, 3.622in./92mm (1999-2003) 44					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	2000-2002			229-2412	1
	1999			229-2326	1
Valve Lifter, Hyd. Roller	1999-2003			213-1756	12
45 207 CID (3.4L) LQ1 DOHC Chevrolet V6 Cyl, 3.622in./92mm (1991-1997) 45					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1996-1997		2nd Design 33mm Outside Diameter	213-1765	24
	1991-1996		1st Design 35mm Outside Diameter	213-1784	24

46	212 CID (3.5L) LX5 Oldsmobile V6 Cyl, 3.524in./89.5mm (1999-2002)					46
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1999-2002			213-1780	12
47	215 CID (3.5L) Pontiac 6 Cyl, 3.750in./95.3mm (1964-1965)					47
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1964-1965			229-1394	1
Valve Lifter, Hyd.		1964-1965			213-1638	12
48	215 CID (3.5L) Aluminum Block & Heads Buick V8 Cyl, 3.500in./88.9mm (1961-1963)					48
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1961-1963			229-1364	1
Valve Lifter, Hyd.		1961-1963			213-1664	16
49	216 CID (3.5L) Chevrolet 6 Cyl, 3.500in./88.9mm (1937-1952)					49
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1946-1952			229-1338	1
		1937-1942			229-1338	1
50	225 CID (3.7L) Buick V6 Cyl, 3.750in./95.3mm (1964-1967)					50
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1964-1967			229-1657	1
Valve Lifter, Hyd.		1964-1967			213-1664	12
51	229 CID (3.8L) LC3 Chevrolet V6 Cyl, 3.736in./95mm (1980-1984)					51
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1980-1984			229-1703	1
Valve Lifter, Hyd.		1980-1984			213-1638	12
52	230 CID (3.8L) Chevrolet 6 Cyl, 3.875in./98.4mm (1964-1970)					52
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1964-1970		172 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1394	1
Valve Lifter, Hyd.		1964-1970			213-1638	12
53	231 CID (3.8L) Carbureted Buick V6 Cyl, 3.800in./96.5mm (1975-1987)					53
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1979-1987			229-2268	1
		1979	2		229-2268	1
		1978	2		229-1702	1
		1977-1978	A	Even Fire	229-1702	1
		1975-1977	C	Non-Integral Distributor Drive Gear, Regular Fire	229-1678	1
Valve Lifter, Hyd.		1975-1987			213-1685	12

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54 231 CID (3.8L) Fuel Injected Buick V6 Cyl, 3.800in./96.5mm (1984-2004) 54

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1984-1985	3		229-1701	1
Camshaft, Hyd. Roller	1995-2004	K		229-2361	1
	1996-2003			229-2361	1
	1990-1995	L		229-2254	1
	1991	C		229-2278	1
	1989-1990	C		229-2256	1
	1988	C		229-2211	1
	1986-1988	3		229-2176	1
Valve Lifter, Hyd.	1984-1986			213-1685	12
Valve Lifter, Hyd. Roller	2004	K		213-1738	12
	1986-2003			213-1738	12

55 231 CID (3.8L) L26 Buick V6 Cyl, 3.800in./96.5mm (2004) 55

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	2004	2		229-2361	1
Valve Lifter, Hyd. Roller	2004	2		213-1738	12

56 231 CID (3.8L) L32 Buick V6 Cyl, 3.800in./96.5mm (2004) 56

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	2004	4		229-2361	1
Valve Lifter, Hyd. Roller	2004	4		213-1738	12

57 231 CID (3.8L) Supercharged Buick V6 Cyl, 3.800in./96.5mm (1991-2004) 57

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	2004	1		229-2361	1
	1996-2003			229-2361	1
	1991-1995			229-2254	1
Valve Lifter, Hyd. Roller	2004	1		213-1738	12
	1991-2003			213-1738	12

58 231 CID (3.8L) Turbo Buick V6 Cyl, 3.800in./96.5mm (1978-1989) 58

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1989			229-1841	1
	1984-1987			229-1841	1
	1978-1983			229-1701	1
Valve Lifter, Hyd.	1989			213-1685	12
	1978-1987			213-1685	12

59 235 CID (3.9L) Chevrolet 6 Cyl, 3.563in./90.5mm (1953-1962) 59

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1959-1962			229-1323	1
	1958		Except Taxi	229-1252	1
			Taxi	229-1323	1
Camshaft, Mech.	1954-1955		Manual Transmission	229-1251	1
	1953		Manual Transmission	229-1338	1

59 (cont.)	235 CID (3.9L) Chevrolet 6 Cyl, 3.563in./90.5mm (1953-1962)					59 (cont.)
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lifter, Mech.	1960-1961		Manual Transmission	213-1657	12	
60	235 CID (3.9L) Corvette Chevrolet 6 Cyl, 3.563in./90.5mm (1953-1955)					60
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1954-1955		Manual Transmission	229-1251	1	
	1953		Manual Transmission	229-1338	1	
61	244 CID (4.0L) L47 Oldsmobile V8 Cyl, 3.425in./87mm (1995-2002)					61
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1995-1999			213-1765	32	
Valve Lash Adj., Hyd.	2001-2002			213-1780	16	
62	250 CID (4.1L) Chevrolet 6 Cyl, 3.875in./98.4mm (1966-1979)					62
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1977-1979			229-2270	1	
	1975-1976		Except Integral Head	229-1394	1	
			Integral Head And Intake Manifold	229-2270	1	
	1966-1974			229-1394	1	
Valve Lifter, Hyd.	1966-1979			213-1638	12	
63	252 CID (4.1L) LC4 Buick V6 Cyl, 3.965in./100.7mm (1980-1984)					63
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1980-1984			229-1701	1	
Valve Lifter, Hyd.	1980-1984			213-1685	12	
64	252 CID (4.1L) Cadillac V8 Cyl, 3.465in./88mm (1982-1988)					64
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1982-1987		(Distributor Gear Must Be Replaced When Changing Camshaft)	229-1821	1	
Valve Lifter, Hyd.	1982-1987	8		213-1685	16	
Valve Lifter, Hyd. Roller	1987-1988	7		213-1738	16	
65	260 CID (4.3L) Oldsmobile Diesel V6 Cyl, 4.057in./103mm (1982-1985)					65
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd. Roller	1982-1985		(Needle Roller Bearing Design)	213-1725	12	
66	260 CID (4.3L) LF7 Oldsmobile Diesel V8 Cyl, 3.500in./88.9mm (1979)					66
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1979		Cast Iron	229-1723	1	

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67 260 CID (4.3L) LV8 Oldsmobile V8 Cyl, 3.500in./88.9mm (1975-1982) 67					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1975-1982			229-1704	1
Valve Lifter, Hyd.	1975-1982			213-1674	16
68 262 CID (4.3L) Chevrolet V6 Cyl, 4.000in./101.6mm (1985-1993) 68					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1985-1986			229-1829	1
Camshaft, Hyd. Roller	1987-1993			229-1902	1
Valve Lifter, Hyd.	1985-1986			213-1638	12
Valve Lifter, Hyd. Roller	1987-1993			213-1738	12
69 262 CID (4.3L) Chevrolet V8 Cyl, 3.670in./93.2mm (1975-1976) 69					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1975-1976			229-1666	1
Valve Lifter, Hyd.	1975-1976			213-1638	16
70 265 CID (4.3L) Chevrolet V8 Cyl, 3.750in./95.3mm (1955-1957) 70					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1955-1957			229-1273	1
	1956		Except High Lift Camshaft	229-1273	1
	1955-1956			229-1273	1
Valve Lifter, Hyd.	1955-1957			213-1638	16
71 265 CID (4.3L) L99 Chevrolet V8 Cyl, 3.750in./95.3mm (1994-1995) 71					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	1994-1995			213-1738	16
72 265 CID (4.3L) LS5 Pontiac V8 Cyl, 3.750in./95.3mm (1980-1981) 72					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1981			229-1696	1
	1980			229-1688	1
Valve Lifter, Hyd.	1980-1981			213-1719	16
73 267 CID (4.4L) L39 Chevrolet V8 Cyl, 3.500in./88.9mm (1979-1982) 73					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1980-1982			229-1666	1
	1979			229-1668	1
Valve Lifter, Hyd.	1979-1982			213-1638	16
74 273 CID (4.5L) Cadillac V8 Cyl, 3.622in./92mm (1988-1992) 74					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	1988-1992			213-1738	16

75 281 CID (4.6L) Cadillac V8 Cyl, 3.661in./93mm (1993-2004) 75					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1993-1999			213-1765	32
Valve Lash Adj., Hyd.	2000-2004			213-1780	32
76 283 CID (4.6L) Chevrolet V8 Cyl, 3.875in./98.4mm (1957-1967) 76					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1963-1967			229-1274	1
	1960-1962		2 Barrel Carburetor	229-1273	1
			Except 2 Barrel Carburetor	229-1274	1
	1957-1959			229-1274	1
Valve Lifter, Hyd.	1957-1967			213-1638	16
77 300 CID (4.9L) Buick V8 Cyl, 3.750in./95.3mm (1964-1967) 77					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1964-1967			213-1664	16
78 300 CID (4.9L) L26 Cadillac V8 Cyl, 3.622in./92mm (1991-1995) 78					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	1991-1995			213-1738	16
79 301 CID (4.9L) Pontiac V8 Cyl, 4.000in./101.6mm (1977-1981) 79					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1978-1981		4 Barrel Carburetor	229-1696	1
	1980		Except W72 Performance Option, 4 Barrel Carburetor	229-1696	1
	1978-1979		4 Barrel Carburetor	229-1696	1
	1977-1978		2 Barrel Carburetor	229-1688	1
Valve Lifter, Hyd.	1978-1981			213-1719	16
	1977			213-1685	16
80 302 CID (5.0L) Chevrolet V8 Cyl, 4.000in./101.6mm (1967-1969) 80					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1967-1969			213-1638	16
			(Special High R.P.M. Design)	213-1683	16
Valve Lifter, Mech.	1967-1969		(Oil Metering)	213-1692	16
81 305 CID (5.0L) Chevrolet V8 Cyl, 3.736in./95mm (1976-1993) 81					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1988		Except Roller Lifter, High Output Engine	229-1871	1
	1984-1988	G	Except Roller Lifter, High Output Engine, Use With Part Numbers 213-1638	229-1871	1
	1982-1988	H	Except High Output Engine, Except Roller Lifter	229-1666	1
	1986	F	Except Export	229-1666	1
		F	Export, Use With Part Numbers 213-1638	229-1871	1
	1985	F	Use With Part Numbers 213-1638	229-1871	1
	1983	S	High Output Engine	229-1274	1
		7	High Output Engine, Use With Part Numbers 213-1638	229-1871	1
	1982	7	High Output Engine	229-1274	1

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81 (cont.)		305 CID (5.0L) Chevrolet V8 Cyl, 3.736in./95mm (1976-1993)				81 (cont.)
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Camshaft, Hydraulic (cont.)	1980-1981			229-1666	1	
	1980		Camaro, Except California With Special High Performance Package	229-1666	1	
			Camaro, California With Special Performance Package	229-1668	1	
	1976-1979			229-1668	1	
Camshaft, Hyd. Roller	1988-1993	E		229-1917	1	
	1990-1992	F		229-1916	1	
	1987-1989	F	Manual Transmission	229-1916	1	
		F	Automatic Transmission	229-1917	1	
	1987-1988	H	Automatic Transmission	229-1917	1	
Valve Lifter, Hyd.	1976-1988			213-1638	16	
Valve Lifter, Hyd. Roller	1987-1993			213-1738	16	
82		307 CID (5.0L) Chevrolet V8 Cyl, 3.875in./98.4mm (1968-1973)				82
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1968-1973			229-1274	1	
Valve Lifter, Hyd.	1968-1973			213-1638	16	
83		307 CID (5.0L) Oldsmobile V8 Cyl, 3.800in./96.5mm (1980-1990)				83
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1983-1985		High Output Engine	229-1835	1	
	1980-1984		Except High Output Engine	229-1648	1	
Camshaft, Hyd. Roller	1986-1990	9		229-2169	1	
	1985-1990	Y		229-1798	1	
	1987	9		229-1798	1	
Valve Lifter, Hyd.	1980-1985			213-1674	16	
Valve Lifter, Hyd. Roller	1985-1990		(Needle Roller Bearing Design)	213-1725	16	
84		322 CID (5.3L) Buick V8 Cyl, 4.000in./101.6mm (1956)				84
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1956			213-1664	16	
85		326 CID (5.3L) Pontiac V8 Cyl, 3.719in./94.5mm (1964-1967)				85
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1965-1967		Engines With Oil Feed Holes In Camshaft Journals	229-1187	1	
	1964-1967		Except Engines With Oil Feed Holes In Camshaft Journals	229-1626	1	
Valve Lifter, Hyd.	1964-1967			213-1674	16	
86		327 CID (5.4L) Chevrolet V8 Cyl, 4.000in./101.6mm (1962-1969)				86
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1962-1969		Except Special High Performance Engine	229-1274	1	
	1962		2 Barrel Carburetor	229-1273	1	
Valve Lifter, Hyd.	1962-1969		Except High Performance	213-1638	16	

87 330 CID (5.4L) OHV Oldsmobile V8 Cyl, 3.938in./100mm (1964-1967) 87					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1964-1967			213-1674	16
88 340 CID (5.6L) Buick V8 Cyl, 3.750in./95.3mm (1966-1967) 88					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1966-1967			213-1664	16
89 346 CID (5.7L) LS1 Chevrolet V8 Cyl, 3.898in./99mm (1997-2003) 89					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1998-2000		Camaro, Corvette, Firebird	229-2337	1
Valve Lifter, Hyd. Roller	1997-2003			213-1738	16
90 346 CID (5.7L) LS6 Chevrolet V8 Cyl, 3.898in./99mm (2001-2003) 90					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	2001-2003			213-1738	16
91 348 CID (5.7L) Chevrolet V8 Cyl, 4.125in./104.8mm (1958-1961) 91					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1958-1961		Except High Lift Camshaft, Except High Performance, Except Special High Performance Engine	229-1171	1
Valve Lifter, Hyd.	1958-1961		Except High Lift Camshaft, Except High Performance	213-1638	16
Valve Lifter, Mech.	1958-1961		High Lift Camshaft, High Performance Engine	213-1692	16
92 350 CID (5.7L) Buick V8 Cyl, 3.800in./96.5mm (1968-1981) 92					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1976-1981			229-1795	1
	1969-1975			229-1650	1
	1974		Except California	229-1650	1
	1968-1973			229-1650	1
Valve Lifter, Hyd.	1970-1981			213-1685	16
	1969		Except Lubrication Hole In Pushrod Seat Of Lifter	213-1646	16
			Lubrication Hole In Pushrod Seat Of Lifter	213-1685	16
	1968			213-1646	16
93 350 CID (5.7L) Carbureted Chevrolet V8 Cyl, 4.000in./101.6mm (1967-1987) 93					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967-1986		Except High Performance, Except Special High Performance Engine	229-1274	1
	1972		Except California, Except High Performance, Except Special High Performance Engine	229-1274	1
Camshaft, Hyd. Roller	1987			229-1916	1
Valve Lifter, Hyd.	1967-1986		Except High Performance, Except Special High Performance Engine	213-1638	16
Valve Lifter, Hyd. Roller	1987			213-1738	16

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94 350 CID (5.7L) Fuel Injected Chevrolet V8 Cyl, 4.000in./101.6mm (1982-1997) 94

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1984-1986		Corvette, Use With Part Numbers 213-1638	229-1871	1
	1982		Corvette, Use With Part Numbers 213-1638	229-1871	1
Camshaft, Hyd. Roller	1995-1997	P	Camaro, Firebird	229-2363	1
	1996	5	Corvette	229-2363	1
	1995-1996	P	Corvette	229-2363	1
	1994-1996	P	Brougham, Caprice, Fleetwood	229-2364	1
	1993-1994	P	Camaro, Firebird	229-2365	1
	1992-1994	P	Corvette	229-2365	1
	1993	7		229-1917	1
	1991-1992	7	Except Leaded Fuel, Export	229-1916	1
		7	Except Export	229-1917	1
		7	Export, Leaded Fuel	229-1917	1
	1987-1992	8	Camaro, Firebird	229-1916	1
	1987-1991	8	Corvette	229-1916	1
Valve Lifter, Hyd.	1984-1986		Except High Performance, Except Special High Performance Engine	213-1638	16
	1982		Except High Performance, Except Special High Performance Engine	213-1638	16
Valve Lifter, Hyd. Roller	1987-1997			213-1738	16

95 350 CID (5.7L) Oldsmobile V8 Cyl, 4.057in./103mm (1968-1980) 95

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1968-1980		Except Outside Air Induction	229-1648	1
	1968-1970		325 Horsepower Engine, Use With Part Numbers 213-1674 .475" Valve Lift; Exhaust, .475" Valve Lift; Intake, 113 Degree Lobe Spread, 232 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-2104	1
Valve Lifter, Hyd.	1968-1980			213-1674	16

96 350 CID (5.7L) Oldsmobile Diesel V8 Cyl, 4.057in./103mm (1978-1985) 96

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1978-1980		Cast Iron	229-1723	1
Camshaft, Hyd. Roller	1981-1985		Steel	229-1724	1
Valve Lifter, Hyd. Roller	1981-1985		(Needle Roller Bearing Design)	213-1725	16

97 350 CID (5.7L) Pontiac V8 Cyl, 3.875in./98.4mm (1968-1977) 97

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1977			229-1688	1
	1976			229-1626	1
			Except Automatic Transmission, Except Federal Emission	229-1626	1
			Automatic Transmission, Federal Emission	229-1688	1
	1968-1975		Except High Output Engine	229-1626	1
	1974		Except California, Except High Output Engine	229-1626	1
Valve Lifter, Hyd.	1968-1977			213-1674	16

98 364 CID (6.0L) Buick V8 Cyl, 4.125in./104.8mm (1957-1961) 98

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1957-1961			229-1606	1
Valve Lifter, Hyd.	1957-1961			213-1664	16

99	365 CID (6.0L) Cadillac V8 Cyl, 4.000in./101.6mm (1957-1958)					99
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1957-1958		From Engine Serial Number 43297	213-1646	16	
100	368 CID (6.0L) Cadillac V8 Cyl, 3.800in./96.5mm (1980-1984)					100
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1980-1984			229-1660	1	
Valve Lifter, Hyd.	1980-1984			213-1685	16	
101	370 CID (6.1L) Pontiac V8 Cyl, 4.063in./103.2mm (1958)					101
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1958		Manual Transmission	229-1187	1	
Valve Lifter, Hyd.	1958			213-1674	16	
102	371 CID (6.1L) Oldsmobile V8 Cyl, 4.000in./101.6mm (1957-1960)					102
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1957-1960			213-1678	16	
103	389 CID (6.4L) Pontiac V8 Cyl, 4.063in./103.2mm (1959-1966)					103
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1965-1966		Except Engines With Oil Feed Holes In Camshaft Journals	229-1626	1	
	1962-1964		Automatic Transmission, 2 Barrel Carburetor	229-1187	1	
	1961		Catalina, Ventura, Except Police Car	229-1187	1	
	1959		Except T-420E Engine Option, Manual Transmission	229-1187	1	
			Manual Transmission	229-1187	1	
Valve Lifter, Hyd.	1959-1966			213-1674	16	
104	390 CID (6.4L) Cadillac V8 Cyl, 4.000in./101.6mm (1959-1963)					104
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1959-1963			213-1646	16	
105	394 CID (6.5L) Oldsmobile V8 Cyl, 4.125in./104.8mm (1959-1964)					105
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1959-1964			213-1678	16	
	1961		Except Heavy Duty	213-1678	16	
106	396 CID (6.6L) Chevrolet V8 Cyl, 4.094in./104mm (1965-1971)					106
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1967-1971		Except High Performance, Except Special High Performance Engine	229-1637	1	
	1967-1969		.461" Valve Lift; Intake, .480" Valve Lift; Exhaust, 121 Degree Lobe Spread, 214 Degree Intake Duration, 218 Degree Exhaust Duration, All Durations Measured At .050"	229-1953	1	

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106 396 CID (6.6L) Chevrolet V8 Cyl, 4.094in./104mm (1965-1971) 106 (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS (cont.)					
Camshaft, Mech.	1967-1970		Special High Performance Engine, (Valve Springs Must Be Checked For Coil Binding), Use With Part Numbers 213-1692 .520" Valve Lift; Exhaust, .520" Valve Lift; Intake, 120 Degree Lobe Spread, 242 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1614	1
Valve Lifter, Hyd.	1965-1971		Except Special High Performance Engine	213-1638	16
107 400 CID (6.6L) Buick V8 Cyl, 4.040in./102.6mm (1967-1969) 107					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967-1969		Except Stage 1, Except Stage II	229-1646	1
Valve Lifter, Hyd.	1967-1969			213-1646	16
108 400 CID (6.6L) Chevrolet V8 Cyl, 4.125in./104.8mm (1970-1976) 108					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1970-1976			229-1274	1
	1972-1974		E.G.R. Emission Control	229-1274	1
	1970-1971			229-1274	1
Valve Lifter, Hyd.	1974-1976			213-1638	16
	1970-1976		Except Police Car	213-1638	16
			Police Car	213-1683	16
	1970-1975			213-1638	16
109 400 CID (6.6L) Oldsmobile V8 Cyl, 3.875in./98.4mm (1968-1969) 109					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1968-1969		Automatic Transmission	229-1648	1
Valve Lifter, Hyd.	1968-1969			213-1674	16
110 400 CID (6.6L) Oldsmobile V8 Cyl, 4.000in./101.6mm (1965-1967) 110					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1966-1967			213-1678	16
	1965			213-1674	16
111 400 CID (6.6L) Pontiac V8 Cyl, 4.120in./104.6mm (1967-1979) 111					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1977-1978		Except WC, X7 Engine Codes	229-1688	1
	1967-1976		Except High Output Engine	229-1626	1
Valve Lifter, Hyd.	1967-1979			213-1674	16
112 401 CID (6.6L) Buick V8 Cyl, 4.188in./106.4mm (1959-1966) 112					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1959-1966			229-1606	1
Valve Lifter, Hyd.	1959-1966			213-1664	16

113 402 CID (6.6L) Chevrolet V8 Cyl, 4.125in./104.8mm (1970-1972) 113					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1972		Except High Performance, Except Special High Performance Engine	229-2267	1
Valve Lifter, Hyd.	1970-1972			213-1638	16
114 403 CID (6.6L) L80 Oldsmobile V8 Cyl, 4.351in./110.5mm (1977-1979) 114					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1977-1979			229-1648	1
Valve Lifter, Hyd.	1977-1979			213-1674	16
115 409 CID (6.7L) Chevrolet V8 Cyl, 4.313in./109.6mm (1961-1965) 115					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1963-1965		Except High Performance	229-1171	1
Valve Lifter, Hyd.	1961-1965		Except High Performance	213-1638	16
116 421 CID (6.9L) Pontiac V8 Cyl, 4.094in./104mm (1963-1966) 116					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1963-1966			213-1674	16
117 425 CID (7.0L) Buick V8 Cyl, 4.313in./109.6mm (1963-1966) 117					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1963-1966			229-1606	1
Valve Lifter, Hyd.	1963-1966			213-1664	16
118 425 CID (7.0L) Cadillac V8 Cyl, 4.082in./103.7mm (1977-1979) 118					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1977-1979			229-1660	1
Valve Lifter, Hyd.	1977-1979			213-1685	16
119 425 CID (7.0L) Oldsmobile V8 Cyl, 4.125in./104.8mm (1965-1967) 119					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1967		Delmont Eighty-Eight '425'	213-1674	16
	1966-1967		Toronado	213-1678	16
	1965-1967		Delta 88, Ninety Eight	213-1674	16
	1965-1966		Dynamic 88, Jetstar 1, Starfire	213-1674	16
120 427 CID (7.0L) Chevrolet V8 Cyl, 4.250in./108mm (1966-1969) 120					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967-1969		Except High Performance	229-1637	1
			385 To 390 Horsepower .461" Valve Lift; Intake, .480" Valve Lift; Exhaust, 121 Degree Lobe Spread, 214 Degree Intake Duration, 218 Degree Exhaust Duration, All Durations Measured At .050"	229-1953	1
Valve Lifter, Hyd.	1967-1969		Except High Performance	213-1638	16
	1966-1969		(Performer, Special High R.P.M. Design)	213-1683	16
Valve Lifter, Mech.	1966-1969			213-1692	16

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121 428 CID (7.0L) Pontiac V8 Cyl, 4.120in./104.6mm (1967-1969) 121

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967-1969		Except High Output Engine, Letters N Or P Stamped 1/8" High On Front Of Cam	229-1626	1
Valve Lifter, Hyd.	1967-1969			213-1674	16

122 429 CID (7.0L) Cadillac V8 Cyl, 4.129in./104.9mm (1964-1967) 122

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1967			213-1685	16
	1964-1966			213-1646	16

123 430 CID (7.0L) Buick V8 Cyl, 4.188in./106.4mm (1967-1969) 123

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967-1969		Except Stage I And II	229-1646	1
Valve Lifter, Hyd.	1967-1969		Except Lubrication Hole In Pushrod Seat Of Lifter	213-1646	16
			Lubrication Hole In Pushrod Seat Of Lifter	213-1685	16

124 454 CID (7.4L) Chevrolet V8 Cyl, 4.250in./108mm (1970-1976) 124

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1976			229-2267	1
	1973-1975			229-1661	1
	1970		Except High Performance, Except Special High Performance Engine	229-2267	1
Valve Lifter, Hyd.	1973-1976			213-1638	16
	1970-1972		Except Special High Performance Engine	213-1638	16
Valve Lifter, Mech.	1970-1971		Special High Performance Engine	213-1692	16

125 455 CID (7.5L) Buick V8 Cyl, 4.313in./109.6mm (1970-1976) 125

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1970-1976		Except Stage 1, Except Stage II	229-1646	1
Valve Lifter, Hyd.	1970-1976			213-1685	16

126 455 CID (7.5L) Oldsmobile V8 Cyl, 4.125in./104.8mm (1968-1976) 126

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1968-1976		Except High Performance	229-1648	1
Valve Lifter, Hyd.	1968-1976			213-1674	16

127 455 CID (7.5L) Pontiac V8 Cyl, 4.151in./105.4mm (1970-1976) 127

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1970-1976		Except High Output Engine, Except Super Duty	229-1626	1
Valve Lifter, Hyd.	1970-1976			213-1674	16

128 472 CID (7.7L) Cadillac V8 Cyl, 4.300in./109.2mm (1968-1974) 128

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1968-1974			229-1660	1
Valve Lifter, Hyd.	1968-1974			213-1685	16

129 500 CID (8.2L) Cadillac V8 Cyl, 4.300in./109.2mm (1970-1976) 129					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1970-1976			229-1660	1
Valve Lifter, Hyd.	1970-1976			213-1685	16

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Engine Index

Engine	Year	Block	Engine	Year	Block
1817CC (1.8L) SOHC Isuzu	1976-1982	1	307 CID (5.0L) Chevrolet	1968-1973	36
119 CID (1.9L) LR1 SOHC Isuzu	1982-1985	2	317 CID (5.2L) General Motors	1956	37
121 CID (2.0L) LQ2 Chevrolet	1983-1984	3	325 CID (5.3L) Vortec 5300 Chevrolet	1999-2003	38
134 CID (2.2L) OHV Chevrolet	1994-2003	4	325 CID (5.3L) Vortec 5300 L59 Chevrolet	2002-2003	39
138 CID (2.3L) DOHC Oldsmobile	1993-1996	5	Flex		
145 CID (2.4L) Chevrolet Corvair	1961-1963	6	327 CID (5.4L) Chevrolet	1962-1969	40
151 CID (2.5L) Fuel Injected Pontiac	1985-1993	7	327 CID (5.4L) Chevrolet LPG	1962-1969	41
153 CID (2.5L) Chevrolet	1963-1965	8	336 CID (5.5L) General Motors	1958-1959	42
164 CID (2.7L) Chevrolet	1964	9	347 CID (5.7L) General Motors	1957	43
173 CID (2.8L) Chevrolet	1982-1993	10	348 CID (5.7L) Chevrolet	1960-1961	44
189 CID (3.1L) Chevrolet	1990-1995	11	350 CID (5.7L) Chevrolet LPG	1969-1985	45
194 CID (3.2L) Chevrolet	1964-1966	12	350 CID (5.7L) Carbureted Chevrolet	1969-1989	46
200 CID (3.3L) L26 Chevrolet	1978-1979	13	350 CID (5.7L) Fuel Injected Chevrolet	1987-2002	47
207 CID (3.4L) LA1 Chevrolet	1996-2003	14	350 CID (5.7L) KL5 Chevrolet CNG	1997-2000	48
216 CID (3.5L) Chevrolet	1937-1953	15	350 CID (5.7L) Oldsmobile Diesel	1978-1984	49
229 CID (3.8L) LC3 Chevrolet	1980-1984	16	351 CID (5.8L) General Motors	1960-1972	50
230 CID (3.8L) Chevrolet	1963-1969	17	351 CID (5.8L) D General Motors Diesel	1964-1967	51
231 CID (3.8L) Carbureted Buick	1978-1984	18	365 CID (6.0L) Vortec 6000 Chevrolet	1999-2002	52
231 CID (3.8L) Fuel Injected Buick	1992-1995	19	366 CID (6.0L) Chevrolet	1966-1998	53
235 CID (3.9L) Chevrolet	1950-1962	20	370 CID (6.1L) General Motors	1957-1959	54
250 CID (4.1L) Chevrolet	1966-1984	21	379 CID (6.2L) General Motors	1973-1974	55
260 CID (4.3L) Oldsmobile Diesel	1982-1983	22	379 CID (6.2L) Chevrolet Diesel	1982-1993	56
262 CID (4.3L) Chevrolet	1985-1996	23	395 CID/6468CC (6.5L) Chevrolet Diesel	1992-2002	57
262 CID (4.3L) LB4 (ZR9/Z79) Turbo Chevrolet	1991-1993	24	396 CID (6.6L) Chevrolet	1966-1971	58
262 CID (4.3L) Vortec 4300 Chevrolet	1992-2003	25	400 CID (6.6L) Chevrolet	1974-1980	59
265 CID (4.3L) Chevrolet	1955-1957	26	401 CID (6.6L) General Motors	1960-1972	60
267 CID (4.4L) L39 Chevrolet	1979-1982	27	402 CID (6.6L) Chevrolet	1970-1972	61
281 CID (4.6L) Cadillac	2004	28	427 CID (7.0L) Chevrolet	1968-1998	62
283 CID (4.6L) Chevrolet	1957-1967	29	427 CID (7.0L) Chevrolet LPG	1968-1969	63
287 CID (4.7L) Pontiac	1955	30	432 CID (7.1L) General Motors	1973-1974	64
292 CID (4.8L) Chevrolet	1963-1989	31	454 CID (7.4L) Chevrolet	1970-2000	65
294 CID (4.8L) Vortec 4800 LR4 Chevrolet	1999-2003	32	454 CID (7.4L) Chevrolet LPG	1970-1976	66
305 CID (5.0L) General Motors	1960-1974	33	478 CID (7.8L) General Motors	1964-1965	67
305 CID (5.0L) Chevrolet	1976-2002	34	496 CID/8135CC (8.1L) Vortec 8100 L18 OHV Chevrolet	2001-2003	68
305 CID (5.0L) Chevrolet LPG	1976-1994	35			

1 1817CC (1.8L) SOHC Isuzu 4 Cyl, 3.307in./84mm (1976-1982) 1					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1976-1982			229-1715	1
2 119 CID (1.9L) LR1 SOHC Isuzu 4 Cyl, 3.425in./87mm (1982-1985) 2					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1982-1985			229-1715	1
3 121 CID (2.0L) LQ2 Chevrolet 4 Cyl, 3.504in./89mm (1983-1984) 3					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1983-1984			229-1797	1
Valve Lifter, Hyd.	1983-1984			213-1685	8

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4	134 CID (2.2L) OHV Chevrolet 4 Cyl, 3.504in./89mm (1994-2003)					4
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1994-1997			229-2325	1	
Valve Lifter, Hyd. Roller	1994-2003			213-1756	8	
5	138 CID (2.3L) DOHC Oldsmobile 4 Cyl, 3.622in./92mm (1993-1996)					5
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1993-1996			213-1747	16	
6	145 CID (2.4L) Chevrolet Corvair 6 Cyl, 3.438in./87.33mm (1961-1963)					6
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1961-1963			213-1638	12	
7	151 CID (2.5L) Fuel Injected Pontiac 4 Cyl, 4.000in./101.6mm (1985-1993)					7
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1991-1993	A		229-2260	1	
	1985-1991	E		229-1875	1	
Valve Lifter, Hyd. Roller	1985-1993			213-1738	8	
8	153 CID (2.5L) Chevrolet 4 Cyl, 3.875in./98.4mm (1963-1965)					8
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1963-1965			229-1708	1	
Valve Lifter, Hyd.	1963-1965			213-1638	8	
9	164 CID (2.7L) Chevrolet 6 Cyl, 3.500in./88.9mm (1964)					9
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1964			213-1638	12	
10	173 CID (2.8L) Chevrolet V6 Cyl, 3.504in./89mm (1982-1993)					10
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1986-1993			229-2280	1	
	1982-1985			229-1720	1	
Valve Lifter, Hyd.	1982-1993			213-1724	12	
11	189 CID (3.1L) Chevrolet V6 Cyl, 3.504in./89mm (1990-1995)					11
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1990-1995			229-1720	1	
Valve Lifter, Hyd.	1990-1995			213-1724	12	
12	194 CID (3.2L) Chevrolet 6 Cyl, 3.563in./90.5mm (1964-1966)					12
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1964-1966			229-1394	1	
Valve Lifter, Hyd.	1964-1966			213-1638	12	

13 200 CID (3.3L) L26 Chevrolet V6 Cyl, 3.500in./88.9mm (1978-1979) 13					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1978-1979			229-1703	1
Valve Lifter, Hyd.	1978-1979			213-1638	12
14 207 CID (3.4L) LA1 Chevrolet V6 Cyl, 3.622in./92mm (1996-2003) 14					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1996-1999			229-2326	1
Valve Lifter, Hyd. Roller	1996-2003			213-1756	12
15 216 CID (3.5L) Chevrolet 6 Cyl, 3.500in./88.9mm (1937-1953) 15					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1937-1953			229-1338	1
16 229 CID (3.8L) LC3 Chevrolet V6 Cyl, 3.736in./95mm (1980-1984) 16					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1980-1984			229-1703	1
Valve Lifter, Hyd.	1980-1984			213-1638	12
17 230 CID (3.8L) Chevrolet 6 Cyl, 3.875in./98.4mm (1963-1969) 17					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1963-1969			229-1394	1
Valve Lifter, Hyd.	1963-1969			213-1638	12
18 231 CID (3.8L) Carbureted Buick V6 Cyl, 3.800in./96.5mm (1978-1984) 18					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1979-1984		Integral Distributor Drive Gear	229-2268	1
	1978			229-1702	1
Valve Lifter, Hyd.	1978-1984			213-1685	12
19 231 CID (3.8L) Fuel Injected Buick V6 Cyl, 3.800in./96.5mm (1992-1995) 19					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1992-1995			229-2254	1
Valve Lifter, Hyd. Roller	1992-1995			213-1738	12
20 235 CID (3.9L) Chevrolet 6 Cyl, 3.563in./90.5mm (1950-1962) 20					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1959-1962			229-1323	1
	1954-1955		Powerglide Transmission	229-1252	1
Camshaft, Mech.	1958		2nd Design, Double Duty, Forward Control	229-1251	1
			Except 2nd Design, Except Double Duty, Except Forward Control	229-1293	1
	1956-1957			229-1293	1
	1954-1955		Except Powerglide	229-1251	1
	1950-1953		Except Powerglide	229-1338	1

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20 (cont.)	235 CID (3.9L) Chevrolet 6 Cyl, 3.563in./90.5mm (1950-1962)					20 (cont.)
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS (cont.)						
Valve Lifter, Mech.	1956-1962			213-1657	12	
21	250 CID (4.1L) Chevrolet 6 Cyl, 3.875in./98.4mm (1966-1984)					21
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1983-1984			229-1394	1	
	1981-1982		Except California Emission	229-1394	1	
			California Emission	229-2270	1	
	1979-1980			229-2270	1	
	1978		Heavy Duty	229-1394	1	
			Light Duty	229-2270	1	
	1966-1977			229-1394	1	
Valve Lifter, Hyd.	1966-1984			213-1638	12	
22	260 CID (4.3L) Oldsmobile Diesel V6 Cyl, 4.057in./103mm (1982-1983)					22
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd. Roller	1982-1983		(Needle Roller Bearing Design)	213-1725	12	
23	262 CID (4.3L) Chevrolet V6 Cyl, 4.000in./101.6mm (1985-1996)					23
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1985-1986			229-1829	1	
Camshaft, Hyd. Roller	1994-1996	Z		229-2287	1	
	1987-1992	Z		229-1902	1	
	1990-1991	B		229-1881	1	
Valve Lifter, Hyd.	1985-1986			213-1638	12	
Valve Lifter, Hyd. Roller	1987-1995			213-1738	12	
24	262 CID (4.3L) LB4 (ZR9/Z79) Turbo Chevrolet V6 Cyl, 4.000in./101.6mm (1991-1993)					24
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1991-1993	Z		229-1902	1	
Valve Lifter, Hyd. Roller	1991-1993			213-1738	12	
25	262 CID (4.3L) Vortec 4300 Chevrolet V6 Cyl, 4.000in./101.6mm (1992-2003)					25
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1996-1999	W		229-2328	1	
	1995			229-2411	1	
	1992-1994		Balance Shaft Engine	229-2286	1	
Valve Lifter, Hyd. Roller	1992-2003			213-1738	12	
26	265 CID (4.3L) Chevrolet V8 Cyl, 3.750in./95.3mm (1955-1957)					26
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1955-1957			229-1273	1	
Valve Lifter, Hyd.	1955-1957			213-1638	16	

27 267 CID (4.4L) L39 Chevrolet V8 Cyl, 3.500in./88.9mm (1979-1982) 27					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1980-1982			229-1666	1
	1979		189 Degree Intake Duration, 202 Degree Exhaust Duration, All Durations Measured At .050"	229-1668	1
Valve Lifter, Hyd.	1982			213-1685	16
	1979-1981			213-1638	16
28 281 CID (4.6L) Cadillac V8 Cyl, 3.661in./93mm (2004) 28					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lash Adj., Hyd.	2004			213-1780	32
29 283 CID (4.6L) Chevrolet V8 Cyl, 3.875in./98.4mm (1957-1967) 29					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1963-1967		194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"	229-1274	1
	1957-1962			229-1273	1
Valve Lifter, Hyd.	1957-1967			213-1638	16
30 287 CID (4.7L) Pontiac V8 Cyl, 3.750in./95.3mm (1955) 30					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1955			229-1187	1
31 292 CID (4.8L) Chevrolet 6 Cyl, 3.875in./98.4mm (1963-1989) 31					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1963-1989			229-1551	1
Valve Lifter, Hyd.	1981-1989			213-1685	12
	1963-1980			213-1638	12
32 294 CID (4.8L) Vortec 4800 LR4 Chevrolet V8 Cyl, 3.780in./96mm (1999-2003) 32					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	1999-2003			213-1738	16
33 305 CID (5.0L) General Motors V6 Cyl, 4.250in./108mm (1960-1974) 33					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1965-1974	C		229-1480	1
	1965-1969	E		229-1480	1
	1963-1964	E	From Engine Serial Number 264658	229-1480	1
	1960-1964	C	From Engine Serial Number 264725	229-1480	1
	1960-1962	B		229-1480	1
	1960-1961	A		229-1480	1
Valve Lifter, Mech.	1960-1974			213-1657	12
34 305 CID (5.0L) Chevrolet V8 Cyl, 3.736in./95mm (1976-2002) 34					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1980-1995			229-1666	1

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34 (cont.)	305 CID (5.0L) Chevrolet V8 Cyl, 3.736in./95mm (1976-2002)				34 (cont.)
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS (cont.)

Camshaft, Hydraulic (cont.)	1977-1980		Blazer, C10, C10 Suburban, C1500 Suburban C1500 C20, C20 Suburban, G10, G1500 G20, Jimmy, K10, K10 Suburban, K1500 Suburban K1500	229-1668	1
	1976-1980		El Camino	229-1668	1
	1978-1979		Caballero	229-1668	1
	1977-1979		C2500 Suburban C2500	229-1668	1
	1978		G2500	229-1668	1
	1977-1978		K20, K20 Suburban, K2500 Suburban K2500	229-1668	1
	1976-1977		Sprint	229-1668	1
Camshaft, Hyd. Roller	1996-2002			229-2354	1
Valve Lifter, Hyd.	1976-1995			213-1638	16
Valve Lifter, Hyd. Roller	1996-2002			213-1738	16

35	305 CID (5.0L) Chevrolet LPG V8 Cyl, 3.736in./95mm (1976-1994)				35
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1981-1994			229-1666	1
	1976-1980			229-1668	1
Valve Lifter, Hyd.	1976-1994			213-1638	16

36	307 CID (5.0L) Chevrolet V8 Cyl, 3.875in./98.4mm (1968-1973)				36
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1968-1973		194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"	229-1274	1
Valve Lifter, Hyd.	1968-1973			213-1638	16

37	317 CID (5.2L) General Motors V8 Cyl, 3.937in./100mm (1956)				37
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1956			229-1187	1
Valve Lifter, Hyd.	1956			213-1674	16

38	325 CID (5.3L) Vortec 5300 Chevrolet V8 Cyl, 3.780in./96mm (1999-2003)				38
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd. Roller	1999-2003			213-1738	16
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39	325 CID (5.3L) Vortec 5300 L59 Chevrolet Flex V8 Cyl, 3.780in./96mm (2002-2003)				39
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd. Roller	2002-2003			213-1738	16
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40	327 CID (5.4L) Chevrolet V8 Cyl, 4.000in./101.6mm (1962-1969)					40
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1962-1969		194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"	229-1274	1	
Valve Lifter, Hyd.	1962-1969			213-1638	16	
41	327 CID (5.4L) Chevrolet LPG V8 Cyl, 4.000in./101.6mm (1962-1969)					41
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1962-1969		194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"	229-1274	1	
Valve Lifter, Hyd.	1962-1969			213-1638	16	
42	336 CID (5.5L) General Motors V8 Cyl, 3.875in./98.4mm (1958-1959)					42
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1958-1959			229-1187	1	
Valve Lifter, Hyd.	1958-1959			213-1674	16	
43	347 CID (5.7L) General Motors V8 Cyl, 3.940in./100.1mm (1957)					43
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1957			229-1187	1	
Valve Lifter, Hyd.	1957			213-1674	16	
44	348 CID (5.7L) Chevrolet V8 Cyl, 4.125in./104.8mm (1960-1961)					44
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1960-1961			229-1171	1	
Valve Lifter, Hyd.	1960-1961			213-1638	16	
45	350 CID (5.7L) Chevrolet LPG V8 Cyl, 4.000in./101.6mm (1969-1985)					45
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1969-1985			229-1274	1	
Valve Lifter, Hyd.	1969-1985			213-1638	16	
46	350 CID (5.7L) Carbureted Chevrolet V8 Cyl, 4.000in./101.6mm (1969-1989)					46
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1973-1989		194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"	229-1274	1	
	1974		Except California Emission, 4 Barrel Carburetor 194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"	229-1274	1	
	1969-1973		194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"	229-1274	1	
Valve Lifter, Hyd.	1969-1989			213-1638	16	
47	350 CID (5.7L) Fuel Injected Chevrolet V8 Cyl, 4.000in./101.6mm (1987-2002)					47
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1996	K	194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"	229-1274	1	

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47 350 CID (5.7L) Fuel Injected Chevrolet V8 Cyl, 4.000in./101.6mm (1987-2002) 47 (cont.) (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS (cont.)					
Camshaft, Hydraulic (cont.)	1987-1995		194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"	229-1274	1
Camshaft, Hyd. Roller	1997-2002			229-2354	1
	1996	R		229-2354	1
Valve Lifter, Hyd.	1996	K		213-1638	16
	1987-1995			213-1638	16
Valve Lifter, Hyd. Roller	1997-2002			213-1738	16
	1996	R		213-1738	16
48 350 CID (5.7L) KL5 Chevrolet CNG V8 Cyl, 4.000in./101.6mm (1997-2000) 48					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	1997-2000	R		213-1738	16
49 350 CID (5.7L) Oldsmobile Diesel V8 Cyl, 4.057in./103mm (1978-1984) 49					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1978-1980		Cast Iron	229-1723	1
Camshaft, Hyd. Roller	1981-1984		Steel	229-1724	1
Valve Lifter, Hyd. Roller	1981-1984			213-1725	16
50 351 CID (5.8L) General Motors V6 Cyl, 4.563in./115.9mm (1960-1972) 50					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1960-1972			229-1480	1
Valve Lifter, Mech.	1960-1972			213-1657	12
51 351 CID (5.8L) D General Motors Diesel V6 Cyl, 4.563in./115.9mm (1964-1967) 51					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1964-1967			229-1480	1
Valve Lifter, Mech.	1964-1967			213-1657	12
52 365 CID (6.0L) Vortec 6000 Chevrolet V8 Cyl, 4.000in./101.6mm (1999-2002) 52					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	1999-2002			213-1738	16
53 366 CID (6.0L) Chevrolet V8 Cyl, 3.938in./100mm (1966-1998) 53					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1991-1998		193 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1687	1
	1985-1990		Federal Emission 193 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1687	1
			Except Federal Emission 193 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-2267	1

53 366 CID (6.0L) Chevrolet V8 Cyl, 3.938in./100mm (1966-1998) 53 (cont.)					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS (cont.)					
Camshaft, Hydraulic (cont.)	1973-1984		193 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1687	1
	1968-1972		Chain Driven 196 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1637	1
Valve Lifter, Hyd.	1991-1998			213-1685	16
	1966-1990			213-1638	16
54 370 CID (6.1L) General Motors V8 Cyl, 4.000in./101.6mm (1957-1959) 54					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1957-1959			213-1678	16
55 379 CID (6.2L) General Motors V6 Cyl, 4.563in./115.9mm (1973-1974) 55					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1973-1974			229-1480	1
Valve Lifter, Mech.	1973-1974			213-1657	12
56 379 CID (6.2L) Chevrolet Diesel V8 Cyl, 3.976in./101mm (1982-1993) 56					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1982-1993			229-1849	1
Valve Lifter, Hyd. Roller	1982-1993		(Needle Roller Bearing Design)	213-1725	16
57 395 CID/6468CC (6.5L) Chevrolet Diesel V8 Cyl, 4.055in./103mm (1992-2002) 57					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1992-2002			229-1849	1
Valve Lifter, Hyd. Roller	1992-2002			213-1725	16
58 396 CID (6.6L) Chevrolet V8 Cyl, 4.094in./104mm (1966-1971) 58					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1967-1971		Except Gear Drive	229-1637	1
Valve Lifter, Hyd.	1966-1971			213-1638	16
59 400 CID (6.6L) Chevrolet V8 Cyl, 4.125in./104.8mm (1974-1980) 59					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1974-1980			229-1274	1
Valve Lifter, Hyd.	1974-1980			213-1638	16
60 401 CID (6.6L) General Motors V6 Cyl, 4.875in./123.8mm (1960-1972) 60					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1960-1972			229-1480	1
Valve Lifter, Mech.	1960-1972			213-1657	12

General Motors Truck

61	402 CID (6.6L) Chevrolet V8 Cyl, 4.125in./104.8mm (1970-1972)					61
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1970-1972			229-2267	1
Valve Lifter, Hyd.	1970-1972			213-1638	16

62	427 CID (7.0L) Chevrolet V8 Cyl, 4.250in./108mm (1968-1998)					62
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1987-1998			229-1637	1
	1973-1986			229-1687	1
	1968-1972		Chain Driven	229-1637	1
Valve Lifter, Hyd.	1991-1998			213-1685	16
	1968-1990			213-1638	16

63	427 CID (7.0L) Chevrolet LPG V8 Cyl, 4.250in./108mm (1968-1969)					63
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1968-1969		Chain Driven	229-1637	1
Valve Lifter, Hyd.	1968-1969			213-1638	16

64	432 CID (7.1L) General Motors V6 Cyl, 4.875in./123.8mm (1973-1974)					64
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1973-1974			229-1480	1
Valve Lifter, Mech.	1973-1974			213-1657	12

65	454 CID (7.4L) Chevrolet V8 Cyl, 4.250in./108mm (1970-2000)					65
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1996-1997	N		229-2259	1
	1994-1995			229-2259	1
	1976-1993			229-2267	1
	1979-1980			229-1661	1
	1973-1975			229-1661	1
	1970-1972			229-2267	1
Camshaft, Hyd. Roller	1996-2000	J		229-2327	1
Valve Lifter, Hyd.	1996-1997	N		213-1685	16
	1991-1995			213-1685	16
	1970-1990			213-1638	16
Valve Lifter, Hyd. Roller	1998-2000			213-1777	16
	1996-1997	J		213-1777	16

66	454 CID (7.4L) Chevrolet LPG V8 Cyl, 4.250in./108mm (1970-1976)					66
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1976			229-2267	1
	1973-1975			229-1661	1
	1970-1972			229-2267	1
Valve Lifter, Hyd.	1970-1976			213-1638	16

67	478 CID (7.8L) General Motors V6 Cyl, 5.125in./130.2mm (1964-1965)					67
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1964-1965			229-1480	1
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67 (cont.)	478 CID (7.8L) General Motors V6 Cyl, 5.125in./130.2mm (1964-1965)					67 (cont.)
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS (cont.)

Valve Lifter, Mech.	1964-1965			213-1657	12
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68	496 CID/8135CC (8.1L) Vortec 8100 L18 OHV Chevrolet V8 Cyl, 4.252in./108mm (2001-2003)					68
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd. Roller	2001-2003			213-1777	16
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Honda*Engine Index*

Engine	Year	Block	Engine	Year	Block
1169CC (1.2L) EB1 SOHC	1973	1	1590CC (1.6L) D16Y8 V-TEC SOHC	1996-2000	17
1237CC (1.2L) EB2 SOHC	1974-1979	2	1590CC (1.6L) D16Z6 V-TEC SOHC	1992-1995	18
1237CC (1.2L) EB3 SOHC	1977-1979	3	1595CC (1.6L) B16A2 V-TEC DOHC	1996-2000	19
1335CC (1.3L) EJ1 SOHC	1980-1983	4	1595CC (1.6L) B16A3 V-TEC DOHC	1994-1995	20
1335CC (1.3L) EN1	1980	5	1599CC (1.6L) EF1 SOHC	1976-1978	21
1342CC (1.3L) D13A2 SOHC	1987	6	1751CC (1.8L) EK1 SOHC	1979-1983	22
1342CC (1.3L) EV1 SOHC	1984-1986	7	1829CC (1.8L) A18A1/A18A2	1986-1987	23
1342CC (1.3L) EV2	1984-1986	8	1829CC (1.8L) ES1 SOHC	1983	24
1488CC (1.5L) D15A2 SOHC	1987	9	1829CC (1.8L) ES2 Carbureted SOHC	1984-1985	25
1488CC (1.5L) D15A3	1987	10	1829CC (1.8L) ES3 Fuel Inj. SOHC	1985	26
1488CC (1.5L) ED1/ED2	1976-1977	11	1829CC (1.8L) ET	1983-1984	27
1488CC (1.5L) ED3/ED4	1976-1979	12	1829CC (1.8L) ET1	1983-1985	28
1488CC (1.5L) EM1 SOHC	1980-1983	13	1829CC (1.8L) ET2 SOHC	1984-1986	29
1488CC (1.5L) EW1 SOHC	1984-1986	14	1955CC (2.0L) A20A1/A20A3/BS1/BS2/BT1	1987-1989	30
1488CC (1.5L) EW3 SOHC	1985	15	2997CC (3.0L) J30A1 V-TEC SOHC	1998-2002	31
1488CC (1.5L) EW4	1986	16	2997CC (3.0L) J30A4 V-TEC SOHC	2003	32

1	1169CC (1.2L) EB1 SOHC 4 Cyl, 2.756in./70mm (1973)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1973			229-1714	1
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2	1237CC (1.2L) EB2 SOHC 4 Cyl, 2.835in./72mm (1974-1979)					2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1974-1979			229-1714	1
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3	1237CC (1.2L) EB3 SOHC 4 Cyl, 2.835in./72mm (1977-1979)					3
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1977-1979			229-1714	1
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4	1335CC (1.3L) EJ1 SOHC 4 Cyl, 2.835in./72mm (1980-1983)					4
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1981-1983		Except Canada Two Valve Engine	229-1758	1
	1980		Except Canada Two Valve Engine	229-1756	1

5	1335CC (1.3L) EN1 4 Cyl, 2.835in./72mm (1980)					5
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1980		Except Canada Two Valve Engine	229-1756	1
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Honda

6	1342CC (1.3L) D13A2 SOHC 4 Cyl, 2.913in./74mm (1987)					6
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1987		4 Speed Manual Transmission	229-1944	1	
7	1342CC (1.3L) EV1 SOHC 4 Cyl, 2.913in./74mm (1984-1986)					7
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1984-1986		4 Speed Manual Transmission	229-1944	1	
8	1342CC (1.3L) EV2 4 Cyl, 2.913in./74mm (1984-1986)					8
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1984-1986		4 Speed Manual Transmission	229-1944	1	
9	1488CC (1.5L) D15A2 SOHC 4 Cyl, 2.913in./74mm (1987)					9
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1987		Automatic Transmission, Except High Altitude	229-1943	1	
			5 Speed Manual Transmission	229-1944	1	
10	1488CC (1.5L) D15A3 4 Cyl, 2.913in./74mm (1987)					10
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1987		Automatic Transmission, Except High Altitude	229-1943	1	
			5 Speed Manual Transmission, Except SI	229-1944	1	
			5 Speed Manual Transmission, Except High Altitude, SI	229-2281	1	
11	1488CC (1.5L) ED1/ED2 4 Cyl, 2.913in./74mm (1976-1977)					11
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1976-1977		Manual Transmission	229-1725	1	
12	1488CC (1.5L) ED3/ED4 4 Cyl, 2.913in./74mm (1976-1979)					12
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1976-1979		Manual Transmission	229-1725	1	
13	1488CC (1.5L) EM1 SOHC 4 Cyl, 2.913in./74mm (1980-1983)					13
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1980-1983			229-1757	1	
14	1488CC (1.5L) EW1 SOHC 4 Cyl, 2.913in./74mm (1984-1986)					14
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1984-1986		Automatic Transmission, Except High Altitude	229-1943	1	
			5 Speed Manual Transmission	229-1944	1	
15	1488CC (1.5L) EW3 SOHC 4 Cyl, 2.913in./74mm (1985)					15
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1985			229-2281	1	

16	1488CC (1.5L) EW4 4 Cyl, 2.913in./74mm (1986)					16
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1986		Automatic Transmission, Except High Altitude	229-1943	1	
			5 Speed Manual Transmission, Except SI	229-1944	1	
			5 Speed Manual Transmission, Except High Altitude, SI	229-2281	1	
17	1590CC (1.6L) D16Y8 V-TEC SOHC 4 Cyl, 2.953in./75mm (1996-2000)					17
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1996-2000			229-2386	1	
18	1590CC (1.6L) D16Z6 V-TEC SOHC 4 Cyl, 2.953in./75mm (1992-1995)					18
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1992-1995			229-2385	1	
19	1595CC (1.6L) B16A2 V-TEC DOHC 4 Cyl, 3.189in./81mm (1996-2000)					19
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1999-2000		Intake	229-2387	1	
			Exhaust	229-2388	1	
	1996-1997		Intake	229-2387	1	
			Exhaust	229-2388	1	
20	1595CC (1.6L) B16A3 V-TEC DOHC 4 Cyl, 3.189in./81mm (1994-1995)					20
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1994-1995		Intake	229-2387	1	
			Exhaust	229-2388	1	
21	1599CC (1.6L) EF1 SOHC 4 Cyl, 2.913in./74mm (1976-1978)					21
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1976-1978			229-1725	1	
22	1751CC (1.8L) EK1 SOHC 4 Cyl, 3.031in./77mm (1979-1983)					22
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1982-1983		Except Canada Two Valve Engine	229-1895	1	
	1981			229-1726	1	
	1980		Except California With Automatic Transaxle	229-1725	1	
			California Automatic Transmission	229-1726	1	
	1979			229-1725	1	
23	1829CC (1.8L) A18A1/A18A2 4 Cyl, 3.150in./80mm (1986-1987)					23
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1986-1987		Except High Altitude	229-1968	1	
24	1829CC (1.8L) ES1 SOHC 4 Cyl, 3.150in./80mm (1983)					24
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1983		Except High Altitude	229-1968	1	

Honda

25	1829CC (1.8L) ES2 Carbureted SOHC 4 Cyl, 3.150in./80mm (1984-1985)					25
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1984-1985		Except SEI	229-1966	1	
26	1829CC (1.8L) ES3 Fuel Inj. SOHC 4 Cyl, 3.150in./80mm (1985)					26
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1985			229-1967	1	
27	1829CC (1.8L) ET 4 Cyl, 3.150in./80mm (1983-1984)					27
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1983-1984		Prelude, Except High Altitude	229-1968	1	
28	1829CC (1.8L) ET1 4 Cyl, 3.150in./80mm (1983-1985)					28
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1983-1985		Except High Altitude	229-1968	1	
29	1829CC (1.8L) ET2 SOHC 4 Cyl, 3.150in./80mm (1984-1986)					29
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1984-1986		Except High Altitude	229-1968	1	
30	1955CC (2.0L) A20A1/A20A3/BS1/BS2/BT1 4 Cyl, 3.258in./82.75mm (1987-1989)					30
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1987-1989			229-1967	1	
31	2997CC (3.0L) J30A1 V-TEC SOHC V6 Cyl, 3.386in./86mm (1998-2002)					31
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1998-2002		Intake	213-1785	6	
32	2997CC (3.0L) J30A4 V-TEC SOHC V6 Cyl, 3.386in./86mm (2003)					32
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	2003		Intake	213-1786	6	

Honda Truck

Engine Index

Engine	Year	Block
3165CC (3.2L) DOHC 6VD1 Isuzu	1998-2002	1

1	3165CC (3.2L) DOHC 6VD1 Isuzu V6 Cyl, 3.677in./93.4mm (1998-2002)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1998-2002			213-1787	24	

Engine Index

Engine	Year	Block
395 CID/6468CC (6.5L) Chevrolet Diesel	1996-2002	1

1	395 CID/6468CC (6.5L) Chevrolet Diesel V8 Cyl, 4.055in./103mm (1996-2002)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hyd. Roller	1997-2002			229-1849	1
Valve Lifter, Hyd. Roller	1996-2002			213-1725	16

Hyundai

Engine Index

Engine	Year	Block
1468CC (1.5L) G4AJ 8 Valve Mitsubishi	1986-1989	1

1	1468CC (1.5L) G4AJ 8 Valve Mitsubishi 4 Cyl, 2.972in./75.5mm (1986-1989)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1986-1989			229-2152	1
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Infiniti

Engine Index

Engine	Year	Block
2960CC (3.0L) VG30E SOHC Nissan	1990-1992	1

1	2960CC (3.0L) VG30E SOHC Nissan V6 Cyl, 3.425in./87mm (1990-1992)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1990-1992			213-1730	12
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Engine Index

Engine	Year	Block
3275CC (3.3L) VG33E SOHC Nissan	1997-2000	1

1	3275CC (3.3L) VG33E SOHC Nissan V6 Cyl, 3.602in./91.5mm (1997-2000)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1997-2000			213-1730	12
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Isuzu

Engine Index

Engine	Year	Block
1471CC (1.5L) 4XC1 SOHC	1985-1989	1
1471CC (1.5L) 4XC1-T SOHC Turbo	1987-1989	2
1817CC (1.8L) G180Z SOHC	1981-1984	3

Engine	Year	Block
1949CC (1.9L) G200Z SOHC	1983-1987	4
1994CC (2.0L) 4ZC1 SOHC Turbo	1985-1989	5
2254CC (2.3L) 4ZD1 SOHC	1988-1989	6

1	1471CC (1.5L) 4XC1 SOHC 4 Cyl, 3.031in./77mm (1985-1989)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1985-1989			229-2146	1
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Isuzu

2	1471CC (1.5L) 4XC1-T SOHC Turbo 4 Cyl, 3.031in./77mm (1987-1989)					2
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1987-1989			229-2146	1
3	1817CC (1.8L) G180Z SOHC 4 Cyl, 3.307in./84mm (1981-1984)					3
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1981-1984			229-1715	1
4	1949CC (1.9L) G200Z SOHC 4 Cyl, 3.425in./87mm (1983-1987)					4
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1983-1987			229-1715	1
5	1994CC (2.0L) 4ZC1 SOHC Turbo 4 Cyl, 3.465in./88mm (1985-1989)					5
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1986-1989			229-1969	1
		1985		From 3/85	229-1969	1
6	2254CC (2.3L) 4ZD1 SOHC 4 Cyl, 3.516in./89.3mm (1988-1989)					6
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1988-1989			229-1969	1

Isuzu Truck

Engine Index

Engine	Year	Block	Engine	Year	Block
1817CC (1.8L) G180Z SOHC Isuzu	1981-1982	1	3137CC (3.1L) CPC (LG6) Chevrolet	1991-1994	7
1949CC (1.9L) G200Z SOHC Isuzu	1983-1987	2	3165CC (3.2L) DOHC 6VD1 Isuzu	1998-2003	8
134 CID (2.2L) OHV Chevrolet	1996-2000	3	3494CC (3.5L) 6VE1 DOHC Isuzu	1998-2003	9
2254CC (2.3L) 4ZD1 SOHC Isuzu	1986-1995	4	262 CID (4.3L) Vortec 4300 Chevrolet	1997-2000	10
2559CC (2.6L) 4ZE1 SOHC Isuzu	1988-1991	5	350 CID (5.7L) Fuel Injected Chevrolet	1993-2002	11
2827CC (2.8L) LL2 Chevrolet	1989-1991	6			

1	1817CC (1.8L) G180Z SOHC Isuzu 4 Cyl, 3.307in./84mm (1981-1982)					1
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1981-1982			229-1715	1

2	1949CC (1.9L) G200Z SOHC Isuzu 4 Cyl, 3.425in./87mm (1983-1987)					2
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1983-1987			229-1715	1

3	134 CID (2.2L) OHV Chevrolet 4 Cyl, 3.504in./89mm (1996-2000)					3
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller		1996-1997			229-2325	1
Valve Lifter, Hyd. Roller		1996-2000			213-1756	8

4	2254CC (2.3L) 4ZD1 SOHC Isuzu 4 Cyl, 3.516in./89.3mm (1986-1995)					4
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1986-1995			229-1969	1	
5	2559CC (2.6L) 4ZE1 SOHC Isuzu 4 Cyl, 3.646in./92.6mm (1988-1991)					5
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1988-1991			229-1969	1	
6	2827CC (2.8L) LL2 Chevrolet V6 Cyl, 3.500in./88.9mm (1989-1991)					6
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1989-1991			229-2280	1	
Valve Lifter, Hyd.	1989-1991			213-1724	12	
7	3137CC (3.1L) CPC (LG6) Chevrolet V6 Cyl, 3.504in./89mm (1991-1994)					7
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1991-1994			229-1720	1	
Valve Lifter, Hyd.	1991-1994			213-1724	12	
8	3165CC (3.2L) DOHC 6VD1 Isuzu V6 Cyl, 3.677in./93.4mm (1998-2003)					8
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1998-2003			213-1787	24	
9	3494CC (3.5L) 6VE1 DOHC Isuzu V6 Cyl, 3.677in./93.4mm (1998-2003)					9
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1998-2003			213-1787	24	
10	262 CID (4.3L) Vortec 4300 Chevrolet V6 Cyl, 4.000in./101.6mm (1997-2000)					10
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1997-2000	W		229-2328	1	
Valve Lifter, Hyd. Roller	1997-2000			213-1738	12	
11	350 CID (5.7L) Fuel Injected Chevrolet V8 Cyl, 4.000in./101.6mm (1993-2002)					11
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1993-1995		194 Degree Intake Duration, 203 Degree Exhaust Duration, All Durations Measured At .050"		229-1274 1	
Camshaft, Hyd. Roller	1996-2002			229-2354	1	
Valve Lifter, Hyd.	1993-1995			213-1638	16	
Valve Lifter, Hyd. Roller	1996-2002			213-1738	16	

Jeep

Engine Index

Engine	Year	Block
134 CID (2.2L) F-Head	1951-1973	1
150 CID (2.5L)	1983-2002	2

Engine	Year	Block
151 CID (2.5L) Carbureted Pontiac	1980-1983	3
173 CID (2.8L) Chevrolet	1984-1987	4

Jeep

Engine Index (cont.)

Engine	Year	Block	Engine	Year	Block
225 CID (3.7L) Buick	1966-1971	5	318 CID (5.2L) Chrysler	1993-1998	11
226 CID/3701CC (3.7L) EKG SOHC 12 Valve Chrysler	2002-2003	6	327 CID (5.4L)	1966-1969	12
232 CID (3.8L) American Motors	1966-1978	7	350 CID (5.7L) Buick	1968-1971	13
242 CID (4.0L)	1987-2001	8	360 CID (5.9L) American Motors	1971-1991	14
258 CID (4.2L) American Motors	1971-1990	9	360 CID (5.9L) Chrysler	1998	15
304 CID (5.0L) American Motors	1971-1981	10	401 CID (6.6L) American Motors	1974-1978	16

1	134 CID (2.2L) F-Head 4 Cyl, 3.125in./79.4mm (1951-1973)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	

VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1951-1973			229-1301	1
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2	150 CID (2.5L) 4 Cyl, 3.875in./98.4mm (1983-2002)					2
	Part	Year	VIN	Model/Application	Part Number	Qty.

VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1996-2002			229-2338	1
	1983-1995			229-1905	1
Valve Lifter, Hyd.	1983-2002			213-1679	8

3	151 CID (2.5L) Carbureted Pontiac 4 Cyl, 4.000in./101.6mm (1980-1983)					3
Part	Year	VIN	Model/Application	Part Number	Qty.	

VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1980-1983			229-1697	1
Valve Lifter, Hyd.	1980-1983			213-1719	8

4	173 CID (2.8L) Chevrolet V6 Cyl, 3.504in./89mm (1984-1987)					4
Part	Year	VIN	Model/Application	Part Number	Qty.	

VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1987			229-2280	1
	1984-1986			229-1720	1
Valve Lifter, Hyd.	1984-1986			213-1724	12

5	225 CID (3.7L) Buick V6 Cyl, 3.750in./95.3mm (1966-1971)					5
Part	Year	VIN	Model/Application	Part Number	Qty.	

VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1966-1971			229-1657	1
Valve Lifter, Hyd.	1966-1971			213-1664	12

6	226 CID/3701CC (3.7L) EKG SOHC 12 Valve Chrysler V6 Cyl, 3.661in./93mm (2002-2003)					6
Part	Year	VIN	Model/Application	Part Number	Qty.	

VALVE TRAIN & TIMING COMPONENTS

Valve Lash Adj., Hyd.	2002-2003			213-1766	12
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7	232 CID (3.8L) American Motors 6 Cyl, 3.750in./95.3mm (1966-1978)					7
Part	Year	VIN	Model/Application	Part Number	Qty.	

VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1970-1978			229-2269	1
	1966-1970			229-1643	1
Valve Lifter, Hyd.	1966-1978		Except Engine Build Code Stamped On Right Side Of Block with 4th Digit M	213-1679	12

8 242 CID (4.0L) 6 Cyl, 3.875in./98.4mm (1987-2001) 8					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1987-1995			229-1929	1
Valve Lifter, Hyd.	1987-2001			213-1679	12
9 258 CID (4.2L) American Motors 6 Cyl, 3.750in./95.3mm (1971-1990) 9					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1987-1990			229-1643	1
	1981-1986		Except Engine Build Code Stamped On Right Side Of Block with 4th Digit M	229-1643	1
	1971-1980			229-1643	1
				229-2269	1
Valve Lifter, Hyd.	1971-1990		Except Engine Build Code Stamped On Right Side Of Block with 4th Digit M	213-1679	12
10 304 CID (5.0L) American Motors V8 Cyl, 3.750in./95.3mm (1971-1981) 10					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1971-1981			229-1651	1
Valve Lifter, Hyd.	1971-1981			213-1679	16
11 318 CID (5.2L) Chrysler V8 Cyl, 3.910in./99.3mm (1993-1998) 11					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1995-1998			229-2324	1
	1993-1994			229-2274	1
Valve Lifter, Hyd. Roller	1993-1998			213-1750	16
12 327 CID (5.4L) V8 Cyl, 4.000in./101.6mm (1966-1969) 12					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1966-1969			213-1679	16
13 350 CID (5.7L) Buick V8 Cyl, 3.800in./96.5mm (1968-1971) 13					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1968-1971			229-1650	1
Valve Lifter, Hyd.	1970-1971			213-1685	16
	1968-1969			213-1646	16
14 360 CID (5.9L) American Motors V8 Cyl, 4.080in./103.6mm (1971-1991) 14					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1971-1991			229-1651	1
Valve Lifter, Hyd.	1971-1991			213-1679	16
15 360 CID (5.9L) Chrysler V8 Cyl, 4.000in./101.6mm (1998) 15					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd. Roller	1998			213-1750	16

Jeep

16	401 CID (6.6L) American Motors V8 Cyl, 4.165in./105.8mm (1974-1978)				16
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1974-1978			229-1651	1
Valve Lifter, Hyd.	1974-1978			213-1679	16

Lexus

Engine Index

Engine	Year	Block
3969CC (4.0L) 1UZFE DOHC Toyota	1995-2000	1
4293CC (4.3L) 3UZFE DOHC Toyota	2001-2003	2

1	3969CC (4.0L) 1UZFE DOHC Toyota V8 Cyl, 3.445in./87.5mm (1995-2000)				1
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1998-2000			213-1772	32
	1995-1997			213-1773	32

2	4293CC (4.3L) 3UZFE DOHC Toyota V8 Cyl, 3.583in./91mm (2001-2003)				2
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	2001-2003			213-1772	32

Lexus Truck

Engine Index

Engine	Year	Block
2995CC (3.0L) 1MZFE DOHC Toyota	1999-2003	1
4663CC (4.7L) 2UZFE DOHC Toyota	1998-2001	2

1	2995CC (3.0L) 1MZFE DOHC Toyota V6 Cyl, 3.445in./87.5mm (1999-2003)				1
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	2002-2003			213-1788	24
	2001		Thru 4/30/01	213-1769	24
			From 5/1/01	213-1788	24
	1999-2000			213-1769	24

2	4663CC (4.7L) 2UZFE DOHC Toyota V8 Cyl, 3.701in./94mm (1998-2001)				2
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1998-2001			213-1772	32

Mazda

Engine Index

Engine	Year	Block	Engine	Year	Block
1489CC (1.5L) Z5-DE DOHC	1995-1998	1	1970CC (2.0L) MA SOHC	1979-1982	10
1490CC (1.5L) E5 SOHC	1981-1985	2	1991CC (2.0L) FS-ZE DOHC	1993-1998	11
1586CC (1.6L) NA SOHC	1972-1977	3	1998CC (2.0L) FE SOHC	1983-1987	12
1597CC (1.6L) B6 SOHC 16 Valve	1992-1993	4	2184CC (2.2L) F2 SOHC	1988-1992	13
1597CC (1.6L) B6B SOHC 8 Valve	1986-1993	5	2497CC (2.5L) KL-ZE DOHC	1993-2002	14
Non-Turbo			2954CC (3.0L) JE06 SOHC	1988-1989	15
1597CC (1.6L) B6E DOHC 16 Valve Turbo	1988-1989	6	2954CC (3.0L) JE07 SOHC	1988-1989	16
1597CC (1.6L) B6ZE DOHC 16 Valve	1990-1995	7	2954CC (3.0L) JE27 DOHC	1990-1991	17
1839CC (1.8L) DOHC (BP-ZE)	1994-1999	8	2954CC (3.0L) JE39 SOHC	1990	18
1839CC (1.8L) DOHC (BPD)	1990-1996	9			

1	1489CC (1.5L) Z5-DE DOHC 4 Cyl, 2.965in./75.3mm (1995-1998)					1
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1995-1998			213-1768	16	
2	1490CC (1.5L) E5 SOHC 4 Cyl, 3.031in./77mm (1981-1985)					2
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1981-1985		Front Wheel Drive	229-2151	1	
3	1586CC (1.6L) NA SOHC 4 Cyl, 3.071in./78mm (1972-1977)					3
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1972-1977			229-1748	1	
4	1597CC (1.6L) B6 SOHC 16 Valve 4 Cyl, 3.071in./78mm (1992-1993)					4
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1992-1993			213-1749	16	
5	1597CC (1.6L) B6B SOHC 8 Valve Non-Turbo 4 Cyl, 3.071in./78mm (1986-1993)					5
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1986-1987			229-2166	1	
Valve Lash Adj., Hyd.	1990-1993			213-1749	8	
6	1597CC (1.6L) B6E DOHC 16 Valve Turbo 4 Cyl, 3.071in./78mm (1988-1989)					6
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1988-1989			213-1761	16	
7	1597CC (1.6L) B6ZE DOHC 16 Valve 4 Cyl, 3.071in./78mm (1990-1995)					7
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1990-1995			213-1761	16	
8	1839CC (1.8L) DOHC (BP-ZE) 4 Cyl, 3.268in./83mm (1994-1999)					8
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1999			213-1761	16	
	1994-1997			213-1761	16	
9	1839CC (1.8L) DOHC (BPD) 4 Cyl, 3.268in./83mm (1990-1996)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1990-1996			213-1761	16	
10	1970CC (2.0L) MA SOHC 4 Cyl, 3.150in./80mm (1979-1982)					10
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1979-1982			229-1748	1	

Mazda

11	1991CC (2.0L) FS-ZE DOHC 4 Cyl, 3.268in./83mm (1993-1998)					11
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1993-1998			213-1761 16	
12	1998CC (2.0L) FE SOHC 4 Cyl, 3.386in./86mm (1983-1987)					12
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1983-1987			229-2159 1	
13	2184CC (2.2L) F2 SOHC 4 Cyl, 3.386in./86mm (1988-1992)					13
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic		1988-1992			229-2231 1	
Valve Lash Adj., Hyd.		1988-1992			213-1749 12	
14	2497CC (2.5L) KL-ZE DOHC V6 Cyl, 3.327in./84.5mm (1993-2002)					14
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1993-2002			213-1761 24	
15	2954CC (3.0L) JE06 SOHC V6 Cyl, 3.543in./90mm (1988-1989)					15
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1988-1989			213-1749 18	
16	2954CC (3.0L) JE07 SOHC V6 Cyl, 3.543in./90mm (1988-1989)					16
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1988-1989			213-1749 18	
17	2954CC (3.0L) JE27 DOHC V6 Cyl, 3.543in./90mm (1990-1991)					17
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1990-1991			213-1762 24	
18	2954CC (3.0L) JE39 SOHC V6 Cyl, 3.543in./90mm (1990)					18
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.		1990			213-1749 18	

Mazda Truck

Engine Index

Engine	Year	Block	Engine	Year	Block
1586CC (1.6L) NA SOHC Mazda	1972-1976	1	2555CC (2.6L) AM1 SOHC Mazda	1987-1988	7
1796CC (1.8L) VB SOHC Mazda	1977-1978	2	2606CC (2.6L) G6 SOHC Mazda	1989-1994	8
1970CC (2.0L) MA SOHC Mazda	1979-1984	3	181 CID/2967CC (3.0L) Duratec/DOHC/24	2001-2002	9
1998CC (2.0L) FE SOHC Mazda	1986-1987	4	Valve Ford		
2184CC (2.2L) F2 SOHC Mazda	1987-1993	5	183 CID (3.0L) OHV Ford	1994-2001	10
153 CID (2.5L) SOHC Ford	1998-2001	6	2954CC (3.0L) JE SOHC Mazda	1989-1998	11

1	1586CC (1.6L) NA SOHC Mazda 4 Cyl, 3.071in./78mm (1972-1976)					1
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1972-1976			229-1748	1	
2	1796CC (1.8L) VB SOHC Mazda 4 Cyl, 3.071in./78mm (1977-1978)					2
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1977-1978			229-1748	1	
3	1970CC (2.0L) MA SOHC Mazda 4 Cyl, 3.150in./80mm (1979-1984)					3
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1979-1984			229-1748	1	
4	1998CC (2.0L) FE SOHC Mazda 4 Cyl, 3.386in./86mm (1986-1987)					4
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1986-1987			229-2242	1	
5	2184CC (2.2L) F2 SOHC Mazda 4 Cyl, 3.386in./86mm (1987-1993)					5
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1987-1993			229-2243	1	
Valve Lash Adj., Hyd.	1987-1993			213-1749	8	
6	153 CID (2.5L) SOHC Ford 4 Cyl, 3.780in./96mm (1998-2001)					6
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1998-2001			229-2194	1	
Valve Lash Adj., Hyd.	1998-2001			213-1703	8	
7	2555CC (2.6L) AM1 SOHC Mazda 4 Cyl, 3.587in./91.1mm (1987-1988)					7
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1987-1988			229-1934	1	
8	2606CC (2.6L) G6 SOHC Mazda 4 Cyl, 3.622in./92mm (1989-1994)					8
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1989-1994			229-2349	1	
Valve Lash Adj., Hyd.	1989-1990			213-1749	12	
9	181 CID/2967CC (3.0L) Duratec/DOHC/24 Valve Ford V6 Cyl, 3.504in./89mm (2001-2002)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	2001-2002			213-1766	24	
10	183 CID (3.0L) OHV Ford V6 Cyl, 3.504in./89mm (1994-2001)					10
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1994-1998			229-2318	1	

Mazda Truck

10 (cont.)	183 CID (3.0L) OHV Ford V6 Cyl, 3.504in./89mm (1994-2001)					10 (cont.)
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS (cont.)

Valve Lifter, Hyd. Roller	1994-2001			213-1742	12
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11	2954CC (3.0L) JE SOHC Mazda V6 Cyl, 3.543in./90mm (1989-1998)					11
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lash Adj., Hyd.	1989-1998			213-1749	18
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Mitsubishi

Engine Index

Engine	Year	Block	Engine	Year	Block
1468CC (1.5L) 4G15 12 Valve	1991-1996	1	1997CC (2.0L) 4G63 SOHC 16 Valve	1993	13
1468CC (1.5L) 4G15 8 Valve	1989-1990	2	1997CC (2.0L) 4G63 SOHC 8 Valve	1989-1992	14
1468CC (1.5L) G15B	1985-1988	3	1997CC (2.0L) 4G63T DOHC TURBO	1989-1997	15
1468CC (1.5L) G4AJ 8 Valve	1987-1989	4	1997CC (2.0L) G63B SOHC	1984-1988	16
1468CC (1.5L) G4DJ 8 Valve	1990-1994	5	2351CC (2.4L) 4G64 SOHC 16 Valve	1994-2001	17
1595CC (1.6L) 4G61 DOHC	1989-1992	6	2351CC (2.4L) G64B SOHC	1985-1987	18
1597CC (1.6L) G32B SOHC	1985-1988	7	2497CC (2.5L) 6G73 24 Valve SOHC	1995	19
1755CC (1.8L) 4G37	1990-1992	8	2555CC (2.6L) G54B	1983-1989	20
1794CC (1.8L) G62B	1983-1988	9	2972CC (3.0L) 6G72 DOHC (Nat. Asp.)	1991-1999	21
1834CC (1.8L) 4G93	1993-1996	10	2972CC (3.0L) 6G72 DOHC Twin Turbo	1991-1999	22
122 CID (2.0L) DOHC Chrysler	1995-1999	11	2972CC (3.0L) 6G72 SOHC 12 Valve	1989-1999	23
1997CC (2.0L) 4G63 DOHC	1989-1994	12	2972CC (3.0L) 6G72 SOHC 24 Valve	1999-2001	24

1	1468CC (1.5L) 4G15 12 Valve 4 Cyl, 2.972in./75.5mm (1991-1996)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1991-1996			229-2234	1
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2	1468CC (1.5L) 4G15 8 Valve 4 Cyl, 2.972in./75.5mm (1989-1990)					2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1990		Thru 5/90	229-2152	1
			From 5/90	229-2234	1
	1989			229-2152	1

3	1468CC (1.5L) G15B 4 Cyl, 2.972in./75.5mm (1985-1988)					3
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1985-1988			229-2152	1
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4	1468CC (1.5L) G4AJ 8 Valve 4 Cyl, 2.972in./75.5mm (1987-1989)					4
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1987-1989			229-2152	1
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5	1468CC (1.5L) G4DJ 8 Valve 4 Cyl, 2.972in./75.5mm (1990-1994)					5
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1990-1994			229-2234	1
	1990		Thru 5/90	229-2152	1
			From 5/90	229-2234	1

6	1595CC (1.6L) 4G61 DOHC 4 Cyl, 3.240in./82.3mm (1989-1992)					6
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1989-1992			213-1763	16	
7	1597CC (1.6L) G32B SOHC 4 Cyl, 3.028in./76.9mm (1985-1988)					7
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1985-1988			229-2116	1	
8	1755CC (1.8L) 4G37 4 Cyl, 3.173in./80.6mm (1990-1992)					8
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1990-1992			213-1753	8	
9	1794CC (1.8L) G62B 4 Cyl, 3.173in./80.6mm (1983-1988)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1986-1988		Turbocharged	229-1948	1	
	1985		Thru 5/85, Turbocharged	229-1947	1	
			From 6/85, Turbocharged	229-1948	1	
	1983-1984		Turbocharged	229-1947	1	
Valve Lash Adj., Hyd.	1985-1988			213-1753	8	
10	1834CC (1.8L) 4G93 4 Cyl, 3.189in./81mm (1993-1996)					10
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1993-1996			213-1774	16	
11	122 CID (2.0L) DOHC Chrysler 4 Cyl, 3.445in./87.5mm (1995-1999)					11
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1995-1999			213-1767	16	
12	1997CC (2.0L) 4G63 DOHC 4 Cyl, 3.346in./85mm (1989-1994)					12
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Cam, Hyd. Roller, Ex	1989-1994			229-2322	1	
Cam, Hyd. Roller, In	1989-1994		Naturally Aspirated	229-2348	1	
Valve Lash Adj., Hyd.	1989-1994			213-1763	16	
13	1997CC (2.0L) 4G63 SOHC 16 Valve 4 Cyl, 3.346in./85mm (1993)					13
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1993			213-1753	8	
14	1997CC (2.0L) 4G63 SOHC 8 Valve 4 Cyl, 3.346in./85mm (1989-1992)					14
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	1989-1992			229-2235	1	
Valve Lash Adj., Hyd.	1989-1992			213-1753	8	

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15 1997CC (2.0L) 4G63T DOHC TURBO 4 Cyl, 3.346in./85mm (1989-1997) 15					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Cam, Hyd. Roller, Ex	1989-1994		Manual Transmission	229-2320	1
			Automatic Transmission	229-2322	1
Cam, Hyd. Roller, In	1989-1994		Manual Transmission	229-2319	1
			Automatic Transmission	229-2321	1
Valve Lash Adj., Hyd.	1989-1997			213-1763	16
16 1997CC (2.0L) G63B SOHC 4 Cyl, 3.346in./85mm (1984-1988) 16					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1985-1988			229-1948	1
	1984		Thru 4/84	229-1947	1
			From 5/84	229-1948	1
Valve Lash Adj., Hyd.	1984-1988			213-1753	8
17 2351CC (2.4L) 4G64 SOHC 16 Valve 4 Cyl, 3.406in./86.5mm (1994-2001) 17					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lash Adj., Hyd.	1998-2001			213-1753	16
	1994-1995			213-1753	16
18 2351CC (2.4L) G64B SOHC 4 Cyl, 3.406in./86.5mm (1985-1987) 18					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1985-1987		From Serial Number 89091	229-2236	1
Valve Lash Adj., Hyd.	1985-1987			213-1753	8
19 2497CC (2.5L) 6G73 24 Valve SOHC V6 Cyl, 3.290in./83.5mm (1995) 19					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lash Adj., Hyd.	1995			213-1753	24
20 2555CC (2.6L) G54B 4 Cyl, 3.587in./91.1mm (1983-1989) 20					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1985-1989		Rear Wheel Drive, (Aftermarket Replacement With Oversize Bearing Journals) .020" Oversize Bearing Journals	229-2226	1
	1984-1989		Rear Wheel Drive	229-1934	1
	1984		From 5/84, Rear Wheel Drive, (Aftermarket Replacement With Oversize Bearing Journals) .020" Oversize Bearing Journals	229-2226	1
Camshaft, Mech.	1984		Thru 4/84	229-1747	1
	1983			229-1747	1
Valve Lash Adj., Hyd.	1985-1989			213-1753	8
	1984		From 6/84	213-1753	8
21 2972CC (3.0L) 6G72 DOHC (Nat. Asp.) V6 Cyl, 3.587in./91.1mm (1991-1999) 21					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lash Adj., Hyd.	1991-1999			213-1763	24

22	2972CC (3.0L) 6G72 DOHC Twin Turbo V6 Cyl, 3.587in./91.1mm (1991-1999)	22
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lash Adj., Hyd.	1991-1999			213-1763	24
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23	2972CC (3.0L) 6G72 SOHC 12 Valve V6 Cyl, 3.587in./91.1mm (1989-1999)	23
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1997-1999		Left	229-1962	1
			Right	229-1963	1
Valve Lash Adj., Hyd.	1992-1999			213-1753	12
	1990			213-1753	12
	1989		From 9/89	213-1753	12

24	2972CC (3.0L) 6G72 SOHC 24 Valve V6 Cyl, 3.587in./91.1mm (1999-2001)	24
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lash Adj., Hyd.	1999-2001			213-1753	24
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Mitsubishi Truck

Engine Index

Engine	Year	Block	Engine	Year	Block
1997CC (2.0L) G63B SOHC Mitsubishi	1983-1989	1	2555CC (2.6L) G54B Mitsubishi	1983-1989	5
2351CC (2.4L) 4G64 SOHC 16 Valve Mitsubishi	1993-1999	2	2972CC (3.0L) 6G72 SOHC 12 Valve Mitsubishi	1989-1997	6
2351CC (2.4L) 4G64 SOHC 8 Valve Mitsubishi	1989-1996	3	2972CC (3.0L) 6G72 SOHC 24 Valve Mitsubishi	1994-2001	7
2351CC (2.4L) G64B SOHC Mitsubishi	1987-1988	4			

1	1997CC (2.0L) G63B SOHC Mitsubishi 4 Cyl, 3.346in./85mm (1983-1989)	1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1985-1989			229-1948	1
	1984		Thru 4/84	229-1947	1
			From 4/84	229-1948	1
	1983			229-1947	1
Valve Lash Adj., Hyd.	1985-1989			213-1753	8
	1984		From 5/84	213-1753	8

2	2351CC (2.4L) 4G64 SOHC 16 Valve Mitsubishi 4 Cyl, 3.406in./86.5mm (1993-1999)	2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lash Adj., Hyd.	1997-1999			213-1753	16
	1993-1995			213-1753	16

3	2351CC (2.4L) 4G64 SOHC 8 Valve Mitsubishi 4 Cyl, 3.406in./86.5mm (1989-1996)	3
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1989-1996			229-2236	1
Camshaft, Hyd. Roller	1992		Expo	229-2235	1
Valve Lash Adj., Hyd.	1989-1996			213-1753	8

4	2351CC (2.4L) G64B SOHC Mitsubishi 4 Cyl, 3.406in./86.5mm (1987-1988)	4
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1987-1988			229-2236	1
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Mitsubishi Truck

4 (cont.)	2351CC (2.4L) G64B SOHC Mitsubishi 4 Cyl, 3.406in./86.5mm (1987-1988)					4 (cont.)
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS (cont.)					
Valve Lash Adj., Hyd.	1987-1988			213-1753	8

5	2555CC (2.6L) G54B Mitsubishi 4 Cyl, 3.587in./91.1mm (1983-1989)					5
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1985-1989			229-1934	1
	1984		From 5/84	229-1934	1
Camshaft, Mech.	1984		Thru 5/84	229-1747	1
	1983			229-1747	1
Valve Lash Adj., Hyd.	1985-1989			213-1753	8
	1984		From 5/84	213-1753	8

6	2972CC (3.0L) 6G72 SOHC 12 Valve Mitsubishi V6 Cyl, 3.587in./91.1mm (1989-1997)					6
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1989-1997		Left Head	229-1962	1
			Right Head	229-1963	1
Valve Lash Adj., Hyd.	1989-1997			213-1753	12

7	2972CC (3.0L) 6G72 SOHC 24 Valve Mitsubishi V6 Cyl, 3.587in./91.1mm (1994-2001)					7
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Valve Lash Adj., Hyd.	1995-2001			213-1753	24
	1994		From 6/94	213-1753	24

Navistar/International

Engine Index

<i>Engine</i>	<i>Year</i>	<i>Block</i>	<i>Engine</i>	<i>Year</i>	<i>Block</i>
152 CID (2.5L) 4-152 International	1967-1968	1	304 CID (5.0L) V304 International LPG	1964-1975	23
152 CID (2.5L) Comanche Four International	1961-1967	2	308 CID (5.0L) BD308 International	1957-1969	24
152 CID (2.5L) Turbo III International	1965-1967	3	345 CID (5.6L) V345 International	1959-1982	25
196 CID (3.2L) 4-196 International	1966-1980	4	345 CID (5.6L) V345LPG International LPG	1962-1982	26
220 CID (3.6L) BD220 International	1957-1962	5	392 CID (6.4L) V392 International	1969-1982	27
220 CID (3.6L) BG220 International	1963-1968	6	400 CID (6.6L) V400 International	1974-1975	28
220 CID (3.6L) SD220 International	1950-1957	7	401 CID (6.6L) V401 International	1956-1972	29
220 CID (3.6L) SD220 International LPG	1953-1954	8	401 CID (6.6L) VS401 International	1968-1975	30
232 CID (3.8L) PT6 International	1969-1972	9	404 CID (6.6L) MV404 International	1975-1982	31
240 CID (3.9L) BD240 International	1955-1962	10	420 CID (6.9L) Navistar Diesel	1983-1987	32
240 CID (3.9L) SD240 International	1950-1969	11	444 CID (7.3L) Indirect Injection International Diesel	1988-1993	33
240 CID (3.9L) SD240 International LPG	1953-1955	12	446 CID (7.3L) MV446 International	1975-1981	34
241 CID (3.9L) BG241 International	1965-1966	13	461 CID (7.6L) V461 International	1956-1964	35
241 CID (3.9L) BG241 International LPG	1963-1969	14	478 CID (7.8L) V478 International	1965-1972	36
258 CID (4.2L) American Motors	1972-1974	15	478 CID (7.8L) VS478 International	1968-1977	37
264 CID (4.3L) BD264 International	1955-1969	16	537 CID (8.8L) V537 International	1978-1981	38
265 CID (4.3L) BG265 International	1955-1969	17	537 CID (8.8L) VS537 International	1975-1981	39
266 CID (4.4L) V266 International	1959-1972	18	549 CID (9.0L) FTV549 International	1970-1972	40
269 CID (4.4L) BLD269 International	1955-1956	19	549 CID (9.0L) FTVS549 International	1970-1975	41
282 CID (4.6L) BD282 International	1957-1962	20	549 CID (9.0L) V549 International	1956-1972	42
301 CID (4.9L) D301 International Diesel	1960-1978	21	549 CID (9.0L) VS549 International	1968-1978	43
304 CID (5.0L) V304 International	1959-1980	22			

1	152 CID (2.5L) 4-152 International 4 Cyl, 3.875in./98.4mm (1967-1968)					1
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1967-1968			213-1650	8

2	152 CID (2.5L) Comanche Four International 4 Cyl, 3.875in./98.4mm (1961-1967)					2
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1961-1967			213-1650	8	
3	152 CID (2.5L) Turbo III International 4 Cyl, 3.875in./98.4mm (1965-1967)					3
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1965-1967			213-1650	8	
4	196 CID (3.2L) 4-196 International 4 Cyl, 4.125in./104.8mm (1966-1980)					4
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1966-1980			213-1650	8	
5	220 CID (3.6L) BD220 International 6 Cyl, 3.563in./90.5mm (1957-1962)					5
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1957-1962			213-1649	12	
6	220 CID (3.6L) BG220 International 6 Cyl, 3.563in./90.5mm (1963-1968)					6
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1963-1968			213-1649	12	
7	220 CID (3.6L) SD220 International 6 Cyl, 3.563in./90.5mm (1950-1957)					7
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1950-1957			213-1649	12	
8	220 CID (3.6L) SD220 International LPG 6 Cyl, 3.563in./90.5mm (1953-1954)					8
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1953-1954			213-1649	12	
9	232 CID (3.8L) PT6 International 6 Cyl, 3.750in./95.3mm (1969-1972)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1969-1972			229-1643	1	
Valve Lifter, Hyd.	1969-1972			213-1679	12	
10	240 CID (3.9L) BD240 International 6 Cyl, 3.563in./90.5mm (1955-1962)					10
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1955-1962			213-1649	12	
11	240 CID (3.9L) SD240 International 6 Cyl, 3.563in./90.5mm (1950-1969)					11
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1950-1969			213-1649	12	

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12	240 CID (3.9L) SD240 International LPG 6 Cyl, 3.563in./90.5mm (1953-1955)					12
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1953-1955			213-1649	12	
13	241 CID (3.9L) BG241 International 6 Cyl, 3.563in./90.5mm (1965-1966)					13
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1965-1966			213-1649	12	
14	241 CID (3.9L) BG241 International LPG 6 Cyl, 3.563in./90.5mm (1963-1969)					14
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1963-1969			213-1649	12	
15	258 CID (4.2L) American Motors 6 Cyl, 3.750in./95.3mm (1972-1974)					15
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1972-1974			229-1643	1	
Valve Lifter, Hyd.	1972-1974			213-1679	12	
16	264 CID (4.3L) BD264 International 6 Cyl, 3.688in./93.7mm (1955-1969)					16
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1955-1969			213-1649	12	
17	265 CID (4.3L) BG265 International 6 Cyl, 3.688in./93.7mm (1955-1969)					17
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1955-1969			213-1649	12	
18	266 CID (4.4L) V266 International V8 Cyl, 3.625in./92.1mm (1959-1972)					18
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1959-1972			229-1415	1	
Valve Lifter, Hyd.	1959-1972			213-1650	16	
19	269 CID (4.4L) BLD269 International 6 Cyl, 3.563in./90.5mm (1955-1956)					19
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1955-1956			213-1649	12	
20	282 CID (4.6L) BD282 International 6 Cyl, 3.8125in./96.8mm (1957-1962)					20
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1957-1962			213-1649	12	
21	301 CID (4.9L) D301 International Diesel 6 Cyl, 3.813in./96.9mm (1960-1978)					21
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1960-1978		Thru Engine Serial Number 3229	213-1649	12	

22	304 CID (5.0L) V304 International V8 Cyl, 3.875in./98.4mm (1959-1980)					22
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1959-1980			229-1415	1	
Valve Lifter, Hyd.	1959-1980			213-1650	16	
23	304 CID (5.0L) V304 International LPG V8 Cyl, 3.875in./98.4mm (1964-1975)					23
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1964-1975			229-1415	1	
Valve Lifter, Hyd.	1964-1975			213-1650	16	
24	308 CID (5.0L) BD308 International 6 Cyl, 3.813in./96.9mm (1957-1969)					24
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1957-1969			213-1649	12	
25	345 CID (5.6L) V345 International V8 Cyl, 3.875in./98.4mm (1959-1982)					25
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1959-1982			229-1415	1	
Valve Lifter, Hyd.	1959-1982			213-1650	16	
26	345 CID (5.6L) V345LPG International LPG V8 Cyl, 3.875in./98.4mm (1962-1982)					26
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1982			229-1415	1	
	1962-1978			229-1415	1	
Valve Lifter, Hyd.	1982			213-1650	16	
	1962-1978			213-1650	16	
27	392 CID (6.4L) V392 International V8 Cyl, 4.125in./104.8mm (1969-1982)					27
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1969-1982			229-1415	1	
Valve Lifter, Hyd.	1969-1982			213-1650	16	
28	400 CID (6.6L) V400 International V8 Cyl, 4.165in./105.8mm (1974-1975)					28
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1974-1975			229-1651	1	
Valve Lifter, Hyd.	1974-1975			213-1679	16	
29	401 CID (6.6L) V401 International V8 Cyl, 4.125in./104.8mm (1956-1972)					29
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1956-1972		Late Design, Requires Iron Camshaft	213-1673	16	
30	401 CID (6.6L) VS401 International V8 Cyl, 4.125in./104.8mm (1968-1975)					30
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1968-1975		Late Design, Requires Iron Camshaft	213-1673	16	

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31 404 CID (6.6L) MV404 International V8 Cyl, 4.125in./104.8mm (1975-1982) 31					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1975-1982		Original Equipment Part Number 446801C1	229-1707	1
Valve Lifter, Hyd.	1975-1982		Original Equipment Part Number 446571C1	213-1679	16
32 420 CID (6.9L) Navistar Diesel V8 Cyl, 4.000in./101.6mm (1983-1987) 32					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1983-1987			229-1872	1
Valve Lifter, Hyd. Roller	1983-1987		(Needle Roller Bearing Design)	213-1725	16
33 444 CID (7.3L) Indirect Injection International Diesel V8 Cyl, 4.110in./104.4mm (1988-1993) 33					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hyd. Roller	1988-1993			229-1872	1
Valve Lifter, Hyd. Roller	1988-1993		(Needle Roller Bearing Design)	213-1725	16
34 446 CID (7.3L) MV446 International V8 Cyl, 4.125in./104.8mm (1975-1981) 34					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1975-1981		Original Equipment Part Number 446801C1	229-1707	1
Valve Lifter, Hyd.	1975-1981		Original Equipment Part Number 446571C1	213-1679	16
35 461 CID (7.6L) V461 International V8 Cyl, 4.125in./104.8mm (1956-1964) 35					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1956-1964		Late Design, Requires Iron Camshaft	213-1673	16
36 478 CID (7.8L) V478 International V8 Cyl, 4.500in./114.3mm (1965-1972) 36					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1965-1972		Requires Iron Camshaft	213-1673	16
37 478 CID (7.8L) VS478 International V8 Cyl, 4.500in./114.3mm (1968-1977) 37					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1968-1977		Requires Iron Camshaft	213-1673	16
38 537 CID (8.8L) V537 International V8 Cyl, 4.625in./117.5mm (1978-1981) 38					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1978-1981			213-1673	16
39 537 CID (8.8L) VS537 International V8 Cyl, 4.625in./117.5mm (1975-1981) 39					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1975-1981			213-1673	16

40	549 CID (9.0L) FTV549 International V8 Cyl, 4.500in./114.3mm (1970-1972)					40
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1970-1972		Late Design, Requires Iron Camshaft	213-1673	16	
41	549 CID (9.0L) FTVS549 International V8 Cyl, 4.500in./114.3mm (1970-1975)					41
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1970-1975		Late Design, Requires Iron Camshaft	213-1673	16	
42	549 CID (9.0L) V549 International V8 Cyl, 4.500in./114.3mm (1956-1972)					42
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1956-1972		Late Design, Requires Iron Camshaft	213-1673	16	
43	549 CID (9.0L) VS549 International V8 Cyl, 4.500in./114.3mm (1968-1978)					43
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1968-1978		Late Design, Requires Iron Camshaft	213-1673	16	

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Engine Index

Engine	Year	Block	Engine	Year	Block
1171CC (1.2L) A12	1971-1973	1	1952CC (2.0L) Z20S	1980-1981	19
1237CC (1.2L) A12A	1979-1982	2	1974CC (2.0L) CA20E	1984-1989	20
1288CC (1.3L) A13	1974	3	1974CC (2.0L) CA20S	1982-1983	21
1397CC (1.4L) A14	1975-1981	4	1998CC (2.0L) SR20DE DOHC	1991-1996	22
1488CC (1.5L) A15	1979-1981	5	2187CC (2.2L) Z22E SOHC	1982-1983	23
1488CC (1.5L) E15/E15S	1983	6	2389CC (2.4L) KA24DE DOHC	1991-1999	24
1488CC (1.5L) E15T	1983-1984	7	2389CC (2.4L) KA24E SOHC	1989-1992	25
1595CC (1.6L) L16	1969-1973	8	2393CC (2.4L) L24 SOHC	1970-1973	26
1597CC (1.6L) E16	1983-1986	9	2393CC (2.4L) L24E SOHC	1977-1984	27
1597CC (1.6L) E16I/E16S	1986-1988	10	2565CC (2.6L) L26	1974	28
1597CC (1.6L) GA16DE	1991-1999	11	2753CC (2.8L) L28E SOHC	1975-1983	29
1597CC (1.6L) GA16I	1989-1990	12	2753CC (2.8L) L28ET SOHC Turbo	1981-1983	30
1680CC (1.7L) CD17 Diesel	1983-1990	13	2960CC (3.0L) VG30DE DOHC	1990-1996	31
1770CC (1.8L) L18	1973-1974	14	2960CC (3.0L) VG30DETT DOHC Twin Turbo	1990-1996	32
1809CC (1.8L) CA18DE	1988-1989	15	2960CC (3.0L) VG30E SOHC	1984-1994	33
1809CC (1.8L) CA18ET Turbo	1984-1987	16	2960CC (3.0L) VG30T SOHC Turbo	1984-1989	34
1952CC (2.0L) L20B	1974-1979	17			
1952CC (2.0L) Z20E	1980-1981	18			

1	1171CC (1.2L) A12 4 Cyl, 2.874in./73mm (1971-1973)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1971-1973			213-1713	8	
2	1237CC (1.2L) A12A 4 Cyl, 2.953in./75mm (1979-1982)					2
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1979-1982			213-1713	8	
3	1288CC (1.3L) A13 4 Cyl, 2.874in./73mm (1974)					3
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1974			213-1713	8	

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4	1397CC (1.4L) A14 4 Cyl, 2.992in./76mm (1975-1981)					4
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1975-1981			213-1713	8	
5	1488CC (1.5L) A15 4 Cyl, 2.992in./76mm (1979-1981)					5
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1979-1981			213-1713	8	
6	1488CC (1.5L) E15/E15S 4 Cyl, 2.992in./76mm (1983)					6
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1983			229-1896	1	
7	1488CC (1.5L) E15T 4 Cyl, 2.992in./76mm (1983-1984)					7
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1983-1984			229-1896	1	
8	1595CC (1.6L) L16 4 Cyl, 3.268in./83mm (1969-1973)					8
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1969-1973			229-1692	1	
9	1597CC (1.6L) E16 4 Cyl, 2.992in./76mm (1983-1986)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1983-1986			229-1896	1	
10	1597CC (1.6L) E16I/E16S 4 Cyl, 2.992in./76mm (1986-1988)					10
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1986-1988			229-1896	1	
11	1597CC (1.6L) GA16DE 4 Cyl, 2.992in./76mm (1991-1999)					11
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1991-1999			213-1758	16	
12	1597CC (1.6L) GA16I 4 Cyl, 2.992in./76mm (1989-1990)					12
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1989-1990			229-2277	1	
13	1680CC (1.7L) CD17 Diesel 4 Cyl, 3.150in./80mm (1983-1990)					13
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1983-1990			213-1728	8	

14	1770CC (1.8L) L18 4 Cyl, 3.346in./85mm (1973-1974)					14
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1973-1974			229-1692		1
15	1809CC (1.8L) CA18DE 4 Cyl, 3.268in./83mm (1988-1989)					15
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1988-1989			213-1757		16
16	1809CC (1.8L) CA18ET Turbo 4 Cyl, 3.268in./83mm (1984-1987)					16
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1984-1987			229-1894		1
17	1952CC (2.0L) L20B 4 Cyl, 3.346in./85mm (1974-1979)					17
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1974-1979			229-1692		1
18	1952CC (2.0L) Z20E 4 Cyl, 3.346in./85mm (1980-1981)					18
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1980-1981			229-1888		1
19	1952CC (2.0L) Z20S 4 Cyl, 3.346in./85mm (1980-1981)					19
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1980-1981			229-1888		1
20	1974CC (2.0L) CA20E 4 Cyl, 3.327in./84.5mm (1984-1989)					20
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1987-1989		Stanza	229-2142		1
	1987-1988		200SX	229-2142		1
	1986		Stanza, From 1/86	229-2142		1
			200SX, From 2/86	229-2142		1
Camshaft, Mech.	1986-1988		Stanza	229-1894		1
	1986		Stanza, Thru 1/86	229-1894		1
			200SX, Thru 2/86	229-1894		1
	1984-1985		200SX, Stanza	229-1894		1
21	1974CC (2.0L) CA20S 4 Cyl, 3.327in./84.5mm (1982-1983)					21
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1982-1983		Stanza	229-1894		1
22	1998CC (2.0L) SR20DE DOHC 4 Cyl, 3.386in./86mm (1991-1996)					22
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1991-1996			213-1759		16

Nissan

23	2187CC (2.2L) Z22E SOHC 4 Cyl, 3.425in./87mm (1982-1983)					23
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1982-1983			229-1888	1	
24	2389CC (2.4L) KA24DE DOHC 4 Cyl, 3.504in./89mm (1991-1999)					24
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1991-1999			213-1760	16	
25	2389CC (2.4L) KA24E SOHC 4 Cyl, 3.504in./89mm (1989-1992)					25
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1989-1992			229-2272	1	
26	2393CC (2.4L) L24 SOHC 6 Cyl, 3.268in./83mm (1970-1973)					26
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1970-1973			229-1691	1	
27	2393CC (2.4L) L24E SOHC 6 Cyl, 3.268in./83mm (1977-1984)					27
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1978-1984			229-1764	1	
	1977		From 3/77	229-1764	1	
28	2565CC (2.6L) L26 6 Cyl, 3.268in./83mm (1974)					28
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1974			229-1691	1	
29	2753CC (2.8L) L28E SOHC 6 Cyl, 3.386in./86mm (1975-1983)					29
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1978-1983			229-1764	1	
	1977		Thru 2/77	229-1691	1	
			From 3/77	229-1764	1	
	1975-1976			229-1691	1	
30	2753CC (2.8L) L28ET SOHC Turbo 6 Cyl, 3.386in./86mm (1981-1983)					30
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1981-1983			229-1764	1	
31	2960CC (3.0L) VG30DE DOHC V6 Cyl, 3.425in./87mm (1990-1996)					31
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1990-1996			213-1757	24	
32	2960CC (3.0L) VG30DETT DOHC Twin Turbo V6 Cyl, 3.425in./87mm (1990-1996)					32
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1990-1996			213-1757	24	

33	2960CC (3.0L) VG30E SOHC V6 Cyl, 3.425in./87mm (1984-1994)	33
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1984-1991		Left	229-2147	1
			Right	229-2148	1
Valve Lifter, Hyd.	1984-1994			213-1730	12

34	2960CC (3.0L) VG30T SOHC Turbo V6 Cyl, 3.425in./87mm (1984-1989)	34
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Hydraulic	1984-1989		Left	229-2147	1
			Right	229-2148	1
Valve Lifter, Hyd.	1984-1988			213-1730	12

Nissan Truck

Engine Index

Engine	Year	Block	Engine	Year	Block
1595CC (1.6L) L16 Nissan	1969-1973	1	2389CC (2.4L) KA24E SOHC Nissan	1989-1994	8
1770CC (1.8L) L18 Nissan	1974	2	2389CC (2.4L) Z24/Z24i Nissan	1983-1989	9
1952CC (2.0L) L20B Nissan	1975-1980	3	2488CC (2.5L) SD25 OHV Nissan Diesel	1983-1986	10
1952CC (2.0L) Z20 Nissan	1983-1985	4	2960CC (3.0L) VG30 SOHC Nissan	1986-1989	11
2164CC (2.2L) SD22 OHV Nissan Diesel	1981-1983	5	2960CC (3.0L) VG30E SOHC Nissan	1990-1998	12
2187CC (2.2L) Z22 SOHC Nissan	1981-1982	6	3275CC (3.3L) VG33E SOHC Nissan	1996-2002	13
2389CC (2.4L) KA24DE DOHC Nissan	1998	7	3275CC (3.3L) VG33ER SOHC Nissan	2001-2002	14

1	1595CC (1.6L) L16 Nissan 4 Cyl, 3.268in./83mm (1969-1973)	1
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1969-1973			229-1692	1

2	1770CC (1.8L) L18 Nissan 4 Cyl, 3.346in./85mm (1974)	2
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1974			229-1692	1

3	1952CC (2.0L) L20B Nissan 4 Cyl, 3.346in./85mm (1975-1980)	3
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1975-1980			229-1692	1

4	1952CC (2.0L) Z20 Nissan 4 Cyl, 3.346in./85mm (1983-1985)	4
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1983-1985			229-1888	1

5	2164CC (2.2L) SD22 OHV Nissan Diesel 4 Cyl, 3.268in./83mm (1981-1983)	5
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1981-1983			213-1729	8

6	2187CC (2.2L) Z22 SOHC Nissan 4 Cyl, 3.425in./87mm (1981-1982)	6
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1982		Thru 10/82	229-1888	1
	1981		From 6/81	229-1888	1

Nissan Truck

7	2389CC (2.4L) KA24DE DOHC Nissan 4 Cyl, 3.504in./89mm (1998)				7
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1998		Frontier	213-1760	16
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8	2389CC (2.4L) KA24E SOHC Nissan 4 Cyl, 3.504in./89mm (1989-1994)				8
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1989-1994			229-2272	1
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9	2389CC (2.4L) Z24/Z24i Nissan 4 Cyl, 3.504in./89mm (1983-1989)				9
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1983-1989			229-1888	1
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10	2488CC (2.5L) SD25 OHV Nissan Diesel 4 Cyl, 3.504in./89mm (1983-1986)				10
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1983-1986			213-1729	8
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11	2960CC (3.0L) VG30 SOHC Nissan V6 Cyl, 3.425in./87mm (1986-1989)				11
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1986-1989		D21, Left	229-2147	1
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			D21, Right	229-2148	1
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Valve Lifter, Hyd.	1986-1989		D21	213-1730	12
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12	2960CC (3.0L) VG30E SOHC Nissan V6 Cyl, 3.425in./87mm (1990-1998)				12
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1990-1996		Left	229-2147	1
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			Right	229-2148	1
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Valve Lifter, Hyd.	1990-1998			213-1730	12
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13	3275CC (3.3L) VG33E SOHC Nissan V6 Cyl, 3.602in./91.5mm (1996-2002)				13
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1996-2002			213-1730	12
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14	3275CC (3.3L) VG33ER SOHC Nissan V6 Cyl, 3.602in./91.5mm (2001-2002)				14
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	2001-2002			213-1730	12
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Opel

Engine Index

Engine	Year	Block
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1817CC (1.8L) SOHC Isuzu	1976-1979	1
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1	1817CC (1.8L) SOHC Isuzu 4 Cyl, 3.307in./84mm (1976-1979)				1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1976-1979			229-1715	1
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Engine Index

Engine	Year	Block
374 CID (6.1L)	1956	1

1	374 CID (6.1L) V8 Cyl, 4.125in./104.8mm (1956)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1956			213-1662	16
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Passport

Engine Index

Engine	Year	Block
122 CID (2.0L) OHC Pontiac	1989-1990	1

1	122 CID (2.0L) OHC Pontiac 4 Cyl, 3.386in./86mm (1989-1990)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1989-1990			229-1946	1
Valve Lash Adj., Hyd.	1989-1990			213-1710	8

Saturn

Engine Index

Engine	Year	Block
116 CID (1.9L) L24 SOHC	1995-2001	1
116 CID (1.9L) LK0 SOHC	1991-1994	2

Engine	Year	Block
116 CID (1.9L) LL0 DOHC	1991-2002	3
134 CID (2.2L) L61 DOHC General Motors	2002-2004	4

1	116 CID (1.9L) L24 SOHC 4 Cyl, 3.230in./82mm (1995-2001)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd. Roller	1995-2001			213-1778	8
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2	116 CID (1.9L) LK0 SOHC 4 Cyl, 3.230in./82mm (1991-1994)					2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd. Roller	1991-1994			213-1778	8
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3	116 CID (1.9L) LL0 DOHC 4 Cyl, 3.230in./82mm (1991-2002)					3
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1999-2002			213-1780	16
	1991-1998			213-1765	16

4	134 CID (2.2L) L61 DOHC General Motors 4 Cyl, 3.386in./86mm (2002-2004)					4
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hyd. Roller	2002-2004			229-2373	1
				229-2374	1

Saturn Truck

Engine Index

Engine	Year	Block
134 CID (2.2L) L61 DOHC General Motors	2002-2004	1

Saturn Truck

1	134 CID (2.2L) L61 DOHC General Motors 4 Cyl, 3.386in./86mm (2002-2004)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hyd. Roller	2002-2004			229-2373	1	
				229-2374	1	

Studebaker

Engine Index

Engine	Year	Block	Engine	Year	Block
194 CID (3.2L) Chevrolet	1965-1966	1	283 CID (4.6L) Chevrolet	1965-1966	3
230 CID (3.8L) Chevrolet	1966	2			

1	194 CID (3.2L) Chevrolet 6 Cyl, 3.563in./90.5mm (1965-1966)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1965-1966			229-1394	1	
Valve Lifter, Hyd.	1965-1966			213-1638	12	

2	230 CID (3.8L) Chevrolet 6 Cyl, 3.875in./98.4mm (1966)					2
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1966		172 Degree Intake And Exhaust Duration, All Durations Measured At .050"	229-1394	1	
Valve Lifter, Hyd.	1966			213-1638	12	

3	283 CID (4.6L) Chevrolet V8 Cyl, 3.875in./98.4mm (1965-1966)					3
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1965-1966			229-1274	1	
Valve Lifter, Hyd.	1965-1966			213-1638	16	

Subaru

Engine Index

Engine	Year	Block	Engine	Year	Block
1781CC (1.8L) EA82C OHC	1985-1987	1	1781CC (1.8L) EA82T OHC Turbo	1985-1990	3
1781CC (1.8L) EA82S OHC	1985-1994	2			

1	1781CC (1.8L) EA82C OHC 4 Cyl, 3.622in./92mm (1985-1987)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1985-1987			213-1764	8	

2	1781CC (1.8L) EA82S OHC 4 Cyl, 3.622in./92mm (1985-1994)					2
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1985-1994			213-1764	8	

3	1781CC (1.8L) EA82T OHC Turbo 4 Cyl, 3.622in./92mm (1985-1990)					3
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lash Adj., Hyd.	1985-1990			213-1764	8	

Engine Index

Engine	Year	Block
1324CC (1.3L) G13A Suzuki	1986-1988	1

1	1324CC (1.3L) G13A Suzuki 4 Cyl, 2.913in./74mm (1986-1988)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1986-1988			229-1928	1	

Toyota

Engine Index

Engine	Year	Block	Engine	Year	Block
1290CC (1.3L) 4KC OHV	1982	1	1839CC (1.8L) 1CTLC SOHC Turbo Diesel	1984-1985	20
1290CC (1.3L) 4KE OHV	1983-1984	2	1974CC (2.0L) 2CTLC SOHC Diesel	1986	21
1452CC (1.5L) 1AC SOHC	1980	3	1995CC (2.0L) 2SELC SOHC	1983-1986	22
1452CC (1.5L) 3AC SOHC	1981-1988	4	1998CC (2.0L) 3SFE DOHC	1987-1991	23
1456CC (1.5L) 3E SOHC 12 Valve	1988-1990	5	1998CC (2.0L) 3SGELC DOHC	1986-1989	24
1456CC (1.5L) 3EE SOHC 12 Valve	1990-1994	6	1998CC (2.0L) 3SGTE DOHC	1988-1990	25
1497CC (1.5L) 5EFE DOHC	1992-1997	7	2164CC (2.2L) 5SFE DOHC	1990-2001	26
1587CC (1.6L) 4AC SOHC	1983-1987	8	2189CC (2.2L) 20R SOHC	1975-1980	27
1587CC (1.6L) 4AF DOHC	1988-1989	9	2366CC (2.4L) 22R SOHC	1981-1983	28
1587CC (1.6L) 4AFE DOHC	1988-1997	10	2366CC (2.4L) 22REC SOHC	1983-1985	29
1587CC (1.6L) 4AGE DOHC	1988-1991	11	2507CC (2.5L) 2VZFE DOHC	1988-1991	30
1587CC (1.6L) 4AGEC DOHC	1985-1987	12	2759CC (2.8L) 5MGE DOHC	1982-1988	31
1587CC (1.6L) 4AGELC DOHC	1985-1989	13	2954CC (3.0L) 7MGE DOHC	1986-1992	32
1587CC (1.6L) 4AGZE DOHC	1988-1989	14	2954CC (3.0L) 7MGTE DOHC Turbocharged	1987-1992	33
1587CC (1.6L) 4ALC SOHC	1984-1988	15	2959CC (3.0L) 3VZFE DOHC	1992-1993	34
1762CC (1.8L) 7AFE DOHC	1993-1997	16	2995CC (3.0L) 1MZFE DOHC	1994-2003	35
1794CC (1.8L) 1ZZFE DOHC	1998-1999	17	2997CC (3.0L) 2JZGE DOHC	1993-1997	36
1794CC (1.8L) 1ZZFE DOHC VVTi	2000-2001	18	2997CC (3.0L) 2JZGTE DOHC	1993-1997	37
1839CC (1.8L) 1CLC SOHC Diesel	1984-1985	19			

1	1290CC (1.3L) 4KC OHV 4 Cyl, 2.953in./75mm (1982)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1982		From 8/82	213-1731	8	

2	1290CC (1.3L) 4KE OHV 4 Cyl, 2.953in./75mm (1983-1984)					2
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1984		Thru 3/84	213-1731	8	
	1983			213-1731	8	

3	1452CC (1.5L) 1AC SOHC 4 Cyl, 3.051in./77.5mm (1980)					3
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1980		4 Speed Manual Transmission	229-1891	1	
			Except 4 Speed Manual Transmission	229-1892	1	

4	1452CC (1.5L) 3AC SOHC 4 Cyl, 3.051in./77.5mm (1981-1988)					4
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1981-1988		Except 4 Speed Manual Transmission	229-1892	1	
	1987		4 Speed Manual Transmission	229-1891	1	
	1986		4 Speed Manual Transmission, Thru 8/86	229-1891	1	
	1981-1985		4 Speed Manual Transmission	229-1891	1	

Toyota

5 1456CC (1.5L) 3E SOHC 12 Valve 4 Cyl, 2.874in./73mm (1988-1990) 5					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1989-1990			229-2229	1
	1988		From 8/88	229-2229	1
6 1456CC (1.5L) 3EE SOHC 12 Valve 4 Cyl, 2.874in./73mm (1990-1994) 6					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1990-1994			229-2229	1
7 1497CC (1.5L) 5EFE DOHC 4 Cyl, 2.913in./74mm (1992-1997) 7					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1995-1997			213-1770	16
	1992-1994			213-1736	16
8 1587CC (1.6L) 4AC SOHC 4 Cyl, 3.189in./81mm (1983-1987) 8					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1983-1987			229-1892	1
9 1587CC (1.6L) 4AF DOHC 4 Cyl, 3.189in./81mm (1988-1989) 9					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1988-1989		(Cam To Cam Gear Not Included), Intake	229-2344	1
			(Cam To Cam Gear Not Included), Exhaust	229-2345	1
Valve Lifter, Mech.	1988-1989			213-1736	16
10 1587CC (1.6L) 4AFE DOHC 4 Cyl, 3.189in./81mm (1988-1997) 10					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1994-1997		(Cam To Cam Gear Not Included), Intake	229-2346	1
			(Cam To Cam Gear Not Included), Exhaust	229-2347	1
	1993		Celica, (Cam To Cam Gear Not Included), Intake 1.110" Diameter Cam Lobe Base Circle	229-2344	1
			Celica, (Cam To Cam Gear Not Included), Exhaust 1.110" Diameter Cam Lobe Base Circle	229-2345	1
			Corolla, (Cam To Cam Gear Not Included), Intake 1.340" Diameter Cam Lobe Base Circle	229-2346	1
			Corolla, (Cam To Cam Gear Not Included), Exhaust 1.340" Diameter Cam Lobe Base Circle	229-2347	1
	1988-1992		(Cam To Cam Gear Not Included), Intake	229-2344	1
			(Cam To Cam Gear Not Included), Exhaust	229-2345	1
	1993-1997			213-1769	16
				213-1736	16
Valve Lifter, Mech.	1988-1993		Celica	213-1736	16
	1988-1992			213-1736	16
11 1587CC (1.6L) 4AGE DOHC 4 Cyl, 3.189in./81mm (1988-1991) 11					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1988-1991		Intake	229-2335	1
			Exhaust	229-2336	1
Valve Lifter, Mech.	1988-1991			213-1736	16

12	1587CC (1.6L) 4AGEC DOHC 4 Cyl, 3.189in./81mm (1985-1987)					12
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1985-1987			213-1736	16	

13	1587CC (1.6L) 4AGELC DOHC 4 Cyl, 3.189in./81mm (1985-1989)					13
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1985-1989			213-1736	16	

14	1587CC (1.6L) 4AGZE DOHC 4 Cyl, 3.189in./81mm (1988-1989)					14
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1988-1989			213-1736	16	

15	1587CC (1.6L) 4ALC SOHC 4 Cyl, 3.189in./81mm (1984-1988)					15
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1984-1988			229-1892	1	

16	1762CC (1.8L) 7AFE DOHC 4 Cyl, 3.189in./81mm (1993-1997)					16
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1993-1997			213-1769	16	

17	1794CC (1.8L) 1ZZFE DOHC 4 Cyl, 3.110in./79mm (1998-1999)					17
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1998-1999			213-1771	16	

18	1794CC (1.8L) 1ZZFE DOHC VVTi 4 Cyl, 3.110in./79mm (2000-2001)					18
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	2000-2001			213-1771	16	

19	1839CC (1.8L) 1CLC SOHC Diesel 4 Cyl, 3.268in./83mm (1984-1985)					19
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1985		Thru 4/85	213-1733	8	
			From 4/85, Thru 8/85	213-1734	8	
	1984			213-1733	8	

20	1839CC (1.8L) 1CTLCL SOHC Turbo Diesel 4 Cyl, 3.268in./83mm (1984-1985)					20
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1985		Thru 4/85	213-1733	8	
			From 4/85, Thru 8/85	213-1734	8	
	1984			213-1733	8	

21	1974CC (2.0L) 2CTLCL SOHC Diesel 4 Cyl, 3.386in./86mm (1986)					21
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1986			213-1734	8	

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22 1995CC (2.0L) 2SELC SOHC 4 Cyl, 3.307in./84mm (1983-1986) 22					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lash Adj., Hyd.	1983-1986			213-1732	8
23 1998CC (2.0L) 3SFE DOHC 4 Cyl, 3.386in./86mm (1987-1991) 23					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1987-1991		(Cam To Cam Gear Not Included), Intake	229-2339	1
			(Cam To Cam Gear Not Included), Exhaust	229-2340	1
Valve Lifter, Mech.	1987-1991			213-1736	16
24 1998CC (2.0L) 3SGELC DOHC 4 Cyl, 3.386in./86mm (1986-1989) 24					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1986-1989			213-1736	16
25 1998CC (2.0L) 3SGTE DOHC 4 Cyl, 3.386in./86mm (1988-1990) 25					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1990		Thru 3/90	213-1736	16
	1988-1989			213-1736	16
26 2164CC (2.2L) 5SFE DOHC 4 Cyl, 3.425in./87mm (1990-2001) 26					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1992		MR2, Intake, Thru 1/92	229-2339	1
			MR2, Exhaust, Thru 1/92	229-2340	1
	1990-1991		Intake	229-2339	1
			Exhaust	229-2340	1
Valve Lifter, Mech.	1992-2001			213-1769	16
	1992		MR2, Thru 1/92	213-1736	16
			MR2, From 2/92	213-1769	16
	1990-1992		Celica	213-1736	16
	1990-1991			213-1736	16
27 2189CC (2.2L) 20R SOHC 4 Cyl, 3.484in./88.5mm (1975-1980) 27					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1975-1980			229-1699	1
28 2366CC (2.4L) 22R SOHC 4 Cyl, 3.622in./92mm (1981-1983) 28					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1981-1983			229-1699	1
29 2366CC (2.4L) 22REC SOHC 4 Cyl, 3.622in./92mm (1983-1985) 29					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1983-1985			229-1699	1

30	2507CC (2.5L) 2VZFE DOHC V6 Cyl, 3.445in./87.5mm (1988-1991)					30
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1988-1991			213-1736	24	
31	2759CC (2.8L) 5MGE DOHC 6 Cyl, 3.268in./83mm (1982-1988)					31
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1982-1988			229-1889	1	
			(Contains Gear)	229-1890	1	
Valve Lash Adj., Hyd.	1982-1988			213-1732	12	
32	2954CC (3.0L) 7MGE DOHC 6 Cyl, 3.268in./83mm (1986-1992)					32
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1986-1992		(Gear Not Included), Intake	229-2342	1	
			(Contains Gear), Exhaust	229-2343	1	
Valve Lifter, Mech.	1986-1992			213-1736	24	
33	2954CC (3.0L) 7MGTE DOHC Turbocharged 6 Cyl, 3.268in./83mm (1987-1992)					33
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1987-1992		(Gear Not Included), Intake	229-2342	1	
			(Contains Gear), Exhaust	229-2343	1	
Valve Lifter, Mech.	1987-1992			213-1736	24	
34	2959CC (3.0L) 3VZFE DOHC V6 Cyl, 3.445in./87.5mm (1992-1993)					34
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1992-1993			213-1769	24	
35	2995CC (3.0L) 1MZFE DOHC V6 Cyl, 3.445in./87.5mm (1994-2003)					35
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	2002-2003			213-1788	24	
	2001		Thru 5/01	213-1769	24	
			From 5/1/01	213-1788	24	
	1994-2000			213-1769	24	
36	2997CC (3.0L) 2JZGE DOHC 6 Cyl, 3.386in./86mm (1993-1997)					36
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1993-1997			213-1769	24	
37	2997CC (3.0L) 2JZGTE DOHC 6 Cyl, 3.386in./86mm (1993-1997)					37
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1993-1997			213-1769	24	

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Engine Index

Engine	Year	Block	Engine	Year	Block
1998CC (2.0L) 3SFE DOHC Toyota	1996-2000	1	2188CC (2.2L) L SOHC Toyota Diesel	1981-1983	3
1998CC (2.0L) 3YEC OHV Toyota	1984-1985	2	2189CC (2.2L) 20R SOHC Toyota	1975-1980	4

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Engine Index (cont.)

Engine	Year	Block	Engine	Year	Block
2237CC (2.2L) 4YEC OHV Toyota	1986-1990	5	2446CC (2.4L) 2LT SOHC Toyota Diesel	1985	14
2366CC (2.4L) 22R SOHC Toyota	1981-1990	6	2694CC (2.7L) 3RZFE DOHC Toyota	1994-2001	15
2366CC (2.4L) 22RE SOHC Toyota	1989-1995	7	2958CC (3.0L) 3VZE SOHC Toyota	1988-1994	16
2366CC (2.4L) 22REC SOHC Toyota	1984-1989	8	2995CC (3.0L) 1MZFE DOHC Toyota	2001-2003	17
2366CC (2.4L) 22RTEC SOHC Toyota	1985-1988	9	3378CC (3.4L) 5VZFE DOHC Toyota	1995-2003	18
2438CC (2.4L) 2RZFE DOHC Toyota	1995-2001	10	3878CC (3.9L) F Toyota	1969-1974	19
2438CC (2.4L) 2TZFE DOHC Toyota	1990-1996	11	3956CC (4.0L) 3FE OHV Toyota	1988-1992	20
2438CC (2.4L) 2TZFZE DOHC Toyota	1994-1996	12	4230CC (4.2L) 2F OHV Toyota	1975-1987	21
2446CC (2.4L) 2L SOHC Toyota Diesel	1984-1985	13	4663CC (4.7L) 2UZFE DOHC Toyota	1998-2001	22

1 1998CC (2.0L) 3SFE DOHC Toyota 4 Cyl, 3.386in./86mm (1996-2000) 1

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1996-2000			213-1769	16
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2 1998CC (2.0L) 3YEC OHV Toyota 4 Cyl, 3.386in./86mm (1984-1985) 2

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1984-1985			229-2399	1
Valve Lifter, Hyd.	1984-1985			213-1735	8

3 2188CC (2.2L) L SOHC Toyota Diesel 4 Cyl, 3.543in./90mm (1981-1983) 3

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1981-1983			213-1733	8
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4 2189CC (2.2L) 20R SOHC Toyota 4 Cyl, 3.484in./88.5mm (1975-1980) 4

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1975-1980			229-1699	1
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5 2237CC (2.2L) 4YEC OHV Toyota 4 Cyl, 3.583in./91mm (1986-1990) 5

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1986-1990			229-2399	1
Valve Lifter, Hyd.	1986-1990			213-1735	8

6 2366CC (2.4L) 22R SOHC Toyota 4 Cyl, 3.622in./92mm (1981-1990) 6

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1981-1990			229-1699	1
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7 2366CC (2.4L) 22RE SOHC Toyota 4 Cyl, 3.622in./92mm (1989-1995) 7

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1989-1995			229-1699	1
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8 2366CC (2.4L) 22REC SOHC Toyota 4 Cyl, 3.622in./92mm (1984-1989) 8

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.	1984-1989			229-1699	1
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9	2366CC (2.4L) 22RTEC SOHC Toyota 4 Cyl, 3.622in./92mm (1985-1988)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1985-1988			229-1699		1
10	2438CC (2.4L) 2RZFE DOHC Toyota 4 Cyl, 3.740in./95mm (1995-2001)					10
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1995-2001			213-1769		16
11	2438CC (2.4L) 2TZFE DOHC Toyota 4 Cyl, 3.740in./95mm (1990-1996)					11
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1990-1996			213-1769		16
12	2438CC (2.4L) 2TZFE DOHC Toyota 4 Cyl, 3.740in./95mm (1994-1996)					12
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1994-1996			213-1769		16
13	2446CC (2.4L) 2L SOHC Toyota Diesel 4 Cyl, 3.622in./92mm (1984-1985)					13
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1984-1985			213-1733		8
14	2446CC (2.4L) 2LT SOHC Toyota Diesel 4 Cyl, 3.622in./92mm (1985)					14
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1985			213-1733		8
15	2694CC (2.7L) 3RZFE DOHC Toyota 4 Cyl, 3.740in./95mm (1994-2001)					15
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1994-2001			213-1769		16
16	2958CC (3.0L) 3VZE SOHC Toyota V6 Cyl, 3.445in./87.5mm (1988-1994)					16
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1988-1994		Right	229-2244		1
			Left	229-2245		1
Valve Lifter, Mech.	1988-1991			213-1734		12
17	2995CC (3.0L) 1MZFE DOHC Toyota V6 Cyl, 3.445in./87.5mm (2001-2003)					17
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	2002-2003			213-1788		24
	2001		Highlander, Thru 5/01	213-1769		24
			From 5/1/01	213-1788		24
18	3378CC (3.4L) 5VZFE DOHC Toyota V6 Cyl, 3.681in./93.5mm (1995-2003)					18
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1995-2003			213-1769		24

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19	3878CC (3.9L) F Toyota 6 Cyl, 3.543in./90mm (1969-1974)					19
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1969-1974			229-2158	1

20	3956CC (4.0L) 3FE OHV Toyota 6 Cyl, 3.701in./94mm (1988-1992)					20
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1992		Thru 8/92	229-2158	1
		1988-1991			229-2158	1

21	4230CC (4.2L) 2F OHV Toyota 6 Cyl, 3.701in./94mm (1975-1987)					21
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.		1975-1987			229-2158	1

22	4663CC (4.7L) 2UZFE DOHC Toyota V8 Cyl, 3.701in./94mm (1998-2001)					22
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.		1998-2001			213-1772	32

Volkswagen

Engine Index

Engine	Year	Block	Engine	Year	Block
1192CC (1.2L) 30 B.H.P.	1960-1965	1	1588CC (1.6L) FN	1976	12
1192CC (1.2L) 34 B.H.P.	1961-1965	2	1588CC (1.6L) YG	1976-1980	13
1285CC (1.3L) F	1966	3	1588CC (1.6L) YH	1976-1980	14
1457CC (1.5L) EH/FX	1978-1980	4	1588CC (1.6L) YK	1976-1980	15
1471CC (1.5L) CK Diesel	1979-1980	5	1679CC (1.7L)	1971-1973	16
1471CC (1.5L) FC/FG/XR/XS Gas	1974-1975	6	1715CC (1.7L) EN	1981-1984	17
1471CC (1.5L) XV/XW/XY/XZ Gas	1974	7	1715CC (1.7L) JF	1982-1984	18
1493CC (1.5L) H	1967-1969	8	1715CC (1.7L) WT	1982-1983	19
1584CC (1.6L)	1966-1978	9	1780CC (1.8L) JH SOHC	1983-1984	20
1588CC (1.6L) EE	1977	10	1780CC (1.8L) JN	1984-1985	21
1588CC (1.6L) EJ	1979-1980	11	1795CC (1.8L) EC	1974	22

1	1192CC (1.2L) 30 B.H.P. 4 Cyl, 3.031in./77mm (1960-1965)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1960-1965			213-1699	8	
2	1192CC (1.2L) 34 B.H.P. 4 Cyl, 3.031in./77mm (1961-1965)					2
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1961-1965			213-1699	8	
3	1285CC (1.3L) F 4 Cyl, 3.031in./77mm (1966)					3
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1966			213-1699	8	
4	1457CC (1.5L) EH/FX 4 Cyl, 3.130in./79.5mm (1978-1980)					4
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1978-1980			229-1716	1	

5	1471CC (1.5L) CK Diesel 4 Cyl, 3.012in./76.5mm (1979-1980)					5
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1979-1980		Dasher	229-1716	1	
6	1471CC (1.5L) FC/FG/XR/XS Gas 4 Cyl, 3.012in./76.5mm (1974-1975)					6
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1974-1975			229-1716	1	
7	1471CC (1.5L) XV/XW/XY/XZ Gas 4 Cyl, 3.012in./76.5mm (1974)					7
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1974			229-1716	1	
8	1493CC (1.5L) H 4 Cyl, 3.268in./83mm (1967-1969)					8
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1967-1969			213-1699	8	
9	1584CC (1.6L) 4 Cyl, 3.366in./85.5mm (1966-1978)					9
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1966-1978			213-1699	8	
10	1588CC (1.6L) EE 4 Cyl, 3.130in./79.5mm (1977)					10
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1977			229-1716	1	
11	1588CC (1.6L) EJ 4 Cyl, 3.130in./79.5mm (1979-1980)					11
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1979-1980			229-1716	1	
12	1588CC (1.6L) FN 4 Cyl, 3.130in./79.5mm (1976)					12
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1976			229-1716	1	
13	1588CC (1.6L) YG 4 Cyl, 3.130in./79.5mm (1976-1980)					13
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1976-1980			229-1716	1	
14	1588CC (1.6L) YH 4 Cyl, 3.130in./79.5mm (1976-1980)					14
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1976-1980			229-1716	1	

Volkswagen

15	1588CC (1.6L) YK 4 Cyl, 3.130in./79.5mm (1976-1980)					15
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1976-1980			229-1716	1	
16	1679CC (1.7L) 4 Cyl, 3.543in./90mm (1971-1973)					16
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1971-1973			213-1709	8	
17	1715CC (1.7L) EN 4 Cyl, 3.130in./79.5mm (1981-1984)					17
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1981-1984			229-1716	1	
18	1715CC (1.7L) JF 4 Cyl, 3.130in./79.5mm (1982-1984)					18
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1982-1984			229-1716	1	
19	1715CC (1.7L) WT 4 Cyl, 3.130in./79.5mm (1982-1983)					19
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1982-1983			229-1716	1	
20	1780CC (1.8L) JH SOHC 4 Cyl, 3.189in./81mm (1983-1984)					20
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1984		Cabriolet, Jetta	229-1716	1	
	1983-1984		Rabbit, Scirocco	229-1716	1	
21	1780CC (1.8L) JN 4 Cyl, 3.189in./81mm (1984-1985)					21
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Hydraulic	1984-1985			229-1945	1	
22	1795CC (1.8L) EC 4 Cyl, 3.661in./93mm (1974)					22
Part		Year	VIN	Model/Application	Part Number Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1974			213-1709	8	

Volkswagen Truck

Engine Index

Engine	Year	Block	Engine	Year	Block
1584CC (1.6L) B Volkswagen	1968-1978	1	1795CC (1.8L) ED Volkswagen	1974-1975	6
1588CC (1.6L) EJ Volkswagen	1980	2	1915CC (1.9L) DH Volkswagen	1983	7
1679CC (1.7L) CB Volkswagen	1972-1974	3	1970CC (2.0L) BHP/GD/GE Volkswagen	1976-1979	8
1715CC (1.7L) EN Volkswagen	1981-1984	4	1970CC (2.0L) CV Volkswagen	1980-1983	9
1715CC (1.7L) JF Volkswagen	1982	5			

1	1584CC (1.6L) B Volkswagen 4 Cyl, 3.366in./85.5mm (1968-1978)					1
Part	Year	VIN	Model/Application	Part Number	Qty.	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1968-1978			213-1699	8	

2	1588CC (1.6L) EJ Volkswagen 4 Cyl, 3.130in./79.5mm (1980)					2
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1980			229-1716	1	
3	1679CC (1.7L) CB Volkswagen 4 Cyl, 3.543in./90mm (1972-1974)					3
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1972-1974			213-1709	8	
4	1715CC (1.7L) EN Volkswagen 4 Cyl, 3.130in./79.5mm (1981-1984)					4
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1981-1984			229-1716	1	
5	1715CC (1.7L) JF Volkswagen 4 Cyl, 3.130in./79.5mm (1982)					5
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.	1982			229-1716	1	
6	1795CC (1.8L) ED Volkswagen 4 Cyl, 3.661in./93mm (1974-1975)					6
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1974-1975			213-1709	8	
7	1915CC (1.9L) DH Volkswagen 4 Cyl, 3.701in./94mm (1983)					7
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1983			213-1740	8	
8	1970CC (2.0L) BHP/GD/GE Volkswagen 4 Cyl, 3.701in./94mm (1976-1979)					8
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1976-1979			213-1709	4	
9	1970CC (2.0L) CV Volkswagen 4 Cyl, 3.701in./94mm (1980-1983)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1980-1983			213-1740	8	
Valve Lifter, Mech.	1980			213-1709	8	

Volvo

Engine Index

<i>Engine</i>	<i>Year</i>	<i>Block</i>	<i>Engine</i>	<i>Year</i>	<i>Block</i>
121 CID/1990CC (2.0L) B20B	1969-1971	1	182 CID/2978CC (3.0L) B30A	1969-1971	4
121 CID/1990CC (2.0L) B20E	1971	2	182 CID/2978CC (3.0L) B30F	1972-1974	5
121 CID/1990CC (2.0L) B20F	1971-1975	3			

1	121 CID/1990CC (2.0L) B20B 4 Cyl, 3.500in./88.9mm (1969-1971)					1
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1969-1971			213-1718	8	

Volvo

2	121 CID/1990CC (2.0L) B20E 4 Cyl, 3.500in./88.9mm (1971)					2
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1971			213-1718		8
3	121 CID/1990CC (2.0L) B20F 4 Cyl, 3.500in./88.9mm (1971-1975)					3
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1971-1975			213-1718		8
4	182 CID/2978CC (3.0L) B30A 6 Cyl, 3.504in./89mm (1969-1971)					4
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1969-1971			213-1718		12
5	182 CID/2978CC (3.0L) B30F 6 Cyl, 3.504in./89mm (1972-1974)					5
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1972-1974			213-1718		12

Engine Index

Engine	Year	Block
426 CID (7.0L) 670 MKII Allis Chalmers Diesel		1
426 CID (7.0L) 670T MKII Allis Chalmers Diesel		1
426 CID (7.0L) D3400 Allis Chalmers Diesel		1
426 CID (7.0L) D3400 MKII Allis Chalmers Diesel		1

Engine	Year	Block
426 CID (7.0L) D3500 Allis Chalmers Diesel		1
426 CID (7.0L) D3500 MKII Allis Chalmers Diesel		1
426 CID (7.0L) D3700 MKII Allis Chalmers Diesel		1
426 CID (7.0L) D3750 MKII Allis Chalmers Diesel		1

1	426 CID (7.0L) 670 MKII, 670T MKII, D3400, D3400 MKII, D3500, D3500 MKII, D3700 MKII, D3750 MKII Allis Chalmers Diesel 6 Cyl, 4.250in./108mm					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.			Original Equipment Part Number 4029000, (Front Of Cam Gear Hub Counterbored)	229-1844	1
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Caterpillar

Engine Index

Engine	Year	Block
425 CID (7.0L) 3304 Diesel		1
636 CID (10.4L) 1160 Diesel		2
636 CID (10.4L) 3160 Diesel		2
636 CID (10.4L) 3208 Diesel		2
636 CID (10.4L) 3208T Diesel		3
638 CID (10.5L) 3306 CNG		4
638 CID (10.5L) 3306 Diesel		5
638 CID (10.5L) 3306B Diesel		4
638 CID (10.5L) 3306C Diesel		4

Engine	Year	Block
638 CID (10.5L) 3306TA Diesel		4
893 CID (14.6L) 3406 Diesel		6
893 CID (14.6L) 3406B Diesel		6
893 CID (14.6L) 3406B ATAAC Diesel		6
893 CID (14.6L) 3406B-JWAC Diesel		6
893 CID (14.6L) 3406C Diesel		6
893 CID (14.6L) 3406E Diesel		6
1099 CID (18.0L) 3408 Diesel		7

1	425 CID (7.0L) 3304 Diesel 4 Cyl, 4.750in./120.7mm					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.			Original Equipment Part Number 7C3862	229-2189	1
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2	636 CID (10.4L) 1160, 3160, 3208 Diesel V8 Cyl, 4.500in./114.3mm					2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number 9N5786	213-1720	16
Camshaft, Mech.			Original Equipment Part Number 2W4196	229-1783	1

3	636 CID (10.4L) 3208T Diesel V8 Cyl, 4.500in./114.3mm					3
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number 9N5786	213-1720	16
Camshaft, Mech.			Original Equipment Part Number 9Y3355	229-2188	1

4	638 CID (10.5L) 3306 CNG 6 Cyl, 4.750in./120.7mm 638 CID (10.5L) 3306TA, 3306B, 3306C Diesel 6 Cyl, 4.750in./120.7mm					4
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number 7S3161	213-1775	12
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5	638 CID (10.5L) 3306 Diesel 6 Cyl, 4.750in./120.7mm					5
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number 7S3161	213-1775	12
Camshaft, Mech.			Original Equipment Part Number 1N4407	229-1831	1

Caterpillar

6	893 CID (14.6L) 3406, 3406B, 3406B ATAAC, 3406B-JWAC, 3406C, 3406E Diesel 6 Cyl, 5.400in./137.2mm					6
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.			Original Equipment Part Number 6N4991	229-1830	1	
			Original Equipment Part Number 7W3796	229-1847	1	
			Original Equipment Part Number 4W2430	229-2197	1	

7	1099 CID (18.0L) 3408 Diesel V8 Cyl, 5.400in./137.2mm					7
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Camshaft, Mech.			Original Equipment Part Number 1W5060	229-1848	1	

Chrysler Industrial

Engine Index

Engine	Year	Block	Engine	Year	Block
259 CID (4.2L) Ind 52 Chrysler		1	361 CID (5.9L) HC361 Chrysler		3
315 CID (5.2L) Ind 54 Chrysler		1	361 CID (5.9L) HT361 Chrysler		4
318 CID (5.2L) HA318 Chrysler		2	383 CID (6.3L) H383 Chrysler		1
331 CID (5.4L) Ind 24 Chrysler		1	383 CID (6.3L) HA383 Chrysler		1
331 CID (5.4L) Ind 24A Chrysler		1	413 CID (6.8L) HB413 Chrysler		5
361 CID (5.9L) H361 Chrysler		1	413 CID (6.8L) HC413 Chrysler		3
361 CID (5.9L) HB361 Chrysler		3	413 CID (6.8L) HT413 Chrysler		5

1	259 CID (4.2L) Ind 52 Chrysler V8 Cyl, 3.563in./90.5mm 315 CID (5.2L) Ind 54 Chrysler V8 Cyl, 3.625in./92.1mm 331 CID (5.4L) Ind 24, Ind 24A Chrysler V8 Cyl, 3.813in./96.9mm 361 CID (5.9L) H361 Chrysler V8 Cyl, 4.125in./104.8mm 383 CID (6.3L) H383, HA383 Chrysler V8 Cyl, 4.250in./108mm					1
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.				213-1635	16	

2	318 CID (5.2L) HA318 Chrysler V8 Cyl, 3.910in./99.3mm					2
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.				213-1675	16	
Camshaft, Mech.				229-1198	1	

3	361 CID (5.9L) HB361, HC361 Chrysler V8 Cyl, 4.125in./104.8mm 413 CID (6.8L) HC413 Chrysler V8 Cyl, 4.188in./106.4mm					3
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.			Thru 1969	213-1635	16	
Camshaft, Mech.			Original Equipment Part Number 2129203	229-1327	1	

4	361 CID (5.9L) HT361 Chrysler V8 Cyl, 4.125in./104.8mm					4
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.				213-1635	16	
Camshaft, Mech.			Original Equipment Part Number 1859721	229-1442	1	

5 413 CID (6.8L) HB413, HT413 Chrysler V8 Cyl, 4.188in./106.4mm**5**

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.			From 1969, Thru 1972	213-1686	16

Cummins**Camshaft Quick Reference by CPL Number**

CPL No.	Engine Model	Clevite Camshaft	CPL No.	Engine Model	Clevite Camshaft
0001	NH/NT Series - Small Cam	229-1743	0131	NH/NT Series - Small Cam	229-1923
0002	NH/NT Series - Small Cam	229-1743	0132	NH/NT Series - Small Cam	229-1743
0003	NH/NT Series - Small Cam	229-1743	0133	NH/NT Series - Small Cam	229-1743
0004	NH/NT Series - Small Cam	229-1743	0135	NH/NT Series - Small Cam	229-1743
0005	NH/NT Series - Small Cam	229-1743	0144	NH/NT Series - Small Cam	229-1743
0006	NH/NT Series - Small Cam	229-1743	0146	NH/NT Series - Small Cam	229-1743
0007	NH/NT Series - Small Cam	229-1743	0147	NH/NT Series - Small Cam	229-1743
0008	NH/NT Series - Small Cam	229-1743	0152	NH/NT Series - Small Cam	229-1743
0009	NH/NT Series - Small Cam	229-1743	0154	NH/NT Series - Small Cam	229-1743
0010	NH/NT Series - Small Cam	229-1743	0155	NH/NT Series - Small Cam	229-1743
0011	NH/NT Series - Small Cam	229-1743	0156	NH/NT Series - Small Cam	229-1743
0012	NH/NT Series - Small Cam	229-1743	0160	NH/NT Series - Small Cam	229-1743
0013	NH/NT Series - Small Cam	229-1743	0161	NH/NT Series - Small Cam	229-1743
0014	NH/NT Series - Small Cam	229-1923	0164	NH/NT Series - Small Cam	229-1923
0016	NH/NT Series - Small Cam	229-1923	0166	NH/NT Series - Small Cam	229-1743
0017	NH/NT Series - Small Cam	229-1923	0168	NH/NT Series - Small Cam	229-1743
0018	NH/NT Series - Small Cam	229-1923	0170	NH/NT Series - Small Cam	229-1923
0019	NH/NT Series - Small Cam	229-1923	0172	NH/NT Series - Small Cam	229-1923
0020	NH/NT Series - Small Cam	229-1743	0173	NH/NT Series - Small Cam	229-1743
0021	NH/NT Series - Small Cam	229-1743	0174	NH/NT Series - Small Cam	229-1743
0022	NH/NT Series - Small Cam	229-1743	0175	NH/NT Series - Small Cam	229-1743
0023	NH/NT Series - Small Cam	229-1743	0176	NH/NT Series - Small Cam	229-1743
0024	NH/NT Series - Small Cam	229-1923	0178	NH/NT Series - Small Cam	229-1743
0025	NH/NT Series - Small Cam	229-1743	0180	NH/NT Series - Small Cam	229-1923
0026	NH/NT Series - Small Cam	229-1923	0181	NH/NT Series - Small Cam	229-1743
0028	NH/NT Series - Small Cam	229-1923	0182	NH/NT Series - Small Cam	229-1743
0034	NH/NT Series - Small Cam	229-1923	0186	V-903, VT-903	229-2308
0035	NH/NT Series - Small Cam	229-1923	0187	NH/NT Series - Small Cam	229-1743
0036	NH/NT Series - Small Cam	229-1923	0188	NH/NT Series - Small Cam	229-1743
0058	NH/NT Series - Small Cam	229-1923	0189	NH/NT Series - Small Cam	229-1743
0069	NH/NT Series - Small Cam	229-1743	0190	NH/NT Series - Small Cam	229-1743
0070	NH/NT Series - Small Cam	229-1743	0196	NH/NT Series - Small Cam	229-1743
0071	NH/NT Series - Small Cam	229-1743	0197	NH/NT Series - Small Cam	229-1743
0075	NH/NT Series - Small Cam	229-1743	0198	NH/NT Series - Small Cam	229-1743
0076	NH/NT Series - Small Cam	229-1743	0199	NH/NT Series - Big Cam	229-1722
0077	NH/NT Series - Small Cam	229-1743	0200	NH/NT Series - Small Cam	229-1923
0080	NH/NT Series - Small Cam	229-1923	0201	NH/NT Series - Small Cam	229-1743
0081	NH/NT Series - Small Cam	229-1743	0202	NH/NT Series - Small Cam	229-1743
0085	NH/NT Series - Small Cam	229-1743	0203	V-903, VT-903	229-2308
0087	NH/NT Series - Small Cam	229-1923	0204	NH/NT Series - Small Cam	229-1743
0090	NH/NT Series - Small Cam	229-1923	0206	V-903, VT-903	229-2308
0091	NH/NT Series - Small Cam	229-1923	0214	NH/NT Series - Big Cam	229-1722
0092	NH/NT Series - Small Cam	229-1923	0215	NH/NT Series - Small Cam	229-1743
0093	NH/NT Series - Small Cam	229-1743	0217	NH/NT Series - Small Cam	229-1743
0100	NH/NT Series - Small Cam	229-1743	0218	NH/NT Series - Big Cam	229-1722
0101	NH/NT Series - Small Cam	229-1743	0220	NH/NT Series - Small Cam	229-1743
0102	NH/NT Series - Small Cam	229-1923	0221	NH/NT Series - Small Cam	229-1743
0104	NH/NT Series - Small Cam	229-1923	0222	NH/NT Series - Big Cam	229-1722
0107	NH/NT Series - Small Cam	229-1743	0226	NH/NT Series - Small Cam	229-1743
0108	NH/NT Series - Small Cam	229-1743	0227	NH/NT Series - Small Cam	229-1743
0109	NH/NT Series - Small Cam	229-1743	0230	NH/NT Series - Small Cam	229-1743
0113	NH/NT Series - Small Cam	229-1743	0233	NH/NT Series - Big Cam	229-1722
0114	NH/NT Series - Small Cam	229-1923	0246	NH/NT Series - Small Cam	229-1743
0115	NH/NT Series - Small Cam	229-1743	0247	V-903, VT-903	229-2308
0117	NH/NT Series - Small Cam	229-1923	0255	NH/NT Series - Small Cam	229-1923
0120	NH/NT Series - Small Cam	229-1923	0256	NH/NT Series - Small Cam	229-1743
0121	NH/NT Series - Small Cam	229-1923	0257	V-903, VT-903	229-2308
0123	NH/NT Series - Small Cam	229-1743	0258	NH/NT Series - Small Cam	229-1923
0124	NH/NT Series - Small Cam	229-1923	0259	NH/NT Series - Small Cam	229-1743
0125	NH/NT Series - Small Cam	229-1923	0260	NH/NT Series - Small Cam	229-1743
0128	NH/NT Series - Small Cam	229-1923	0266	NH/NT Series - Big Cam	229-1722

Camshaft Quick Reference by CPL Number

CPL No.	Engine Model	Clevite Camshaft	CPL No.	Engine Model	Clevite Camshaft
0267	NH/NT Series - Big Cam	229-1722	0376	NH/NT Series - Big Cam	229-1722
0270	NH/NT Series - Small Cam	229-1743	0377	NH/NT Series - Big Cam	229-1722
0271	NH/NT Series - Small Cam	229-1923	0383	V-903, VT-903	229-2308
0272	NH/NT Series - Small Cam	229-1743	0384	NH/NT Series - Small Cam	229-1743
0273	V-903, VT-903	229-2308	0387	V-903, VT-903	229-2308
0276	NH/NT Series - Small Cam	229-1743	0389	V-903, VT-903	229-2308
0278	NH/NT Series - Small Cam	229-1743	0391	NH/NT Series - Big Cam	229-1722
0280	NH/NT Series - Small Cam	229-1743	0392	NH/NT Series - Big Cam	229-1722
0285	NH/NT Series - Small Cam	229-1743	0393	NH/NT Series - Big Cam	229-1722
0286	V-903, VT-903	229-2308	0394	NH/NT Series - Big Cam	229-1722
0287	V-903, VT-903	229-2308	0395	NH/NT Series - Big Cam	229-1722
0288	NH/NT Series - Small Cam	229-1743	0396	NH/NT Series - Big Cam	229-1722
0294	NH/NT Series - Big Cam	229-1722	0397	NH/NT Series - Big Cam	229-1722
0298	NH/NT Series - Big Cam	229-1722	0402	NH/NT Series - Big Cam	229-1722
0299	NH/NT Series - Small Cam	229-1743	0407	NH/NT Series - Small Cam	229-1743
0300	NH/NT Series - Small Cam	229-1743	0408	NH/NT Series - Small Cam	229-1743
0301	V-903, VT-903	229-2308	0411	NH/NT Series - Small Cam	229-1743
0306	NH/NT Series - Big Cam	229-1722	0412	NH/NT Series - Small Cam	229-1743
0307	NH/NT Series - Big Cam	229-1722	0414	NH/NT Series - Big Cam	229-1722
0308	NH/NT Series - Big Cam	229-1722	0416	NH/NT Series - Small Cam	229-1743
0309	NH/NT Series - Big Cam	229-1722	0418	NH/NT Series - Small Cam	229-1923
0310	NH/NT Series - Big Cam	229-1722	0419	NH/NT Series - Big Cam	229-1722
0312	NH/NT Series - Small Cam	229-1923	0430	V-903, VT-903	229-2308
0314	NH/NT Series - Small Cam	229-1743	0431	NH/NT Series - Big Cam	229-1722
0315	NH/NT Series - Big Cam	229-1722	0432	NH/NT Series - Big Cam	229-1722
0316	NH/NT Series - Small Cam	229-1743	0433	NH/NT Series - Big Cam	229-1722
0317	NH/NT Series - Small Cam	229-1743	0435	NH/NT Series - Big Cam	229-1722
0318	NH/NT Series - Small Cam	229-1743	0436	NH/NT Series - Big Cam	229-1722
0319	NH/NT Series - Small Cam	229-1743	0437	NH/NT Series - Small Cam	229-1743
0320	NH/NT Series - Big Cam	229-1722	0448	NH/NT Series - Small Cam	229-1743
0322	NH/NT Series - Big Cam	229-1722	0449	NH/NT Series - Big Cam	229-1722
0323	NH/NT Series - Big Cam	229-1722	0450	NH/NT Series - Big Cam	229-1722
0324	NH/NT Series - Big Cam	229-1722	0452	NH/NT Series - Small Cam	229-1743
0325	NH/NT Series - Small Cam	229-1743	0460	NH/NT Series - Big Cam	229-1722
0326	NH/NT Series - Small Cam	229-1743	0461	NH/NT Series - Big Cam	229-1722
0327	NH/NT Series - Big Cam	229-1722	0462	NH/NT Series - Big Cam	229-1722
0328	NH/NT Series - Big Cam	229-1722	0463	NH/NT Series - Big Cam	229-1722
0329	NH/NT Series - Big Cam	229-1722	0467	NH/NT Series - Small Cam	229-1743
0331	NH/NT Series - Small Cam	229-1743	0468	NH/NT Series - Small Cam	229-1743
0332	NH/NT Series - Big Cam	229-1722	0469	NH/NT Series - Big Cam	229-1722
0338	NH/NT Series - Big Cam	229-1722	0470	NH/NT Series - Big Cam	229-1722
0339	NH/NT Series - Big Cam	229-1722	0471	NH/NT Series - Big Cam	229-1722
0340	V-903, VT-903	229-2308	0472	NH/NT Series - Big Cam	229-1722
0344	NH/NT Series - Big Cam	229-1722	0473	NH/NT Series - Big Cam	229-1722
0345	NH/NT Series - Big Cam	229-1722	0479	NH/NT Series - Big Cam	229-1722
0346	NH/NT Series - Small Cam	229-1743	0481	NH/NT Series - Big Cam	229-1722
0347	NH/NT Series - Big Cam	229-1722	0482	NH/NT Series - Big Cam	229-1722
0348	NH/NT Series - Big Cam	229-1722	0483	NH/NT Series - Big Cam	229-1722
0349	NH/NT Series - Big Cam	229-1722	0484	V-903, VT-903	229-2308
0350	V-903, VT-903	229-2308	0485	NH/NT Series - Big Cam	229-1722
0352	V-903, VT-903	229-2308	0488	NH/NT Series - Small Cam	229-1743
0353	NH/NT Series - Big Cam	229-1722	0489	NH/NT Series - Small Cam	229-1743
0354	NH/NT Series - Big Cam	229-1722	0490	NH/NT Series - Small Cam	229-1743
0356	NH/NT Series - Small Cam	229-1923	0491	NH/NT Series - Big Cam	229-1722
0357	NH/NT Series - Small Cam	229-1923	0492	NH/NT Series - Big Cam	229-1722
0358	NH/NT Series - Big Cam	229-1722	0496	V-903, VT-903	229-2308
0359	NH/NT Series - Big Cam	229-1722	0497	NH/NT Series - Small Cam	229-1743
0360	NH/NT Series - Big Cam	229-1722	0498	NH/NT Series - Small Cam	229-1743
0361	NH/NT Series - Big Cam	229-1722	0499	NH/NT Series - Big Cam	229-1722
0362	NH/NT Series - Big Cam	229-1722	0500	NH/NT Series - Big Cam	229-1722
0363	NH/NT Series - Big Cam	229-1722	0506	NH/NT Series - Big Cam	229-1722
0364	NH/NT Series - Big Cam	229-1722	0509	NH/NT Series - Big Cam	229-1722
0365	NH/NT Series - Big Cam	229-1722	0510	NH/NT Series - Big Cam	229-1722
0366	NH/NT Series - Big Cam	229-1722	0511	NH/NT Series - Small Cam	229-1743
0369	NH/NT Series - Big Cam	229-1722	0512	NH/NT Series - Big Cam	229-1722
0370	NH/NT Series - Small Cam	229-1743	0516	NH/NT Series - Big Cam	229-1722
0371	NH/NT Series - Small Cam	229-1743	0517	NH/NT Series - Big Cam	229-1874
0372	NH/NT Series - Small Cam	229-1743	0524	L10, LT-10, LT-10A, LTA-10C	229-1954
0373	NH/NT Series - Big Cam	229-1722	0527	L10, LT-10, LT-10A, LTA-10C	229-1954
0374	NH/NT Series - Big Cam	229-1722	0528	L10, LT-10, LT-10A, LTA-10C	229-1954
0375	NH/NT Series - Big Cam	229-1722	0529	NH/NT Series - Big Cam	229-1722

Camshaft Quick Reference by CPL Number

CPL No.	Engine Model	Clevite Camshaft	CPL No.	Engine Model	Clevite Camshaft
0530	NH/NT Series - Big Cam	229-1722	0676	N/NH/NHC/NT Series Big Cam IV	229-2233
0531	NH/NT Series - Big Cam	229-1722	0677	NTCC Series Big Cam III, IV	229-2210
0534	L10, LT-10, LT-10A, LTA-10C	229-1954	0695	NH/NT Series - Small Cam	229-1743
0535	L10, LT-10, LT-10A, LTA-10C	229-1954	0699	NH/NT Series - Big Cam	229-1874
0536	NH/NT Series - Big Cam	229-1722	0700	NH/NT Series - Big Cam	229-1874
0538	NH/NT Series - Big Cam	229-1722	0701	NH/NT Series - Big Cam	229-1874
0539	NH/NT Series - Big Cam	229-1722	0703	L10, LT-10, LT-10A, LTA-10C	229-1954
0540	NH/NT Series - Big Cam	229-1722	0704	L10, LT-10, LT-10A, LTA-10C	229-1954
0541	NH/NT Series - Big Cam	229-1722	0706	NH/NT Series - Big Cam	229-1874
0542	NH/NT Series - Big Cam	229-1722	0707	L10, LT-10, LT-10A, LTA-10C	229-1954
0543	NH/NT Series - Big Cam	229-1722	0708	L10, LT-10, LT-10A, LTA-10C	229-1954
0544	NH/NT Series - Small Cam	229-1923	0717	L10, LT-10, LT-10A, LTA-10C	229-1954
0545	NH/NT Series - Big Cam	229-1722	0718	NH/NT Series - Big Cam	229-1874
0547	NH/NT Series - Small Cam	229-1743	0719	NH/NT Series - Big Cam	229-1874
0551	NH/NT Series - Big Cam	229-1722	0726	L10, LT-10, LT-10A, LTA-10C	229-1954
0552	NH/NT Series - Big Cam	229-1722	0731	NH/NT Series - Big Cam	229-1874
0553	NH/NT Series - Big Cam	229-1874	0732	NH/NT Series - Big Cam	229-1874
0554	NH/NT Series - Big Cam	229-1874	0733	NH/NT Series - Big Cam	229-1874
0561	L10, LT-10, LT-10A, LTA-10C	229-1954	0735	L10, LT-10, LT-10A, LTA-10C	229-2145
0562	L10, LT-10, LT-10A, LTA-10C	229-1954	0743	NH/NT Series - Big Cam	229-1874
0566	NH/NT Series - Big Cam	229-1722	0744	NH/NT Series - Big Cam	229-1874
0567	NH/NT Series - Big Cam	229-1874	0745	NH/NT Series - Big Cam	229-1874
0572	NH/NT Series - Small Cam	229-1743	0746	NH/NT Series - Small Cam	229-1743
0573	NH/NT Series - Big Cam	229-1874	0747	L10, LT-10, LT-10A, LTA-10C	229-1954
0574	NH/NT Series - Big Cam	229-1874	0748	L10, LT-10, LT-10A, LTA-10C	229-2145
0575	NH/NT Series - Big Cam	229-1874	0749	NH/NT Series - Big Cam	229-1874
0578	NH/NT Series - Big Cam	229-1722	0751	L10, LT-10, LT-10A, LTA-10C	229-2145
0579	NH/NT Series - Big Cam	229-1722	0764	L10, LT-10, LT-10A, LTA-10C	229-2145
0580	L10, LT-10, LT-10A, LTA-10C	229-1954	0765	L10, LT-10, LT-10A, LTA-10C	229-2145
0581	NH/NT Series - Big Cam	229-1722	0769	NH/NT Series - Big Cam	229-1722
0582	NH/NT Series - Big Cam	229-1874	0770	L10, LT-10, LT-10A, LTA-10C	229-1954
0583	NH/NT Series - Big Cam	229-1874	0771	L10, LT-10, LT-10A, LTA-10C	229-1954
0585	NH/NT Series - Big Cam	229-1874	0772	L10, LT-10, LT-10A, LTA-10C	229-1954
0588	NH/NT Series - Big Cam	229-1874	0773	L10, LT-10, LT-10A, LTA-10C	229-1954
0606	NH/NT Series - Big Cam	229-1874	0774	L10, LT-10, LT-10A, LTA-10C	229-1954
0608	L10, LT-10, LT-10A, LTA-10C	229-1954	0775	L10, LT-10, LT-10A, LTA-10C	229-1954
0609	NH/NT Series - Big Cam	229-1874	0776	L10, LT-10, LT-10A, LTA-10C	229-1954
0611	NH/NT Series - Big Cam	229-1874	0777	L10, LT-10, LT-10A, LTA-10C	229-1954
0613	L10, LT-10, LT-10A, LTA-10C	229-1954	0778	L10, LT-10, LT-10A, LTA-10C	229-1954
0614	NTCC Series Big Cam III, IV	229-2210	0779	L10, LT-10, LT-10A, LTA-10C	229-1954
0615	NTCC Series Big Cam III, IV	229-2210	0780	L10, LT-10, LT-10A, LTA-10C	229-2145
0616	NTCC Series Big Cam III, IV	229-2210	0781	L10, LT-10, LT-10A, LTA-10C	229-2145
0617	NTCC Series Big Cam III, IV	229-2210	0782	L10, LT-10, LT-10A, LTA-10C	229-1954
0625	NH/NT Series - Big Cam	229-1722	0783	L10, LT-10, LT-10A, LTA-10C	229-2145
0626	L10, LT-10, LT-10A, LTA-10C	229-1954	0784	L10, LT-10, LT-10A, LTA-10C	229-1954
0631	L10, LT-10, LT-10A, LTA-10C	229-1954	0785	L10, LT-10, LT-10A, LTA-10C	229-1954
0632	NH/NT Series - Big Cam	229-1722	0786	L10, LT-10, LT-10A, LTA-10C	229-1954
0633	NH/NT Series - Big Cam	229-1722	0787	L10, LT-10, LT-10A, LTA-10C	229-2145
0634	NH/NT Series - Big Cam	229-1722	0788	L10, LT-10, LT-10A, LTA-10C	229-2145
0635	NTCC Series Big Cam III, IV	229-2210	0790	L10, LT-10, LT-10A, LTA-10C	229-2145
0636	NH/NT Series - Small Cam	229-1743	0794	NTCC Series Big Cam III, IV	229-2210
0637	NH/NT Series - Small Cam	229-1743	0795	NTCC Series Big Cam III, IV	229-2210
0638	L10, LT-10, LT-10A, LTA-10C	229-1954	0796	NH/NT Series - Big Cam	229-1874
0641	L10, LT-10, LT-10A, LTA-10C	229-1954	0797	NH/NT Series - Big Cam	229-1874
0642	N/NH/NHC/NT Series Big Cam IV	229-2233	0799	L10, LT-10, LT-10A, LTA-10C	229-1954
0643	L10, LT-10, LT-10A, LTA-10C	229-1954	0806	N/NH/NHC/NT Series Big Cam IV	229-2209
0647	N/NH/NHC/NT Series Big Cam IV	229-2233	0811	NH/NT Series - Big Cam	229-1874
0649	L10, LT-10, LT-10A, LTA-10C	229-1954	0812	NH/NT Series - Big Cam	229-1874
0650	NH/NT Series - Big Cam	229-1874	0813	NH/NT Series - Big Cam	229-1874
0651	N/NH/NHC/NT Series Big Cam IV	229-2233	0814	N/NH/NHC/NT Series Big Cam IV	229-2233
0652	L10, LT-10, LT-10A, LTA-10C	229-2145	0815	L10, LT-10, LT-10A, LTA-10C	229-2145
0655	L10, LT-10, LT-10A, LTA-10C	229-2145	0821	N/NH/NHC/NT Series Big Cam IV	229-2209
0657	NH/NT Series - Big Cam	229-1874	0827	N/NH/NHC/NT Series Big Cam IV	229-2144
0659	N/NH/NHC/NT Series Big Cam IV	229-2233	0832	NH/NT Series - Big Cam	229-1874
0662	L10, LT-10, LT-10A, LTA-10C	229-1954	0833	N/NH/NHC/NT Series Big Cam IV	229-2209
0669	NH/NT Series - Big Cam	229-1722	0835	L10, LT-10, LT-10A, LTA-10C	229-2145
0670	NH/NT Series - Big Cam	229-1874	0836	L10, LT-10, LT-10A, LTA-10C	229-1954
0671	L10, LT-10, LT-10A, LTA-10C	229-2145	0838	N/NH/NHC/NT Series Big Cam IV	229-2208
0673	NH/NT Series - Big Cam	229-1874	0840	N/NH/NHC/NT Series Big Cam IV	229-2208
0674	NH/NT Series - Big Cam	229-1874	0842	N/NH/NHC/NT Series Big Cam IV	229-2209
0675	NH/NT Series - Big Cam	229-1874	0881	L10, LT-10, LT-10A, LTA-10C	229-1954

Camshaft Quick Reference by CPL Number

CPL No.	Engine Model	Clevite Camshaft	CPL No.	Engine Model	Clevite Camshaft
0882	L10, LT-10, LT-10A, LTA-10C	229-1954	1453	L10, LT-10, LT-10A, LTA-10C	229-1954
0891	NH/NT Series - Big Cam	229-1874	1459	L10, LT-10, LT-10A, LTA-10C	229-1954
0894	L10, LT-10, LT-10A, LTA-10C	229-2145	1515	N/NH/NHC/NT Series Big Cam IV	229-2209
0903	N/NH/NHC/NT Series Big Cam IV	229-2209	1626	L10, LT-10, LT-10A, LTA-10C	229-2145
0904	N/NH/NHC/NT Series Big Cam IV	229-2209	1636	N/NH/NHC/NT Series Big Cam IV	229-2144
0905	NH/NT Series - Big Cam	229-1874	1637	N/NH/NHC/NT Series Big Cam IV	229-2144
0909	NH/NT Series - Big Cam	229-1874	1660	L10, LT-10, LT-10A, LTA-10C	229-1954
0910	N/NH/NHC/NT Series Big Cam IV	229-2144	1674	L10, LT-10, LT-10A, LTA-10C	229-1954
0921	L10, LT-10, LT-10A, LTA-10C	229-1954	1686	N/NH/NHC/NT Series Big Cam IV	229-2144
0958	L10, LT-10, LT-10A, LTA-10C	229-1954	1695	L10, LT-10, LT-10A, LTA-10C	229-1954
0963	NH/NT Series - Big Cam	229-1874	1696	L10, LT-10, LT-10A, LTA-10C	229-1954
0972	NH/NT Series - Big Cam	229-1874	1697	L10, LT-10, LT-10A, LTA-10C	229-1954
0974	NH/NT Series - Big Cam	229-1874	1698	L10, LT-10, LT-10A, LTA-10C	229-1954
0988	NTCC Series Big Cam III, IV	229-2210	1699	L10, LT-10, LT-10A, LTA-10C	229-1954
0995	L10, LT-10, LT-10A, LTA-10C	229-2145	1800	L10, LT-10, LT-10A, LTA-10C	229-2145
1164	L10, LT-10, LT-10A, LTA-10C	229-2145	1849	L10, LT-10, LT-10A, LTA-10C	229-1954
1171	NH/NT Series - Big Cam	229-1874	1930	L10, LT-10, LT-10A, LTA-10C	229-1954
1185	N/NH/NHC/NT Series Big Cam IV	229-2144	1931	L10, LT-10, LT-10A, LTA-10C	229-2145
1186	N/NH/NHC/NT Series Big Cam IV	229-2209	1958	L10, LT-10, LT-10A, LTA-10C	229-2145
1187	N/NH/NHC/NT Series Big Cam IV	229-2208	2068	L10, LT-10, LT-10A, LTA-10C	229-2145
1188	N/NH/NHC/NT Series Big Cam IV	229-2144	2069	L10, LT-10, LT-10A, LTA-10C	229-2145
1194	NH/NT Series - Big Cam	229-1874	2192	L10, LT-10, LT-10A, LTA-10C	229-2145
1198	L10, LT-10, LT-10A, LTA-10C	229-1954	2385	L10, LT-10, LT-10A, LTA-10C	229-2145
1200	N/NH/NHC/NT Series Big Cam IV	229-2209	5003	V470, V8-470G, V8E-170, V8-185	229-1951
1204	NH/NT Series - Big Cam	229-1874	5004	V352, V6-140, V6-140B, V6-155	229-1950
1205	NH/NT Series - Big Cam	229-1874	5005	V470, V8-470G, V8E-170, V8-185	229-1951
1208	L10, LT-10, LT-10A, LTA-10C	229-2145	5009	V470, V8-470G, V8E-170, V8-185	229-1951
1210	N/NH/NHC/NT Series Big Cam IV	229-2144	5010	V352, V6-140, V6-140B, V6-155	229-1950
1211	N/NH/NHC/NT Series Big Cam IV	229-2144	5011	V470, V8-470G, V8E-170, V8-185	229-1951
1215	N/NH/NHC/NT Series Big Cam IV	229-2209	5012	V470, V8-470G, V8E-170, V8-185	229-1951
1234	L10, LT-10, LT-10A, LTA-10C	229-1954	5016	V470, V8-470G, V8E-170, V8-185	229-1951
1252	NH/NT Series - Big Cam	229-1874	5017	V470, V8-470G, V8E-170, V8-185	229-1951
1255	NH/NT Series - Big Cam	229-1874	5018	V470, V8-470G, V8E-170, V8-185	229-1951
1256	N/NH/NHC/NT Series Big Cam IV	229-2144	5019	V470, V8-470G, V8E-170, V8-185	229-1951
1280	N/NH/NHC/NT Series Big Cam IV	229-2144	5020	V470, V8-470G, V8E-170, V8-185	229-1951
1350	NH/NT Series - Big Cam	229-1722	5021	V470, V8-470G, V8E-170, V8-185	229-1951
1352	N/NH/NHC/NT Series Big Cam IV	229-2208	5022	V470, V8-470G, V8E-170, V8-185	229-1951
1359	L10, LT-10, LT-10A, LTA-10C	229-1954	5023	V470, V8-470G, V8E-170, V8-185	229-1951
1369	N/NH/NHC/NT Series Big Cam IV	229-2209	5024	V352, V6-140, V6-140B, V6-155	229-1950
1370	N/NH/NHC/NT Series Big Cam IV	229-2209	5025	V470, V8-470G, V8E-170, V8-185	229-1951
1378	L10, LT-10, LT-10A, LTA-10C	229-2145	5026	V470, V8-470G, V8E-170, V8-185	229-1951
1383	N/NH/NHC/NT Series Big Cam IV	229-2209	5027	V470, V8-470G, V8E-170, V8-185	229-1951
1402	N/NH/NHC/NT Series Big Cam IV	229-2209	5028	V470, V8-470G, V8E-170, V8-185	229-1951
1412	L10, LT-10, LT-10A, LTA-10C	229-2145	5029	V470, V8-470G, V8E-170, V8-185	229-1951
1413	L10, LT-10, LT-10A, LTA-10C	229-1954	5033	V470, V8-470G, V8E-170, V8-185	229-1951
1414	L10, LT-10, LT-10A, LTA-10C	229-1954	5041	V470, V8-470G, V8E-170, V8-185	229-1951
1429	L10, LT-10, LT-10A, LTA-10C	229-2145	5058	V352, V6-140, V6-140B, V6-155	229-1950
1443	L10, LT-10, LT-10A, LTA-10C	229-2145	5059	V470, V8-470G, V8E-170, V8-185	229-1951
1444	L10, LT-10, LT-10A, LTA-10C	229-2145	5064	V470, V8-470G, V8E-170, V8-185	229-1951

Engine Index

Engine	Year	Block
239 CID (3.9L) 4-390 Diesel		1
239 CID (3.9L) 4B Diesel		1
239 CID (3.9L) 4B3.9M Diesel		1
239 CID (3.9L) 4BT Diesel		1
239 CID (3.9L) 4BT3.9M Diesel		1
239 CID (3.9L) 4BTA Diesel		1
239 CID (3.9L) 4BTA3.9M Diesel		1
239 CID (3.9L) 4T-390 Diesel		1
239 CID (3.9L) 4TA-390 Diesel		1
352 CID (5.8L) V352 Diesel		2
352 CID (5.8L) V6-140 Diesel		2
352 CID (5.8L) V6-140B Diesel		2
359 CID (5.9L) 6-590 Diesel		3
359 CID (5.9L) 6B Diesel		3
359 CID (5.9L) 6B5.9M Diesel		3
359 CID (5.9L) 6BT Diesel		3
359 CID (5.9L) 6BT5.9M Diesel		3

Engine	Year	Block
359 CID (5.9L) 6BTA Diesel		3
359 CID (5.9L) 6BTA5.9M Diesel		3
359 CID (5.9L) 6T-590 Diesel		3
359 CID (5.9L) 6TA-590 Diesel		3
378 CID (6.2L) V378 Diesel		2
378 CID (6.2L) V6-155 Diesel		2
470 CID (7.7L) V470 Diesel		4
470 CID (7.7L) V8-185 Diesel		4
504 CID (8.3L) V504 Diesel		4
504 CID (8.3L) V8-210 Diesel		4
505 CID (8.3L) ISC Diesel		3
555 CID (9.1L) V555 Diesel		4
611 CID (10.0L) L10 Diesel		5
611 CID (10.0L) LT-10 Diesel		5
611 CID (10.0L) LTA-10 Diesel		5
672 CID (11.0L) NH180 Diesel		6
672 CID (11.0L) NH195 Diesel		6

Engine Index (cont.)

Engine	Year	Block
743 CID (12.2L) H743 Diesel	6	
743 CID (12.2L) HR6 Diesel	6	
743 CID (12.2L) HR6B Diesel	6	
743 CID (12.2L) HR6B1 Diesel	6	
743 CID (12.2L) HR743 Diesel	6	
743 CID (12.2L) HRB16 Diesel	6	
743 CID (12.2L) HRBB Diesel	6	
743 CID (12.2L) HRBB6 Diesel	6	
743 CID (12.2L) HRF Diesel	6	
743 CID (12.2L) HRF6 Diesel	6	
743 CID (12.2L) HRM6 Diesel	6	
743 CID (12.2L) HRP6 Diesel	6	
743 CID (12.2L) HRS Diesel	6	
743 CID (12.2L) HRS6 Diesel	6	
743 CID (12.2L) HRS6B Diesel	6	
743 CID (12.2L) HS743 Diesel	6	
743 CID (12.2L) N743 Diesel	6	
743 CID (12.2L) NH200 Diesel	6	
743 CID (12.2L) NH220 Diesel	6	
743 CID (12.2L) NH220GC Diesel	6	
743 CID (12.2L) NH220GS Diesel	6	
743 CID (12.2L) NH220IF Diesel	6	
743 CID (12.2L) NHHRS Diesel	6	
743 CID (12.2L) NHHRS6 Diesel	6	
743 CID (12.2L) NHHRT Diesel	6	
743 CID (12.2L) NHHRT6 Diesel	6	
743 CID (12.2L) NHHTO Diesel	6	
743 CID (12.2L) NHRS Diesel	6	
743 CID (12.2L) NHRS300 Diesel	6	
743 CID (12.2L) NHRS6 Diesel	6	
743 CID (12.2L) NHS Series Diesel	6	
743 CID (12.2L) NHS275 Diesel	6	
743 CID (12.2L) NHS6 Diesel	6	
743 CID (12.2L) NRT Diesel	6	
743 CID (12.2L) NRT20 Diesel	6	
743 CID (12.2L) NRT6 Diesel	6	
743 CID (12.2L) NRTO Diesel	6	
743 CID (12.2L) NRTO6 Diesel	6	
743 CID (12.2L) NS743 Diesel	6	
743 CID (12.2L) NS743B290 Diesel	6	
743 CID (12.2L) NS743B320 Diesel	6	
743 CID (12.2L) NS743C290 Diesel	6	
743 CID (12.2L) NS743C320 Diesel	6	
743 CID (12.2L) NS743P290 Diesel	6	
743 CID (12.2L) NS743P320 Diesel	6	
743 CID (12.2L) NTE235 Diesel	6	
743 CID (12.2L) NTO280 Diesel	6	
743 CID (12.2L) NTO6 Diesel	6	
855 CID (14.0L) 88NT Big Cam IV Diesel	7	
855 CID (14.0L) Fleet 270 Big Cam II Diesel	8	
855 CID (14.0L) Fleet 300 Big Cam III Diesel	8	
855 CID (14.0L) Fleet 300 Big Cam IV Diesel	7	
855 CID (14.0L) Formula 240 Big Cam III Diesel	8	
855 CID (14.0L) Formula 270 Big Cam III Diesel	8	
855 CID (14.0L) Formula 300 Big Cam III Diesel	8	
855 CID (14.0L) Formula 300 Big Cam IV Diesel	7	
855 CID (14.0L) Formula 315 Big Cam IV Diesel	7	
855 CID (14.0L) Formula 350 Big Cam III Diesel	8	
855 CID (14.0L) Formula 350 Big Cam IV Diesel	7	
855 CID (14.0L) Formula 365 Big Cam IV Diesel	7	
855 CID (14.0L) Formula 400 Big Cam III Diesel	8	
855 CID (14.0L) Formula 400 Big Cam IV Diesel	7	

Engine	Year	Block
855 CID (14.0L) Formula C300 Big Cam III Diesel	8	
855 CID (14.0L) Formula C350 Big Cam III Diesel	8	
855 CID (14.0L) Formula C400 Big Cam III Diesel	8	
855 CID (14.0L) MVT Big Cam IV Diesel	7	
855 CID (14.0L) NH230 Diesel	6	
855 CID (14.0L) NH250 Diesel	6	
855 CID (14.0L) NHC250 Diesel	6	
855 CID (14.0L) NHHTC290 Big Cam I Diesel	8	
855 CID (14.0L) NHHTC290 Formula Big Cam I Diesel	8	
855 CID (14.0L) NHHTCC350 Big Cam II Diesel	8	
855 CID (14.0L) NT280 Diesel	6	
855 CID (14.0L) NT370 Diesel	6	
855 CID (14.0L) NT380 Diesel	6	
855 CID (14.0L) NT855 Big Cam III Diesel	8	
855 CID (14.0L) NT855C250 Big Cam I Diesel	8	
855 CID (14.0L) NT855C280 Big Cam I Diesel	8	
855 CID (14.0L) NT855C310 Big Cam I Diesel	8	
855 CID (14.0L) NT855C335 Big Cam I Diesel	8	
855 CID (14.0L) NT855G Big Cam I Diesel	8	
855 CID (14.0L) NT855GC Big Cam I Diesel	8	
855 CID (14.0L) NT855GS Big Cam I Diesel	8	
855 CID (14.0L) NT855L335 Big Cam I Diesel	8	
855 CID (14.0L) NT855M Big Cam I Diesel	8	
855 CID (14.0L) NT855P335 Big Cam I Diesel	8	
855 CID (14.0L) NTA400 Diesel	6	
855 CID (14.0L) NTA855 Big Cam III Diesel	8	
855 CID (14.0L) NTA855C360 Big Cam I Diesel	8	
855 CID (14.0L) NTA855F Big Cam II Diesel	8	
855 CID (14.0L) NTA855F3 Big Cam II Diesel	8	
855 CID (14.0L) NTA855F4 Big Cam II Diesel	8	
855 CID (14.0L) NTA855GC Big Cam I Diesel	8	
855 CID (14.0L) NTA855GS Big Cam I Diesel	8	
855 CID (14.0L) NTA855M Big Cam I Diesel	8	
855 CID (14.0L) NTA855P360 Big Cam I Diesel	8	
855 CID (14.0L) NTA855P400 Big Cam I Diesel	8	
855 CID (14.0L) NTC250 Diesel	6	
855 CID (14.0L) NTC250 Big Cam I Diesel	8	
855 CID (14.0L) NTC250 Formula Big Cam I Diesel	8	
855 CID (14.0L) NTC250S Big Cam I Diesel	8	
855 CID (14.0L) NTC270 Big Cam II Diesel	8	
855 CID (14.0L) NTC290 Diesel	6	
855 CID (14.0L) NTC290 Big Cam I Diesel	8	
855 CID (14.0L) NTC290 Big Cam II Diesel	8	
855 CID (14.0L) NTC290 Formula Big Cam I Diesel	8	
855 CID (14.0L) NTC300 Big Cam II Diesel	8	
855 CID (14.0L) NTC300 Big Cam III Diesel	8	
855 CID (14.0L) NTC300 Big Cam IV Diesel	7	
855 CID (14.0L) NTC300 Formula Big Cam II Diesel	8	
855 CID (14.0L) NTC315 Big Cam IV Diesel	7	
855 CID (14.0L) NTC335 Diesel	6	

Cummins

Engine Index (cont.)

Engine	Year	Block	Engine	Year	Block
855 CID (14.0L) NTC350 Diesel		6	855 CID (14.0L) NTCC350 Big Cam IV Diesel		7
855 CID (14.0L) NTC350 Big Cam I Diesel		8	855 CID (14.0L) NTCC350 Formula Big Cam I Diesel		8
855 CID (14.0L) NTC350 Big Cam II Diesel		8	855 CID (14.0L) NTCC350 Formula Big Cam II Diesel		8
855 CID (14.0L) NTC350 Big Cam III Diesel		8	855 CID (14.0L) NTCC350 Formula Big Cam III Diesel		8
855 CID (14.0L) NTC350 Big Cam IV Diesel		7	855 CID (14.0L) NTCC350 Formula Big Cam IV Diesel		7
855 CID (14.0L) NTC350 Formula Big Cam I Diesel		8	855 CID (14.0L) NTCC400 Big Cam II Diesel		8
855 CID (14.0L) NTC350 Formula Big Cam II Diesel		8	855 CID (14.0L) NTCC400 Big Cam III Diesel		8
855 CID (14.0L) NTC350 Formula Big Cam III Diesel		8	855 CID (14.0L) NTCC400 Big Cam IV Diesel		7
855 CID (14.0L) NTC350 Formula Big Cam IV Diesel		7	855 CID (14.0L) NTE290 Big Cam II Diesel		8
855 CID (14.0L) NTC400 Big Cam I Diesel		8	855 CID (14.0L) NTE350 Big Cam II Diesel		8
855 CID (14.0L) NTC400 Big Cam II Diesel		8	855 CID (14.0L) NTE370 Big Cam II Diesel		8
855 CID (14.0L) NTC400 Big Cam III Diesel		8	855 CID (14.0L) Power Torque 270 Big Cam II Diesel		8
855 CID (14.0L) NTC400 Big Cam IV Diesel		7	855 CID (14.0L) Power Torque 270 Formula Big Cam II Diesel		8
855 CID (14.0L) NTC444 Big Cam IV Diesel		7	855 CID (14.0L) STC Big Cam IV Diesel		7
855 CID (14.0L) NTCC290 Formula Big Cam I Diesel		8	903 CID (14.8L) V903 Diesel		9
855 CID (14.0L) NTCC300 Big Cam II Diesel		8	903 CID (14.8L) VT903 Diesel		9
855 CID (14.0L) NTCC300 Big Cam III Diesel		8	927 CID (15.2L) N927 Diesel		6
855 CID (14.0L) NTCC300 Formula Big Cam II Diesel		8	927 CID (15.2L) Super 250 Diesel		6
855 CID (14.0L) NTCC315 Big Cam IV Diesel		7	927 CID (15.2L) Super 270 Diesel		6
855 CID (14.0L) NTCC350 Big Cam I Diesel		8	927 CID (15.2L) Super 300 Diesel		6
855 CID (14.0L) NTCC350 Big Cam II Diesel		8	927 CID (15.2L) Super 330 Diesel		6
855 CID (14.0L) NTCC350 Big Cam III Diesel		8			

1	239 CID (3.9L) 4-390, 4B, 4B3.9M, 4BT, 4BT3.9M, 4BTA, 4BTA3.9M, 4T-390, 4TA-390 Diesel 4 Cyl, 4.016in./102mm				1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.				213-1782	8
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2	352 CID (5.8L) V352, V6-140, V6-140B Diesel V6 Cyl, 4.625in./117.5mm 378 CID (6.2L) V378, V6-155 Diesel V6 Cyl, 4.625in./117.5mm				2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.			Late Design Engines With Grooved Cam Bearing, Original Equipment Part Number 3277463 With CPL Numbers 5004, 5010, 5024, 5058	229-1950	1
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3	359 CID (5.9L) 6-590, 6B, 6B5.9M, 6BT, 6BT5.9M, 6BTA, 6BTA5.9M, 6T-590, 6TA-590 Diesel 6 Cyl, 4.016in./102mm 505 CID (8.3L) ISC Diesel 6 Cyl, 4.488in./114mm				3
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.				213-1782	12
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4	470 CID (7.7L) V470, V8-185 Diesel V8 Cyl, 4.625in./117.5mm 504 CID (8.3L) V504, V8-210 Diesel V8 Cyl, 4.625in./117.5mm 555 CID (9.1L) V555 Diesel V8 Cyl, 4.625in./117.5mm				4
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.			Late Design Engines With Grooved Cam Bearing, Original Equipment Part Number 3277462 With CPL Numbers 5003, 5005, 5009, 5011, 5016-5023, 5025-5029, 5033, 5041, 5059, 5064	229-1951	1
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5	611 CID (10.0L) L10, LT-10, LTA-10 Diesel 6 Cyl, 4.921in./125mm	5
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.			Original Equipment Part Number 3895679 With CPL Numbers 0524, 0527, 0528, 0534, 0535, 0561, 0562, 0580, 0608, 0613, 0626, 0631, 0638, 0641, 0643, 0649, 0662, 0703, 0704, 0707, 0708, 0717, 0726, 0747, 0770-0779, 0782, 0784-0786, 0799, 0836, 0881, 0882, 0921, 0958, 1198, 1234, 1359, 1413, 1414, 1453, 1459, 1660, 1674, 1695-1699, 1849, 1930	229-1954	1
			Original Equipment Part Number 3037523 With CPL Numbers 0652, 0655, 0671, 0735, 0748, 0751, 0764, 0765, 0780, 0781, 0783, 0787, 0788, 0790, 0815, 0835, 0894, 0995, 1164, 1208, 1378, 1412, 1429, 1443, 1444, 1626, 1800, 1886, 1900, 1931, 1958, 2068, 2069, 2192, 2385	229-2145	1

6	Small Cam	6
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.			Original Equipment Part Number 3023229 With CPL Numbers 0001, 0002, 0003, 0004, 0005, 0006, 0007, 0008, 0009, 0010, 0011, 0012, 0013, 0020, 0021, 0022, 0023, 0025, 0069, 0070, 0071, 0075, 0076, 0077, 0081, 0085, 0093, 0100, 0101, 0107, 0108, 0109, 0113, 0115, 0123, 0132, 0133, 0135, 0144, 0146, 0147, 0152, 0154, 0155, 0156, 0160, 0161, 0166, 0168, 0173, 0174, 0175, 0176, 0178, 0181, 0182, 0187, 0188, 0189, 0190, 0196, 0197, 0198, 0201, 0202, 0204, 0215, 0217, 0220, 0221, 0226, 0227, 0230, 0246, 0256, 0259, 0260, 0270, 0272, 0278, 0280, 0285, 0288, 0299, 0300, 0314, 0316, 0317, 0318, 0319, 0325, 0326, 0331, 0346, 0370, 0371, 0372, 0384, 0407, 0408, 0411, 0412, 0416, 0437, 0448, 0452, 0467, 0468, 0488, 0489, 0490, 0497, 0498, 0511, 0547, 0572, 0636, 0637, 0695, 0746	229-1743	1
Camshaft, Mech., Roller			Original Equipment Part Number 3023228 With CPL Numbers 0014, 0016, 0017, 0018, 0019, 0024, 0026, 0028, 0034, 0035, 0036, 0058, 0080, 0087, 0090, 0091, 0092, 0102, 0104, 0114, 0117, 0120, 0121, 0124, 0125, 0128, 0131, 0164, 0170, 0172, 0180, 0200, 0255, 0258, 0271, 0312, 0356, 0357, 0418, 0544	229-1923	1

7	Big Cam IV	7
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech., Roller			Original Equipment Part Number 3020914 - Flanged Camshaft With CPL Numbers 0199, 0214, 0218, 0222, 0233, 0266, 0267, 0294, 0298, 0306, 0307, 0308, 0309, 0310, 0315, 0320, 0322, 0323, 0324, 0327, 0328, 0329, 0332, 0338, 0339, 0344, 0345, 0347, 0348, 0349, 0353, 0354, 0358, 0359, 0360, 0361, 0362, 0363, 0364, 0365, 0366, 0369, 0373, 0374, 0375, 0376, 0377, 0391, 0392, 0393, 0394, 0395, 0396, 0397, 0402, 0414, 0419, 0431, 0432, 0433, 0435, 0436, 0449, 0450, 0460, 0461, 0462, 0463, 0469, 0470, 0471, 0472, 0473, 0479, 0481, 0482, 0483, 0485, 0491, 0492, 0499, 0500, 0506, 0509, 0510, 0512, 0516, 0529, 0530, 0531, 0536, 0538, 0539, 0540, 0541, 0542, 0543, 0545, 0551, 0552, 0566, 0578, 0579, 0581, 0625, 0632, 0633, 0634, 0669, 0769, 1350, Special Camshaft Information: Originally Equipped With A Flanged Camshaft But It May Have Been Or Can Be Upgraded To The Flangeless Cam Design. Upgrading To The Flangeless Cam Design Requires A New Cam Gear (OE Number 3002901), Cam Thrust Support (OE Number 3008530), And Possibly A New Cam Key Specific For Your Timing Code. You Can Determine What Cam Is Currently Installed In The Engine By Referencing The OE Number Stamped On The Current Camshaft Support. OE Cam Support Number 708124 Or 215233 - Flanged Cam Can Be Upgraded. OE Number 3008530 - Currently Flangeless Design (Latest Design).	229-1722	1

Cummins

Cummins

7 (cont.)	Big Cam IV				7 (cont.)
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS (cont.)					
Camshaft, Mech., Roller (cont.)			Original Equipment Part Number 3022568 - Flangeless Camshaft With CPL Numbers 0517, 0553, 0554, 0567, 0573, 0574, 0575, 0582, 0583, 0585, 0588, 0606, 0609, 0611, 0650, 0657, 0670, 0673, 0674, 0675, 0699, 0700, 0701, 0706, 0718, 0719, 0731, 0732, 0733, 0743, 0744, 0745, 0749, 0796, 0797, 0811, 0812, 0813, 0832, 0891, 0905, 0909, 0963, 0972, 0974, 1171, 1194, 1204, 1205, 1252, 1255	229-1874	1
			Original Equipment Part Number 3803903 (88BCIV - STC Timing) With CPL Numbers 0827, 0910, 1185, 1188, 1210, 1211, 1256, 1280, 1636, 1637, 1686	229-2144	1
			Original Equipment Part Number 3053525 (88BCIV - Fixed Timing - Except 400 & MVT) With CPL Numbers 0838, 0840, 1187, 1352	229-2208	1
			Original Equipment Part Number 3803904 (NBCIV - STC Timing) With CPL Numbers 0806, 0821, 0833, 0842, 0903, 0904, 1186, 1200, 1215, 1369, 1370, 1383, 1402, 1515	229-2209	1
			Original Equipment Part Number 3025524 (88BCIV) With CPL Numbers 0614, 0615, 0616, 0617, 0635, 0677, 0794, 0795, 0988	229-2210	1
			Original Equipment Part Number 3036697 (400 - Except MVT) With CPL Numbers 0642, 0647, 0651, 0659, 0676, 0814	229-2233	1

8	Big Cam I, II, III				8
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech., Roller			Original Equipment Part Number 3020914 - Flanged Camshaft With CPL Numbers 0199, 0214, 0218, 0222, 0233, 0266, 0267, 0294, 0298, 0306, 0307, 0308, 0309, 0310, 0315, 0320, 0322, 0323, 0324, 0327, 0328, 0329, 0332, 0338, 0339, 0344, 0345, 0347, 0348, 0349, 0353, 0354, 0358, 0359, 0360, 0361, 0362, 0363, 0364, 0365, 0366, 0369, 0373, 0374, 0375, 0376, 0377, 0391, 0392, 0393, 0394, 0395, 0396, 0397, 0402, 0414, 0419, 0431, 0432, 0433, 0435, 0436, 0449, 0450, 0460, 0461, 0462, 0463, 0469, 0470, 0471, 0472, 0473, 0479, 0481, 0482, 0483, 0485, 0491, 0492, 0499, 0500, 0506, 0509, 0510, 0512, 0516, 0529, 0530, 0531, 0536, 0538, 0539, 0540, 0541, 0542, 0543, 0545, 0551, 0552, 0566, 0578, 0579, 0581, 0625, 0632, 0633, 0634, 0669, 0769, 1350, Special Camshaft Information: Originally Equipped With A Flanged Camshaft But It May Have Been Or Can Be Upgraded To The Flangeless Cam Design. Upgrading To The Flangeless Cam Design Requires A New Cam Gear (OE Number 3002901), Cam Thrust Support (OE Number 3008530), And Possibly A New Cam Key Specific For Your Timing Code. You Can Determine What Cam Is Currently Installed In The Engine By Referencing The OE Number Stamped On The Current Camshaft Support. OE Cam Support Number 708124 Or 215233 - Flanged Cam Can Be Upgraded. OE Number 3008530 - Currently Flangeless Design (Latest Design).	229-1722	1
			Original Equipment Part Number 3022568 - Flangeless Camshaft With CPL Numbers 0517, 0553, 0554, 0567, 0573, 0574, 0575, 0582, 0583, 0585, 0588, 0606, 0609, 0611, 0650, 0657, 0670, 0673, 0674, 0675, 0699, 0700, 0701, 0706, 0718, 0719, 0731, 0732, 0733, 0743, 0744, 0745, 0749, 0796, 0797, 0811, 0812, 0813, 0832, 0891, 0905, 0909, 0963, 0972, 0974, 1171, 1194, 1204, 1205, 1252, 1255	229-1874	1

9 903 CID (14.8L) V903, VT903 Diesel V8 Cyl, 5.500in./139.7mm 9					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech., Roller			Original Equipment Part Number 215580 (Use With 1:1 Ratio Injector Rocker Levers Only - OE Number 211399 Or Equivalent.) With CPL Numbers 0186, 0203, 0206, 0247, 0257, 0273, 0286, 0287, 0301, 0340, 0350, 0352, 0383, 0387, 0389, 0430, 0484, 0496	229-2308	1
			Original Equipment Part Number 199180 (Use With 1:2 Ratio Injector Rocker Levers Only - OE Number 196565 Or Equivalent) For CPL Numbers 0112, 0130, 0136, 0148, 0151, 0169, 0192, 0262	229-2415	1

Detroit Diesel

Engine Index

Engine	Year	Block	Engine	Year	Block
500 CID (8.2L) Diesel		1	568 CID (9.3L) 8V-71 Diesel		3
552 CID (9.0L) 6V-92T Diesel		2	736 CID (12.1L) 8V-92TA Diesel		4

1 500 CID (8.2L) Diesel V8 Cyl, 4.250in./108mm 1					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech., Roller			Original Equipment Part Number 8923733, Naturally Aspirated	229-2185	1
			Original Equipment Part Number 8923734, Turbocharged	229-2186	1

2 552 CID (9.0L) 6V-92T Diesel V6 Cyl, 4.840in./122.9mm 2					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.			OE Assy. Number 5108112, Camshaft Number 5108114, Right Hand Rotation, Right Bank	229-1800	1

3 568 CID (9.3L) 8V-71 Diesel V8 Cyl, 4.250in./108mm 3					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech., Roller			OE Assy. Number 5117853, Camshaft Number 5177872, Right Hand Rotation, Right Bank	229-1742	1

4 736 CID (12.1L) 8V-92TA Diesel V8 Cyl, 4.840in./122.9mm 4					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.			OE Assy. Number 5108117, Camshaft Number 5108115, Right Hand Rotation, Left Bank	229-1804	1

Dodge Truck

Engine Index

Engine	Year	Block	Engine	Year	Block
270 CID (4.4L) OHV Dodge	1955-1956	1	361 CID (5.9L) OHV Chrysler	1960-1971	2
331 CID (5.4L) Hemispherical Chrysler	1954-1956	1	413 CID (6.8L) OHV Chrysler	1960-1975	3
354 CID (5.8L) Hemispherical Chrysler	1957-1959	1			

1 270 CID (4.4L) OHV Dodge V8 Cyl, 3.625in./92.1mm (1955-1956) 331 CID (5.4L) Hemispherical Chrysler V8 Cyl, 3.813in./96.9mm (1954-1956) 354 CID (5.8L) Hemispherical Chrysler V8 Cyl, 3.938in./100mm (1957-1959) 1					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.	1954-1959			213-1635	16

Dodge Truck

2	361 CID (5.9L) OHV Chrysler V8 Cyl, 4.125in./104.8mm (1960-1971)				2
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1969-1971		From Serial Number 21680000	213-1686	16
	1960-1968		Thru Serial Number 21680000	213-1635	16
Camshaft, Hydraulic	1960-1971		Original Equipment Part Number 1859721	229-1442	1

3	413 CID (6.8L) OHV Chrysler V8 Cyl, 4.188in./106.4mm (1960-1975)				3
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1969-1975		From Serial Number 21680000	213-1686	16
	1960-1968		Thru Serial Number 21680000	213-1635	16
Camshaft, Hydraulic	1972-1975			229-1664	1
	1960-1971		Original Equipment Part Number 1859721	229-1442	1

Ford Industrial

Engine Index

<i>Engine</i>	<i>Year</i>	<i>Block</i>	<i>Engine</i>	<i>Year</i>	<i>Block</i>
134 CID (2.2L) Ford	1953-1976	1	262 CID (4.3L) Ford	1961-1964	8
134 CID (2.2L) Ford LPG	1953-1976	1	279 CID (4.6L) Ford	1952-1955	9
134 CID (2.2L) JE Ford Flex	1953-1976	1	292 CID (4.8L) Ford	1958-1964	10
140 CID (2.3L) SOHC Ford	1977-1987	2	300 CID (4.9L) Ford	1965-1993	6
144 CID (2.4L) Ford	1960-1964	3	302 CID (5.0L) Ford	1968-1993	11
172 CID (2.8L) Ford	1955-1978	1	332 CID (5.4L) Ford	1956-1963	9
172 CID (2.8L) Ford LPG	1955-1978	1	351 CID (5.8L) 351W Ford Windsor	1969-1992	12
172 CID (2.8L) 172D Ford Diesel	1958-1978	1	361 CID (5.9L) OHV Ford	1964-1978	13
192 CID (3.1L) Ford	1972-1981	1	370 CID (6.1L) Ford	1979-1991	14
192 CID (3.1L) Ford Diesel	1972-1981	1	391 CID (6.4L) OHV Ford	1964-1978	13
192 CID (3.1L) Ford LPG	1972-1981	1	401 CID (6.6L) Ford	1958-1976	15
200 CID (3.3L) OHV Ford	1965-1974	4	428 CID (7.0L) Ford		13
223 CID (3.7L) Ford	1954-1964	5	429 CID (7.0L) Ford	1979-1993	14
223 CID (3.7L) JF Ford	1954-1964	5	429 CID (7.0L) OHV Ford	1979-1993	14
240 CID (4.0L) Ford	1965-1974	6	460 CID (7.5L) Ford	1973-1993	14
256 CID (4.2L) Ford	1954-1955	7	477 CID (7.8L) Ford	1958-1981	15
256 CID (4.2L) JH Ford	1954-1955	7	534 CID (8.8L) Ford	1958-1981	15
256 CID (4.2L) JJ Ford	1954-1955	7			

1	134 CID (2.2L) Ford 4 Cyl, 3.437in./87.3mm (1953-1976) 134 CID (2.2L) Ford LPG 4 Cyl, 3.437in./87.3mm (1953-1976) 134 CID (2.2L) JE Ford Flex 4 Cyl, 3.438in./87.3mm (1953-1976) 172 CID (2.8L) Ford 4 Cyl, 3.900in./99mm (1955-1978) 172 CID (2.8L) Ford LPG 4 Cyl, 3.900in./99mm (1955-1978) 172 CID (2.8L) 172D Ford Diesel 4 Cyl, 3.900in./99mm (1958-1978) 192 CID (3.1L) Ford 4 Cyl, 4.130in./104.9mm (1972-1981) 192 CID (3.1L) Ford Diesel 4 Cyl, 4.130in./104.9mm (1972-1981) 192 CID (3.1L) Ford LPG 4 Cyl, 4.130in./104.9mm (1972-1981)				1
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1953-1981			213-1629	8
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2	140 CID (2.3L) SOHC Ford 4 Cyl, 3.780in./96mm (1977-1987)				2
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Hydraulic	1983-1986		Except Roller Camshaft	229-1839	1
	1977-1982			229-1679	1

3	144 CID (2.4L) Ford 6 Cyl, 3.500in./88.9mm (1960-1964)					3
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1960-1964			213-1656	12	
4	200 CID (3.3L) OHV Ford 6 Cyl, 3.680in./93.5mm (1965-1974)					4
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1965-1974			213-1669	12	
Camshaft, Hydraulic	1965-1969			229-1640	1	
5	223 CID (3.7L) , JF Ford 6 Cyl, 3.625in./92.1mm (1954-1964)					5
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1954-1964			213-1629	12	
Camshaft, Mech.	1961-1964		Zero Lash Rocker Arms, (Cross Drilled), Use With Part Numbers SH-533S	229-1608	1	
			Except Zero Lash Rocker Arms, (Cross Drilled), Use With Part Numbers SH-533S	229-1609	1	
6	240 CID (4.0L) Ford 6 Cyl, 4.000in./101.6mm (1965-1974) 300 CID (4.9L) Ford 6 Cyl, 4.000in./101.6mm (1965-1993)					6
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1965-1993			213-1667	12	
Camshaft, Hydraulic	1965-1992			229-1840	1	
7	256 CID (4.2L) , JH, JJ Ford V8 Cyl, 3.625in./92.1mm (1954-1955)					7
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1954-1955			213-1629	16	
8	262 CID (4.3L) Ford 6 Cyl, 3.719in./94.5mm (1961-1964)					8
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1961-1964			213-1629	12	
9	279 CID (4.6L) Ford V8 Cyl, 3.562in./90.5mm (1952-1955) 332 CID (5.4L) Ford V8 Cyl, 3.800in./96.5mm (1956-1963)					9
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1952-1963			213-1656	16	
10	292 CID (4.8L) Ford V8 Cyl, 3.750in./95.3mm (1958-1964)					10
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1958-1964			213-1629	16	
Camshaft, Mech.	1958-1964			229-1210	1	
11	302 CID (5.0L) Ford V8 Cyl, 4.000in./101.6mm (1968-1993)					11
<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>	
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1968-1993			213-1667	16	
Camshaft, Hydraulic	1977-1991		From Serial Number A50, 001	229-1686	1	

Ford Industrial

11 (cont.)	302 CID (5.0L) Ford V8 Cyl, 4.000in./101.6mm (1968-1993)					11 (cont.)
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS (cont.)

Camshaft, Hydraulic (cont.)	1968-1976		Thru Serial Number A50, 001	229-1601	1
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12	351 CID (5.8L) 351W Ford Windsor V8 Cyl, 4.000in./101.6mm (1969-1992)					12
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1969-1992			213-1667	16
Camshaft, Hydraulic	1984-1991		Engine Identification NO 1K-408, 1K-410, 1K-413, 1K-414, 1K-416 206 Degree Intake Duration, 221 Degree Exhaust Duration, All Durations Measured At .050"	229-1833	1
	1969-1985			229-1655	1

13	361 CID (5.9L) OHV Ford V8 Cyl, 4.050in./102.9mm (1964-1978) 391 CID (6.4L) OHV Ford V8 Cyl, 4.050in./102.9mm (1964-1978) 428 CID (7.0L) Ford V8 Cyl, 4.130in./104.9mm					13
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1964-1978			213-1669	16
Camshaft, Hydraulic	1964-1978			229-1621	1

14	370 CID (6.1L) Ford V8 Cyl, 4.046in./102.8mm (1979-1991) 429 CID (7.0L) , OHV Ford V8 Cyl, 4.360in./110.7mm (1979-1993) 460 CID (7.5L) Ford V8 Cyl, 4.360in./110.7mm (1973-1993)					14
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1973-1993			213-1667	16
Camshaft, Hydraulic	1973-1991		Thru 6/25/91	229-1649	1

15	401 CID (6.6L) Ford V8 Cyl, 4.125in./104.8mm (1958-1976) 477 CID (7.8L) Ford V8 Cyl, 4.500in./114.3mm (1958-1981) 534 CID (8.8L) Ford V8 Cyl, 4.500in./114.3mm (1958-1981)					15
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1958-1981			213-1656	16
Camshaft, Mech.	1958-1981		Original Equipment Part Number C3AZ-6250-B	229-1483	1

Ford Tractor

Engine Index

Engine	Year	Block	Engine	Year	Block
120 CID (2.0L) 120		1	233 CID (3.8L) 233 Diesel		4
172 CID (2.8L) 172		2	242 CID (4.0L) 242 Diesel		3
172 CID (2.8L) 172 Diesel		2	256 CID (4.2L) 256 Diesel		4
172 CID (2.8L) 172 Flex		2	268 CID (4.4L) BSD444 Diesel		4
223 CID (3.7L) 223		3	268 CID (4.4L) BSD444T Diesel		4
223 CID (3.7L) 223 LPG		3			

1	120 CID (2.0L) 120 4 Cyl, 3.187in./80.95mm					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			(Requires Spanner Wrench To Adjust Lash), Use With Part Numbers 213-1615	213-1614	8
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Ford Tractor

2	172 CID (2.8L) 172 4 Cyl, 3.900in./99mm 172 CID (2.8L) 172 Diesel 4 Cyl, 3.900in./99mm 172 CID (2.8L) 172 Flex 4 Cyl, 3.900in./99mm					2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.				213-1629	8
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3	223 CID (3.7L) 223 6 Cyl, 3.625in./92.1mm 223 CID (3.7L) 223 LPG 6 Cyl, 3.625in./92.1mm 242 CID (4.0L) 242 Diesel 6 Cyl, 3.625in./92.1mm					3
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.				213-1629	12
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4	233 CID (3.8L) 233 Diesel 4 Cyl, 4.200in./106.7mm 256 CID (4.2L) 256 Diesel 4 Cyl, 4.406in./112mm 268 CID (4.4L) BSD444, BSD444T Diesel 4 Cyl, 4.400in./111.8mm					4
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Camshaft, Mech.			Original Equipment Part Number E6TN-6250-AA	229-2149	1
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Ford Truck

Engine Index

Engine	Year	Block	Engine	Year	Block
279 CID (4.6L) OHV Ford	1953-1955	1	401 CID (6.6L) Ford	1958-1975	5
292 CID (4.8L) Ford	1963	2	429 CID (7.0L) OHV Ford	1979-1991	6
302 CID (5.0L) OHV Ford	1956-1963	1	444 CID (7.3L) Indirect Injection Navistar Diesel	1989-1994	7
317 CID (5.2L) Ford	1953-1955	1	444 CID (7.3L) Indirect Injection Turbocharged Navistar Diesel	1994	7
330 CID (5.4L) OHV Ford	1964-1971	3	444 CID (7.3L) T444E (Power Stroke) D.I.	1994	8
332 CID (5.4L) Ford	1956-1963	1	Turbo Navistar Diesel		
359 CID (5.9L) OHV Ford	1974-1975	3	475 CID (7.8L) Ford	1973-1979	5
361 CID (5.9L) OHV Ford	1964-1978	3	477 CID (7.8L) Ford	1958-1981	5
370 CID (6.1L) OHV Ford	1979-1987	4	534 CID (8.8L) Ford	1958-1981	5
389 CID (6.4L) OHV Ford	1975-1978	3			
391 CID (6.4L) OHV Ford	1964-1974	3			

1	279 CID (4.6L) OHV Ford V8 Cyl, 3.562in./90.5mm (1953-1955) 302 CID (5.0L) OHV Ford V8 Cyl, 3.625in./92.1mm (1956-1963) 317 CID (5.2L) Ford V8 Cyl, 3.800in./96.5mm (1953-1955) 332 CID (5.4L) Ford V8 Cyl, 3.800in./96.5mm (1956-1963)					1
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1953-1963			213-1656	16
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2	292 CID (4.8L) Ford V8 Cyl, 3.750in./95.3mm (1963)					2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1963			213-1629	16
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Camshaft, Mech.	1963			229-1210	1
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Ford Truck

3	330 CID (5.4L) OHV Ford V8 Cyl, 3.875in./98.4mm (1964-1971) 359 CID (5.9L) OHV Ford V8 Cyl, 4.050in./102.9mm (1974-1975) 361 CID (5.9L) OHV Ford V8 Cyl, 4.050in./102.9mm (1964-1978) 389 CID (6.4L) OHV Ford V8 Cyl, 4.050in./102.9mm (1975-1978) 391 CID (6.4L) OHV Ford V8 Cyl, 4.050in./102.9mm (1964-1974)					3
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1964-1978			213-1669	12
Camshaft, Hydraulic	1964-1978			229-1621	1

4	370 CID (6.1L) OHV Ford V8 Cyl, 4.046in./102.8mm (1979-1987)					4
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1979-1987			213-1667	16
Camshaft, Hydraulic	1979-1987			229-1649	1

5	401 CID (6.6L) Ford V8 Cyl, 4.125in./104.8mm (1958-1975) 475 CID (7.8L) Ford V8 Cyl, 4.500in./114.3mm (1973-1979) 477 CID (7.8L) Ford V8 Cyl, 4.500in./114.3mm (1958-1981) 534 CID (8.8L) Ford V8 Cyl, 4.500in./114.3mm (1958-1981)					5
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1958-1981			213-1656	16
Camshaft, Mech.	1958-1981		Original Equipment Part Number C3AZ-6250-B	229-1483	1

6	429 CID (7.0L) OHV Ford V8 Cyl, 4.360in./110.7mm (1979-1991)					6
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1979-1991			213-1667	16
Camshaft, Hydraulic	1991			229-2217	1
	1979-1990			229-1649	1

7	444 CID (7.3L) Indirect Injection Navistar Diesel V8 Cyl, 4.110in./104.4mm (1989-1994) 444 CID (7.3L) Indirect Injection Turbocharged Navistar Diesel V8 Cyl, 4.110in./104.4mm (1994)					7
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd. Roller	1989-1994			213-1725	16
Camshaft, Hyd. Roller	1989-1994		Original Equipment Part Number E3TZ-6250-B	229-1872	1

8	444 CID (7.3L) T444E (Power Stroke) D.I. Turbo Navistar Diesel V8 Cyl, 4.110in./104.4mm (1994)					8
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd. Roller	1994			213-1725	16
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General Motors Truck

Engine Index

<i>Engine</i>	<i>Year</i>	<i>Block</i>	<i>Engine</i>	<i>Year</i>	<i>Block</i>
322 CID (5.3L) OHV Buick	1956-1959	1	366 CID (6.0L) Chevrolet	1966-1998	4
322 CID (5.3L) OHV Chevrolet	1956-1959	1	409 CID (6.7L) Chevrolet	1962-1965	2
348 CID (5.7L) Chevrolet	1958-1965	2	432 CID (7.1L) General Motors	1973-1974	3
351 CID (5.8L) General Motors	1966-1969	3	478 CID (7.8L) General Motors	1965-1974	3

General Motors Truck

1	322 CID (5.3L) OHV Buick V8 Cyl, 4.000in./101.6mm (1956-1959) 322 CID (5.3L) OHV Chevrolet V8 Cyl, 4.000in./101.6mm (1956-1959)					1
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.		1956-1959			213-1664	16
2	348 CID (5.7L) Chevrolet V8 Cyl, 4.125in./104.8mm (1958-1965) 409 CID (6.7L) Chevrolet V8 Cyl, 4.313in./109.6mm (1962-1965)					2
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.		1958-1965			213-1638	16
Camshaft, Hydraulic		1958-1965			229-1171	1
3	351 CID (5.8L) General Motors V6 Cyl, 4.563in./115.9mm (1966-1969) 432 CID (7.1L) General Motors V6 Cyl, 4.875in./123.8mm (1973-1974) 478 CID (7.8L) General Motors V6 Cyl, 5.125in./130.2mm (1965-1974)					3
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.		1965-1974			213-1657	12
Camshaft, Mech.		1965-1974			229-1480	1
4	366 CID (6.0L) Chevrolet V8 Cyl, 3.938in./100mm (1966-1998)					4
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.		1997-1998			213-1685	16
		1988-1990			213-1638	16
Camshaft, Hydraulic		1997-1998			229-1687	1

International Industrial

Engine Index

Engine	Year	Block	Engine	Year	Block
263 CID (4.3L) C263 International		1	360 CID (5.9L) D360 International Diesel		2
264 CID (4.3L) BD264 International		1	461 CID (7.6L) D461 International Diesel		3

1	263 CID (4.3L) C263 International 6 Cyl, 3.563in./90.5mm 264 CID (4.3L) BD264 International 6 Cyl, 3.688in./93.7mm					1
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.					213-1649	12
2	360 CID (5.9L) D360 International Diesel 6 Cyl, 3.875in./98.4mm					2
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.					213-1739	12
3	461 CID (7.6L) D461 International Diesel 4 Cyl, 4.750in./120.7mm					3
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.					213-1673	8

International Tractor

International Tractor

Engine Index

Engine	Year	Block	Engine	Year	Block
166 CID (2.7L) D166 International Diesel		1	414 CID (6.8L) D414 International Diesel		4
175 CID (2.9L) C175 (Late) International		1	414 CID (6.8L) DT414 International Diesel		4
188 CID (3.1L) D188 International Diesel		1	414 CID (6.8L) DT414B International Diesel		4
200 CID (3.3L) C200 International		1	436 CID (7.1L) DT436 International Diesel		2
221 CID (3.6L) C221 International		2	436 CID (7.1L) DT436B International Diesel		2
236 CID (3.9L) D236 International Diesel		2	461 CID (7.6L) D461 International Diesel		5
263 CID (4.3L) C263 International		2	466 CID (7.6L) DT466 International Diesel		6
264 CID (4.3L) BD264 International		2	466 CID (7.6L) DT466B International Diesel		4
282 CID (4.6L) C282 International		2	466 CID (7.6L) DT466C International Diesel		4
291 CID (4.8L) C291 International		2	466 CID (7.6L) DTA466C International Diesel		4
301 CID (4.9L) C301 International Flex		2	466 CID (7.6L) DTI466B International Diesel		4
301 CID (4.9L) D301 International Diesel		2	466 CID (7.6L) DTI466C International Diesel		4
360 CID (5.9L) D360 International Diesel		3	605 CID (9.9L) V605 International CNG		7

1	166 CID (2.7L) D166 International Diesel 4 Cyl, 3.688in./93.7mm	1
	175 CID (2.9L) C175 (Late) International 4 Cyl, 3.563in./90.5mm	
	188 CID (3.1L) D188 International Diesel 4 Cyl, 3.688in./93.7mm	
	200 CID (3.3L) C200 International 4 Cyl, 3.813in./96.9mm	

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.				213-1649	8
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2	221 CID (3.6L) C221 International 6 Cyl, 3.563in./90.5mm	2
	236 CID (3.9L) D236 International Diesel 6 Cyl, 3.688in./93.7mm	
	263 CID (4.3L) C263 International 6 Cyl, 3.563in./90.5mm	
	264 CID (4.3L) BD264 International 6 Cyl, 3.688in./93.7mm	
	282 CID (4.6L) C282 International 6 Cyl, 3.688in./93.7mm	
	291 CID (4.8L) C291 International 6 Cyl, 3.750in./95.3mm	
	301 CID (4.9L) C301 International Flex 6 Cyl, 3.813in./96.9mm	
	301 CID (4.9L) D301 International Diesel 6 Cyl, 3.813in./96.9mm	
	436 CID (7.1L) DT436, DT436B International Diesel 6 Cyl, 4.300in./109.2mm	

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.				213-1649	12
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3	360 CID (5.9L) D360 International Diesel 6 Cyl, 3.875in./98.4mm	3
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.				213-1739	12
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4	414 CID (6.8L) D414, DT414, DT414B International Diesel 6 Cyl, 4.300in./109.2mm	4
	466 CID (7.6L) DT466B, DT466C, DTA466C, DTI466B, DTI466C International Diesel 6 Cyl, 4.300in./109.2mm	

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number 911776R3 .997" Diameter	213-1649	12
			Original Equipment Part Number 1802340C1 1.120" Diameter	213-1739	12
Camshaft, Mech.			Original Equipment Part Number 1805072C91, Thru Engine Serial Number 532979	229-1885	1

5	461 CID (7.6L) D461 International Diesel 4 Cyl, 4.750in./120.7mm	5
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.				213-1673	8
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6 466 CID (7.6L) DT466 International Diesel 6 Cyl, 4.300in./109.2mm 6					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.			Original Equipment Part Number 911776R3 .997" Diameter	213-1649	12
			Original Equipment Part Number 1802340C1 1.120" Diameter	213-1739	12
Camshaft, Mech.			Original Equipment Part Number 1805072C91, Thru Engine Serial Number 532979	229-1885	1
Camshaft, Mech., Roller			Original Equipment Part Number 1810744C1, Thru Engine Serial Number 532979	229-2171	1

7 605 CID (9.9L) V605 International CNG 8 Cyl, 4.625in./117.5mm 7					
Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Hyd.				213-1673	16

John Deere

Camshaft Quick Reference by Model Number								
Model	Series	Fuel	Clevite Camshaft		Model	Series	Fuel	Clevite Camshaft
BACKHOE DOZER					COMPACTOR (Cont.)			
410C	300	Diesel	229-2407		JD646 (From Serial No. 215000.)	400	Diesel	229-2180
510B	300	Diesel	229-2407		JD646B (From Serial No. 215000.)	400	Diesel	229-2180
BACKHOE LOADER					COTTON PICKER			
210C	300	Diesel	229-2407		9930	300	Diesel	229-2408
300D	300	Diesel	229-2407		9940	400	Diesel	229-2180
310A	300	Diesel	229-2407		9950	400	Diesel	229-2180
310B	300	Diesel	229-2407		COTTON STRIPPER			
310C	300	Diesel	229-2407		7445	300	Diesel	229-2408
310D	300	Diesel	229-2407		7450	300	Diesel	229-2408
315C	300	Diesel	229-2407		7455	300	Diesel	229-2408
315D	300	Diesel	229-2407		CRAWLER DOZER			
401B	300	Diesel	229-2407		400G	300	Diesel	229-2407
401C	300	Diesel	229-2407		450D	300	Diesel	229-2407
410	300	Diesel	229-2407		450E	300	Diesel	229-2407
410B	300	Diesel	229-2407		450G	300	Diesel	229-2407
410C	300	Diesel	229-2407		455G	300	Diesel	229-2407
410D	300	Diesel	229-2407		550	300	Diesel	229-2407
510C	300	Diesel	229-2407		550A	300	Diesel	229-2407
510D	300	Diesel	229-2407		550B	300	Diesel	229-2407
610B	300	Diesel	229-2407		550G	300	Diesel	229-2407
610C	300	Diesel	229-2407		555G	300	Diesel	229-2407
710B	300	Diesel	229-2408		650G	300	Diesel	229-2407
710C	300	Diesel	229-2408		750	300	Diesel	229-2408
710D	300	Diesel	229-2408		750B	300	Diesel	229-2408
JD410	300	Gas	229-2407		750C (Up to Serial No.88331.)	300	Diesel	229-2408
JD600	400	Diesel	229-2265		850B	400	Diesel	229-2180
CABLE SKIDDER					JD450C	300	Diesel	229-2407
540E (From Serial No. 396258)	300	Diesel	229-2408		CRAWLER LOADER			
540G (From Serial No. 396258)	300	Diesel	229-2408		344E	300	Diesel	229-2407
COMBINE					344G	300	Diesel	229-2407
1085 (Up to Serial No. 041200.)	400	Diesel	229-2180		444E	300	Diesel	229-2407
1085H4 (Up to Serial No. 041200.)	400	Diesel	229-2180		444G	300	Diesel	229-2407
4420	300	Diesel	229-2408		450C	300	Diesel	229-2407
6600 (From Serial No. 215000.)	400	Diesel	229-2180		450G	300	Diesel	229-2407
6602 (From Serial No. 215000.)	400	Diesel	229-2180		455D	300	Diesel	229-2407
6620	400	Diesel	229-2180		455E	300	Diesel	229-2407
6622	400	Diesel	229-2180		455G	300	Diesel	229-2407
7700 (From Serial No. 215000.)	400	Diesel	229-2180		544C	300	Diesel	229-2408
7720	400	Diesel	229-2180		544D	300	Diesel	229-2408
8820	400	Diesel	229-2180		550G	300	Diesel	229-2407
9400	300	Diesel	229-2408		555	300	Diesel	229-2407
COMPACTOR					555A	300	Diesel	229-2407
646C	400	Diesel	229-2180		555B	300	Diesel	229-2407

Camshaft Quick Reference by Model Number

Model	Series	Fuel	Clevite Camshaft
CRAWLER LOADER (Cont.)			
555G	300	Diesel	229-2407
650G	300	Diesel	229-2407
655 (From Serial No. 134869.)	300	Diesel	229-2408
655B (From Serial No. 134869.)	300	Diesel	229-2408
755A	300	Diesel	229-2408
755B	300	Diesel	229-2408
JD544B	300	Diesel	229-2408
JD755	300	Diesel	229-2408
CRAWLER TRACTOR			
JD450B	300	Diesel	229-2407
High Cycle-6000	300	Diesel	229-2407
EXCAVATOR			
70	300	Diesel	229-2407
70D	300	Diesel	229-2407
190E	300	Diesel	229-2407
490	300	Diesel	229-2407
490D	300	Diesel	229-2407
690B (From Serial No. 215000.)	400	Diesel	229-2180
690C	400	Diesel	229-2180
690CR	400	Diesel	229-2180
690D	300	Diesel	229-2408
690E	300	Diesel	229-2408
790	400	Diesel	229-2180
790D	400	Diesel	229-2180
790E	300	Diesel	229-2408
792	400	Diesel	229-2180
793D	400	Diesel	229-2180
892DLC	400	Diesel	229-2180
JD690A (From Serial No. 215000.)	400	Diesel	229-2180
7700 (From Serial No. 215000.)	400	Diesel	229-2180
FELLER-BUNCHER			
490E	300	Diesel	229-2407
493D	300	Diesel	229-2407
590D	300	Diesel	229-2407
595	300	Diesel	229-2407
595D	300	Diesel	229-2407
643	300	Diesel	229-2408
643D	300	Diesel	229-2408
693B (From Serial No. 215000.)	400	Diesel	229-2180
693C	400	Diesel	229-2180
693D	300	Diesel	229-2408
743	400	Diesel	229-2180
JD743	400	Diesel	229-2180
FORAGE HARVESTER			
5200 (From Serial No. 215000.)	400	Diesel	229-2180
5400 (From Serial No. 215000.)	400	Diesel	229-2180
5440 (From Serial No. 215000.)	400	Diesel	229-2180
5720	400	Diesel	229-2180
5730	400	Diesel	229-2180
FORKLIFT			
482C	300	Diesel	229-2407
JD480A	300	Gas	229-2407
JD480B	300	Gas	229-2407
JD480C	300	Gas	229-2407
GRAPPLE SKIDDER			
548E (From Serial No. 396258)	300	Diesel	229-2408
548G (From Serial No. 396258)	300	Diesel	229-2408
MOTOR GRADER			
570A	300	Diesel	229-2408
570B	300	Diesel	229-2408
670A	300	Diesel	229-2408
670B	300	Diesel	229-2408
672A	300	Diesel	229-2408
672B	300	Diesel	229-2408
770A	400	Diesel	229-2180

Model	Series	Fuel	Clevite Camshaft
MOTOR GRADER (Cont.)			
770B	400	Diesel	229-2180
772A	400	Diesel	229-2180
772B	400	Diesel	229-2180
JD570	300	Diesel	229-2408
SCRAPER			
762A	400	Diesel	229-2180
762B	400	Diesel	229-2180
SKIDDER			
340C	300	Diesel	229-2407
440C	300	Diesel	229-2407
440D	300	Diesel	229-2407
448D	300	Diesel	229-2407
540B	300	Diesel	229-2407
540D	300	Diesel	229-2407
640	300	Diesel	229-2408
640D	300	Diesel	229-2408
640E	300	Diesel	229-2408
640G	300	Diesel	229-2408
648D	300	Diesel	229-2408
740A	400	Diesel	229-2180
JD440	300	Diesel	229-2407
JD440A	300	Diesel	229-2407
JD440B	300	Diesel	229-2407
JD740 (From Serial No. 215000.)	400	Diesel	229-2180
SPRAYER			
6100	300	Diesel	229-2407
6600	300	Diesel	229-2407
TREE HARVESTER			
743A	400	Diesel	229-2180
JD743	400	Diesel	229-2180
WHEEL LOADER			
444C	300	Diesel	229-2408
444CH	300	Diesel	229-2408
444D	300	Diesel	229-2408
544E	300	Diesel	229-2408
544G	300	Diesel	229-2408
624G	300	Diesel	229-2408
644C	400	Diesel	229-2180
644D	400	Diesel	229-2180
JD444	300	Diesel	229-2408
JD444D	300	Diesel	229-2408
JD450	300	Diesel	229-2407
JD644 (From Serial No. 215000.)	400	Diesel	229-2180
JD644A (From Serial No. 215000.)	400	Diesel	229-2180
JD544B	300	Diesel	229-2408
WHEEL TRACTOR			
2020	300	Diesel	229-2407
2020	300	Gas	229-2407
2030	300	Diesel	229-2407
2510	300	Diesel	229-2407
2510	300	Gas	229-2407
2520	300	Diesel	229-2407
4010 (Up to Serial No. 214999.)	400	Diesel	229-2265
4020 (Up to Serial No. 214999.)	400	Diesel	229-2265
4040	400	Diesel	229-2180
4050 (From Serial No. 322686.)	300	Diesel	229-2408
4050	400	Diesel	229-2180
4230	400	Diesel	229-2180
4240	400	Diesel	229-2180
4250	400	Diesel	229-2180
4320 (From Serial No. 215000.)	400	Diesel	229-2180
4350	400	Diesel	229-2180
4430 (From Serial No. 215000.)	400	Diesel	229-2180
4440	400	Diesel	229-2180
4450	400	Diesel	229-2180

Camshaft Quick Reference by Model Number							
Model	Series	Fuel	Clevite Camshaft	Model	Series	Fuel	Clevite Camshaft
WHEEL TRACTOR (Cont.)				WHEEL TRACTOR (Cont.)			
4455	400	Diesel	229-2180	8430	400	Diesel	229-2180
4520 (From Serial No. 215000.)	400	Diesel	229-2180	8440	400	Diesel	229-2180
4620 (From Serial No. 215000.)	400	Diesel	229-2180	8450	400	Diesel	229-2180
4630 (From Serial No. 215000.)	400	Diesel	229-2180	WINDROWER			
4640	400	Diesel	229-2180	2250	300	Diesel	229-2407
4650	400	Diesel	229-2180	2270	300	Diesel	229-2407
4840	400	Diesel	229-2180	2280	300	Diesel	229-2407
4850	400	Diesel	229-2180	2320	300	Diesel	229-2407
7020 (From Serial No. 215000.)	400	Diesel	229-2180	2420	300	Diesel	229-2407
7200	300	Diesel	229-2408	3430	300	Diesel	229-2407
7400	300	Diesel	229-2408	3830	300	Diesel	229-2407
7600	300	Diesel	229-2408				

Engine Index

Engine	Year	Block	Engine	Year	Block
135 CID (2.2L) 3135G		1	303 CID (5.0L) 6303L LPG		4
152 CID (2.5L) 3152D Diesel		1	329 CID (5.4L) 6329T Diesel		4
164 CID (2.7L) 3164D Diesel		1	329 CID (5.4L) 6329D Diesel		4
164 CID (2.7L) 3164G		1	329 CID (5.4L) 6329G		4
180 CID (3.0L) 4180G		2	359 CID (5.9L) 6059D Diesel		4
202 CID (3.3L) 4202D Diesel		2	359 CID (5.9L) 6059T Diesel		4
202 CID (3.3L) 4202G		2	359 CID (5.9L) 6359A Diesel		4
202 CID (3.3L) 503		2	359 CID (5.9L) 6359D Diesel		4
202 CID (3.3L) 503 Diesel		2	359 CID (5.9L) 6359T Diesel		4
219 CID (3.6L) 4219D Diesel		2	381 CID (6.2L) 381 Diesel		5
219 CID (3.6L) 4219G		2	404 CID (6.6L) 6404A Diesel		6
219 CID (3.6L) 4219T Diesel		2	404 CID (6.6L) 6404D Diesel		6
239 CID (3.9L) 4039D Diesel		2	404 CID (6.6L) 6404T Diesel		6
239 CID (3.9L) 4039T Diesel		2	414 CID (6.8L) 6068D Diesel		4
239 CID (3.9L) 4239A Diesel		2	414 CID (6.8L) 6068H Diesel		4
239 CID (3.9L) 4239D Diesel		2	414 CID (6.8L) 6068T Diesel		4
239 CID (3.9L) 4239T Diesel		2	414 CID (6.8L) 6414D Diesel		4
270 CID (4.4L) 4270D Diesel		3	414 CID (6.8L) 6414T Diesel		4
276 CID (4.5L) 4045D Diesel		2	466 CID (7.6L) 6076A Diesel		7
276 CID (4.5L) 4045H Diesel		2	466 CID (7.6L) 6076H Diesel		7
276 CID (4.5L) 4045T Diesel		2	466 CID (7.6L) 6076T Diesel		7
276 CID (4.5L) 4276D Diesel		2	466 CID (7.6L) 6466A Diesel		6
276 CID (4.5L) 4276T Diesel		2	466 CID (7.6L) 6466D Diesel		6
303 CID (5.0L) 6303D Diesel		4	466 CID (7.6L) 6466T Diesel		6
303 CID (5.0L) 6303G		4			

1 135 CID (2.2L) 3135G 3 Cyl, 3.858in./98mm
152 CID (2.5L) 3152D Diesel 3 Cyl, 3.858in./98mm
164 CID (2.7L) 3164D Diesel 3 Cyl, 4.020in./102.108mm
164 CID (2.7L) 3164G 3 Cyl, 4.020in./102.108mm

Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.			Original Equipment Part Number T20073	213-1744	6

John Deere

2	180 CID (3.0L) 4180G 4 Cyl, 3.858in./98mm 202 CID (3.3L) 4202D, 503 Diesel 4 Cyl, 3.858in./98mm 202 CID (3.3L) 4202G, 503 4 Cyl, 3.858in./98mm 219 CID (3.6L) 4219D, 4219T Diesel 4 Cyl, 4.020in./102.108mm 219 CID (3.6L) 4219G 4 Cyl, 4.020in./102.108mm 239 CID (3.9L) 4039D, 4039T, 4239A Diesel 4 Cyl, 4.173in./106mm 239 CID (3.9L) 4239D, 4239T Diesel 4 Cyl, 4.188in./106.4mm 276 CID (4.5L) 4045D, 4045H, 4045T Diesel 4 Cyl, 4.173in./106mm 276 CID (4.5L) 4276D, 4276T Diesel 4 Cyl, 4.188in./106.4mm					2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number T20073	213-1744	8
Camshaft, Mech.			Original Equipment Part Number R82820	229-2407	1

3	270 CID (4.4L) 4270D Diesel 4 Cyl, 4.250in./108mm					3
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number R52773	213-1781	8
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4	303 CID (5.0L) 6303D Diesel 6 Cyl, 3.858in./98mm 303 CID (5.0L) 6303G 6 Cyl, 3.858in./98mm 303 CID (5.0L) 6303L LPG 6 Cyl, 3.858in./98mm 329 CID (5.4L) 6329T Diesel 6 Cyl, 4.016in./102mm 329 CID (5.4L) 6329D Diesel 6 Cyl, 4.020in./102.108mm 329 CID (5.4L) 6329G 6 Cyl, 4.020in./102.108mm 359 CID (5.9L) 6059D, 6059T, 6359A Diesel 6 Cyl, 4.173in./106mm 359 CID (5.9L) 6359D, 6359T Diesel 6 Cyl, 4.188in./106.4mm 414 CID (6.8L) 6068D, 6068H, 6068T Diesel 6 Cyl, 4.173in./106mm 414 CID (6.8L) 6414D, 6414T Diesel 6 Cyl, 4.188in./106.4mm					4
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number T20073	213-1744	12
Camshaft, Mech.			Original Equipment Part Number R82821	229-2408	1

5	381 CID (6.2L) 381 Diesel 6 Cyl, 4.125in./104.8mm					5
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number R52773	213-1781	12
Camshaft, Mech.				229-2265	1

6	404 CID (6.6L) 6404A, 6404D, 6404T Diesel 6 Cyl, 4.250in./108mm 466 CID (7.6L) 6466A, 6466D, 6466T Diesel 6 Cyl, 4.563in./115.9mm					6
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number R52773	213-1781	12
Camshaft, Mech.			Original Equipment Part Number R71530	229-2180	1

7	466 CID (7.6L) 6076A, 6076H, 6076T Diesel 6 Cyl, 4.559in./115.8mm					7
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.			Original Equipment Part Number R52773	213-1781	12
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Engine Index

Engine	Year	Block	Engine	Year	Block
672 CID (11.0L) E6-200 Diesel		1	672 CID (11.0L) ENDTB-673C Diesel		1
672 CID (11.0L) E6-315 Diesel		1	672 CID (11.0L) ENDTB-675 Diesel		1
672 CID (11.0L) E6-315R Diesel		1	672 CID (11.0L) ENDTB-675C Diesel		1
672 CID (11.0L) E6-350 Diesel		1	672 CID (11.0L) ENDTB-676A Diesel		1
672 CID (11.0L) E6-350R Diesel		1	672 CID (11.0L) ENDTB-676B Diesel		1
672 CID (11.0L) EC6-235 Diesel		1	672 CID (11.0L) ENDTBF-673C Diesel		1
672 CID (11.0L) EC6-300L Diesel		1	672 CID (11.0L) ENDYF-673C Diesel		1
672 CID (11.0L) EC6-330 Diesel		1	672 CID (11.0L) ET673E Diesel		1
672 CID (11.0L) EM6-237 Diesel		1	672 CID (11.0L) ETAB-673A Diesel		1
672 CID (11.0L) EM6-250 Diesel		1	672 CID (11.0L) ETAB-676B Diesel		1
672 CID (11.0L) EM6-250L Diesel		1	672 CID (11.0L) ETAY673A Diesel		1
672 CID (11.0L) EM6-275 Diesel		1	672 CID (11.0L) ETAYB-676 Diesel		1
672 CID (11.0L) EM6-275L Diesel		1	672 CID (11.0L) ETAB-673A Diesel		1
672 CID (11.0L) EM6-275R Diesel		1	672 CID (11.0L) ETAB-673C Diesel		1
672 CID (11.0L) EM6-285 Diesel		1	672 CID (11.0L) ETB-673E Diesel		1
672 CID (11.0L) EM6-285R Diesel		1	672 CID (11.0L) ETSX-675 Diesel		1
672 CID (11.0L) EM6-300L Diesel		1	672 CID (11.0L) ETSX-676 Diesel		1
672 CID (11.0L) EM6-300R Diesel		1	672 CID (11.0L) ETSX-677 Diesel		1
672 CID (11.0L) EMC6-250 Diesel		1	672 CID (11.0L) ETSZB-673A Diesel		1
672 CID (11.0L) EMC6-285R Diesel		1	672 CID (11.0L) ETSZB-676 Diesel		1
672 CID (11.0L) EME6-285R Diesel		1	672 CID (11.0L) ETSZB-676A Diesel		1
672 CID (11.0L) END-673 Diesel		1	672 CID (11.0L) ETSZB-677 Diesel		1
672 CID (11.0L) END-673A Diesel		1	672 CID (11.0L) ETXB-673D Diesel		1
672 CID (11.0L) END-673B Diesel		1	672 CID (11.0L) ETYB-673E Diesel		1
672 CID (11.0L) END-673C Diesel		1	672 CID (11.0L) ETYB-675 Diesel		1
672 CID (11.0L) END-673D Diesel		1	672 CID (11.0L) ETYB-675B Diesel		1
672 CID (11.0L) END-673E Diesel		1	672 CID (11.0L) ETZB-673E Diesel		1
672 CID (11.0L) END-673E (Maxidyne) Diesel		1	672 CID (11.0L) ETZB-675B Diesel		1
672 CID (11.0L) END-673P Diesel		1	672 CID (11.0L) ETZB675 Diesel		1
672 CID (11.0L) ENDT-673 Diesel		1	707 CID (11.6L) END-707 Diesel		2
672 CID (11.0L) ENDT-673A Diesel		1	707 CID (11.6L) END-711 Diesel		2
672 CID (11.0L) ENDT-673B Diesel		1	707 CID (11.6L) END-711A Diesel		2
672 CID (11.0L) ENDT-673C Diesel		1	707 CID (11.6L) END-711B Diesel		2
672 CID (11.0L) ENDT-675 Diesel		1	707 CID (11.6L) END-711C Diesel		2

1	672 CID (11.0L) E6-200, EM6-250, EM6-250L, EM6-275, EM6-275L, EM6-275R, EM6-285, EM6-285R, EM6-300L, EM6-300R, EMC6-250, E6-315, EMC6-285R, EME6-285R, END-673, END-673A, END-673B, END-673C, END-673D, END-673E, END-673E (Maxidyne), END-673P, E6-315R, ENDT-673, ENDT-673A, ENDT-673B, ENDT-673C, ENDT-675, ENDTB-673C, ENDTB-675, ENDTB-675C, ENDTB-676A, ENDTB-676B, E6-350, ENDTBF-673C, ENDYF-673C, ETAB-673A, ETAB-676B, ETAY673A, ETAYB-676, ETAB-673A, ETAB-673C, E6-350R, ETB-673E, ETSX-675, ETSX-676, ETSX-677, ETSZB-673A, ETSZB-676, ETSZB-676A, ETSZB-677, ETXB-673D, ETYB-673E, EC6-235, ETYB-675, ETYB-675B, ETZB-673E, ETZB-675B, ETZB675, EC6-300L, EC6-330, EM6-237 Diesel 6 Cyl, 4.875in./123.8mm	1
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Part	Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.			Original Equipment Part Number 72GC347	213-1727	12
Camshaft, Mech.			2 Valves Per Cylinder, Dynatard Brake, Original Equipment Part Number 454GC568AP1	229-1826	1
			4 Valves Per Cylinder, Original Equipment Part Number 454GC568C	229-2191	1

2	707 CID (11.6L) END-707, END-711, END-711A, END-711B, END-711C Diesel 6 Cyl, 5.000in./127mm					2
Part	Year	VIN	Model/Application		Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.			Original Equipment Part Number 72GC347		213-1727	12

Massey Ferguson

Engine Index

Engine	Year	Block	Engine	Year	Block
170 CID (2.8L) H170/HB170/HC170 Chrysler		1	225 CID (3.7L) H225 Chrysler		1

Massey Ferguson

Engine Index (cont.)

Engine	Year	Block
292 CID (4.8L) General Motors		2

1	170 CID (2.8L) H170/HB170/HC170 Chrysler 6 Cyl, 3.400in./86.4mm				1
	225 CID (3.7L) H225 Chrysler 6 Cyl, 3.400in./86.4mm				

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.				213-1675	12
Camshaft, Mech.			From 1969	229-1380	1

2	292 CID (4.8L) General Motors 6 Cyl, 3.875in./98.4mm				2
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Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.				213-1685	12
Camshaft, Hydraulic				229-1551	1

Navistar/International

Engine Index

Engine	Year	Block	Engine	Year	Block
240 CID (3.9L) SD240 International	1950-1955	1	461 CID (7.6L) V461 International	1956-1964	4
240 CID (3.9L) SD240 International LPG	1953-1955	1	466 CID (7.6L) DT466 International Diesel	1975-1977	7
269 CID (4.4L) BLD269 International	1955-1956	1	466 CID (7.6L) DT466B International Diesel	1978-1982	7
282 CID (4.6L) BD282 International	1953-1962	1	466 CID (7.6L) DT466C International Diesel	1983-1993	8
282 CID (4.6L) BD282 International LPG	1953-1955	1	466 CID (7.6L) DTA466C International Diesel	1983-1993	8
304 CID (5.0L) V304 International	1959-1963	2	466 CID (7.6L) DTI466B International Diesel	1978-1982	7
308 CID (5.0L) BD308 International	1955-1962	1	466 CID (7.6L) DTI466C International Diesel	1983-1987	7
345 CID (5.6L) V345 International	1959-1982	2	478 CID (7.8L) V478 International	1965-1972	4
360 CID (5.9L) DT360 International Diesel	1987-1995	3	478 CID (7.8L) VS478 International	1965-1977	4
392 CID (6.4L) V392 International	1980-1982	2	537 CID (8.8L) V537 International	1978-1981	4
401 CID (6.6L) V401 International	1956-1972	4	537 CID (8.8L) VS537 International	1975-1981	4
401 CID (6.6L) VS401 International	1968-1975	4	549 CID (9.0L) FTV549 International	1970-1972	4
404 CID (6.6L) MV404 International	1975-1982	5	549 CID (9.0L) FTVS549 International	1970-1975	4
444 CID (7.3L) Indirect Injection International Diesel	1991-1993	6	549 CID (9.0L) V549 International	1956-1972	4
446 CID (7.3L) MV446 International	1975-1981	5	549 CID (9.0L) VS549 International	1968-1978	4
			551 CID (9.0L) International Diesel	1980-1988	9

1	240 CID (3.9L) SD240 International 6 Cyl, 3.563in./90.5mm (1950-1955)				1
	240 CID (3.9L) SD240 International LPG 6 Cyl, 3.563in./90.5mm (1953-1955)				
	269 CID (4.4L) BLD269 International 6 Cyl, 3.563in./90.5mm (1955-1956)				
	282 CID (4.6L) BD282 International 6 Cyl, 3.8125in./96.8mm (1953-1962)				
	282 CID (4.6L) BD282 International LPG 6 Cyl, 3.8125in./96.8mm (1953-1955)				
	308 CID (5.0L) BD308 International 6 Cyl, 3.813in./96.9mm (1955-1962)				

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Mech.	1950-1962			213-1649	12
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2	304 CID (5.0L) V304 International V8 Cyl, 3.875in./98.4mm (1959-1963)				2
	345 CID (5.6L) V345 International V8 Cyl, 3.875in./98.4mm (1959-1982)				
	392 CID (6.4L) V392 International V8 Cyl, 4.125in./104.8mm (1980-1982)				

Part	Year	VIN	Model/Application	Part Number	Qty.
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VALVE TRAIN & TIMING COMPONENTS

Valve Lifter, Hyd.	1959-1963, 1979-1982			213-1650	16
Camshaft, Hydraulic	1959-1963, 1979-1982			229-1415	1

3	360 CID (5.9L) DT360 International Diesel 6 Cyl, 3.875in./98.4mm (1987-1995)					3
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1987-1995		Original Equipment Part Number 1802340C1		213-1739	12
Camshaft, Mech.			From Engine Serial Number 72707, Original Equipment Part Number 1815538C1		229-2175	1
	1987-1995		Original Equipment Part Number 1809910C1, Thru Engine Serial Number 72706		229-2198	1
4	401 CID (6.6L) V401 International V8 Cyl, 4.125in./104.8mm (1956-1972) 401 CID (6.6L) VS401 International V8 Cyl, 4.125in./104.8mm (1968-1975) 461 CID (7.6L) V461 International V8 Cyl, 4.125in./104.8mm (1956-1964) 478 CID (7.8L) V478 International V8 Cyl, 4.500in./114.3mm (1965-1972) 478 CID (7.8L) VS478 International V8 Cyl, 4.500in./114.3mm (1965-1977) 537 CID (8.8L) V537 International V8 Cyl, 4.625in./117.5mm (1978-1981) 537 CID (8.8L) VS537 International V8 Cyl, 4.625in./117.5mm (1975-1981) 549 CID (9.0L) FTV549 International V8 Cyl, 4.500in./114.3mm (1970-1972) 549 CID (9.0L) FTVS549 International V8 Cyl, 4.500in./114.3mm (1970-1975) 549 CID (9.0L) V549 International V8 Cyl, 4.500in./114.3mm (1956-1972) 549 CID (9.0L) VS549 International V8 Cyl, 4.500in./114.3mm (1968-1978)					4
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1956-1981		Late Design, Requires Iron Camshaft		213-1673	16
5	404 CID (6.6L) MV404 International V8 Cyl, 4.125in./104.8mm (1975-1982) 446 CID (7.3L) MV446 International V8 Cyl, 4.125in./104.8mm (1975-1981)					5
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd.	1975-1982		Original Equipment Part Number 446571C1		213-1679	16
Camshaft, Hydraulic	1975-1982		Original Equipment Part Number 446801C1		229-1707	1
6	444 CID (7.3L) Indirect Injection International Diesel V8 Cyl, 4.110in./104.4mm (1991-1993)					6
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Hyd. Roller	1991-1993		(Needle Roller Bearing Design)		213-1725	16
Camshaft, Hyd. Roller	1991-1993				229-1872	1
7	466 CID (7.6L) DT466 International Diesel 6 Cyl, 4.300in./109.2mm (1975-1977) 466 CID (7.6L) DT466B, DTI466B International Diesel 6 Cyl, 4.300in./109.2mm (1978-1982) 466 CID (7.6L) DTI466C International Diesel 6 Cyl, 4.300in./109.2mm (1983-1987)					7
Part		Year	VIN	Model/Application	Part Number	Qty.
VALVE TRAIN & TIMING COMPONENTS						
Valve Lifter, Mech.	1975-1986		Original Equipment Part Number 911776R3, Thru Engine Serial Number 532980 .997" Diameter		213-1649	12
			Original Equipment Part Number 1802340C1, Thru Engine Serial Number 532980 1.120" Diameter		213-1739	12
Camshaft, Mech.	1975-1986		Original Equipment Part Number 1805072C91, Thru Engine Serial Number 532980		229-1885	1

Navistar/International

8	466 CID (7.6L) DT466C, DTA466C International Diesel 6 Cyl, 4.300in./109.2mm (1983-1993)				8
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1983-1987		Original Equipment Part Number 911776R3, Thru Engine Serial Number 532980 .997" Diameter	213-1649	12
			Original Equipment Part Number 1802340C1, Thru Engine Serial Number 532980 1.120" Diameter	213-1739	12
Camshaft, Mech.	1983-1987		Original Equipment Part Number 1805072C91, Thru Engine Serial Number 532980	229-1885	1
Camshaft, Mech., Roller	1989-1993		From Engine Serial Number 532981, Original Equipment Part Number 1810744C1	229-2171	1

9	551 CID (9.0L) International Diesel V8 Cyl, 4.510in./114.6mm (1980-1988)				9
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Camshaft, Mech.	1980-1988		Original Equipment Part Number 489172C1	229-2115	1

Oliver

Engine Index

<i>Engine</i>	<i>Year</i>	<i>Block</i>
478 CID (7.8L) General Motors	1962-1975	1

1	478 CID (7.8L) General Motors V6 Cyl, 5.125in./130.2mm (1962-1975)				1
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<i>Part</i>	<i>Year</i>	<i>VIN</i>	<i>Model/Application</i>	<i>Part Number</i>	<i>Qty.</i>
VALVE TRAIN & TIMING COMPONENTS					
Valve Lifter, Mech.	1962-1975			213-1657	12
Camshaft, Mech.	1962-1975			229-1480	1

Clevite Marine Camshafts & Valve Lifters

The Marine market offers a great opportunity to expand your engine parts business and Clevite Engine Parts makes it easy.

Stock replacement camshafts for marine engines are made with the same care, precision and quality that goes into all Clevite branded products. Cams, valve lifters and Timing components are computer-designed and engineered to provide low end power and torque so critical in marine power.

Every Clevite marine camshaft and related components meets or exceeds OEM standards to insure years of trouble free service. And they are competitively priced.

Due to limited information from the various OEM Marine Manufacturers, the following application information is shown by the Engine manufacturer only. References to crankshaft and camshaft rotations are all based on viewing engines from the front (Harmonic Balancer End).

Standard Rotation engines = Right Hand (R.H.) or Clockwise Crankshaft Rotation
Reverse Rotation engines = Left Hand (L.H.) or Counter-Clockwise Crankshaft Rotation

This is just the opposite when referring to a Right Hand or Left Hand Propeller Rotation. A typical example of this would be the Ford 351W engine with Hydraulic Lifters and a R.H. rotation propeller. The propeller is rotating Right Hand (Clockwise) looking from the rear of the engine. Therefore, the crankshaft would be rotating Left Hand (Counter-clockwise) looking from the cam drive end. The camshaft needed for this application would be Clevite No. 229-1834.

The above example applies to earlier inboard engines and some stern drive units. Above illustration does not apply to many current Stern drive I/O engines with Roller lifters. When determining the correct camshaft, it is imperative that you know the crankshaft rotation looking from the front of the engine

Important Information

Limited Warranty:

All Clevite Engine Parts brands and products are warranted to be free from defects in original materials and workmanship for a period of ONE YEAR from the date of purchase. Clevite is not responsible for failures resulting from alterations, or use in engines modified for competition, or levels of performance beyond the engine manufacturers original specifications. Other limitations may apply. Please see your Clevite representative or distributor for a complete copy of the limited warranty policy.

Listings:

The listings provided are intended to be a general guide in applying these parts to a basic application. These have been compiled from reliable sources of information. Clevite represents that the information contained in this publication is, to the best of its knowledge, accurate as of the time of issuance. Clevite disclaims any liability for any and all damages resulting from a user's reliance solely upon the information contained in this publication. If you have any questions about the information in this catalog, please contact your Clevite representative or distributor. All parts should be checked for proper fit and function during the assembly process.

Marine Camshafts and Valve Lifters

Drive Chain/Gear	Crank Rotation	Cam Rotation	Dur. @ .050		Cam Lift		Lobe Centers		Camshaft	Valve Lifter
			Int.	Exh.	Int.	Exh.	Int.	Exh.		
Chrysler 6 cyl., 170-225 Engs. (With Mechanical Lifters)										
Chain	R.H.	R.H.	198°	203°	.270	.276	106°	112°	229-1380	213-1675
Chrysler V8, 273 (4.5L), 318 (5.2L) (1968 and up), 340 (5.6L), 360 (5.9L) Engs. (With Hydraulic Lifters)										
Chain	R.H.	R.H.	210°	220°	.286	.296	118°	110°	229-1901	213-1679
Chain	L.H.	L.H.	210°	220°	.286	.296	118°	110°	229-1900	213-1679
NOTE: Part No. 229-1900 requires a Marine Reverse Rotation distributor/oil pump drive gear.										
Ford V8, 260 (4.3L), 289 (4.7L), 302 (5.0L) Engs. (Early style - Up to 1972 with Hydraulic Lifters)										
Chain	R.H.	R.H.	206°	221°	.278	.283	116°	114°	229-1833	213-1667
Chain	L.H.	L.H.	206°	221°	.278	.283	116°	114°	229-1834	213-1667
NOTE: For 229-1833 applications use 351W Firing Order 1-3-7-2-6-5-4-8. For 229-1834 applications use 351W Firing order 1-8-4-5-6-2-7-3.										
NOTE: Part No. 229-1834 requires a Marine Reverse Rotation distributor/oil pump drive gear.										
Ford 302 (5.0L), 351W (5.8L) Engs. (Late style - from 1972 with Hydraulic Lifters)										
Chain	R.H.	R.H.	206°	221°	.278	.283	116°	114°	229-1833	213-1667
Chain	L.H.	L.H.	206°	221°	.278	.283	116°	114°	229-1834	213-1667
NOTE: For 229-1833 applications use 351W Firing Order 1-3-7-2-6-5-4-8. For 229-1834 applications use 351W Firing order 1-8-4-5-6-2-7-3.										
NOTE: Part No. 229-1834 requires a Marine Reverse Rotation distributor/oil pump drive gear.										
Ford 302 (5.0L) HO, 351W (5.8L) Engs. (With Hyd. Roller Lifters)										
Chain	R.H.	R.H.	186°	197°	.263	.279	118°	113°	229-2283	213-1742
Chain	R.H.	R.H.	210°	211°	.278	.278	116°	115°	229-1774	213-1742
GM 4 cyl.,153 (2.5L) Eng.										
Gear	R.H.	L.H.	190°	190°	.232	.232	113°	110°	229-1708	213-1638
GM 4 cyl.,181 (3.0L) Eng.										
Gear	R.H.	L.H.	204°	204°	.253	.253	109°	115°	229-1924	213-1638
GM V6, 229 (3.7L) Eng.										
Chain	R.H.	R.H.	202°	213°	.273	.273	111°	115°	229-2133	213-1638
Gear	L.H.	R.H.	202°	213°	.273	.273	111°	115°	229-2132	213-1638
GM 6 cyl., 230-250 Eng.										
Gear	R.H.	L.H.	192°	192°	.230	.230	113°	110°	229-1959	213-1638
GM V6, 262 (4.3L) Eng. (With Hydraulic Lifters)										
Chain	R.H.	R.H.	202°	207°	.269	.273	110°	114°	229-1832	213-1638
GM V6, 262 (4.3L) Eng. (With Hyd. Roller Lifters and without Balance Shaft)										
Chain	R.H.	R.H.	202°	213°	.269	.273	108°	116°	229-1881	213-1738
Gear	L.H.	R.H.	202°	213°	.269	.273	108°	116°	229-1882	213-1738
GM V6, 262 (4.3L) Eng. (With Hyd. Roller Lifters and Balance Shaft)										
Chain	R.H.	R.H.	202°	213°	.269	.273	108°	116°	229-2350	213-1738
GM 6 cyl., 292 Eng.										
Gear	R.H.	L.H.	188°	188°	.232	.232	113°	110°	229-1551	213-1638 (61-80) 213-1685 (81-89)
GM V8, 283 Eng.										
Chain	R.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1879	213-1638
Gear	L.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1880	213-1638
GM V8, 305 (5.0L), Eng. (Up to 1984 with Hydraulic Lifters.)										
Chain	R.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1879	213-1638
Gear	L.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1880	213-1638
GM V8, 305 (5.0L), 350 (5.7L) Engs. (1985-93 with Roller Lifters)										
Chain	R.H.	R.H.	197°	207°	.289	.300	105°	114°	229-2351	213-1738
Chain	R.H.	R.H.	207°	214°	.274	.285	116°	118°	229-1916	213-1738
GM V8, 307 Eng.										
Chain	R.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1879	213-1638
Gear	L.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1880	213-1638
GM V8, 327 Eng. (1962-66)										
Chain	R.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1879	213-1638
Gear	L.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1880	213-1638
Chain	R.H.	R.H.	224°	224°	.300	.307	114°	114°	229-1990	213-1638

Marine Camshafts and Valve Lifters

Drive Chain/Gear	Crank Rotation	Cam Rotation	Dur. @ .050		Cam Lift		Lobe Centers		Camshaft	Valve Lifter
			Int.	Exh.	Int.	Exh.	Int.	Exh.		
GM V8, 327 (5.4L), (1967-69), 350 (5.7L) Engs. (With Hydraulic Lifters)										
Chain	R.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1879	213-1638
Gear	L.H.	R.H.	202°	213°	.267	.273	108°	112°	229-1880	213-1638
Chain	R.H.	R.H.	224°	224°	.300	.307	114°	114°	229-1990	213-1638
GM V8, 350 (5.7L) Engs. (1994-97 with Roller Lifters)										
Chain	R.H.	R.H.	197°	207°	.289	.300	105°	114°	229-2351	213-1738
Chain	R.H.	R.H.	207°	214°	.274	.285	116°	118°	229-1916	213-1738
GM V8 427 (7.0L), 454, (7.4L), Engs. (1967-87)										
Chain	R.H.	R.H.	214°	218°	.271	.282	110°	120°	229-1953	213-1638
Gear	L.H.	R.H.	214°	218°	.271	.282	110°	120°	229-1899	213-1638
Gear	R.H.	L.H.	214°	218°	.271	.282	110°	120°	229-1898	213-1638
NOTE: Part No. 229-1898 requires a Marine Reverse Rotation distributor/oil pump drive gear.										
GM V8 454, (7.4L), "Gen V" Eng. (1988-96 with Hydraulic Lifters)										
Chain	R.H.	R.H.	214°	218°	.271	.282	110°	120°	229-1953	213-1638
Gear	L.H.	R.H.	214°	218°	.271	.282	110°	120°	229-1899	213-1638
Gear	R.H.	L.H.	214°	218°	.271	.282	110°	120°	229-1898	213-1638
NOTE: Part No. 229-1898 requires a Marine Reverse Rotation distributor/oil pump drive gear.										
GM V8 454, (7.4L) Magnum, 502 (8.2L), Magnum, "Gen V" Eng. (With Hydraulic Lifters)										
Chain	R.H.	R.H.	224°	224°	.300	.300	114°	117°	229-1958	213-1685
Gear	L.H.	R.H.	224°	224°	.300	.300	114°	117°	229-1957	213-1685
GM V8 454, (7.4L), "Gen VI" Eng. (With Hyd. Roller Lifters)										
Chain	R.H.	R.H.	204°	209°	.282	.284	118°	118°	229-2327	213-1777
Chain	R.H.	R.H.	224°	224°	.284	.284	113°	118°	229-2353	213-1777
GM V8 454, (7.4L), "Gen V" High Output Eng. (With Hydraulic Lifters)										
Chain	R.H.	R.H.	229°	236°	.312	.324	109°	119°	229-2228	213-1685
GM V8 540, (8.9L), "575 hp" High Output Eng. (With Hydraulic Lifters)										
Chain	R.H.	R.H.	257°	264°	.363	.374	105°	111°	229-2223	213-1685

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured	Zero Lash)		Intake Duration	Exhaust Duration
229-1130	P	H	.296	.311	.444	.467	69°	288°	298°
229-1171	ST	H	.229	.235	.401	.411	44°	272°	280°
229-1187	ST	H	.249	.249	.374	.374	49°	280°	278°
229-1198	ST	M	.269	.269	.404	.404	44°	262°	256°
229-1210	ST	M	.264	.262	.378	.375	20°	254°	244°
229-1218	ST	H	.257	.257	.427	.427	40°	260°	260°
229-1251	ST	M	.210	.225	.311	.333	10°	242°	216°
229-1252	ST	H	.271	.271	.400	.400	26°	270°	270°
229-1273	ST	H	.222	.222	.333	.333	38°	263°	262°
229-1274	ST	H	.260	.273	.390	.410	34°	260°	271°
229-1293	ST	M	.274	.281	.405	.415	24°	293°	338°
229-1301	ST	M	.220	.371	.333	.557	21°	266°	294°
229-1323	ST	H	.222	.222	.328	.328	34°	260°	260°
229-1327	ST	H	.289	.287	.434	.431	38°	284°	293°
229-1338	ST	M	.210	.225	.310	.332	9°	240°	249°
229-1364	ST	H	.240	.240	.384	.384	62°	266°	266°
229-1371	ST	M	.265	.265	.440	.440	27°	244°	264°
229-1380	ST	M	.270	.276	.406	.414	26°	271°	260°
229-1394	ST	H	.222	.222	.389	.389	33°	270°	270°
229-1402	ST	H	.238	.238	.381	.381	37°	261°	261°
229-1415	ST	H	.262	.236	.445	.401	39°	260°	252°
229-1442	ST	H	.240	.240	.360	.360	44°	269°	272°
229-1443	ST	H	.232	.232	.401	.401	44°	271°	271°
229-1480	ST	M	.303	.309	.455	.464	63°	244°	270°
229-1483	ST	M	.278	.278	.444	.444	37°	254°	254°
229-1551	ST	H	.232	.232	.406	.406	71°	276°	276°
229-1601	ST	H	.230	.230	.368	.381	44°	292°	265°
229-1604	ST	H	.259	.282	.427	.465	51°	284°	300°
229-1606	ST	H	.269	.269	.430	.430	74°	284°	284°
229-1608	ST	M	.260	.260	.372	.372	34°	216°	216°
229-1609	ST	M	.273	.273	.388	.388	26°	251°	251°
229-1612	CP	M	.323	.323	.485	.485	66°	294°	294°
229-1614	CP	M	.306	.306	.520	.520	75°	310°	297°
229-1615	SP	H	.302	.302	.453	.453	76°	304°	304°
229-1616	SP	M	.298	.298	.477	.477	82°	273°	273°
229-1617	P	H	.286	.286	.458	.458	71°	297°	297°
229-1621	ST	H	.245	.245	.424	.424	48°	277°	277°
229-1622	CP	M	.329	.341	.494	.512	89°	304°	320°
229-1623	CP	M	.330	.330	.528	.528	85°	299°	300°
229-1624	P	H	.293	.293	.507	.507	91°	315°	315°
229-1626	ST	H	.270	.272	.405	.408	55°	271°	280°
229-1629	P	H	.296	.297	.444	.445	64°	310°	313°
229-1633	ST	H	.247	.249	.427	.431	36°	273°	281°
229-1634	ST	H	.253	.253	.438	.438	35°	271°	271°
229-1636	P	H	.294	.297	.500	.505	81°	310°	325°
229-1637	ST	H	.234	.234	.398	.398	57°	270°	270°
229-1640	ST	H	.232	.232	.348	.348	27°	240°	240°
229-1643	ST	H	.253	.253	.405	.405	34°	262°	262°
229-1644	CP	H	.297	.297	.475	.475	94°	314°	314°
229-1645	ST	H	.248	.267	.373	.400	26°	264°	275°
229-1646	ST	H	.244	.285	.388	.453	74°	282°	328°
229-1647	ST	H	.247	.250	.427	.433	44°	273°	290°
229-1648	ST	H	.250	.251	.400	.402	36°	277°	291°
229-1649	ST	H	.253	.278	.443	.487	36°	273°	287°
229-1650	ST	H	.253	.243	.392	.377	63°	270°	293°
229-1651	ST	H	.266	.266	.426	.426	43°	263°	263°

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-1130	214°	224°	1° ATC	35° ABC	48° BBC	4° BTC	Hyd.	Hyd.	108°	116°
229-1171	190°	198°	14° ATC	24° ABC	36° BBC	18° BTC	Hyd.	Hyd.	110°	116°
229-1187	190°	190°	18° ATC	28° ABC	24° BBC	14° BTC	Hyd.	Hyd.	113°	109°
229-1198	198°	198°	5° ATC	23° ABC	37° BBC	19° BTC	.013H	.013H	103°	119°
229-1210	197°	196°	12° ATC	29° ABC	34° BBC	18° BTC	.018H	.018H	110°	116°
229-1218	190°	190°	13° ATC	23° ABC	27° BBC	17° BTC	Hyd.	Hyd.	108°	112°
229-1251	168°	170°	24° ATC	12° ABC	13° BBC	23° BTC	.006H	.018H	108°	108°
229-1252	185°	185°	16° ATC	21° ABC	22° BBC	17° BTC	Hyd.	Hyd.	108°	110°
229-1273	172°	172°	22° ATC	14° ABC	12° BBC	20° BTC	Hyd.	Hyd.	108°	106°
229-1274	194°	203°	11° ATC	25° ABC	37° BBC	14° BTC	Hyd.	Hyd.	108°	116°
229-1293	189°	193°	12° ATC	21° ABC	30° BBC	17° BTC	.006H	.018H	106°	114°
229-1301	198°	206°	12° ATC	30° ABC	30° BBC	4° BTC	.018H	.012H	109°	111°
229-1323	172°	172°	18° ATC	10° ABC	12° BBC	20° BTC	Hyd.	Hyd.	104°	106°
229-1327	206°	209°	7° ATC	33° ABC	40° BBC	11° BTC	Hyd.	Hyd.	110°	116°
229-1338	168°	170°	24° ATC	12° ABC	13° BBC	23° BTC	.006H	.016H	108°	108°
229-1364	186°	186°	13° ATC	19° ABC	25° BBC	19° BTC	Hyd.	Hyd.	106°	112°
229-1371	182°	198°	12° ATC	14° ABC	29° BBC	11° BTC	.025H	.025H	103°	110°
229-1380	198°	203°	8° ATC	26° ABC	33° BBC	10° BTC	.010H	.020H	106°	112°
229-1394	172°	172°	20° ATC	12° ABC	11° BBC	19° ATC	Hyd.	Hyd.	106°	104°
229-1402	187°	187°	10° ATC	17° ABC	26° BBC	19° BTC	Hyd.	Hyd.	103°	113°
229-1415	188°	178°	17° ATC	25° ABC	19° BBC	21° BTC	Hyd.	Hyd.	111°	110°
229-1442	193°	194°	10° ATC	23° ABC	27° BBC	13° BTC	Hyd.	Hyd.	106°	110°
229-1443	186°	186°	19° ATC	25° ABC	27° BBC	21° BTC	Hyd.	Hyd.	108°	113°
229-1480	202°	216°	0° TDC	22° ABC	47° BBC	11° BTC	.012H	.018H	101°	119°
229-1483	204°	204°	6° ATC	30° ABC	33° BBC	9° BTC	.020H	.020H	108°	111°
229-1551	188°	188°	19° ATC	27° ABC	24° BBC	16° BTC	Hyd.	Hyd.	113°	110°
229-1601	184°	189°	22° ATC	26° ABC	17° BBC	8° BTC	Hyd.	Hyd.	114°	104°
229-1604	194°	210°	17° ATC	31° ABC	38° BBC	8° BTC	Hyd.	Hyd.	114°	113°
229-1606	207°	207°	9° ATC	36° ABC	39° BBC	12° BTC	Hyd.	Hyd.	112°	116°
229-1608	194°	194°	14° ATC	28° ABC	34° BBC	20° ATC	.025H	.025H	111°	117°
229-1609	202°	202°	6° ATC	28° ABC	38° BBC	16° BTC	.019H	.019H	107°	117°
229-1612	254°	254°	16° BTC	58° ABC	64° BBC	10° ATC	.030H	.030H	110°	118°
229-1614	242°	242°	12° BTC	50° ABC	60° BBC	2° ATC	.020H	.024H	108°	120°
229-1615	230°	230°	3° BTC	47° ABC	51° BBC	1° BTC	Hyd.	Hyd.	112°	116°
229-1616	228°	228°	5° BTC	42° ABC	53° BBC	6° BTC	.018H	.018H	108°	120°
229-1617	218°	218°	3° BTC	35° ABC	49° BBC	11° BTC	Hyd.	Hyd.	106°	120°
229-1621	192°	192°	10° ATC	22° ABC	30° BBC	18° ATC	Hyd.	Hyd.	106°	114°
229-1622	257°	270°	19° BTC	58° ABC	70° BBC	20° ATC	.022H	.024H	108°	116°
229-1623	251°	252°	23° BTC	48° ABC	58° BBC	14° ATC	.020H	.020H	102°	112°
229-1624	224°	224°	3° BTC	41° ABC	47° BBC	3° BTC	Hyd.	Hyd.	109°	115°
229-1626	198°	208°	7° ATC	25° ABC	40° BBC	12° BTC	Hyd.	Hyd.	106°	116°
229-1629	218°	218°	2° ATC	36° ABC	46° BBC	8° BTC	Hyd.	Hyd.	107°	117°
229-1633	192°	199°	17° ATC	29° ABC	31° BBC	12° BTC	Hyd.	Hyd.	113°	111°
229-1634	200°	200°	8° ATC	28° ABC	33° BBC	13° BTC	Hyd.	Hyd.	108°	113°
229-1636	222°	235°	0° TDC	42° ABC	57° BBC	2° BTC	Hyd.	Hyd.	110°	120°
229-1637	196°	196°	14° ATC	30° ABC	33° BBC	17° BTC	Hyd.	Hyd.	110°	117°
229-1640	178°	178°	22° ATC	20° ABC	11° BBC	13° BTC	Hyd.	Hyd.	111°	102°
229-1643	190°	190°	19° ATC	29° ABC	29° BBC	19° BTC	Hyd.	Hyd.	113°	115°
229-1644	244°	244°	12° BTC	52° ABC	52° BBC	12° BTC	Hyd.	Hyd.	110°	110°
229-1645	181°	192°	20° ATC	21° ABC	24° BBC	12° BTC	Hyd.	Hyd.	110°	108°
229-1646	194°	225°	20° ATC	34° ABC	50° BBC	5° BTC	Hyd.	Hyd.	116°	118°
229-1647	192°	198°	13° ATC	25° ABC	29° BBC	11° BTC	Hyd.	Hyd.	109°	111°
229-1648	187°	200°	13° ATC	20° ABC	34° BBC	14° BTC	Hyd.	Hyd.	106°	112°
229-1649	193°	206°	14° ATC	27° ABC	39° BBC	13° BTC	Hyd.	Hyd.	110°	116°
229-1650	189°	208°	15° ATC	24° ABC	40° BBC	12° BTC	Hyd.	Hyd.	109°	116°
229-1651	196°	196°	11° ATC	27° ABC	31° BBC	15° BTC	Hyd.	Hyd.	109°	112°

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured	Zero Lash)		Intake Duration	Exhaust Duration
229-1652	ST	M	.251	.251	.402	.402	42°	351°	351°
229-1653	SP	H	.300	.317	.450	.476	102°	320°	330°
229-1654	ST	H	.286	.296	.429	.444	44°	279°	290°
229-1655	ST	H	.260	.260	.416	.416	41°	270°	270°
229-1657	ST	H	.251	.244	.402	.390	67°	272°	283°
229-1658	P	H	.311	.325	.538	.562	80°	302°	308°
229-1660	ST	H	.267	.275	.459	.473	76°	286°	282°
229-1661	ST	H	.259	.259	.440	.440	118°	285°	297°
229-1663	ST	H	.273	.273	.410	.410	33°	278°	278°
229-1664	ST	H	.240	.240	.360	.360	44°	269°	272°
229-1665	ST	H	.245	.245	.368	.368	35°	254°	254°
229-1666	ST	H	.239	.260	.357	.390	56°	244°	259°
229-1668	ST	H	.249	.273	.374	.410	58°	250°	269°
229-1675	ST	M	.256	.256	.374	.374	34°	258°	247°
229-1676	ST	M	.437	.438	.437	.438	83°	239°	286°
229-1677	ST	M	.420	.430	.420	.430	70°	232°	282°
229-1678	ST	H	.251	.240	.402	.384	72°	272°	280°
229-1679	ST	H	.244	.244	.422	.422	46°	268°	268°
229-1686	ST	H	.238	.247	.381	.395	35°	257°	269°
229-1687	ST	H	.234	.234	.398	.398	62°	269°	269°
229-1688	ST	H	.243	.243	.365	.365	59°	264°	264°
229-1690	ST	M	.224	.236	N/A	N/A	N/A	N/A	N/A
229-1691	ST	M	.289	.289	N/A	N/A	74°	292°	292°
229-1692	ST	M	.276	.276	N/A	N/A	N/A	N/A	N/A
229-1693	ST	M	.222	.232	N/A	N/A	N/A	N/A	N/A
229-1696	ST	H	.233	.233	.350	.350	38°	256°	256°
229-1697	ST	H	.232	.232	.406	.406	69°	276°	276°
229-1699	ST	M	.263	.266	N/A	N/A	N/A	N/A	N/A
229-1700	ST	M	.316	.319	N/A	N/A	N/A	N/A	N/A
229-1701	ST	H	.244	.240	.358	.384	59°	251°	280°
229-1702	ST	H	.251	.240	.402	.384	62°	272°	280°
229-1703	ST	H	.234	.257	.351	.386	54°	244°	259°
229-1704	ST	H	.247	.250	.395	.400	28°	256°	277°
229-1707	ST	H	.272	.272	.435	.435	39°	274°	274°
229-1708	ST	H	.232	.232	.406	.406	71°	276°	276°
229-1709	ST	M	.231	.231	.340	.341	50°	268°	288°
229-1710	ST	H	.241	.241	.386	.386	60°	N/A	N/A
229-1712	ST	H	.252	.252	.378	.378	18°	255°	255°
229-1713	P	H	.298	.298	.447	.447	62°	290°	290°
229-1714	ST	M	.220	.215	N/A	N/A	N/A	N/A	N/A
229-1715	ST	M	.230	.230	N/A	N/A	N/A	N/A	N/A
229-1716	ST	M	.406	.406	N/A	N/A	N/A	298°	310°
229-1720	ST	H	.231	.263	.347	.395	58°	238°	256°
229-1722	ST	M	254.000	257.000	N/A	N/A	N/A	N/A	N/A
229-1724	ST	R	.251	.279	.402	.446	35°	235°	269°
229-1725	ST	M	.269	.271	N/A	N/A	N/A	N/A	N/A
229-1726	ST	M	.270	.270	N/A	N/A	N/A	271°	298°
229-1730	MPG	H	.281	.296	.422	.444	59°	278°	288°
229-1731	MPG	H	.265	.281	.424	.450	48°	272°	280°
229-1732	MPG	H	.281	.296	.486	.512	64°	282°	292°
229-1733	MPG	H	.281	.296	.486	.512	64°	282°	292°
229-1734	MPG	H	.281	.296	.450	.474	61°	280°	289°
229-1735	MPG	H	.281	.296	.422	.444	59°	278°	288°
229-1736	MPG	H	.265	.281	.398	.422	50°	270°	278°
229-1737	P	H	.296	.311	.503	.529	72°	292°	302°
229-1742	ST	M	276.000	327.000	N/A	N/A	N/A	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-1652	206°	206°	14° ATC	40° ABC	30° BBC	4° BTC	.008C	.010C	108°	100°
229-1653	232°	242°	9° BTC	43° ABC	58° BBC	4° ATC	Hyd.	Hyd.	107°	117°
229-1654	210°	220°	7° ATC	37° ABC	46° BBC	6° BTC	Hyd.	Hyd.	112°	116°
229-1655	195°	195°	6° ATC	21° ABC	29° BBC	14° BTC	Hyd.	Hyd.	103°	112°
229-1657	194°	199°	15° ATC	29° ABC	31° BBC	12° BTC	Hyd.	Hyd.	112°	112°
229-1658	224°	234°	5° BTC	39° ABC	54° BBC	0° TDC	Hyd.	Hyd.	107°	117°
229-1660	119°	203°	17° ATC	36° ABC	35° BBC	12° BTC	Hyd.	Hyd.	117°	113°
229-1661	210°	213°	5° ATC	35° ABC	43° BBC	10° BTC	Hyd.	Hyd.	109°	117°
229-1663	203°	203°	7° ATC	30° ABC	32° BBC	9° BTC	Hyd.	Hyd.	108°	111°
229-1664	193°	194°	10° ATC	23° ABC	27° BBC	13° BTC	Hyd.	Hyd.	106°	110°
229-1665	184°	185°	20° ATC	24° ABC	16° BBC	11° BTC	Hyd.	Hyd.	112°	103°
229-1666	178°	194°	17° ATC	15° ABC	28° BBC	14° BTC	Hyd.	Hyd.	106°	112°
229-1668	189°	202°	9° ATC	18° ABC	37° BBC	15° BTC	Hyd.	Hyd.	102°	116°
229-1675	202°	202°	7° ATC	29° ABC	35° BBC	13° BTC	.014H	.016H	108°	114°
229-1676	216°	218°	0° TDC	36° ABC	37° BBC	1° ATC	.015H	.016H	108°	108°
229-1677	208°	214°	4° ATC	32° ABC	39° BBC	5° BTC	.015H	.016H	108°	112°
229-1678	194°	194°	15° ATC	29° ABC	28° BBC	14° BTC	Hyd.	Hyd.	112°	110°
229-1679	197°	196°	22° ATC	39° ABC	39° BBC	22° BTC	Hyd.	Hyd.	110°	112°
229-1686	183°	192°	13° ATC	16° ABC	27° BBC	15° BTC	Hyd.	Hyd.	104°	111°
229-1687	193°	193°	3° ATC	16° ABC	24° BBC	11° BTC	Hyd.	Hyd.	100°	107°
229-1688	189°	189°	11° ATC	20° ABC	24° BBC	15° BTC	Hyd.	Hyd.	105°	110°
229-1690	180°	184°	N/A	N/A	N/A	N/A	.008H	.012H	N/A	N/A
229-1691	219°	219°	N/A	N/A	N/A	N/A	.010H	.012H	N/A	N/A
229-1692	181°	200°	N/A	N/A	N/A	N/A	.010H	.012H	N/A	N/A
229-1693	171°	175°	N/A	N/A	N/A	N/A	.014H	.014H	N/A	N/A
229-1696	181°	181°	18° ATC	19° ABC	14° BBC	13° BTC	Hyd.	Hyd.	108°	104°
229-1697	190°	190°	18° ATC	28° ABC	25° BBC	15° BTC	Hyd.	Hyd.	113°	110°
229-1699	199°	202°	N/A	N/A	N/A	N/A	.008H	.012H	N/A	N/A
229-1700	192°	196°	N/A	N/A	N/A	N/A	.007H	.013H	N/A	N/A
229-1701	181°	194°	14° ATC	15° ABC	28° BBC	14° BTC	Hyd.	Hyd.	104°	110°
229-1702	194°	194°	15° ATC	29° ABC	28° BBC	14° BTC	Hyd.	Hyd.	112°	110°
229-1703	176°	194°	20° ATC	16° ABC	28° BBC	14° BTC	Hyd.	Hyd.	108°	112°
229-1704	180°	197°	16° ATC	16° ABC	25° BBC	18° BTC	Hyd.	Hyd.	106°	112°
229-1707	194°	194°	21° ATC	35° ABC	24° BBC	10° BTC	Hyd.	Hyd.	118°	107°
229-1708	190°	190°	18° ATC	28° ABC	25° BBC	15° BTC	Hyd.	Hyd.	113°	110°
229-1709	202°	206°	6° ATC	28° ABC	38° BBC	12° BTC	.010H	.017H	107°	115°
229-1710	185°	186°	28° BTC	76° ABC	72° BBC	32° BTC	Hyd.	Hyd.	112°	114°
229-1712	187°	187°	15° ATC	22° ABC	15° BBC	8° BTC	Hyd.	Hyd.	108°	102°
229-1713	223°	223°	1° BTC	42° ABC	49° BBC	6° BTC	Hyd.	Hyd.	110°	118°
229-1714	168°	175°	N/A	N/A	N/A	N/A	.006H	.006H	N/A	N/A
229-1715	182°	181°	N/A	N/A	N/A	N/A	.006C	.010C	N/A	N/A
229-1716	224°	224°	2° BTC	42° ABC	41° BBC	3° ATC	.010H	.012H	N/A	N/A
229-1720	179°	196°	16° ATC	15° ABC	27° BBC	11° BTC	Hyd.	Hyd.	105°	109°
229-1722	181°	215°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1724	164°	192°	14° ATC	2° BBC	30° BBC	18° BTC	Hyd.	Hyd.	96°	114°
229-1725	192°	192°	N/A	N/A	N/A	N/A	.006H	.008H	N/A	N/A
229-1726	218°	222°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1730	204°	214°	5° ATC	29° ABC	44° BBC	10° BTC	Hyd.	Hyd.	107°	117°
229-1731	194°	204°	12° ATC	26° ABC	41° BBC	17° BTC	Hyd.	Hyd.	109°	119°
229-1732	204°	214°	5° ATC	29° ABC	44° BBC	10° BTC	Hyd.	Hyd.	107°	117°
229-1733	204°	214°	4° ATC	28° ABC	45° BBC	11° BTC	Hyd.	Hyd.	106°	118°
229-1734	204°	214°	6° ATC	30° ABC	43° BBC	9° BTC	Hyd.	Hyd.	108°	116°
229-1735	204°	214°	6° ATC	30° ABC	43° BBC	9° BTC	Hyd.	Hyd.	108°	116°
229-1736	194°	204°	10° ATC	24° ABC	39° BBC	15° BTC	Hyd.	Hyd.	107°	117°
229-1737	214°	224°	1° ATC	35° ABC	48° BBC	4° BTC	Hyd.	Hyd.	108°	116°
229-1742	N/A	N/A	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured	Zero Lash)		Intake Duration	Exhaust Duration
229-1743	ST	M	377.000	377.000	N/A	N/A	N/A	N/A	N/A
229-1744	ST	H	.240	.241	.415	.417	30°	266°	275°
229-1745	ST	H	.229	.229	.380	.380	35°	271°	271°
229-1747	ST	M	.283	.286	N/A	N/A	N/A	N/A	N/A
229-1748	ST	M	.277	.276	N/A	N/A	N/A	N/A	N/A
229-1755	ST	H	.243	.243	.430	.430	22°	274°	271°
229-1756	ST	M	.270	.271	.405	.406	59°	271°	298°
229-1757	ST	M	.256	.258	N/A	N/A	N/A	N/A	N/A
229-1758	ST	M	.256	.258	N/A	N/A	N/A	N/A	N/A
229-1764	ST	M	.289	.289	N/A	N/A	N/A	285°	285°
229-1766	ST	M	.284	.284	.426	.426	82°	282°	282°
229-1772	ST	M	.264	.264	.385	.385	54°	258°	258°
229-1773	ST	R	.238	.247	.381	.395	35°	259°	271°
229-1774	ST	R	.278	.278	.445	.445	49°	297°	279°
229-1775	MPG	H	.281	.296	.450	.474	61°	280°	290°
229-1776	MPG	H	.281	.296	.486	.512	64°	282°	292°
229-1777	MPG	H	.280	.295	.448	.472	47°	280°	290°
229-1778	MPG	H	.281	.296	.422	.444	59°	278°	288°
229-1783	ST	M	308.000	307.000	N/A	N/A	N/A	N/A	N/A
229-1784	MPG	H	.281	.296	.422	.444	59°	278°	288°
229-1785	ST	H	.250	.240	.403	.386	39°	289°	283°
229-1786	MPG	H	.281	.296	.450	.474	65°	280°	289°
229-1787	MPG	H	.281	.296	.422	.444	60°	278°	288°
229-1793	ST	H	.240	.241	.415	.417	30°	266°	275°
229-1794	ST	H	.263	.263	.395	.395	37°	256°	256°
229-1795	ST	H	.216	.207	.335	.321	61°	246°	268°
229-1797	ST	H	.263	.263	.395	.395	37°	256°	256°
229-1798	ST	H	.247	.251	.395	.402	36°	249°	256°
229-1800	ST	M	276.000	327.000	N/A	N/A	N/A	N/A	N/A
229-1804	ST	M	276.000	327.000	N/A	N/A	N/A	N/A	N/A
229-1821	ST	H	.240	.248	.384	.397	66°	279°	274°
229-1822	MPG	H	.280	.295	.490	.516	51°	282°	292°
229-1824	ST	H	.263	.273	.395	.410	70°	256°	269°
229-1826	ST	M	.326	.373	587.000	671.000	29°	236°	236°
229-1827	ST	H	.229	.229	.380	.380	35°	271°	271°
229-1828	ST	H	.251	.240	.402	.384	62°	272°	280°
229-1829	ST	H	.234	.257	.351	.386	54°	244°	259°
229-1830	ST	M	318.000	345.000	N/A	N/A	N/A	N/A	N/A
229-1831	ST	M	328.000	328.000	N/A	N/A	N/A	N/A	N/A
229-1832	MR	H	.269	.276	.404	.414	45°	269°	271°
229-1833	MR	H	.278	.283	.445	.453	46°	284°	304°
229-1834	MR	H	.278	.283	.445	.453	46°	284°	304°
229-1835	ST	H	.275	.275	.440	.440	48°	273°	291°
229-1836	ST	H	.240	.240	.400	.400	34°	269°	269°
229-1837	ST	H	.243	.243	.430	.430	22°	274°	271°
229-1839	ST	H	.238	.238	.412	.412	28°	249°	251°
229-1840	ST	H	.247	.247	.396	.396	35°	271°	271°
229-1841	ST	H	.251	.265	.400	.420	77°	281°	278°
229-1844	ST	M	319.000	285.000	469.000	419.000	36°	248°	252°
229-1847	ST	M	402.000	402.000	N/A	N/A	N/A	N/A	N/A
229-1848	ST	M	319.000	346.000	447.000	484.000	36°	241°	242°
229-1849	ST	H	.281	.281	.422	.422	65°	237°	273°
229-1871	ST	H	.269	.276	.404	.414	63°	269°	271°
229-1872	ST	H	.254	.253	N/A	N/A	38°	N/A	N/A
229-1873	ST	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-1874	ST	M	.254	.259	N/A	N/A	N/A	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-1743	208°	220°	N/A	N/A	N/A	N/A	Mech.	Mech.	92°	109°
229-1744	185°	201°	14°ATC	19°ABC	34°BBC	13°BTC	Hyd.	Hyd.	106°	114°
229-1745	193°	193°	11°ATC	24°ABC	32°BBC	19°BTC	Hyd.	Hyd.	106°	117°
229-1747	203°	204°	N/A	N/A	N/A	N/A	.006H	.010H	N/A	N/A
229-1748	215°	213°	N/A	N/A	N/A	N/A	.012H	.012H	N/A	N/A
229-1755	202°	202°	1°BTC	21°ABC	37°BBC	15°BTC	Hyd.	Hyd.	110°	106°
229-1756	218°	222°	N/A	N/A	N/A	N/A	.006H	.008H	N/A	N/A
229-1757	208°	214°	N/A	N/A	N/A	N/A	.006H	.008H	N/A	N/A
229-1758	208°	214°	N/A	N/A	N/A	N/A	.006H	.008H	N/A	N/A
229-1764	220°	220°	N/A	N/A	N/A	N/A	.010H	.012H	N/A	N/A
229-1766	222°	222°	2°BTC	20°ABC	44°BBC	2°BTC	.012H	.012H	109°	113°
229-1772	207°	207°	5°ATC	32°ABC	35°BBC	8°BTC	.014H	.016H	108°	112°
229-1773	183°	192°	13°ATC	16°ABC	27°BBC	15°BTC	Hyd.	Hyd.	104°	111°
229-1774	210°	210°	11°ATC	41°ABC	40°BBC	10°BTC	Hyd.	Hyd.	116°	115°
229-1775	204°	214°	5°ATC	29°ABC	44°BBC	10°BTC	Hyd.	Hyd.	107°	117°
229-1776	204°	214°	5°ATC	29°ABC	44°BBC	10°BTC	Hyd.	Hyd.	107°	117°
229-1777	204°	214°	4°ATC	28°ABC	49°BBC	15°BTC	Hyd.	Hyd.	106°	122°
229-1778	204°	214°	6°ATC	30°ABC	43°BBC	9°BTC	Hyd.	Hyd.	108°	116°
229-1783	189°	210°	° N/A							
229-1784	204°	214°	5°ATC	29°ABC	44°BBC	10°BTC	Hyd.	Hyd.	107°	117°
229-1785	202°	190°	16°ATC	38°ABC	23°BBC	13°BTC	Hyd.	Hyd.	117°	110°
229-1786	204°	214°	3°ATC	27°ABC	42°BBC	8°BTC	Hyd.	Hyd.	105°	115°
229-1787	204°	214°	5°ATC	29°ABC	44°BBC	10°BTC	Hyd.	Hyd.	107°	117°
229-1793	185°	201°	14°ATC	19°ABC	34°BBC	13°BTC	Hyd.	Hyd.	106°	114°
229-1794	196°	196°	10°ATC	26°ABC	29°BBC	13°BTC	Hyd.	Hyd.	108°	111°
229-1795	173°	182°	19°ATC	12°ABC	16°BBC	14°BTC	Hyd.	Hyd.	105°	106°
229-1797	196°	196°	10°ATC	26°ABC	29°BBC	13°BTC	Hyd.	Hyd.	108°	111°
229-1798	178°	187°	13°ATC	11°ABC	29°BBC	22°BTC	Hyd.	Hyd.	102°	116°
229-1800	N/A	N/A	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1804	N/A	N/A	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1821	195°	199°	9°ATC	24°ABC	35°BBC	16°BTC	Hyd.	Hyd.	107°	115°
229-1822	204°	214°	5°ATC	29°ABC	44°BBC	10°BTC	Hyd.	Hyd.	107°	117°
229-1824	196°	202°	11°ATC	27°ABC	30°BBC	8°BTC	Hyd.	Hyd.	109°	109°
229-1826	190°	185°	5°ATC	15°ABC	19°BBC	14°BTC	.014H	.022H	100°	107°
229-1827	193°	193°	11°BTC	24°ABC	32°BBC	19°BTC	Hyd.	Hyd.	106°	117°
229-1828	194°	194°	15°ATC	29°ABC	28°BBC	14°BTC	Hyd.	Hyd.	112°	110°
229-1829	176°	194°	20°ATC	16°ABC	28°BBC	14°BTC	Hyd.	Hyd.	108°	112°
229-1830	179°	212°	N/A	N/A	N/A	N/A	.015C	.030C	N/A	N/A
229-1831	201°	201°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1832	202°	207°	9°ATC	31°ABC	37°BBC	10°BTC	Hyd.	Hyd.	110°	112°
229-1833	206°	221°	13°ATC	39°ABC	48°BBC	7°BTC	Hyd.	Hyd.	116°	114°
229-1834	206°	221°	13°ATC	39°ABC	48°BBC	7°BTC	Hyd.	Hyd.	116°	114°
229-1835	196°	208°	14°ATC	30°ABC	32°BBC	4°BTC	Hyd.	Hyd.	112°	106°
229-1836	200°	200°	8°ATC	28°ABC	34°BBC	14°BTC	Hyd.	Hyd.	108°	114°
229-1837	202°	202°	1°BTC	21°ABC	37°BBC	15°BTC	Hyd.	Hyd.	110°	106°
229-1839	187°	189°	23°ATC	30°ABC	39°BBC	30°BTC	Hyd.	Hyd.	108°	116°
229-1840	192°	192°	12°ATC	24°ABC	29°BBC	17°BTC	Hyd.	Hyd.	108°	113°
229-1841	193°	197°	8°ATC	21°ABC	29°BBC	12°BTC	Hyd.	Hyd.	104°	114°
229-1844	194°	196°	7°ATC	21°ABC	28°BBC	12°BTC	.015H	.015H	104°	110°
229-1847	188°	236°	N/A	N/A	N/A	N/A	.015C	.030C	N/A	N/A
229-1848	182°	215°	4°BTC	2°ABC	30°BBC	5°ATC	.015C	.030C	86°	106°
229-1849	178°	202°	13°ATC	11°ABC	39°BBC	17°BTC	Hyd.	Hyd.	101°	120°
229-1871	202°	207°	14°ATC	36°ABC	37°BBC	10°BTC	Hyd.	Hyd.	115°	114°
229-1872	176°	184°	15°ATC	11°ABC	17°BBC	13°BTC	Hyd.	Hyd.	103°	105°
229-1873	N/A	N/A	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1874	167°	199°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured	Zero Lash)		Intake Duration	Exhaust Duration
229-1875	ST	H	.232	.232	.406	.406	69°	276°	276°
229-1876	MPG	H	.265	.280	.464	.490	45°	272°	282°
229-1877	ST	H	.243	.243	.430	.430	20°	265°	265°
229-1878	MPG	H	.265	.281	.464	.491	57°	273°	282°
229-1879	MR	H	.267	.273	.401	.410	58°	269°	284°
229-1880	MR	H	.267	.267	.401	.410	58°	269°	284°
229-1881	MR	H	.269	.273	.404	.410	55°	270°	284°
229-1882	MR	H	.269	.273	.404	.410	55°	270°	284°
229-1883	ST	H	.278	.283	.481	.490	46°	287°	307°
229-1884	P	H	.296	.311	.512	.538	72°	292°	302°
229-1885	ST	M	.293	.290	N/A	N/A	N/A	N/A	N/A
229-1886	ST	H	.241	.241	N/A	N/A	N/A	N/A	N/A
229-1887	ST	M	.293	.293	N/A	N/A	N/A	N/A	N/A
229-1888	ST	M	.280	.280	N/A	N/A	N/A	N/A	N/A
229-1889	ST	H	N/A	.220	N/A	N/A	N/A	N/A	N/A
229-1890	ST	H	.220	N/A	N/A	N/A	N/A	N/A	N/A
229-1891	ST	M	.197	.197	N/A	N/A	N/A	N/A	N/A
229-1892	ST	M	.213	.213	N/A	N/A	N/A	N/A	N/A
229-1894	ST	M	.269	.269	N/A	N/A	N/A	N/A	N/A
229-1895	ST	M	.258	.258	N/A	N/A	N/A	N/A	N/A
229-1896	ST	M	.232	.223	N/A	N/A	N/A	N/A	N/A
229-1898	MR	H	.271	.282	.477	.496	64°	289°	302°
229-1899	MR	H	.271	.282	.477	.496	64°	289°	302°
229-1900	MR	H	.286	.296	.429	.444	44°	279°	290°
229-1901	MR	H	.286	.296	.429	.444	44°	279°	290°
229-1902	ST	H	.234	.257	.351	.386	39°	252°	262°
229-1903	ST	H	.234	.243	.430	.430	20°	266°	266°
229-1904	ST	H	.232	.232	.406	.406	69°	276°	276°
229-1905	ST	H	.265	.265	.424	.424	46°	270°	270°
229-1907	ST	H	.265	.265	.440	.440	32°	275°	275°
229-1908	ST	H	.240	.240	.398	.398	20°	256°	256°
229-1909	ST	H	.229	.229	.380	.380	35°	271°	271°
229-1910	ST	H	.265	.265	.440	.440	32°	275°	275°
229-1911	ST	H	.240	.240	.398	.398	20°	256°	256°
229-1915	MPG	H	.243	.243	.430	.430	20°	258°	274°
229-1916	ST	H	.276	.287	.414	.431	40°	273°	278°
229-1917	ST	H	.234	.257	.351	.386	41°	252°	262°
229-1918	ST	H	.263	.263	.423	.423	46°	298°	298°
229-1919	ST	H	.229	.239	.366	.382	43°	262°	265°
229-1922	ST	H	.245	.245	.434	.434	8°	267°	263°
229-1923	ST	M	.378	.378	.504	.504	N/A	N/A	N/A
229-1924	MR	H	.253	.253	.443	.443	57°	281°	281°
229-1925	ST	H	.240	.241	.415	.417	32°	266°	275°
229-1926	ST	H	.260	.260	.419	.419	44°	288°	288°
229-1927	ST	H	.240	.240	.398	.398	20°	256°	256°
229-1928	ST	M	.216	.216	N/A	N/A	N/A	N/A	N/A
229-1929	ST	H	.265	.265	.397	.397	46°	N/A	N/A
229-1933	ST	H	.224	.240	.358	.384	59°	251°	280°
229-1934	ST	H	.293	.293	N/A	N/A	N/A	N/A	N/A
229-1935	ST	H	.260	.260	.390	.390	39°	N/A	N/A
229-1936	ST	H	.252	.252	.393	.393	37°	N/A	N/A
229-1937	ST	H	.210	.240	.335	.383	51°	254°	283°
229-1938	ST	H	.276	.276	N/A	N/A	N/A	N/A	N/A
229-1939	ST	H	.276	.276	N/A	N/A	N/A	N/A	N/A
229-1940	ST	H	.245	.245	.433	.433	30°	N/A	N/A
229-1941	ST	H	N/A	N/A	.350	N/A	N/A	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-1875	190°	190°	18°ATC	28°ABC	25°BBC	15°BTC	Hyd.	Hyd.	113°	110°
229-1876	194°	204°	8°ATC	22°ABC	37°BBC	13°BTC	Hyd.	Hyd.	105°	115°
229-1877	198°	198°	1°ATC	19°ABC	39°BBC	21°BTC	Hyd.	Hyd.	110°	110°
229-1878	194°	204°	8°ATC	22°ABC	37°BBC	13°BTC	Hyd.	Hyd.	105°	115°
229-1879	202°	213°	7°ATC	29°ABC	37°BBC	4°BTC	Hyd.	Hyd.	108°	112°
229-1880	202°	213°	7°ATC	29°ABC	37°BBC	4°BTC	Hyd.	Hyd.	108°	112°
229-1881	202°	213°	7°ATC	29°ABC	41°BBC	8°BTC	Hyd.	Hyd.	108°	116°
229-1882	202°	213°	7°ATC	29°ABC	41°BBC	8°BTC	Hyd.	Hyd.	108°	116°
229-1883	206°	221°	17°ATC	43°ABC	44°BBC	3°BTC	Hyd.	Hyd.	120°	110°
229-1884	214°	224°	1°ATC	33°ABC	50°BBC	6°BTC	Hyd.	Hyd.	106°	118°
229-1885	196°	202°	N/A	N/A	N/A	N/A	.025C	.025C	N/A	N/A
229-1886	178°	176°	89°BTC	91°BBC	92°BBC	88°ATC	Hyd.	Hyd.	N/A	N/A
229-1887	227°	227°	N/A	N/A	N/A	N/A	.006H	.010H	N/A	N/A
229-1888	227°	227°	N/A	N/A	N/A	N/A	.012H	.012H	N/A	N/A
229-1889	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1890	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1891	191°	191°	N/A	N/A	N/A	N/A	.008H	.012H	N/A	N/A
229-1892	204°	204°	N/A	N/A	N/A	N/A	.008H	.012H	N/A	N/A
229-1894	226°	226°	N/A	N/A	N/A	N/A	.012H	.012H	N/A	N/A
229-1895	N/A	N/A	N/A	N/A	N/A	N/A	.006C	.011C	N/A	N/A
229-1896	206°	205°	N/A	N/A	N/A	N/A	.011H	.011H	N/A	N/A
229-1898	214°	218°	4°ATC	38°ABC	49°BBC	11°BTC	Hyd.	Hyd.	110°	120°
229-1899	214°	218°	4°ATC	38°ABC	49°BBC	11°BTC	Hyd.	Hyd.	110°	120°
229-1900	210°	220°	13°ATC	43°ABC	40°BBC	0°TDC	Hyd.	Hyd.	118°	110°
229-1901	210°	210°	13°ATC	43°ABC	40°BBC	0°TDC	Hyd.	Hyd.	118°	110°
229-1902	179°	195°	19°ATC	18°ABC	29°BBC	14°BTC	Hyd.	Hyd.	108°	112°
229-1903	213°	213°	5°BTC	28°ABC	45°BBC	12°BTC	Hyd.	Hyd.	110°	110°
229-1904	190°	190°	18°ATC	28°ABC	25°BBC	15°BTC	Hyd.	Hyd.	113°	110°
229-1905	197°	197°	13°ATC	30°ABC	31°BBC	14°BTC	Hyd.	Hyd.	111°	113°
229-1907	209°	209°	7°ATC	36°ABC	45°BBC	16°BTC	Hyd.	Hyd.	111°	121°
229-1908	191°	191°	14°ATC	25°ABC	30°BBC	19°BTC	Hyd.	Hyd.	108°	116°
229-1909	193°	193°	11°ATC	24°ABC	32°BBC	19°BTC	Hyd.	Hyd.	106°	117°
229-1910	209°	209°	7°ATC	36°ABC	45°BBC	16°BTC	Hyd.	Hyd.	111°	121°
229-1911	191°	191°	19°ATC	30°ABC	25°BBC	14°BTC	Hyd.	Hyd.	113°	111°
229-1915	206°	220°	2°BTC	24°ABC	49°BBC	9°BTC	Hyd.	Hyd.	110°	110°
229-1916	207°	214°	13°ATC	40°ABC	44°BBC	10°BTC	Hyd.	Hyd.	116°	118°
229-1917	179°	195°	17°ATC	16°ABC	29°BBC	14°BTC	Hyd.	Hyd.	106°	112°
229-1918	203°	203°	9°ATC	32°ABC	35°BBC	12°BTC	Hyd.	Hyd.	110°	114°
229-1919	186°	191°	12°ATC	18°ABC	30°BBC	19°BTC	Hyd.	Hyd.	104°	115°
229-1922	194°	191°	24°ATC	38°ABC	21°BBC	10°BTC	Hyd.	Hyd.	118°	108°
229-1923	N/A	N/A	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1924	204°	204°	8°ATC	32°ABC	36°BBC	12°BTC	Hyd.	Hyd.	109°	115°
229-1925	185°	201°	14°ATC	19°ABC	34°BBC	13°BTC	Hyd.	Hyd.	106°	114°
229-1926	199°	199°	11°ATC	30°ABC	37°BBC	18°BTC	Hyd.	Hyd.	110°	118°
229-1927	191°	191°	19°ATC	30°ABC	25°BBC	19°BTC	Hyd.	Hyd.	113°	111°
229-1928	211°	211°	N/A	N/A	N/A	N/A	.010H	.012H	N/A	N/A
229-1929	197°	197°	12°ATC	29°ABC	32°BBC	15°BTC	Hyd.	Hyd.	N/A	N/A
229-1933	181°	194°	14°ATC	15°ABC	28°BBC	14°BTC	Hyd.	Hyd.	N/A	N/A
229-1934	230°	230°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1935	194°	194°	12°ATC	26°ABC	27°BBC	13°BTC	Hyd.	Hyd.	N/A	N/A
229-1936	214°	214°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1937	179°	196°	14°ATC	13°ABC	29°BBC	13°BTC	Hyd.	Hyd.	103°	110°
229-1938	220°	220°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1939	220°	220°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1940	194°	190°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1941	200°	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured	Zero Lash)		Intake Duration	Exhaust Duration
229-1942	ST	H	N/A	N/A	N/A	.350	N/A	N/A	N/A
229-1943	ST	M	.250	.250	N/A	N/A	N/A	N/A	N/A
229-1944	ST	M	.226	.226	N/A	N/A	N/A	N/A	N/A
229-1945	ST	H	.401	.401	N/A	N/A	N/A	250°	250°
229-1946	ST	H	.235	.250	N/A	N/A	N/A	N/A	N/A
229-1947	ST	M	.281	.283	N/A	N/A	N/A	N/A	N/A
229-1948	ST	H	.278	.279	N/A	N/A	N/A	N/A	N/A
229-1949	ST	H	.252	.251	N/A	N/A	N/A	N/A	N/A
229-1950	ST	M	.273	.273	N/A	N/A	N/A	N/A	N/A
229-1951	ST	M	.273	.273	N/A	N/A	N/A	N/A	N/A
229-1952	ST	H	.246	.254	.359	.371	45°	276°	292°
229-1953	MR	H	.271	.282	.461	.480	64°	289°	302°
229-1954	ST	M	.302	.290	N/A	N/A	N/A	N/A	N/A
229-1957	MR	H	.300	.300	.510	.510	61°	293°	293°
229-1958	MR	H	.300	.300	.510	.510	61°	293°	293°
229-1959	MR	H	.230	.230	.403	.403	53°	288°	288°
229-1962	ST	H	.246	.246	.394	.394	N/A	N/A	N/A
229-1963	ST	H	.246	.246	.394	.394	N/A	N/A	N/A
229-1964	MPG	H	.281	.296	.450	.474	65°	280°	289°
229-1965	P	H	.305	.319	.491	.514	65°	294°	304°
229-1966	ST	M	.222	.225	N/A	N/A	N/A	N/A	N/A
229-1967	ST	M	.266	.262	N/A	N/A	N/A	N/A	N/A
229-1968	ST	M	.266	.248	N/A	N/A	N/A	N/A	N/A
229-1969	ST	M	.229	.230	N/A	N/A	N/A	N/A	N/A
229-1972	P	H	.305	.305	.488	.488	73°	294°	294°
229-1980	ST	H	.281	.296	.422	.444	56°	278°	289°
229-1987	P	H	.296	.296	.444	.444	68°	287°	287°
229-1988	P	H	.296	.311	.444	.467	69°	288°	298°
229-1989	P	H	.303	.303	.455	.455	71°	292°	292°
229-1990	P	H	.300	.307	.450	.461	59°	291°	287°
229-1991	P	H	.310	.310	.465	.465	66°	298°	298°
229-1993	SP	H	.320	.320	.480	.480	72°	288°	288°
229-1994	SP	H	.325	.325	.488	.488	80°	300°	308°
229-1995	SP	H	.325	.339	.488	.509	84°	303°	313°
229-1996	CP	H	.339	.339	.509	.509	84°	302°	302°
229-1998	P	M	.304	.319	.456	.479	36°	258°	270°
229-2004	MPG	H	.281	.296	.478	.503	64°	282°	292°
229-2006	P	H	.296	.296	.503	.503	65°	293°	293°
229-2007	P	H	.303	.303	.516	.516	74°	294°	294°
229-2011	SP	H	.320	.320	.544	.544	72°	290°	290°
229-2020	P	H	.281	.296	.450	.474	61°	280°	290°
229-2021	MPG	H	.280	.280	.420	.420	58°	280°	280°
229-2023	P	H	.296	.311	.444	.467	69°	288°	298°
229-2032	P	H	.296	.311	.444	.467	69°	288°	298°
229-2034	P	H	.310	.325	.465	.488	71°	298°	308°
229-2036	CP	H	.317	.317	.476	.476	106°	330°	330°
229-2046	P	H	.270	.270	.454	.454	46°	282°	282°
229-2047	SP	H	.285	.285	.479	.479	56°	292°	292°
229-2048	SP	H	.300	.300	.504	.504	64°	300°	300°
229-2055	MPG	H	.258	.273	.413	.437	45°	258°	271°
229-2056	P	H	.280	.280	.448	.448	60°	282°	282°
229-2057	P	H	.296	.311	.474	.498	69°	288°	300°
229-2058	P	H	.305	.305	.488	.488	64°	294°	294°
229-2069	MPG	H	.265	.281	.458	.486	57°	273°	282°
229-2072	P	H	.292	.292	.505	.505	82°	310°	310°
229-2076	MPG	H	.265	.281	.424	.449	56°	272°	280°

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-1942	N/A	200°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1943	206°	210°	N/A	N/A	N/A	N/A	.008C	.010C	N/A	N/A
229-1944	208°	210°	N/A	N/A	N/A	N/A	.008C	.010C	N/A	N/A
229-1945	216°	216°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1946	202°	214°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1947	222°	223°	N/A	N/A	N/A	N/A	.006H	.006H	N/A	N/A
229-1948	220°	219°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1949	200°	199°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1950	178°	198°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1951	178°	198°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1952	196°	200°	5° ATC	21° ABC	36° BBC	16° BTC	Hyd.	Hyd.	103°	117°
229-1953	214°	218°	4° ATC	38° ABC	49° BBC	11° BTC	Hyd.	Hyd.	110°	120°
229-1954	N/A	N/A	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1957	224°	224°	3° ATC	47° ABC	48° BBC	4° BTC	Hyd.	Hyd.	114°	117°
229-1958	224°	224°	3° ATC	47° ABC	48° BBC	4° BTC	Hyd.	Hyd.	114°	117°
229-1959	192°	192°	17° ATC	29° ABC	26° BBC	14° BTC	Hyd.	Hyd.	113°	110°
229-1962	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1963	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-1964	204°	214°	4° ATC	28° ABC	41° BBC	7° BTC	Hyd.	Hyd.	106°	114°
229-1965	218°	228°	2° BTC	36° ABC	51° BBC	3° BTC	Hyd.	Hyd.	107°	117°
229-1966	200°	219°	N/A	N/A	N/A	N/A	.006H	.011H	N/A	N/A
229-1967	218°	225°	N/A	N/A	N/A	N/A	.006H	.011H	N/A	N/A
229-1968	218°	225°	N/A	N/A	N/A	N/A	.006C	.011C	N/A	N/A
229-1969	217°	219°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-1972	218°	218°	4° BTC	34° ABC	44° BBC	6° BTC	Hyd.	Hyd.	105°	115°
229-1980	204°	214°	9° ATC	33° ABC	44° BBC	10° BTC	Hyd.	Hyd.	111°	117°
229-1987	214°	214°	2° BTC	32° ABC	42° BBC	8° BTC	Hyd.	Hyd.	105°	115°
229-1988	214°	224°	0° TDC	34° ABC	49° BBC	5° BTC	Hyd.	Hyd.	107°	117°
229-1989	218°	218°	4° BTC	34° ABC	44° BBC	6° BTC	Hyd.	Hyd.	105°	115°
229-1990	224°	224°	3° ATC	47° ABC	46° BBC	2° BTC	Hyd.	Hyd.	114°	114°
229-1991	224°	224°	5° BTC	39° ABC	49° BBC	5° BTC	Hyd.	Hyd.	107°	117°
229-1993	232°	232°	10° BTC	42° ABC	46° BBC	6° ATC	Hyd.	Hyd.	106°	110°
229-1994	232°	234°	10° BTC	42° ABC	47° BBC	7° ATC	Hyd.	Hyd.	106°	110°
229-1995	234°	244°	10° BTC	44° ABC	59° BBC	5° ATC	Hyd.	Hyd.	107°	117°
229-1996	246°	246°	17° BTC	49° ABC	55° BBC	11° ATC	Hyd.	Hyd.	106°	112°
229-1998	219°	229°	1° ATC	40° ABC	53° BBC	4° BTC	.022H	.022H	110°	118°
229-2004	204°	214°	6° ATC	30° ABC	43° BBC	9° BTC	Hyd.	Hyd.	108°	116°
229-2006	214°	214°	2° ATC	36° ABC	46° BBC	12° BTC	Hyd.	Hyd.	109°	119°
229-2007	218°	218°	4° BTC	34° ABC	44° BBC	6° BTC	Hyd.	Hyd.	105°	115°
229-2011	231°	231°	8° BTC	43° ABC	46° BBC	5° ATC	Hyd.	Hyd.	107°	111°
229-2020	204°	214°	10° ATC	34° ABC	39° BBC	5° BTC	Hyd.	Hyd.	112°	112°
229-2021	208°	208°	3° ATC	31° ABC	39° BBC	11° BTC	Hyd.	Hyd.	107°	115°
229-2023	214°	224°	1° BTC	35° ABC	48° BBC	4° ATC	Hyd.	Hyd.	108°	116°
229-2032	214°	224°	0° TDC	34° ABC	49° BBC	5° ATC	Hyd.	Hyd.	107°	117°
229-2034	224°	234°	5° BTC	39° ABC	54° BBC	0° TDC	Hyd.	Hyd.	107°	117°
229-2036	242°	242°	15° BTC	47° ABC	59° BBC	3° ATC	Hyd.	Hyd.	106°	118°
229-2046	220°	220°	1° BTC	39° ABC	45° BBC	5° BTC	Hyd.	Hyd.	108°	116°
229-2047	230°	230°	6° BTC	44° ABC	50° BBC	0° TDC	Hyd.	Hyd.	108°	116°
229-2048	240°	240°	11° BTC	49° ABC	55° BBC	5° ATC	Hyd.	Hyd.	108°	116°
229-2055	190°	202°	12° ATC	22° ABC	35° BBC	13° BTC	Hyd.	Hyd.	106°	114°
229-2056	208°	208°	3° ATC	31° ABC	39° BBC	11° BTC	Hyd.	Hyd.	107°	115°
229-2057	214°	224°	1° ATC	35° ABC	48° BBC	4° BTC	Hyd.	Hyd.	108°	116°
229-2058	218°	218°	4° BTC	34° ABC	44° BBC	6° BTC	Hyd.	Hyd.	105°	115°
229-2069	194°	204°	8° ATC	22° ABC	37° BBC	13° BTC	Hyd.	Hyd.	105°	115°
229-2072	219°	219°	1° BTC	38° ABC	49° BBC	10° BTC	Hyd.	Hyd.	108°	120°
229-2076	194°	204°	8° ATC	22° ABC	37° BBC	13° BTC	Hyd.	Hyd.	105°	115°

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured	Zero Lash)		Intake Duration	Exhaust Duration
229-2077	P	H	.296	.311	.473	.497	70°	289°	300°
229-2086	P	H	.296	.296	.512	.512	72°	292°	292°
229-2088	P	H	.305	.305	.528	.528	64°	296°	296°
229-2094	P	H	.280	.280	.484	.484	62°	284°	284°
229-2098	SP	H	.325	.340	.569	.595	81°	312°	322°
229-2100	MPG	H	.281	.299	.450	.474	61°	280°	289°
229-2101	P	H	.296	.311	.474	.498	70°	289°	300°
229-2104	SP	H	.296	.296	.474	.474	103°	329°	329°
229-2108	SP	H	.320	.320	.480	.480	67°	287°	287°
229-2115	ST	M	.307	.313	.475	.485	N/A	252°	256°
229-2116	ST	H	.211	.213	N/A	N/A	N/A	N/A	N/A
229-2118	ST	H	.265	.265	.440	.440	32°	275°	275°
229-2119	ST	H	.240	.240	.400	.400	34°	269°	269°
229-2120	CP	H	.289	.289	.434	.434	96°	312°	312°
229-2121	ST	H	.240	.240	.400	.400	36°	269°	269°
229-2122	ST	H	.292	.292	N/A	N/A	N/A	N/A	N/A
229-2124	ST	H	.243	.243	.430	.430	22°	274°	271°
229-2125	ST	H	.278	.279	N/A	N/A	N/A	N/A	N/A
229-2126	ST	M	.281	.283	N/A	N/A	N/A	N/A	N/A
229-2128	ST	H	.243	.243	.430	.430	20°	266°	266°
229-2129	ST	H	.245	.245	.434	.434	34°	262°	262°
229-2132	MR	H	.273	.273	.410	.410	51°	269°	283°
229-2133	MR	H	.273	.273	.410	.410	51°	269°	283°
229-2134	P	H	.291	.291	.437	.437	84°	300°	300°
229-2135	P	H	.291	.291	.509	.509	92°	308°	308°
229-2136	MPG	H	.258	.273	.439	.464	47°	261°	272°
229-2137	MPG	H	.280	.280	.484	.484	62°	284°	284°
229-2138	P	H	.291	.291	.466	.466	84°	304°	304°
229-2141	MPG	H	.280	.280	.420	.420	58°	280°	280°
229-2142	ST	H	.224	.249	N/A	N/A	N/A	N/A	N/A
229-2143	ST	H	.260	.260	.396	.396	20°	270°	270°
229-2145	ST	M	.260	.290	N/A	N/A	N/A	N/A	N/A
229-2146	ST	M	.225	.225	N/A	N/A	N/A	N/A	N/A
229-2147	ST	H	.260	.260	N/A	N/A	N/A	N/A	N/A
229-2148	ST	H	.260	.260	N/A	N/A	N/A	N/A	N/A
229-2149	ST	M	.309	.309	N/A	N/A	N/A	N/A	N/A
229-2151	ST	M	.240	.240	N/A	N/A	N/A	N/A	N/A
229-2152	ST	M	.278	.282	N/A	N/A	N/A	N/A	N/A
229-2153	ST	H	.260	.260	.390	.390	N/A	270°	270°
229-2155	ST	H	.260	.278	.416	.445	41°	274°	288°
229-2156	MPG	H	.265	.281	.398	.422	50°	270°	278°
229-2157	MPG	H	.280	.280	.420	.420	58°	280°	280°
229-2158	ST	M	.251	.257	N/A	N/A	N/A	N/A	N/A
229-2159	ST	M	.243	.242	N/A	N/A	N/A	N/A	N/A
229-2166	ST	M	.219	.219	N/A	N/A	N/A	N/A	N/A
229-2169	ST	H	.272	.274	.435	.438	54°	264°	280°
229-2171	ST	M	.317	.290	N/A	N/A	N/A	N/A	N/A
229-2172	ST	H	.237	.237	N/A	N/A	N/A	N/A	N/A
229-2173	ST	H	.248	.266	.372	.399	N/A	264°	275°
229-2174	MPG	H	.280	.280	.420	.420	56°	280°	280°
229-2175	ST	M	.269	.282	N/A	N/A	N/A	N/A	N/A
229-2176	ST	H	.244	.244	N/A	N/A	N/A	N/A	N/A
229-2180	ST	M	.275	.281	N/A	N/A	N/A	N/A	N/A
229-2185	ST	M	.283	.283	N/A	N/A	N/A	N/A	N/A
229-2186	ST	M	.271	.284	.451	.451	N/A	N/A	N/A
229-2188	ST	M	.357	.370	N/A	N/A	N/A	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-2077	214°	224°	0°TDC	34°ABC	49°BBC	5°BTC	Hyd.	Hyd.	107°	117°
229-2086	214°	214°	2°BTC	32°ABC	42°BBC	8°BTC	Hyd.	Hyd.	105°	115°
229-2088	218°	218°	4°BTC	34°ABC	44°BBC	6°BTC	Hyd.	Hyd.	105°	115°
229-2094	208°	208°	1°ATC	29°ABC	41°BBC	13°BTC	Hyd.	Hyd.	105°	117°
229-2098	234°	244°	10°BTC	44°ABC	59°BBC	5°ATC	Hyd.	Hyd.	107°	117°
229-2100	204°	214°	4°ATC	28°ABC	45°BBC	11°BTC	Hyd.	Hyd.	106°	118°
229-2101	214°	224°	1°ATC	33°ABC	50°BBC	6°BTC	Hyd.	Hyd.	106°	118°
229-2104	232°	232°	9°BTC	43°ABC	55°BBC	3°BTC	Hyd.	Hyd.	107°	119°
229-2108	231°	231°	9°BTC	42°ABC	49°BBC	2°ATC	Hyd.	Hyd.	106°	114°
229-2115	196°	208°	10°ATC	26°ABC	40°BBC	12°BTC	.012C	.016C	108°	116°
229-2116	164°	166°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2118	209°	209°	7°ATC	36°ABC	45°BBC	16°BTC	Hyd.	Hyd.	111°	121°
229-2119	200°	200°	8°ATC	28°ABC	34°BBC	14°BTC	Hyd.	Hyd.	108°	114°
229-2120	244°	244°	15°BTC	48°ABC	51°BBC	12°ATC	Hyd.	Hyd.	107°	109°
229-2121	200°	200°	8°ATC	28°ABC	34°BBC	14°BTC	Hyd.	Hyd.	108°	114°
229-2122	230°	230°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2124	202°	202°	1°BTC	21°ABC	37°BBC	15°BTC	Hyd.	Hyd.	110°	106°
229-2125	220°	219°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2126	222°	223°	N/A	N/A	N/A	N/A	.006H	.010H	N/A	N/A
229-2128	213°	213°	5°BTC	28°ABC	45°BBC	12°BTC	Hyd.	Hyd.	110°	110°
229-2129	188°	188°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	118°	108°
229-2132	202°	213°	10°ATC	32°ABC	40°BBC	7°BTC	Hyd.	Hyd.	111°	115°
229-2133	202°	213°	10°ATC	32°ABC	40°BBC	7°BTC	Hyd.	Hyd.	111°	115°
229-2134	224°	224°	9°BTC	35°ABC	45°BBC	1°BTC	Hyd.	Hyd.	103°	113°
229-2135	224°	224°	1°ATC	45°ABC	35°BBC	9°ATC	Hyd.	Hyd.	113°	103°
229-2136	190°	202°	12°ATC	22°ABC	35°BBC	13°BTC	Hyd.	Hyd.	106°	114°
229-2137	208°	208°	3°ATC	31°ABC	39°BBC	11°BTC	Hyd.	Hyd.	107°	115°
229-2138	224°	224°	4°BTC	38°ABC	46°BBC	2°BTC	Hyd.	Hyd.	106°	114°
229-2141	208°	208°	2°ATC	30°ABC	40°BBC	12°BTC	Hyd.	Hyd.	106°	116°
229-2142	204°	214°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2143	191°	191°	15°BTC	26°ABC	25°BBC	14°BTC	Hyd.	Hyd.	N/A	N/A
229-2145	150°	188°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2146	204°	203°	N/A	N/A	N/A	N/A	.006C	.010C	N/A	N/A
229-2147	194°	194°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2148	194°	194°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2149	190°	204°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2151	197°	197°	N/A	N/A	N/A	N/A	.010H	.012H	N/A	N/A
229-2152	N/A	N/A	N/A	N/A	N/A	N/A	.006H	.010H	N/A	N/A
229-2153	191°	191°	20°ATC	31°ABC	30°BBC	19°BTC	Hyd.	Hyd.	N/A	N/A
229-2155	198°	208°	15°ATC	33°ABC	37°BBC	9°BTC	Hyd.	Hyd.	115°	114°
229-2156	194°	204°	10°ATC	24°ABC	39°BBC	15°BTC	Hyd.	Hyd.	107°	117°
229-2157	208°	208°	4°ATC	32°ABC	38°BBC	10°BTC	Hyd.	Hyd.	108°	114°
229-2158	189°	193°	N/A	N/A	N/A	N/A	.008H	.014H	N/A	N/A
229-2159	215°	220°	N/A	N/A	N/A	N/A	.012H	.012H	N/A	N/A
229-2166	206°	206°	N/A	N/A	N/A	N/A	.012H	.012H	N/A	N/A
229-2169	194°	210°	15°ATC	29°ABC	31°BBC	1°BTC	Hyd.	Hyd.	112°	106°
229-2171	176°	212°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2172	205°	205°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2173	181°	192°	20°ATC	21°ABC	24°BBC	12°BTC	Hyd.	Hyd.	N/A	N/A
229-2174	208°	208°	6°ATC	34°ABC	38°BBC	10°BTC	Hyd.	Hyd.	110°	114°
229-2175	184°	202°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2176	193°	193°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2180	191°	192°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2185	170°	198°	N/A	N/A	N/A	N/A	.012C	.014C	N/A	N/A
229-2186	170°	198°	N/A	N/A	N/A	N/A	.012C	.014C	N/A	N/A
229-2188	200°	214°	N/A	N/A	N/A	N/A	.015C	.025C	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured	Zero Lash)		Intake Duration	Exhaust Duration
229-2189	ST	M	.330	.330	.495	.495	N/A	N/A	N/A
229-2191	ST	M	.330	.397	.495	.596	29°	236°	236°
229-2192	ST	H	.245	.259	.424	.448	38°	270°	286°
229-2193	ST	H	.257	.264	.445	.457	37°	278°	282°
229-2194	ST	H	.216	.216	.355	.355	N/A	N/A	N/A
229-2195	ST	H	.239	.239	.397	.397	N/A	N/A	N/A
229-2196	ST	H	.265	.265	.439	.439	N/A	N/A	N/A
229-2197	ST	M	.401	.401	N/A	N/A	N/A	N/A	N/A
229-2198	ST	M	.270	.283	N/A	N/A	N/A	N/A	N/A
229-2199	MPG	H	.245	.265	.368	.398	58°	260°	270°
229-2200	MPG	H	.265	.281	.398	.423	66°	270°	278°
229-2201	MPG	H	.281	.296	.422	.444	63°	278°	288°
229-2202	MPG	H	.272	.272	.408	.408	60°	280°	280°
229-2203	MPG	H	.290	.303	.435	.455	61°	283°	286°
229-2205	P	H	.295	.310	.443	.465	61°	288°	298°
229-2206	ST	H	.221	.241	N/A	N/A	N/A	N/A	N/A
229-2208	ST	M	.305	.334	N/A	N/A	N/A	N/A	N/A
229-2209	ST	M	.294	.303	N/A	N/A	N/A	N/A	N/A
229-2210	ST	M	.254	.257	N/A	N/A	N/A	N/A	N/A
229-2211	ST	R	.272	.272	.436	.436	N/A	282°	282°
229-2216	P	H	.311	.311	.498	.498	65°	285°	285°
229-2217	ST	H	.260	.260	.455	.455	34°	273°	273°
229-2218	ST	H	N/A	.410	N/A	.410	N/A	N/A	N/A
229-2219	ST	H	.410	N/A	.410	N/A	N/A	N/A	N/A
229-2221	MR	H	.323	.328	.549	.557	88°	293°	310°
229-2222	MR	H	.329	.340	.559	.578	89°	314°	314°
229-2223	MR	M	.363	.374	.617	.636	90°	296°	302°
229-2224	MPG	H	.258	.273	.387	.410	40°	258°	269°
229-2225	P	H	.286	.286	.429	.429	75°	295°	295°
229-2226	ST	H	.293	.293	N/A	N/A	24°	N/A	N/A
229-2227	ST	M	.293	.293	N/A	N/A	N/A	N/A	N/A
229-2228	MR	H	.312	.324	.530	.551	42°	316°	314°
229-2229	ST	M	.211	.230	N/A	N/A	N/A	N/A	N/A
229-2231	ST	H	.210	.230	N/A	N/A	N/A	N/A	N/A
229-2232	ST	M	.320	.318	N/A	N/A	N/A	N/A	N/A
229-2233	ST	M	.291	.308	N/A	N/A	N/A	N/A	N/A
229-2234	ST	M	.228	.240	N/A	N/A	N/A	N/A	N/A
229-2235	ST	H	.257	.257	N/A	N/A	N/A	N/A	N/A
229-2236	ST	H	.291	.291	N/A	N/A	N/A	N/A	N/A
229-2237	ST	H	.265	.265	.440	.440	32°	275°	275°
229-2238	ST	H	.240	.240	.398	.398	20°	256°	256°
229-2239	ST	R	.265	.265	.439	.439	N/A	N/A	N/A
229-2241	ST	R	.239	.239	.397	.397	N/A	N/A	N/A
229-2242	ST	M	.244	.244	N/A	N/A	N/A	N/A	N/A
229-2243	ST	H	.238	.238	N/A	N/A	N/A	N/A	N/A
229-2244	ST	M	.388	.388	N/A	N/A	14°	N/A	N/A
229-2245	ST	H	.388	.388	N/A	N/A	14°	N/A	N/A
229-2246	ST	M	.229	.230	N/A	N/A	N/A	N/A	N/A
229-2247	ST	H	.246	.246	N/A	N/A	N/A	N/A	N/A
229-2248	ST	H	.246	.246	N/A	N/A	N/A	N/A	N/A
229-2249	ST	H	.276	.276	N/A	N/A	N/A	N/A	N/A
229-2250	ST	H	.276	.276	N/A	N/A	N/A	N/A	N/A
229-2251	ST	H	.263	.276	.384	.403	65°	277°	299°
229-2252	ST	H	.275	.275	.398	.398	N/A	264°	294°
229-2253	ST	H	.244	.244	N/A	N/A	N/A	N/A	N/A
229-2254	ST	HR	.253	.255	.405	.408	111°	290°	304°

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-2189	N/A	N/A	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2191	193°	491°	4° ATC	17° ABC	210° BBC	101° ATC	.016C	.024C	100°	107°
229-2192	184°	201°	14° ATC	18° ABC	35° BBC	14° BTC	Hyd.	Hyd.	106°	114°
229-2193	193°	198°	12° ATC	25° ABC	38° BBC	20° BTC	Hyd.	Hyd.	108°	119°
229-2194	189°	186°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2195	192°	192°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2196	210°	210°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2197	165°	204°	N/A	N/A	N/A	N/A	.015C	.025C	N/A	N/A
229-2198	184°	204°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2199	184°	194°	12° ATC	16° ABC	21° BBC	7° BTC	Hyd.	Hyd.	104°	104°
229-2200	194°	204°	7° ATC	21° ABC	26° BBC	2° BTC	Hyd.	Hyd.	104°	104°
229-2201	204°	214°	8° ATC	32° ABC	37° BBC	3° BTC	Hyd.	Hyd.	110°	110°
229-2202	208°	208°	3° ATC	31° ABC	37° BBC	9° BTC	Hyd.	Hyd.	107°	113°
229-2203	209°	216°	3° ATC	32° ABC	45° BBC	9° BTC	Hyd.	Hyd.	107°	117°
229-2205	214°	224°	7° BTC	27° ABC	56° BBC	12° BTC	Hyd.	Hyd.	100°	124°
229-2206	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2208	166°	205°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2209	181°	215°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2210	181°	215°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2211	193°	193°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2216	219°	219°	0° TDC	39° BDC	40° BBC	1° BTC	Hyd.	Hyd.	110°	110°
229-2217	195°	195°	12° ATC	27° ABC	30° BBC	15° BTC	Hyd.	Hyd.	109°	113°
229-2218	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2219	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2221	232°	239°	12° BTC	40° ABC	56° BBC	3° BTC	Hyd.	Hyd.	104°	116°
229-2222	241°	250°	16° BTC	45° ABC	60° BBC	10° ATC	Hyd.	Hyd.	105°	115°
229-2223	257°	264°	22° BTC	55° ABC	62° BBC	22° ATC	.026H	.026H	105°	111°
229-2224	190°	202°	14° ATC	24° ABC	36° BBC	14° BTC	Hyd.	Hyd.	108°	116°
229-2225	218°	218°	1° BTC	37° ABC	41° BBC	3° BTC	Hyd.	Hyd.	108°	112°
229-2226	230°	230°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2227	232°	232°	N/A	N/A	N/A	N/A	.006H	.010H	N/A	N/A
229-2228	229°	236°	5° BTC	44° ABC	57° BBC	1° BTC	Hyd.	Hyd.	109°	119°
229-2229	194°	207°	N/A	N/A	N/A	N/A	.008H	.008H	N/A	N/A
229-2231	197°	208°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2232	243°	242°	N/A	N/A	N/A	N/A	.012H	.012H	N/A	N/A
229-2233	181°	215°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2234	N/A	N/A	N/A	N/A	N/A	N/A	.006H	.010H	N/A	N/A
229-2235	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2236	229°	229°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2237	209°	209°	7° ATC	36° ABC	45° BBC	16° BTC	Hyd.	Hyd.	111°	121°
229-2238	191°	191°	14° ATC	25° ABC	30° BBC	19° BTC	Hyd.	Hyd.	108°	116°
229-2239	210°	210°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2241	192°	192°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2242	210°	210°	N/A	N/A	N/A	N/A	.012H	.012H	N/A	N/A
229-2243	212°	212°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2244	208°	208°	N/A	N/A	N/A	N/A	.009H	.011H	N/A	N/A
229-2245	208°	208°	N/A	N/A	N/A	N/A	.009H	.011H	N/A	N/A
229-2246	217°	219°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2247	182°	182°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2248	182°	182°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2249	220°	220°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2250	220°	220°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2251	189°	205°	13° ATC	22° ABC	39° BBC	13° BTC	Hyd.	Hyd.	107°	117°
229-2252	154°	207°	14° ATC	18° ABC	30° BBC	8° BTC	Hyd.	Hyd.	108°	104°
229-2253	186°	186°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2254	182°	190°	24° ATC	26° ABC	24° BBC	14° BTC	Hyd.	Hyd.	115°	109°

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured Zero Lash)			Intake Duration	Exhaust Duration
229-2255	ST	HR	.253	.256	.404	.409	85°	298°	299°
229-2256	ST	HR	.244	.254	.390	.407	105°	291°	300°
229-2257	ST	HR	.260	.260	.417	.417	20°	270°	270°
229-2258	ST	HR	.270	.265	.405	.397	24°	276°	271°
229-2259	ST	H	.249	.254	.423	.439	62°	269°	272°
229-2260	ST	HR	.248	.248	.434	.434	47°	271°	271°
229-2261	ST	HR	.248	.248	.434	.434	44°	349°	349°
229-2262	ST	HR	.248	.248	.434	.434	44°	349°	349°
229-2263	ST	HR	.248	.248	.434	.434	47°	271°	271°
229-2264	ST	HR	.248	.248	.434	.434	47°	271°	271°
229-2265	ST	M	.282	.281	.451	.450	N/A	N/A	N/A
229-2266	ST	HR	.268	.268	.402	.402	22°	261°	261°
229-2267	ST	H	.234	.252	.412	.444	N/A	269°	278°
229-2268	ST	H	.234	.240	.374	.384	N/A	260°	280°
229-2269	ST	H	.254	.254	.381	.381	N/A	259°	259°
229-2270	ST	H	.222	.232	.389	.406	N/A	272°	276°
229-2272	ST	M	.271	.272	N/A	N/A	N/A	N/A	N/A
229-2273	ST	HR	.258	.269	.439	.430	N/A	254°	267°
229-2274	ST	HR	.265	.265	.420	.420	22°	270°	259°
229-2275	ST	H	.248	.239	N/A	N/A	N/A	N/A	N/A
229-2276	ST	HR	.261	.261	.418	.418	N/A	272°	272°
229-2277	ST	H	.182	.229	N/A	N/A	N/A	N/A	N/A
229-2278	ST	HR	.250	.255	.400	.407	105°	291°	300°
229-2279	ST	M	.240	.239	.360	.358	N/A	229°	225°
229-2280	ST	H	.260	.273	.390	.410	N/A	258°	270°
229-2281	ST	M	.270	.271	N/A	N/A	N/A	N/A	N/A
229-2283	ST	HR	.263	.279	.421	.447	N/A	273°	283°
229-2285	ST	HR	.272	.277	.397	404.000	N/A	278°	283°
229-2286	ST	HR	.288	.293	.432	.440	N/A	277°	274°
229-2287	ST	HR	.251	.268	.376	.402	N/A	254°	264°
229-2289	CP	M	.332	.332	.498	.498	64°	280°	280°
229-2290	P	H	.291	.291	.437	.437	84°	300°	300°
229-2291	CP	M	.386	.386	.579	.579	92°	312°	312°
229-2292	SP	H	.320	.320	.512	.512	68°	288°	288°
229-2293	P	M	.267	.275	.416	.429	N/A	N/A	N/A
229-2294	CP	M	.341	.357	.512	.536	90°	309°	318°
229-2295	P	H	.291	.293	.503	.507	106°	308°	314°
229-2296	P	H	.302	.320	.453	.479	64°	282°	294°
229-2297	CP	M	.345	.345	.518	.518	95°	319°	319°
229-2298	P	H	.310	.325	.496	.520	71°	300°	310°
229-2300	SP	H	.302	.302	.453	.453	88°	304°	304°
229-2301	CP	H	.339	.339	.576	.576	84°	304°	304°
229-2302	P	H	.258	.258	.457	.457	24°	266°	274°
229-2303	P	M	.275	.283	.429	.442	N/A	N/A°	N/A°
229-2305	P	H	.311	.325	.529	.553	76°	302°	308°
229-2311	P	H	.296	.311	.512	.538	73°	292°	302°
229-2313	SP	H	.320	.320	.480	.480	86°	302°	302°
229-2314	ST	H	.212	.214	N/A	N/A	N/A	N/A	N/A
229-2315	ST	HR	.247	.256	.427	.443	28°	268°	274°
229-2316	ST	HR	.260	.260	.426	.426	32°	287°	287°
229-2317	ST	HR	.260	.260	.426	.426	45°	287°	287°
229-2318	ST	HR	.252	.260	.413	.426	36°	282°	287°
229-2319	ST	N/A	.216	N/A	N/A	N/A	N/A	N/A	N/A
229-2320	ST	N/A	N/A	.216	N/A	N/A	N/A	N/A	N/A
229-2321	ST	N/A	.205	N/A	N/A	N/A	N/A	N/A	N/A
229-2322	ST	N/A	N/A	.205	N/A	N/A	N/A	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-2255	188°	190°	19° ATC	27° ABC	34° BBC	24° BTC	Hyd.	Hyd.	113°	119°
229-2256	185°	191°	16° ATC	21° ABC	32° BBC	21° BTC	Hyd.	Hyd.	109°	117°
229-2257	191°	191°	15° ATC	26° ABC	25° BBC	14° BTC	Hyd.	Hyd.	110°	110°
229-2258	197°	195°	15° ATC	32° ABC	32° BBC	17° BTC	Hyd.	Hyd.	113°	115°
229-2259	200°	206°	14° ATC	34° ABC	37° BBC	11° BTC	Hyd.	Hyd.	114°	114°
229-2260	192°	192°	14° ATC	26° ABC	30° BBC	18° BTC	Hyd.	Hyd.	109°	115°
229-2261	188°	188°	15° ATC	23° ABC	29° BBC	21° BTC	Hyd.	Hyd.	109°	115°
229-2262	188°	188°	15° ATC	23° ABC	29° BBC	21° BTC	Hyd.	Hyd.	109°	115°
229-2263	192°	192°	14° ATC	26° ABC	30° BBC	18° BTC	Hyd.	Hyd.	109°	115°
229-2264	192°	192°	14° ATC	26° ABC	30° BBC	18° BTC	Hyd.	Hyd.	109°	115°
229-2265	198°	192°	N/A	N/A	N/A	N/A	.018H	.028H	N/A	N/A
229-2266	189°	189°	24° ATC	33° ABC	22° BBC	14° BTC	Hyd.	Hyd.	118°	109°
229-2267	193°	203°	12° ATC	25° ABC	33° BBC	10° BTC	Hyd.	Hyd.	108°	113°
229-2268	187°	194°	14° ATC	21° ABC	28° BBC	14° BTC	Hyd.	Hyd.	107°	110°
229-2269	185°	185°	17° ATC	22° ABC	24° BBC	19° BTC	Hyd.	Hyd.	109°	112°
229-2270	172°	188°	20° ATC	12° ABC	12° BBC	4° BTC	Hyd.	Hyd.	106°	99°
229-2272	210°	216°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2273	184°	193°	22° ATC	26° ABC	27° BBC	14° BTC	Hyd.	Hyd.	114°	110°
229-2274	205°	196°	13° ATC	38° ABC	33° BBC	17° BTC	Hyd.	Hyd.	112°	116°
229-2275	192°	190°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2276	191°	191°	15° ATC	26° ABC	25° BBC	14° BTC	Hyd.	Hyd.	111°	117°
229-2277	184°	205°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2278	185°	191°	18° ATC	23° ABC	31° BBC	20° BTC	Hyd.	Hyd.	110°	116°
229-2279	184°	184°	13° ATC	17° ABC	17° BBC	13° BTC	.016H	.016H	103°	105°
229-2280	194°	202°	13° ATC	27° ABC	29° BBC	7° BTC	Hyd.	Hyd.	109°	109°
229-2281	224°	225°	N/A	N/A	N/A	N/A	Mech.	Mech.	N/A	N/A
229-2283	176°	197°	25° ATC	31° ABC	32° BBC	15° BTC	Hyd.	Hyd.	118°	113°
229-2285	194°	198°	16° ATC	30° ABC	36° BBC	18° BTC	Hyd.	Hyd.	113°	117°
229-2286	208°	208°	17° ATC	45° ABC	39° BBC	11° BTC	Hyd.	Hyd.	121°	115°
229-2287	183°	193°	17° ATC	20° ABC	30° BBC	17° BTC	Hyd.	Hyd.	108°	114°
229-2289	246°	246°	17° BTC	49° ABC	53° BBC	13° ATC	.030H	.030H	106°	110°
229-2290	224°	224°	5° BTC	39° ABC	41° BBC	3° ATC	Hyd.	Hyd.	107°	109°
229-2291	274°	274°	31° BTC	63° ABC	71° BBC	23° ATC	.022H	.022H	106°	114°
229-2292	231°	231°	9° BTC	42° ABC	49° BBC	2° BTC	Hyd.	Hyd.	106°	114°
229-2293	214°	224°	2° BTC	32° ABC	47° BBC	3° BTC	Mech.	Mech.	105°	115°
229-2294	262°	273°	23° BTC	59° ABC	69° BBC	24° ATC	.022H	.024H	108°	116°
229-2295	224°	223°	8° BTC	36° ABC	43° BBC	0° TDC	Hyd.	Hyd.	104°	112°
229-2296	216°	228°	1° BTC	35° ABC	51° BBC	3° BTC	Hyd.	Hyd.	107°	117°
229-2297	278°	278°	29° BTC	69° ABC	73° BBC	25° ATC	.030H	.030H	107°	117°
229-2298	224°	234°	5° BTC	39° ABC	54° BBC	0° TDC	Hyd.	Hyd.	107°	117°
229-2300	226°	226°	7° BTC	39° ABC	43° BBC	3° ATC	Hyd.	Hyd.	106°	110°
229-2301	246°	246°	13° BTC	53° ABC	57° BBC	9° ATC	Hyd.	Hyd.	106°	114°
229-2302	215°	223°	7° BTC	28° ABC	51° BBC	8° BTC	Hyd.	Hyd.	110°	110°
229-2303	224°	234°	7° BTC	37° ABC	52° BBC	2° ATC	Mech.	Mech.	105°	115°
229-2305	224°	234°	2° BTC	42° ABC	55° BBC	1° BTC	Hyd.	Hyd.	110°	118°
229-2311	214°	224°	0° TDC	34° ABC	49° BBC	5° BTC	Hyd.	Hyd.	107°	117°
229-2313	236°	236°	10° BTC	46° ABC	46° BBC	10° ATC	Hyd.	Hyd.	108°	108°
229-2314	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2315	175°	180°	25° ATC	20° ABC	18° BBC	18° BTC	Hyd.	Hyd.	113°	108°
229-2316	200°	200°	25° ATC	45° ABC	38° BBC	18° BTC	Hyd.	Hyd.	124°	119°
229-2317	200°	200°	12° ATC	32° ABC	38° BBC	18° BTC	Hyd.	Hyd.	111°	119°
229-2318	192°	200°	19° ATC	31° ABC	40° BBC	20° BTC	Hyd.	Hyd.	115°	121°
229-2319	175°	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2320	N/A	175°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2321	166°	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2322	N/A	166°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured	Zero Lash)		Intake Duration	Exhaust Duration
229-2323	ST	H	.298	.306	.447	.459	46°	302°	324°
229-2324	ST	H	.258	.269	.413	.430	36°	253°	266°
229-2325	ST	H	.287	.287	.431	.431	39°	265°	265°
229-2326	ST	H	.272	.272	.408	.408	39°	263°	263°
229-2327	ST	HR	.282	.284	.479	.483	51°	273°	298°
229-2328	ST	HR	.276	.286	.414	.429	37°	260°	263°
229-2329	ST	H	.232	.232	.406	.406	49°	270°	270°
229-2330	ST	H	.287	.290	.494	.499	64°	270°	312°
229-2331	ST	H	.259	.259	N/A	N/A	N/A	N/A	N/A
229-2332	ST	H	.259	.259	N/A	N/A	N/A	N/A	N/A
229-2333	ST	H	.259	.259	N/A	N/A	N/A	N/A	N/A
229-2334	ST	H	.259	.259	N/A	N/A	N/A	N/A	N/A
229-2335	ST	H	.297	N/A	N/A	N/A	N/A	N/A	N/A
229-2336	ST	H	N/A	.297	N/A	N/A	N/A	N/A	N/A
229-2337	ST	HR	.292	.292	.496	.496	N/A	282°	290°
229-2338	ST	H	.255	.259	.408	.414	43°	256°	260°
229-2339	ST	M	.273	N/A	N/A	N/A	N/A	N/A	N/A
229-2340	ST	M	N/A	.299	N/A	N/A	N/A	N/A	N/A
229-2341	ST	H	.334	.334	N/A	N/A	N/A	N/A	N/A
229-2342	ST	M	.291	N/A	N/A	N/A	N/A	N/A	N/A
229-2343	ST	M	N/A	.296	N/A	N/A	N/A	N/A	N/A
229-2344	ST	M	.273	N/A	N/A	N/A	N/A	N/A	N/A
229-2345	ST	M	N/A	.273	N/A	N/A	N/A	N/A	N/A
229-2346	ST	M	.313	N/A	N/A	N/A	N/A	N/A	N/A
229-2347	ST	M	N/A	.315	N/A	N/A	N/A	N/A	N/A
229-2348	ST	H	.216	N/A	N/A	N/A	N/A	N/A	N/A
229-2349	ST		N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2350	MR	HR	.269	.273	.404	.410	N/A	272°	286°
229-2351	MR	HR	.289	.300	.434	.450	N/A	261°	276°
229-2353	MR	HR	.284	.284	.483	.483	N/A	296°	296°
229-2354	ST	HR	.276	.285	.414	.428	36°	261°	263°
229-2355	P	H	.319	.325	.478	.487	51°	273°	277°
229-2356	P	H	.295	.295	.502	.501	53°	277°	287°
229-2357	SP	H	.329	.337	.559	.572	85°	305°	311°
229-2358	P	H	.307	.318	.491	.509	69°	289°	300°
229-2359	P	H	.318	.332	.509	.532	79°	300°	309°
229-2360	MPG	H	.265	.294	.398	.442	56°	268°	288°
229-2361	ST	HR	.257	.255	.411	.408	39°	260°	275°
229-2362	ST	HR	.245	.257	.424	.445	48°	270°	279°
229-2363	ST	HR	.298	.306	.447	.459	37°	270°	276°
229-2364	ST	HR	.276	.286	.414	.428	36°	259°	263°
229-2365	ST	HR	.300	.307	.450	.460	36°	268°	271°
229-2366	P	HR	.330	.335	.495	.503	65°	283°	287°
229-2367	P	HR	.333	.333	.566	.566	63°	291°	291°
229-2368	SP	HR	.368	.376	.626	.639	106°	335°	329°
229-2369	CP	HR	.330	.340	.560	.570	84°	305°	310°
229-2370	P	H	.320	.324	.480	.486	67°	283°	291°
229-2373	ST	H	N/A	.234	N/A	N/A	N/A	N/A	N/A
229-2374	ST	H	.234	N/A	N/A	N/A	N/A	N/A	N/A
229-2375	ST	HR	.263	.263	.394	.394	41°	262°	262°
229-2376	ST	HR	.274	.278	.411	.417	43°	251°	271°
229-2377	P	HR	.320	.320	.512	.512	65°	286°	292°
229-2378	SP	HR	.325	.325	.520	.520	74°	298°	302°
229-2379	ST	M	N/A	.342	N/A	N/A	N/A	N/A	N/A
229-2380	ST	M	.349	N/A	N/A	N/A	N/A	N/A	N/A
229-2381	ST	HR	N/A	.318	N/A	N/A	N/A	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-2323	213°	225°	6° ATC	39° ABC	50° BBC	5° BTC	Hyd.	Hyd.	112°	118°
229-2324	184°	193°	17° ATC	21° ABC	32° BBC	19° BTC	Hyd.	Hyd.	109°	115°
229-2325	198°	198°	18° ATC	36° ABC	28° BBC	10° BTC	Hyd.	Hyd.	116°	110°
229-2326	197°	197°	15° ATC	32° ABC	29° BBC	12° BTC	Hyd.	Hyd.	113°	111°
229-2327	204°	209°	15° ATC	39° ABC	42° BBC	13° BTC	Hyd.	Hyd.	118°	118°
229-2328	191°	195°	11° ATC	22° ABC	33° BBC	18° BTC	Hyd.	Hyd.	106°	116°
229-2329	186°	186°	15° ATC	21° ABC	26° BBC	20° BTC	Hyd.	Hyd.	108°	113°
229-2330	208°	220°	7° ATC	35° ABC	47° BBC	7° BTC	Hyd.	Hyd.	111°	117°
229-2331	188°	196°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2332	188°	196°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2333	188°	196°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2334	188°	196°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2335	204°	N/A	N/A	N/A	N/A	N/A	.008H	.008H	N/A	N/A
229-2336	N/A	204°	N/A	N/A	N/A	N/A	.008H	.008H	N/A	N/A
229-2337	197°	209°	24° ATC	41° ABC	41° BBC	12° BTC	Hyd.	Hyd.	123°	116°
229-2338	188°	192°	6° ATC	14° ABC	30° BBC	18° BTC	Hyd.	Hyd.	100°	115°
229-2339	196°	N/A	N/A	N/A	N/A	N/A	.008H	N/A	N/A	N/A
229-2340	N/A	209°	N/A	N/A	N/A	N/A	N/A	.013H	N/A	N/A
229-2341	201°	201°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2342	194°	N/A	N/A	N/A	N/A	N/A	.008H	N/A	N/A	N/A
229-2343	N/A	200°	N/A	N/A	N/A	N/A	N/A	.008H	N/A	N/A
229-2344	189°	N/A	N/A	N/A	N/A	N/A	.008H	N/A	N/A	N/A
229-2345	N/A	189°	N/A	N/A	N/A	N/A	N/A	.010H	N/A	N/A
229-2346	192°	N/A	N/A	N/A	N/A	N/A	.008H	N/A	N/A	N/A
229-2347	N/A	193°	N/A	N/A	N/A	N/A	N/A	.010H	N/A	N/A
229-2348	174°	N/A	N/A	N/A	N/A	N/A	.008H	N/A	N/A	N/A
229-2349	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2350	202°	213°	7° ATC	29° ABC	41° BBC	8° BTC	Hyd.	Hyd.	108°	116°
229-2351	197°	206°	8° ATC	25° ABC	36° BBC	10° BTC	Hyd.	Hyd.	105°	114°
229-2353	224°	224°	0° TDC	44° ABC	51° BBC	7° BTC	Hyd.	Hyd.	113°	118°
229-2354	191°	194°	12° ATC	23° ABC	32° BBC	18° BTC	Hyd.	Hyd.	106°	116°
229-2355	210°	214°	2° ATC	32° ABC	44° BBC	10° BTC	Hyd.	Hyd.	107°	117°
229-2356	218°	228°	0° TDC	38° ABC	53° BBC	5° BTC	Hyd.	Hyd.	109°	119°
229-2357	240°	246°	10° BTC	50° ABC	57° BBC	9° ATC	Hyd.	Hyd.	110°	114°
229-2358	212°	222°	3° ATC	35° ABC	49° BBC	7° BTC	Hyd.	Hyd.	107°	117°
229-2359	222°	232°	5° BTC	37° ABC	55° BBC	3° BTC	Hyd.	Hyd.	107°	117°
229-2360	194°	214°	10° ATC	24° ABC	44° BBC	10° BTC	Hyd.	Hyd.	107°	117°
229-2361	181°	191°	27° ATC	28° ABC	28° BBC	17° BTC	Hyd.	Hyd.	118°	112°
229-2362	185°	193°	22° ATC	27° ABC	26° BBC	13° BTC	Hyd.	Hyd.	114°	110°
229-2363	201°	208°	18° ATC	39° ABC	39° BBC	11° BTC	Hyd.	Hyd.	117°	117°
229-2364	191°	195°	12° ATC	23° ABC	32° BBC	17° BTC	Hyd.	Hyd.	106°	116°
229-2365	202°	208°	16° ATC	38° ABC	40° BBC	12° BTC	Hyd.	Hyd.	116°	117°
229-2366	220°	224°	3° BTC	37° ABC	45° BBC	1° BTC	Hyd.	Hyd.	107°	113°
229-2367	223°	223°	1° BTC	42° ABC	49° BBC	6° BTC	Hyd.	Hyd.	110°	118°
229-2368	237°	245°	6° BTC	51° ABC	54° BBC	11° ATC	Hyd.	Hyd.	109°	115°
229-2369	241°	246°	12° BTC	49° ABC	57° BBC	9° ATC	Hyd.	Hyd.	110°	114°
229-2370	224°	230°	7° BTC	37° ABC	51° BBC	1° BTC	Hyd.	Hyd.	107°	113°
229-2373	N/A	171°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2374	176°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2375	185°	185°	19° ATC	24° ABC	22° BBC	17° BTC	Hyd.	Hyd.	116°	110°
229-2376	188°	194°	22° ATC	30° ABC	23° BBC	9° BTC	Hyd.	Hyd.	116°	107°
229-2377	220°	223°	1° BTC	39° ABC	46° BBC	3° BTC	Hyd.	Hyd.	109°	115°
229-2378	227°	234°	6° BTC	41° ABC	54° BBC	0° TDC	Hyd.	Hyd.	107°	117°
229-2379	N/A	205°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2380	205°	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2381	N/A	200°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	Perf. Code	Type	Intake Cam Lift	Exhaust Cam Lift	Gross Intake Valve Lift	Gross Exhaust Valve Lift	SAE Overlap	SAE	
					(Measured Zero Lash)			Intake Duration	Exhaust Duration
229-2382	ST	HR	.349	N/A	N/A	N/A	N/A	N/A	N/A
229-2383	ST	HR	.259	.259	N/A	N/A	N/A	N/A	N/A
229-2384	ST	HR	.259	.259	N/A	N/A	N/A	N/A	N/A
229-2385	ST	M	.267	.221	N/A	N/A	N/A	N/A	N/A
229-2386	ST	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2387	ST	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2388	ST	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2389	MPG	HR	.290	.308	.435	.462	57°	273°	288°
229-2390	P	HR	.308	.313	.462	.470	68°	288°	284°
229-2391	P	HR	.319	.334	.479	.501	67°	297°	307°
229-2392	SP	HR	.320	.320	.480	.480	90°	306°	306°
229-2393	MPG	HR	.290	.308	.435	.462	57°	273°	288°
229-2394	P	HR	.308	.313	.462	.470	68°	288°	284°
229-2395	SP	HR	.320	.320	.480	.480	90°	306°	306°
229-2396	P	HR	.295	.300	.501	.510	70°	288°	300°
229-2397	P	HR	.310	.320	.527	.544	82°	296°	308°
229-2398	SP	HR	.330	.340	.561	.578	100°	316°	324°
229-2399	ST	H	.239	.239	N/A	N/A	N/A	N/A	N/A
229-2400	MPG	HR	.290	.308	.435	.462	57°	273°	288°
229-2401	P	HR	.308	.313	.462	.470	68°	288°	284°
229-2402	SP	HR	.320	.320	.480	.480	90°	306°	306°
229-2403	MPG	HR	.305	.305	.458	.458	67°	275°	275°
229-2404	P	HR	.295	.300	.502	.510	70°	288°	300°
229-2405	P	HR	.310	.320	.527	.544	82°	296°	308°
229-2406	SP	HR	.330	.340	.561	.578	100°	316°	324°
229-2407	ST	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2408	ST	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2409	ST	H	.117	.179	N/A	N/A	N/A	N/A	N/A
229-2410	ST	H	.193	.178	N/A	N/A	N/A	N/A	N/A
229-2411	ST	HR	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2412	ST	HR	.272	.272	.409	.409	46°	271°	271°
229-2413	ST	HR	.249	.250	N/A	N/A	N/A	N/A	N/A
229-2414	ST	HR	.279	.279	N/A	N/A	N/A	N/A	N/A
229-2415	ST	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LIGHT VEHICLE CAMSHAFT SPECIFICATIONS

Part Number	.050"		Valve Timing At .050"				Intake Valve Lash	Exhaust Valve Lash	Intake Lobe Center	Exhaust Lobe Center
	Intake Duration	Exhaust Duration	Intake Valve Open	Intake Valve Close	Exhaust Valve Open	Exhaust Valve Close				
229-2382	202°	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2383	188°	193°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2384	188°	193°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2385	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2386	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2387	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2388	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2389	198°	210°	9°ATC	27°ABC	41°BBC	11°BTC	Hyd.	Hyd.	108°	116°
229-2390	210°	215°	1°ATC	31°ABC	41°BBC	6°BTC	Hyd.	Hyd.	106°	114°
229-2391	222°	232°	2°BTC	40°ABC	55°BBC	3°BTC	Hyd.	Hyd.	109°	119°
229-2392	230°	230°	9°BTC	41°ABC	45°BBC	5°ATC	Hyd.	Hyd.	106°	110°
229-2393	198°	210°	9°ATC	27°ABC	41°BBC	11°BTC	Hyd.	Hyd.	108°	116°
229-2394	210°	215°	1°ATC	31°ABC	41°BBC	6°BTC	Hyd.	Hyd.	106°	114°
229-2395	230°	230°	9°BTC	41°ABC	45°BBC	5°ATC	Hyd.	Hyd.	106°	110°
229-2396	216°	228°	0°TDC	36°ABC	50°BBC	2°BTC	Hyd.	Hyd.	108°	116°
229-2397	224°	234°	6°BTC	38°ABC	51°BBC	3°ATC	Hyd.	Hyd.	106°	114°
229-2398	236°	246°	12°BTC	44°ABC	57°BBC	9°ATC	Hyd.	Hyd.	106°	114°
229-2399	190°	190°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2400	198°	210°	9°ATC	27°ABC	41°BBC	11°BTC	Hyd.	Hyd.	108°	116°
229-2401	210°	215°	1°ATC	31°ABC	41°BBC	6°BTC	Hyd.	Hyd.	106°	114°
229-2402	230°	230°	9°BTC	41°ABC	45°BBC	5°ATC	Hyd.	Hyd.	106°	110°
229-2403	202°	202°	1°BTC	21°ABC	29°BBC	7°BTC	Hyd.	Hyd.	100°	108°
229-2404	216°	228°	0°TDC	36°ABC	50°BBC	2°BTC	Hyd.	Hyd.	108°	116°
229-2405	224°	234°	6°BTC	38°ABC	51°BBC	3°ATC	Hyd.	Hyd.	114°	110°
229-2406	236°	246°	12°BTC	44°ABC	57°BBC	9°ATC	Hyd.	Hyd.	114°	110°
229-2407	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2408	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
229-2409	159°	175°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2410	168°	176°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2411	N/A	N/A	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2412	197°	197°	16°ATC	33°ABC	30°BBC	13°BTC	Hyd.	Hyd.	N/A	N/A
229-2413	170°	180°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2414	186°	190°	N/A	N/A	N/A	N/A	Hyd.	Hyd.	N/A	N/A
229-2415	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CAMSHAFTS

Clevite has a full line of performance camshafts to meet your performance needs. Whether you're building a street racer or a Winston Cup or NHRA engine; Clevite camshafts are precision engineered and second to none in performance and durability.

Clevite offers the most popular camshaft designs that meet the specific requirements of each lifter type including hydraulic, hydraulic roller, and mechanical (solid) lifters.

Hydraulic Camshafts and Lifters

Hydraulic lifters are unique in that they self adjust to eliminate valvetrain noise. Found in most OE passenger cars and light trucks, hydraulic cams are a reliable and inexpensive direct replacement. Requiring only a minor adjustment in order to achieve 0.040" to 0.060" of lifter preload, hydraulic cams are easy to install and normally don't need any follow up maintenance.

Hydraulic cams are ideal for up to mid-range performance applications such as street racers. Compared to mechanical cams, hydraulic cams are limited when it comes to RPM thresholds, especially over 6000 RPM. To compensate for this, Clevite offers specially engineered high RPM valve lifters that maintain control and valve adjustment over 6500 RPM. These performance lifters are available in the most popular engine applications.

Hydraulic Roller Camshafts and Lifters

Original Equipment Manufacturers have adopted hydraulic roller cams and lifters similar to those utilized in racing in order to reduce friction and noise, thus increasing horsepower and MPG. Another advantage is that less maintenance is required. Hydraulic roller cams provide more flexibility in camshaft design than offered by non-roller type cams. The roller design allows for increased valve lifts and durations, which are not possible with conventional hydraulic lifters.

Due to their advanced design and composition, hydraulic roller cams and lifters are generally more expensive than other camshafts and lifter types.

Solid (Mechanical) Lifter Camshafts

Compared to hydraulic cams, solid camshafts, for roughly the same cost, provide an extended operating RPM range and more aggressive profiles. Used in a wide variety of racing applications, mechanical cams also have a higher RPM threshold than hydraulic cams.

It is also important to remember that in order to maintain a certain clearance, mechanical lifters need to have their valvetrain lash adjusted back to specifications occasionally. This will also help reduce engine noise.

Camshaft Installation Tips

These basic Clevite® camshaft installation tips have been drawn from our experience and reflect the most common mistakes that result in premature camshaft failure. These are not meant in any way to replace the Original Equipment Manufacturer's (OEM) installation procedures. These basic installation tips are intended to be used along with OEM procedures to help ensure maximum camshaft life and performance.

PREMATURE FAILURE

When replacing a camshaft that has failed prematurely, take the time to diagnose the problem and correct it before installing a new camshaft, lifters and/or followers. The extra time and effort are well worth avoiding a repeat of the failure and will help make you more knowledgeable in the process.

KEEP IT CLEAN

Once you've disassembled the engine and removed the old components, thoroughly clean the exposed portions of the engine. Remove all dirt, deposits and old gasket material, being careful not to wash or drop this debris down into the engine.

Excessive debris may not completely drain with the oil and could become lodged on other components in the engine causing additional problems after the engine is reassembled.

The best procedure is to position rags so that they catch large pieces of debris that have to be scraped off. Then wipe the area clean with lint-free rags and a mild cleaner. Finally, check all oil passages to make sure they are free of dirt and foreign particles.

To keep your installation clean, make sure that any parts returning to the engine are checked for cleanliness and are free of defects. If your work is interrupted for any length of time, cover the engine to prevent

dirt and dust from settling on it. Remember, these components operate in tolerances as little as thirty-five millionths of an inch - just a speck of dirt could mean the difference between a job well done and a job done over.

INSPECTION

Inspect lifter bores for excessive wear. This usually shows up as an oblong or egg-shaped wear pattern.

Weak valve springs that do not keep the lifter or follower in constant contact with the cam lobe can affect the camshaft's performance and life. It is generally a good idea to check your valve springs for proper free height and seat pressure.

Inspect the cam bearings for wear and signs of fatigue. Taking the time to check them might save you some time and money in the future.

Be especially concerned if you are replacing a camshaft that failed prematurely; the cause of the camshaft failure may have had an effect on the cam bearings. If you find the cam bearings need replacement or if you have an Overhead Cam (OHC) engine that does not use cam bearings, check the housing bores for proper size and alignment. Install new Clevite 77® cam bearings when required.

PRELUBE

Lack of lubrication is one of the most common causes of camshaft failure during the initial start-up. If the camshaft and other valve train components are not properly lubricated, they can be damaged within the first few camshaft revolutions. Once the damage has occurred, no amount of lubrication will prevent the impending failure of these parts.

Use a high quality break-in lube such as Clevite Cam Guard™ (part number CL400) as you reassemble the engine.

Camshaft Installation Tips continued

Cam Guard has an Extreme Pressure (EP) lubricant rating and excellent adhesion quality. It will help prevent galling during the initial start-up caused by the high loads placed on valve train components and the adhesion quality will prevent the lubricant from draining off the components during engine reassembly.

It is strongly recommended that motor oil or motor oil additives NOT be used as a break-in lube. Motor oil has a tendency to drain off from coated components. The light oil film that remains is insufficient to protect the camshaft or other components during the initial break-in period.

Cam Guard can also be used during engine reassembly on lifters, followers, push rods, rocker arms, rocker arm shafts, valves, valve guides, bearings and timing components.

INSTALLATION

Thoroughly coat the camshaft lobes, bearing journals, and distributor drive gear with Cam Guard. You may want to temporarily attach the timing sprocket to provide leverage for supporting the camshaft during installation and help prevent damage to the camshaft bearings.

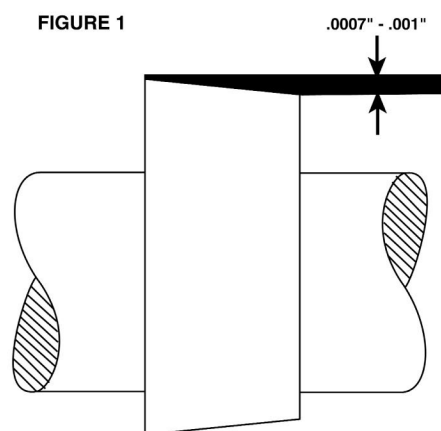
Very carefully slide the new camshaft into the engine block or head, taking precautions not to damage the cam bearing surfaces. When the new camshaft is installed, ensure that it turns freely within the cam bearings or cam housing.

Tighten all camshaft retaining bolts and thrust plate bolts using the proper OEM torque specification and procedure. Check that the camshaft turns freely and check the end play if your engine uses a thrust plate. NOTE: On Overhead Cam (OHC) engines with split cam towers, make sure that the cam bearing caps are installed in the correct position and direction. If they are not, it could cause the camshaft bore

to be distorted and seize the camshaft when the caps are torqued down.

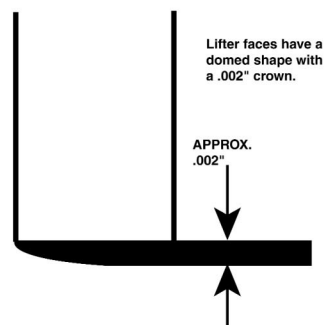
NEW LIFTERS

Because of the function and design relationship between the camshaft lobe and the lifter, it is extremely important that new Clevite lifters are used with a new



Most cam lobes are tapered, though they appear to be flat.

FIGURE 2



camshaft. While to the naked eye cam lobes and lifter faces may appear flat (Figure 1), on all but a few applications, they are not.

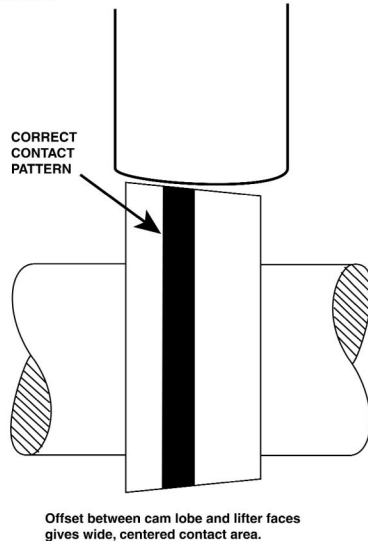
Cam lobes generally have a taper from .0007" to .001" across the face to provide lifter rotation. Lifter faces are commonly ground to a domed shape with an approximate .002" crown (Figure 2). These basic design characteristics spread the load out over a larger area of the two contact surfaces while allowing greater heat dissipation from the cam lobe and lifter face. With the lobe and lifter installed in their proper positions, the lifter contacts the lobe slightly off center.

The offset, along with the taper of the cam

Camshaft Installation Tips continued

lobe, causes the lifter to rotate as the cam turns (Figure 3). This helps to equalize the wear across the bottom of the lifter. More importantly, the Offset design places the load bearing surfaces of these two components toward the center of the components and away from the edges. The edges having the least amount of support,

FIGURE 3



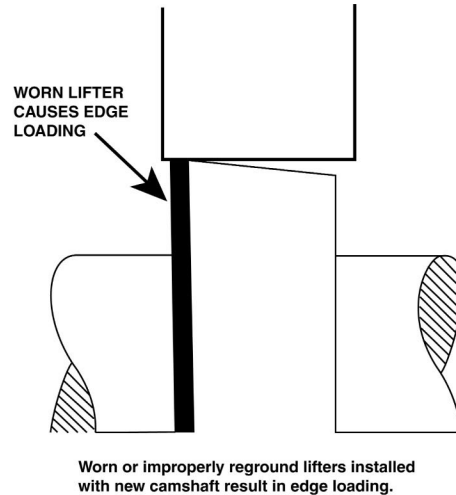
are the most susceptible to wear and have the lowest load carrying capability. The closer the load can be kept to the center of the cam and lifter, the longer the life and the greater the load they can carry.

When the offset is not maintained, the lifter comes in contact with the edge of the lobe making the lifter spin faster. This causes accelerated lifter bore wear and greater unit loads to occur on the edge of the cam lobe. This condition is called edge loading (Figure 4). Once edge loading takes place, there is little, if anything, you can do to stop the quick and certain failure. The three main reasons for this condition are:

1. Lack of lubrication.
2. Use of old lifters with a new camshaft.
3. Lack of or incorrect installation of the cam thrust plate (where used).

If a portion of the cam lobe or lifter is starved of lubrication during initial start-up or during normal operation, it takes very little time to wear the domed crown off from the face of the lifter. This results in

FIGURE 4



the edge loading mentioned below.

In the case of an old lifter, the crown will probably have worn down considerably. This would have happened over an extended period of time and would have worn in direct relation to the lobe that it was riding. This condition will also result when using a reground lifter that has had the face improperly resurfaced and the wrong spherical radius applied.

These same basic rules apply to roller lifters and followers. Although the geometry is different than a traditional lifter, both employ certain design characteristics which keep the load centered on the cam lobe.

Before installing the lifters in the lifter bores, generously coat the lifter bores with Cam Guard. Coat the lifters and/or followers one at a time as they are installed. After they have all been installed, rotate the camshaft to check for binding or misalignment.

Camshaft Installation Tips continued

TIMING

For optimum performance, use new Clevite® timing components. Tighten retaining bolts to the proper OEM specification and double check for proper alignment of the timing marks.

REASSEMBLY

Recheck all parts and gasket mating surfaces, then reassemble the engine to the proper OEM specifications using Victor Reinz® gaskets.

SPECIAL NOTES ON PERFORMANCE CAMSHAFTS

Before installing a performance camshaft, it is very important that you fully understand the advantages and/or limitations such as idle, power, torque, fuel economy, etc. of the camshaft you choose.

Though a small percentage of camshafts are “degreed in,” the majority of performance camshafts installed are adjusted for proper timing by aligning the timing marks on the timing sprockets. “Degreeing in” a camshaft uses a calibrated degree wheel and a dial indicator to establish the exact location of the piston in relation to the opening and closing of the valves. Aligning the timing marks sets the basic camshaft timing within the manufacturer’s prescribed tolerances. “Degreeing in” a camshaft allows the engine builder to fine tune this timing around the intended use of the engine for optimum performance.

“Degreeing in” is also used in engine testing where slight variations in timing are made and the results are compared to develop optimal or different performance characteristics. In addition, this allows desirable performance characteristics to be duplicated should the original engine be damaged.

If “degreeing in” a camshaft, be sure you know the correct procedures and fully understand the camshaft’s specifications.

A performance camshaft also requires some extra precautions be taken to prevent damage to the engine by the changes in camshaft lift and duration.

There are three key clearances to check before the reassembly is completed:

1. Piston to valve clearance
2. Spring retainer clearance
3. Coil bind

Piston to valve clearance can be checked in several ways. The most common is to place a piece of clay on the top of the piston. Turn the crankshaft two full revolutions so that the cam makes one revolution, then remove and measure the thickness of the clay. The clearance should be a minimum of .060”. If there is not enough clearance, deeper valve reliefs must be machined in the pistons. This step is especially important if you’re also installing domed pistons. Also, keep in mind that changes in the compressed thickness of the head gasket can also affect this clearance.

The clearance between the bottom of the spring retainer and the top of the valve guide or valve stem seal must also be checked. This should be checked at maximum cam lift and should be a minimum of .125”.

Coil bind is another condition to check. Coil bind occurs when the valve spring compresses to its minimum height and the coils of the spring stack up on each other. To check for this problem, the cam needs to be at maximum lift with the valve spring at maximum compression.

Check for a minimum of .060” between the center coils of the valve spring. If any of these conditions go undetected, they can cause serious engine damage.

Camshaft Installation Tips continued

VALVE ADJUSTMENT - MECHANICAL LIFTERS

Set valve lash using OEM procedures and the proper specifications for your camshaft.

VALVE ADJUSTMENT - HYDRAULIC LIFTERS

Although hydraulic lifters require no adjustment during normal service, it is important to check the lifter pre-load when new lifters are installed. Adjust as necessary.

Lifter pre-load is correctly adjusted when the piston in the lifter is compressed to the mid-point of its travel within the lifter housing. A number of things can affect lifter pre-load:

1. Resurfacing the heads and/or block deck.
2. Changes in camshaft diameter.
3. Changes in push rod length.
4. Changes in valve length.
5. Changes in rocker arm length or geometry.
6. Changes in head gasket thickness.
7. Changes in lifter height.
8. Valve job.
9. Different rocker arm stands or shafts.

When installing new hydraulic lifters, follow the proper OEM procedures for checking and adjusting lifter pre-load.

ENGINE OIL

Fill the crankcase to the correct level with new oil which meets the SAE viscosity specification as well as the API service designation recommended by the manufacturer.

Choose a quality brand by a recognized manufacturer. Also install a new quality oil filter.

Some car manufacturers require the use of special oil additives for camshaft break-

in. Although this is not necessary with the proper use of Cam Guard, they can be added if desired. Other oil additives should not be added until after break-in is complete.

Just prior to initial start-up, it is extremely important to prime the oiling system in one of two ways. Pressurize the system externally or turn the oil pump manually.

INITIAL START-UP

It is important that the engine start as quickly as possible as prolonged cranking may damage the camshaft, lifters and/or followers. Before starting the engine, top off the coolant level and make sure the ignition timing is properly set.

Use a known, good carburetor that is properly adjusted and primed. Do not use a freshly rebuilt or new carburetor that may not operate properly or may need extensive adjustments to operate properly. If the fuel system uses an electric fuel pump, allow the system to pressurize before cranking.

After starting the engine, DO NOT let it idle; run the engine at 1500-2000 RPM for at least 15 minutes. Below this RPM level, there may be insufficient oil flow for lubrication during break-in. During this 15-minute period, the lifters seat against the cam lobe and below 1500-2000 RPM, the lifters do not rotate adequately to allow for proper seating. Not maintaining the proper RPM level for at least 15 minutes may result in a quick and costly failure.

During the first 15 minutes, carefully monitor oil pressure. If any problems arise, shut down the engine immediately. Remember, DO NOT allow it to idle. Then repeat start-up procedures beginning with priming the oiling system after the problem has been corrected.

High Performance Camshaft Selection Guide

C A M S H A F T C H A R A C T E R I S T I C S					
Performance Code	MPG Performer	MPG Performer	Performer	Super Performer	Competition Performer
DURATION @ .050"	Up to 195°	195°-210°	210°-225°	225°-240°	241°-278°
IDLE QUALITY	Stock idle quality. 18-20" of Mfld. vacuum.	Smooth idle quality. 16-18" of Mfld. vacuum.	Fair idle w/slight slope. Low Mfld. vacuum, may req. vacuum reserve tank.	Choppy idle characteristics. Low Mfld. vacuum. Will not operate power brakes.	Very rough idle. Low Mfld. vacuum. Will not operate power brakes.
POWER BAND	Most efficient from idle to 3,000 RPM.	Best power band from 1,500 to 4,000 RPM.	Excellent mid range throttle from 2,000 to 4,000 RPM.	Excellent top end power from 2,200 to 5,500 RPM.	Best power band from 3,200 to 7,000 RPM.
TORQUE BAND	Excellent low to mid range torque from 1,000 to 2,500 RPM.	Excellent low to mid range torque from 1,500 to 3,500 RPM.	Excellent mid to top end torque from 2,500 to 4,000 RPM.	Excellent top end torque from 2,500 to 5,500 RPM.	Excellent low to mid range torque from 3,500 to 7,000 RPM.
R E C O M M E N D E D E Q U I P M E N T					
COMPUTER CONTROLLED ENGINES	No computer or component modifications necessary.	No computer or component modifications necessary. Not recommended for use in 1986 or newer Ford Trucks EFI.	Cams w/200 or higher duration may require computer modifications. Not recommended for use in 1986 or newer Ford Trucks EFI.	Not recommended without major modifications. Not recommended for use in 1986 or newer Ford Trucks EFI.	Not recommended without major modifications. Not recommended for use in 1986 or newer Ford Trucks EFI.
CYLINDER HEADS	Stock heads in good condition.	Stock or slightly modified cyl. heads.	Good 3 angle valve job recommended.	Porting & matching recommended. Some race prep necessary.	Fully race prepared cylinder heads are recommended.
AXLE RATIO	Stock ratio. Should not exceed 3.50:1	Stock or slightly improved ratio. Should not exceed 3.73:1	Taller gear recommended 3.55:1 to 3.73:1	Taller gear recommended 3.90:1 to 4.50:1	Taller gear recommended 4.10:1 or higher.
COMPRESSION	Stock compression. Should not exceed 9.0:1	Stock compression acceptable should not exceed 9.5:1	Increased compression ratio recommended not to exceed 10.5:1	Increased compression between 10.5 and 11.0:1	Increased compression between 10.75 and 12.5:1
CARBURETION	Stock carburetion or fuel injection.	Stock 2 or 4BC or stock fuel injection. Should not exceed 600CFM w/vacuum secondaries.	Re-jetted stock or increased CFM rating recommended. Not to exceed 750 CFM.	Aftermarket 4BC or two smaller CFM 2BC.	Large Aftermarket 4BC, re-jet as necessary.
RECOMMENDED VALVE SPRING PRESSURES	Seat pressure: 90lbs. Open pressure: 250lbs.	Seat pressure: 100lbs. Open pressure: 265lbs.	Seat pressure: 110lbs. Open pressure: 280lbs.	Seat pressure: 120lbs. Open pressure: 300lbs.	Seat pressure: 125lbs. Open pressure: 325lbs.

MPG Performer Camshafts are suitable for engines that are stock overall and are in good condition, with stock automatic or manual transmissions; intake manifold should be stock or an aftermarket dual plan; stock lifters, stock ignition system and stock exhaust may also be used.

Performer Camshafts are suitable for engines that are stock or slightly modified, with stock automatic or manual transmissions, with stock or aftermarket dual lane intake manifold and stock lifters. These camshafts are designed for mild performance or off-road use.

Super Performer & Competition Performer Camshafts are suitable only for racing or

High Performance Camshaft Selection Guide continued

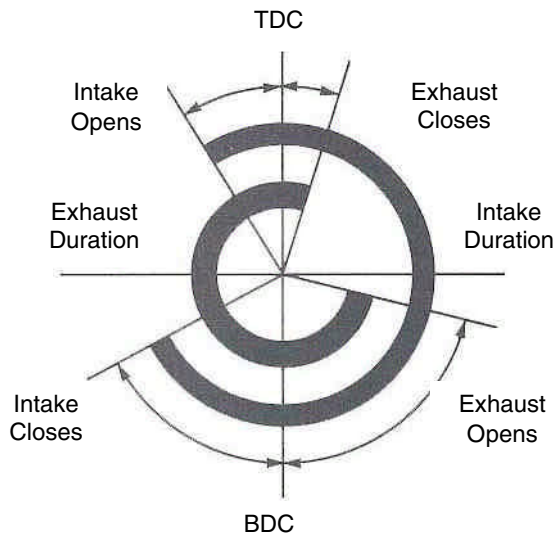
for other off-road use, transmissions should be a manual or an automatic with a 2,500 to 3,500 stall converter. If using hydraulic lifters and operating over 7,000 RPM, anti-pump-up hydraulic lifters should be used, i.e. 213-1683.

Once you've determined the correct range of the camshaft you are wanting to install, refer to our High Performance Camshafts Specifications to get the correct Clevite camshaft, lifter and cam & lifter kit part number for your application.

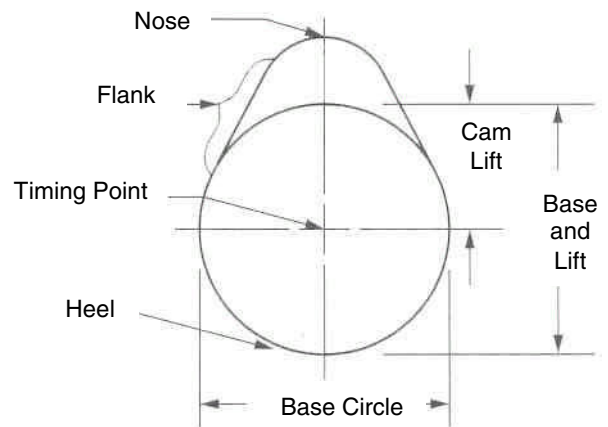
Note: Whenever installing a camshaft other than the original stock replacement, **always check for valve spring coil bind and valve to piston clearance.**

Note: Unless otherwise noted, Clevite performance engine parts are legal only for pre-1966 California and pre-1968 federally certified vehicles; or for off-road racing vehicles, which may never be used upon a highway.

Note: The information contained in this Camshaft Selection Guide is intended for general recommendations only.



Cam Lobe Nomenclature



LIFTERS

Conventional Hydraulic Lifters

In order to preserve strict valve timing under all types of operating conditions, Clevite offers engine builders precision manufactured hydraulic lifters. Longer lifter life is obtained by increasing bearing surfaces through the use of longer plungers or pistons. Lightweight flat disc check valves also permit higher speeds along with smoother operation. Exact overhead valvetrain oil metering is also provided through a constant orifice-metering valve. Hydraulic lifters are recommended for use with hydraulic performance camshafts with RPM thresholds between 5500 and 6000.

Hi-RPM Hydraulic Lifters

Clevite Hi-RPM hydraulic (anti-pump-up) lifters offer the same material composition and strict manufacturing standards found in our conventional hydraulic lifters. In order to strictly limit the travel of the plunger during operation, a unique steel retaining ring is utilized instead of a normal spring clip. Adjustable rocker arms must in turn be selected to effect a lash adjustment of 0.002 – 0.004". The result is that the valve train is able to perform at higher RPM, similar to a mechanical system but without the constant lash adjustments associated with mechanical lifters.

Procedure for correct lash adjustment for Hi-RPM Hydraulic Lifters:

1. Preliminary Lash Adjustment

The lifter must be on the base circle of the camshaft (valve closed position) to just remove all rocker arm to push rod clearance. This adjustment can initially be determined by rotating the push rod while tightening the adjusting nut. Lash is adequate for engine start up when resistance to turning is felt.

2. Final Lash Adjustment

Make the final adjustment with the engine running and at normal operating temperature. The valve lash preload should be at 0.002 – 0.004". If the valve is making a "clicking" sound, tighten down adjusting nut until all noticeable clicking disappears.

Mechanical (Solid) Lifters

For the enthusiast that chooses a solid lifter cam, Clevite offers the highest quality mechanical lifters found in the market today. Our lifters are engineered to withstand the severe stresses associated with the higher lift and duration cam profiles used on our solid lifter cams. Clevite's material composition translates into lightweight design and resistance to normal engine contamination, while maintaining superior strength requirements necessary for the increased engine loads. Our unique oil metering system is designed to keep as much oil as possible in the crankcase. This design controls the amount of oil that reaches the overhead without compromising the required lubrication needed.

In order to eliminate wear from push rods in performance engines with high valve spring pressures, heat treated push rod seats are utilized.

Mechanical lifters should only be used with cast iron camshafts and only those camshafts designed specifically for mechanical lifters.

Hydraulic Roller Lifters

As in our hydraulic and mechanical lifters, Clevite has not compromised quality and construction in our hydraulic roller lifters either. Because of their design, a notable increase in engine horsepower and MPG can be achieved, while greatly reducing friction between mating engine components. Using hydraulic roller lifters mean that valves open faster from a completely closed to completely open position for optimum performance. In addition, proper vacuum and idling capabilities are not sacrificed for the additional increase in horsepower and performance. This represents a significant improvement over the conventional flat lifter.

Valve Lifter Operation

The hydraulic lifter's main function is to take up clearance in the valve train. The components in the hydraulic valve lifter include the lifter body, plunger assembly, check valve, oil metering valve, snap ring, and plunger spring.

When the engine is started, oil is pumped through the engine oil passages to the lifter bores. Oil enters the lifter through the metering hole in the side of the lifter body. Oil then passes through a hole in the side of the plunger. If there is no oil pressure on the check valve, the oil is allowed to pass through the check valve into the base of the lifter body. This area below the plunger is called the compression chamber.

The clearance between the lifter body and the plunger is a precision fit. This precision fit allows only the exact amount of oil to bleed off around the plunger when it is compressed. If the valve train is properly adjusted, the plunger will operate at the mid point of its travel within the body. Without this proper adjust-

ment the lifter plunger may contact the snap ring or bottom out against the base of the lifter body.

As the cam lobe forces the lifter upward, the check valve closes and traps oil in the compression chamber below the lifter plunger. The oil cannot be compressed so the plunger and the body continue to move upward as one unit opening the intake or exhaust valve. When the intake or exhaust valve is closed and if there is any clearance in the valve train, the check valve will open to re-fill the compression chamber. In the case of Anti-pump-up hydraulic lifters, oil is allowed to flow past the check valve at a faster rate than the standard hydraulic lifter. This difference in flow rates takes place due to additional clearance between the lifter body and the lifter plunger. These clearances are manufactured this way to allow the lifter to bleed down at a faster rate when exceeding 6,500 rpm. Because of the design of this type of lifter, a valve train adjustment of zero lash must be maintained.

Lifter Pump-Up

What is valve lifter pump-up? Valve lifter pump-up takes place when the lifter cannot follow the profile of the camshaft lobe. This usually takes place during high rpm when the valve springs are not strong enough to maintain proper valve train geometry. Clevite® Anti-

pump-up lifters are designed to increase the amount of oil bleed-off around the lifter plunger while the check valve is closed, this allows the lifter to recover more quickly avoiding lifter pump-up.

Noisy Valve Lifters

What causes noisy valve lifters? The hydraulic lifter is one of the most precisely made components within the engine, with some internal parts sized within thirty five millionths of an inch. Since hydraulic lifters were developed, there have been complaints of noisy operation. There are a few major reasons for these complaints. The first is, engine oil that has not been changed within the recommended intervals allowing foreign material to circulate through the engine and the lifter, this foreign material may become lodged in the check valve of the lifter allowing oil to pass through the lifter unrestricted causing excessive valve train noise. The other main cause of lifter noise is improper adjustment or dimensional changes to the valve train geometry.

For the lifter to function properly, the valve

train must be adjusted so that the plunger operates at the mid point of its travel within the body of the lifter. The valve train cannot be adjusted down too far or it will force the plunger to come in contact with the base of the lifter. If the lifter is not adjusted down far enough, it will allow the plunger to come in contact with the snap ring at the top of the lifter. In the case of the small block Chevrolet, you simply adjust the rocker arms to achieve zero lash, (no clearance between the pushrod socket on the rocker arm and the tip of the pushrod). Adjustment of these engines is completed by continuing to tighten the rocker arm adjusting nut an additional one half to three quarters of a turn past the zero lash. This adjustment places the pushrod plunger at the mid point of its travel within the body of the lifter.

Performance Camshaft Specifications by Application

Line No.	Perf. Code	Valve Lash		.050 Duration		SAE Duration		Cam Lift		Gross Valve Lift		Lobe C/L	Lobe Centers	
		Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.		Int.	Exh.
AMC / Jeep L6 199-232-242-258, 1964-90														
1	MPG	Hyd.		208	208	280	280	.280	.280	.420	.420	112	110	114
AMC / Jeep V8 290-304-343-360-390-401, 1966-89														
1	MPG	Hyd.		204	214	280	289	.281	.296	.450	.474	110	105	115
2	P	Hyd.		218	218	294	294	.305	.305	.488	.488	110	105	115
BUICK V6 181-196-231-252, 1977-87 (Even Fire W/Integral Distributor Drive Gear)														
1	MPG	Hyd.		194	204	272	280	.265	.281	.424	.450	114	109	119
2	P	Hyd.		204	214	280	290	.281	.296	.450	.474	112	112	112
CHEVROLET L6 194-230-250, 1962-84														
1	MPG	Hyd.		194	204	273	282	.265	.281	.464	.491	110	105	115
2	P	Hyd.		224	224	308	308	.291	.291	.509	.509	108	113	103
CHEVROLET TRK. L6 292, 1963-90														
1	MPG	Hyd.		194	204	272	282	.265	.280	.464	.490	110	105	115
CHEVROLET V6 173 (2.8L), 191 (3.1L), 1980-94														
1	MPG	Hyd.		204	214	278	288	.281	.296	.422	.444	112	107	117
CHEVROLET V6 200-229, 1978-84														
1	MPG	Hyd.		194	204	270	278	.265	.280	.398	.422	112	107	117
CHEVROLET V6 262 (4.3L), W/O Balance Shaft, 1987-94														
1	MPG	Hyd. Roller		202	213	270	284	.269	.273	.404	.410	112	108	116
2	P	Hyd. Roller		210	214	273	277	.319	.325	.478	.487	112	107	117
CHEVROLET V8 262-265-267-283-302-305-307-327-350-400, 1957-94														
1	MPG	Hyd.	Hyd.	184	194	260	270	.245	.265	.368	.398	104	104	104
2	MPG	Hyd.	Hyd.	190	202	258	269	.258	.273	.387	.410	112	108	116
3	MPG	Hyd.	Hyd.	194	204	270	278	.265	.281	.398	.422	112	107	117
4	MPG	Hyd.	Hyd.	194	204	270	278	.265	.281	.398	.423	104	104	104
5	MPG	Hyd.	Hyd.	194	214	268	288	.265	.294	.398	.442	112	107	117
6	MPG	Hyd.	Hyd.	202	206	269	271	.269	.276	.404	.415	114.5	115	114
7	MPG	Hyd.	Hyd.	204	214	278	288	.281	.296	.422	.444	112	107	117
8	MPG	Hyd.	Hyd.	204	214	278	288	.281	.296	.422	.444	110	110	110
9	MPG	Hyd.	Hyd.	208	208	280	280	.280	.280	.420	.420	111	106	116
10	MPG	Hyd.	Hyd.	208	208	280	280	.272	.272	.408	.408	110	107	113
11	MPG	Hyd.	Hyd.	209	216	283	286	.290	.303	.435	.455	112	107	117
12	P	Hyd.	Hyd.	214	214	287	287	.296	.296	.444	.444	110	105	115
13	P	Hyd.	Hyd.	214	224	288	298	.296	.311	.444	.467	112	107	117
14	P	Hyd.	Hyd.	214	224	288	298	.295	.310	.443	.465	112	100	124
15	P	Hyd.	Hyd.	216	228	282	294	.302	.320	.453	.479	112	107	117
16	P	Hyd.	Hyd.	218	218	292	292	.303	.303	.455	.455	110	105	115
17	P	Hyd.	Hyd.	218	218	295	295	.286	.286	.429	.429	110	108	112
18	P	Hyd.	Hyd.	223	223	290	290	.298	.298	.447	.447	114	110	118
19	P	Hyd.	Hyd.	224	224	298	298	.310	.310	.465	.465	112	107	117
20	P	Hyd.	Hyd.	224	224	291	287	.300	.307	.450	.461	114	114	114
21	P	Hyd.	Hyd.	224	224	300	300	.291	.291	.437	.437	108	107	109
22	P	Hyd.	Hyd.	224	230	283	291	.320	.324	.480	.486	110	107	113
23	P	.022	.022	219	229	258	270	.304	.319	.456	.479	114	110	118
24	SP	Hyd.	Hyd.	230	230	304	304	.302	.302	.453	.453	114	112	116
25	SP	Hyd.	Hyd.	232	232	288	288	.320	.320	.480	.480	108	106	110
26	SP	Hyd.	Hyd.	232	234	300	308	.325	.325	.488	.488	108	106	110
27	SP	Hyd.	Hyd.	234	244	303	313	.325	.339	.488	.509	112	107	117
28	CP	Hyd.	Hyd.	244	244	312	312	.289	.289	.434	.434	108	107	109
29	CP	Hyd.	Hyd.	246	246	302	302	.339	.339	.509	.509	109	106	112
30	CP	.030	.030	246	246	280	280	.334	.334	.501	.501	108	106	110

Performance Camshaft Specifications by Application

Line No.	Valve Event Timing @ .050 Lift				Camshaft Part No.	Lifter/Cam Follower No.		Cam & Lifter Kit No.	
	Int.Open	Int. Close	Exh.Open	Exh. Close		Stock	Perf.	w/Stock Lifter	w/Perf. Lifter
AMC / Jeep L6 199-232-242-258, 1964-90									
1	6° ATC	34° ABC	38° BBC	10° BTC	229-2174	213-1679	N / A	K816	N / A
AMC / Jeep V8 290-304-343-360-390-401, 1966-89									
1	3° ATC	27° ABC	44° BBC	8° BTC	229-1786	213-1679	213-1705	K2016	N / A
2	4° BTC	34° ABC	44° BBC	6° BTC	229-1972	213-1679	213-1705	K2037	K2037R
BUICK V6 181-196-231-252, 1977-87 (Even Fire W/Integral Distributor Drive Gear)									
1	12° ATC	26° ABC	41° BBC	17° BTC	229-1731	213-1685	N / A	K2030	N / A
2	10° ATC	34° ABC	39° BBC	5° BTC	229-2020	213-1685	N / A	K2017	N / A
CHEVROLET L6 194-230-250, 1962-84									
1	8° ATC	22° ABC	37° BBC	13° BTC	229-1878	213-1638	213-1683	K2065	N / A
2	1° ATC	45° ABC	35° BBC	9° ATC	229-2135	N / A	213-1683	N / A	K1032R
CHEVROLET TRK. L6 292, 1963-90									
1	8° ATC	22° ABC	37° BBC	13° BTC	229-1876	213-1638	213-1683	K2066	N / A
CHEVROLET V6 173 (2.8L), 191 (3.1L), 1980-94									
1	5° ATC	29° ABC	44° BBC	10° BTC	229-1784	213-1724	N / A	K2036	N / A
CHEVROLET V6 200-229, 1978-84									
1	10° ATC	24° ABC	39° BBC	15° BTC	229-1736	213-1638	213-1683	K2035	N / A
CHEVROLET V6 262 (4.3L), W/O Balance Shaft, 1987-94									
1	7° ATC	29° ABC	41° BBC	8° BTC	229-1881	213-1738	N / A	K153	N / A
2	2° ATC	32° ABC	44° BBC	10° BTC	229-2355	213-1738	N / A	K1702	N / A
CHEVROLET V8 262-265-267-283-302-305-307-327-350-400, 1957-94									
1	12° ATC	16° ABC	21° BBC	7° BTC	229-2199	213-1638	213-1683	K1519	N / A
2	14° ATC	24° ABC	36° BBC	14° BTC	229-2224	213-1638	213-1683	K1672	N / A
3	10° ATC	24° ABC	39° BBC	15° BTC	229-2156	213-1638	213-1683	K2033	N / A
4	7° ATC	21° ABC	26° BBC	2° BTC	229-2200	213-1638	213-1683	K1520	N / A
5	10° ATC	24° ABC	44° BBC	10° BTC	229-2360	213-1638	213-1683	K1673	N / A
6	14° ATC	36° ABC	37° BBC	11° BTC	229-1871	213-1638	213-1683	K840	N / A
7	5° ATC	29° ABC	44° BBC	10° BTC	229-1730	213-1638	213-1683	K2019	N / A
8	8° ATC	32° ABC	37° BBC	3° BTC	229-2201	213-1638	213-1683	K1521	N / A
9	2° ATC	30° ABC	40° BBC	12° BTC	229-2141	213-1638	213-1683	K1674	N / A
10	3° ATC	31° ABC	37° BBC	9° BTC	229-2202	213-1638	213-1683	K2050	N / A
11	3° ATC	32° ABC	45° BBC	9° BTC	229-2203	213-1638	213-1683	K1517	N / A
12	2° BTC	32° ABC	42° BBC	8° BTC	229-1987	213-1638	213-1683	K2038	N / A
13	0° TDC	34° ABC	49° BBC	5° BTC	229-1988	213-1638	213-1683	K2051	K2051R
14	7° BTC	27° ABC	56° BBC	12° BTC	229-2205	213-1638	213-1683	K1675	N / A
15	1° BTC	35° ABC	51° BBC	3° BTC	229-2296	213-1638	213-1683	K1518	N / A
16	4° BTC	34° ABC	44° BBC	6° BTC	229-1989	213-1638	213-1683	K2039	K2039R
17	1° BTC	37° ABC	41° BBC	3° BTC	229-2225	213-1638	213-1683	K1676	N / A
18	1° BTC	42° ABC	49° BBC	6° BTC	229-1713	213-1638	213-1683	K1137	K1137R
19	5° BTC	39° ABC	49° BBC	5° BTC	229-1991	213-1638	213-1683	K1677	K1677R
20	3° ATC	47° ABC	46° BBC	2° BTC	229-1990	213-1638	213-1683	K2061	N / A
21	5° BTC	39° ABC	41° BBC	3° ATC	229-2290	213-1638	213-1683	K1016	K1016R
22	7° BTC	37° ABC	51° BBC	1° BTC	229-2370	213-1638	213-1683	N / A	N / A
23	1° ATC	40° ABC	53° BBC	4° BTC	229-1998	213-1692	N / A	K2076	N / A
24	3° BTC	47° ABC	51° BBC	1° BTC	229-1615	213-1638	213-1683	K1211	N / A
25	10° BTC	42° ABC	46° BBC	6° ATC	229-1993	213-1638	213-1683	N / A	K1261R
26	10° BTC	42° ABC	47° BBC	7° ATC	229-1994	213-1638	213-1683	K1678	K1678R
27	10° BTC	44° ABC	59° BBC	5° ATC	229-1995	213-1638	213-1683	K2075	N / A
28	15° BTC	49° ABC	51° BBC	13° ATC	229-2120	213-1638	213-1683	K1017	K1017R
29	17° BTC	49° ABC	55° BBC	11° ATC	229-1996	213-1638	213-1683	N / A	K1247R
30	17° BTC	49° ABC	53° BBC	13° ATC	229-2289	213-1692	N / A	K1262	N / A

* Kit Contains Camshaft and Cam Followers

** Kit Contains Camshaft, Lifters and Cam Followers

Performance Camshaft Specifications by Application

Line No.	Perf. Code	Valve Lash		.050 Duration		SAE Duration		Cam Lift		Gross Valve Lift		Lobe C/L	Lobe Centers	
		Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.		Int.	Exh.
CHEVROLET V8 262-265-267-283-302-305-307-327-350-400, 1957-94 (Cont.)														
31	CP	.030	.030	254	254	294	294	.323	.323	.485	.485	114	110	118
32	CP	.022	.024	257	270	304	320	.329	.341	.494	.512	112	108	116
33	CP	.022	.024	262	272	309	318	.341	.357	.512	.536	112	108	116
34	CP	.022	.022	274	274	312	312	.386	.386	.579	.579	110	106	114
35	CP	.030	.030	278	278	319	319	.345	.345	.518	.518	112	107	117
CHEVROLET V8 262-265-267-283-302-305-307-327-350-400, 1957-94 Retro-fit Hyd. Roller - For use in early engine blocks with standard Hydraulic cam.														
1	MPG	Hyd. Roller		198	210	273	288	.290	.308	.435	.462	112	108	116
2	MPG	Hyd. Roller		202	202	275	275	.305	.305	.458	.458	104	100	108
3	P	Hyd. Roller		210	215	288	284	.308	.313	.462	.470	110	106	114
4	SP	Hyd. Roller		230	230	306	306	.320	.320	.480	.480	108	106	110
CHEVROLET V8 305-350, 1987-02 (Originally Equipped with Hyd. Roller Lifters) These camshafts have a stepped front end for thrust plate, 300" long dowel pin and no .500" Dia. hole in front.														
1	MPG	Hyd. Roller		197	206	261	276	.289	.300	.434	.450	109.5	105	114
2	MPG	Hyd. Roller		198	210	273	288	.290	.308	.435	.462	112	108	116
3	P	Hyd. Roller		210	215	288	284	.308	.313	.462	.470	110	106	114
4	P	Hyd. Roller		220	224	283	287	.330	.335	.495	.503	110	107	113
5	P	Hyd. Roller		222	232	297	307	.319	.334	.479	.501	114	109	119
6	SP	Hyd. Roller		230	230	306	306	.320	.320	.480	.480	108	106	110
CHEVROLET V8 350 "LS1", 1998-00 These camshafts have a stepped front end for thrust plate, 300" long dowel pin and a .500" Dia. hole in front.														
1	MPG	Hyd. Roller		223	223	291	291	.333	.333	.566	.566	114	110	118
CHEVROLET V8 350 "LT1", 1994-97 (Originally Equipped with Hyd. Roller Lifters) These camshafts have a stepped front end for thrust plate, 620" long dowel pin and a .500" Dia. hole in front.														
1	MPG	Hyd. Roller		198	210	273	288	.290	.308	.435	.462	112	108	116
2	P	Hyd. Roller		210	215	288	284	.308	.313	.462	.470	110	106	114
3	SP	Hyd. Roller		230	230	306	306	.320	.320	.480	.480	108	106	110
CHEVROLET V8 454 -VIN "J", 1996-00 (Originally Equipped with Hyd. Roller Lifters)														
1	P	Hyd. Roller		216	228	288	300	.295	.300	.501	.510	112	108	116
2	P	Hyd. Roller		224	234	296	308	.310	.320	.527	.544	110	106	114
3	SP	Hyd. Roller		236	246	316	324	.330	.340	.561	.578	110	106	114
CHEVROLET V8 366 (Chain Drive)-396-402-427-454 -Exc. VIN "J", 1967-96														
1	MPG	Hyd.	Hyd.	190	202	261	272	.258	.273	.439	.464	110	106	114
2	MPG	Hyd.	Hyd.	204	214	282	292	.281	.296	.478	.503	112	108	116
3	P	Hyd.	Hyd.	214	214	293	293	.296	.296	.503	.503	114	109	119
4	P	Hyd.	Hyd.	214	224	292	302	.296	.311	.503	.529	112	108	116
5	P	Hyd.	Hyd.	218	218	296	296	.303	.303	.516	.516	110	105	115
6	P	Hyd.	Hyd.	218	228	277	287	.295	.295	.502	.501	114	109	119
7	P	Hyd.	Hyd.	222	235	310	325	.294	.297	.500	.505	115	110	120
8	P	Hyd.	Hyd.	224	234	302	308	.311	.325	.529	.553	114	110	118
9	SP	Hyd.	Hyd.	231	231	290	290	.320	.320	.544	.544	109	107	111
10	SP	Hyd.	Hyd.	240	246	305	311	.329	.337	.559	.572	112	110	114
11	CP	Hyd.	Hyd.	246	246	304	304	.339	.339	.576	.576	110	106	114
12	CP	.020	.024	242	242	310	297	.306	.306	.520	.520	114	108	120
CHEVROLET V8 366 (Chain Drive)-396-402-427-454 -Exc. VIN "J", 1967-96 Retro-fit Hyd. Roller - For use in early engine blocks with standard Hydraulic cam.														
1	P	Hyd. Roller		216	228	288	300	.295	.300	.502	.510	112	108	116
2	P	Hyd. Roller		224	234	296	308	.310	.320	.527	.544	112	114	110

Performance Camshaft Specifications by Application

Line No.	Valve Event Timing @ .050 Lift				Camshaft Part No.	Lifter/Cam Follower No.		Cam & Lifter Kit No.	
	Int.Open	Int. Close	Exh.Open	Exh. Close		Stock	Perf.	w/Stock Lifter	w/Perf. Lifter
CHEVROLET V8 262-265-267-283-302-305-307-327-350-400, 1957-94 (Cont.)									
31	16° BTC	58° ABC	64° BBC	10° ATC	229-1612	213-1692	N / A	K1023	N / A
32	19° BTC	58° ABC	70° BBC	20° ATC	229-1622	213-1692	N / A	K591	N / A
33	23° BTC	59° ABC	69° BBC	24° ATC	229-2294	213-1692	N / A	K1090	N / A
34	31° BTC	63° ABC	71° BBC	23° ATC	229-2291	213-1692	N / A	K1246	N / A
35	29° BTC	69° ABC	73° BBC	25° ATC	229-2297	213-1692	N / A	K1018	N / A
CHEVROLET V8 262-265-267-283-302-305-307-327-350-400, 1957-94									
Retro-fit Hyd. Roller - For use in early engine blocks with standard Hydraulic cam.									
1	9° ATC	27° ABC	41° BBC	11° BTC	229-2400	N / A	213-1789	N / A	N / A
2	1° BTC	21° ABC	29° BBC	7° BTC	229-2403	N / A	213-1789	N / A	N / A
3	1° ATC	31° ABC	41° BBC	6° BTC	229-2401	N / A	213-1789	N / A	N / A
4	9° BTC	41° ABC	45° BBC	5° ATC	229-2402	N / A	213-1789	N / A	N / A
Note: Part No. 213-1789 consists of a pair of lifters and link bar. Above Camshafts also require the use of Part Nos. 215-4353 (Int. & Exh.) Pushrods and Part No. 9-200CB (.925" Length) or Part No. 9-202CB (.642" length) Cam Button. The use of Part No. 9-201WP Thrust Plate is recommended, but not required.									
CHEVROLET V8 305-350, 1987-02 (Originally Equipped with Hyd. Roller Lifters)									
These camshafts have a stepped front end for thrust plate, 300" long dowel pin and no .500" Dia. hole in front.									
1	8° ATC	25° ABC	36° BBC	10° BTC	229-2351	213-1738	213-1779	N / A	N / A
2	9° ATC	27° ABC	41° BBC	11° BTC	229-2389	213-1738	213-1779	N / A	N / A
3	1° ATC	31° ABC	41° BBC	6° BTC	229-2390	213-1738	213-1779	N / A	N / A
4	3° BTC	37° ABC	45° BBC	1° BTC	229-2366	213-1738	213-1779	N / A	N / A
5	2° BTC	40° ABC	55° BBC	3° BTC	229-2391	213-1738	213-1779	N / A	N / A
6	9° BTC	41° ABC	45° BBC	5° ATC	229-2392	213-1738	213-1779	N / A	N / A
CHEVROLET V8 350 "LS1", 1998-00									
These camshafts have a stepped front end for thrust plate, 300" long dowel pin and a .500" Dia. hole in front.									
1	1° BTC	42° ABC	49° BBC	6° BTC	229-2367	213-1738	213-1779	N / A	N / A
CHEVROLET V8 350 "LT1", 1994-97 (Originally Equipped with Hyd. Roller Lifters)									
These camshafts have a stepped front end for thrust plate, 620" long dowel pin and a .500" Dia. hole in front.									
1	9° ATC	27° ABC	41° BBC	11° BTC	229-2393	213-1738	213-1779	N / A	N / A
2	1° ATC	31° ABC	41° BBC	6° BTC	229-2394	213-1738	213-1779	N / A	N / A
3	9° BTC	41° ABC	45° BBC	5° ATC	229-2395	213-1738	213-1779	N / A	N / A
CHEVROLET V8 454 -VIN "J", 1996-00 (Originally Equipped with Hyd. Roller Lifters)									
1	0° TDC	36° ABC	50° BBC	2° BTC	229-2396	213-1777	N / A	N / A	N / A
2	6° BTC	38° ABC	51° BBC	3° ATC	229-2397	213-1777	N / A	N / A	N / A
3	12° BTC	44° ABC	57° BBC	9° ATC	229-2398	213-1777	N / A	N / A	N / A
CHEVROLET V8 366 (Chain Drive)-396-402-427-454 -Exc. VIN "J", 1967-96									
1	12° ATC	22° ABC	35° BBC	13° BTC	229-2136	213-1638	213-1683	K1679	N / A
2	6° ATC	30° ABC	43° BBC	9° BTC	229-2004	213-1638	213-1683	K2020	N / A
3	2° ATC	36° ABC	46° BBC	12° BTC	229-2006	213-1638	213-1683	K2052	N / A
4	1° ATC	35° ABC	48° BBC	4° BTC	229-1737	213-1638	213-1683	K2034	K2034R
5	4° BTC	34° ABC	44° BBC	6° BTC	229-2007	213-1638	213-1683	K2040	K2040R
6	0° TDC	38° ABC	53° BBC	5° BTC	229-2356	213-1638	213-1683	K1681	N / A
7	0° TDC	42° ABC	57° BBC	2° BTC	229-1636	213-1638	213-1683	K1065	N / A
8	2° BTC	42° ABC	55° BBC	1° BTC	229-2305	213-1638	213-1683	K2077	N / A
9	8° BTC	43° ABC	46° BBC	5° ATC	229-2011	213-1638	213-1683	N / A	K2002R
10	10° BTC	50° ABC	57° BBC	9° ATC	229-2357	213-1638	213-1683	K1682	N / A
11	13° BTC	53° ABC	57° BBC	9° ATC	229-2301	213-1638	213-1683	K1287	K1287R
12	12° BTC	50° ABC	60° BBC	2° ATC	229-1614	213-1692	N / A	K1138	N / A
CHEVROLET V8 366 (Chain Drive)-396-402-427-454 -Exc. VIN "J", 1967-96									
Retro-fit Hyd. Roller - For use in early engine blocks with standard Hydraulic cam.									
1	0° TDC	36° ABC	50° BBC	2° BTC	229-2404	N / A	213-1790	N / A	N / A
2	6° BTC	38° ABC	51° BBC	3° ATC	229-2405	N / A	213-1790	N / A	N / A

* Kit Contains Camshaft and Cam Followers

** Kit Contains Camshaft, Lifters and Cam Followers

Performance Camshaft Specifications by Application

Line No.	Perf. Code	Valve Lash		.050 Duration		SAE Duration		Cam Lift		Gross Valve Lift		Lobe C/L	Lobe Centers	
		Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.		Int.	Exh.
CHEVROLET V8 366 (Chain Drive)-396-402-427-454 -Exc. VIN "J", 1967-96 (Cont.) Retro-fit Hyd. Roller - For use in early engine blocks with standard Hydraulic cam.														
3	SP	Hyd.	Roller	236	246	316	324	.330	.340	.561	.578	112	114	110
4	SP	Hyd.	Roller	237	245	335	329	.368	.376	.626	.639	112	109	115
5	CP	Hyd.	Roller	241	246	305	310	.330	.340	.560	.570	112	110	114
CHRYSLER OHC-4 135 (2.2L), 153 (2.5L) 1981-87														
1	MPG	Hyd.	Hyd.	206	220	258	274	.243	.243	.430	.430	110	110	110
2	MPG	Hyd.	Hyd.	206	220	258	274	.243	.243	.430	.430	110	110	110
3	P	Hyd.	Hyd.	215	223	266	274	.258	.258	.457	.457	110	110	110
4	P	Hyd.	Hyd.	215	223	266	274	.258	.258	.457	.457	110	110	110
CHRYSLER V8 273-318-340-360, 1967-89														
1	MPG	Hyd.	Hyd.	204	214	278	288	.281	.296	.422	.444	112	108	116
2	MPG	Hyd.	Hyd.	208	208	280	280	.280	.280	.420	.420	111	107	115
3	P	Hyd.	Hyd.	214	224	288	298	.296	.311	.444	.467	112	108	116
4	SP	Hyd.	Hyd.	226	226	304	304	.302	.302	.453	.453	108	106	110
5	SP	Hyd.	Hyd.	232	242	320	330	.300	.317	.450	.476	112	107	117
CHRYSLER V8 350-361-383-400-413-426 (Exc. Hemi)-440, 1958-78														
1	MPG	Hyd.	Hyd.	204	214	278	288	.281	.296	.422	.444	112	107	117
2	MPG	Hyd.	Hyd.	208	208	280	280	.280	.280	.420	.420	111	108	114
3	P	Hyd.	Hyd.	214	224	288	298	.296	.311	.444	.467	112	107	117
4	P	Hyd.	Hyd.	218	218	310	313	.296	.297	.444	.445	112	107	117
5	P	Hyd.	Hyd.	224	234	298	308	.310	.325	.465	.488	112	107	117
6	SP	Hyd.	Hyd.	236	236	302	302	.320	.320	.480	.480	108	108	108
7	CP	Hyd.	Hyd.	242	242	330	330	.317	.317	.476	.476	112	106	118
FORD OHC-4 122 (2.0L), 140 (2.3L), 1974-90														
1	P	Hyd.	Hyd.	220	220	282	282	.270	.270	.454	.454	112	108	116
2	P	Hyd.	Hyd.	220	220	282	282	.270	.270	.454	.454	112	108	116
3	SP	Hyd.	Hyd.	230	230	292	292	.285	.285	.479	.479	112	108	116
4	SP	Hyd.	Hyd.	230	230	292	292	.285	.285	.479	.479	112	108	116
5	SP	Hyd.	Hyd.	240	240	300	300	.300	.300	.504	.504	112	108	116
6	SP	Hyd.	Hyd.	240	240	300	300	.300	.300	.504	.504	112	108	116
FORD TRUCK L6 240-300, 1965-1995														
1	MPG	Hyd.	Hyd.	204	214	280	290	.281	.296	.450	.474	110	106	114
2	P	Hyd.	Hyd.	218	228	294	304	.305	.319	.491	.514	112	107	117
FORD V8 221-255-260-289-302, 1962-1989														
1	MPG	Hyd.	Hyd.	190	202	258	271	.258	.273	.413	.437	110	105	115
2	MPG	Hyd.	Hyd.	204	214	280	289	.281	.296	.450	.474	112	108	116
3	P	Hyd.	Hyd.	208	208	282	282	.280	.280	.448	.448	111	107	115
4	P	Hyd.	Hyd.	214	224	288	300	.296	.311	.474	.498	112	108	116
5	P	Hyd.	Hyd.	218	218	297	297	.286	.286	.458	.458	113	106	120
6	P	Hyd.	Hyd.	218	218	294	294	.305	.305	.488	.488	110	105	115
7	P	Hyd.	Hyd.	224	224	304	304	.291	.291	.466	.466	110	106	114

Performance Camshaft Specifications by Application

Line No.	Valve Event Timing @ .050 Lift				Camshaft Part No.	Lifter/Cam Follower No.		Cam & Lifter Kit No.	
	Int.Open	Int. Close	Exh.Open	Exh. Close		Stock	Perf.	w/Stock Lifter	w/Perf. Lifter
CHEVROLET V8 366 (Chain Drive)-396-402-427-454 -Exc. VIN "J", 1967-96 (Cont.)									
Retro-fit Hyd. Roller - For use in early engine blocks with standard Hydraulic cam.									
3	12° BTC	44° ABC	57° BBC	9° ATC	229-2406	N / A	213-1790	N / A	N / A
4	6° BTC	51° ABC	54° BBC	11° ATC	229-2368	N / A	213-1790	N / A	N / A
5	12° BTC	49° ABC	57° BBC	9° ATC	229-2369	N / A	213-1790	N / A	N / A
Note: Part No. 213-1790 consists of a pair of lifters and link bar. Above Camshafts also require the use of Part Nos. 215-4246 (Int.) & 215-4098 (Exh.) Pushrods and Part No. 9-200CB (.925" Length) or Part No. 9-202CB (.642" length) Cam Button. The use of Part No. 9-203WP Thrust Plate is recommended, but not required.									
CHRYSLER OHC-4 135 (2.2L), 153 (2.5L) 1981-87									
1	2° BTC	24° ABC	49° BBC	9° BTC	229-1915	213-1722 / 214-2113	N / A	K2088 *	N / A
2	2° BTC	24° ABC	49° BBC	9° BTC	229-1915	213-1722 / 214-2113	N / A	K2088 **	N / A
3	7° BTC	28° ABC	51° BBC	8° BTC	229-2302	213-1722 / 214-2113	N / A	K2089 *	N / A
4	7° BTC	28° ABC	51° BBC	8° BTC	229-2302	213-1722 / 214-2113	N / A	K2089 **	N / A
CHRYSLER V8 273-318-340-360, 1967-89									
1	6° ATC	30° ABC	43° BBC	9° BTC	229-1735	213-1679	213-1705	K2031	N / A
2	3° ATC	31° ABC	39° BBC	11° BTC	229-2021	213-1679	213-1705	K2021	N / A
3	1° BTC	35° ABC	48° BBC	4° ATC	229-2023	213-1679	213-1705	K2053	K2053R
4	7° BTC	39° ABC	43° BBC	3° ATC	229-2300	213-1679	213-1705	K1177	N / A
5	9° BTC	43° ABC	58° BBC	4° ATC	229-1653	213-1679	213-1705	K1683	N / A
CHRYSLER V8 350-361-383-400-413-426 (Exc. Hemi)-440, 1958-78									
1	5° ATC	29° ABC	44° BBC	10° BTC	229-1787	213-1686	N / A	K2022	N / A
2	4° ATC	32° ABC	38° BBC	10° BTC	229-2157	213-1686	N / A	K1684	N / A
3	0° TDC	34° ABC	49° BBC	5° ATC	229-2032	213-1686	N / A	K1685	N / A
4	2° ATC	36° ABC	46° BBC	8° BTC	229-1629	213-1686	N / A	K1686	N / A
5	5° BTC	39° ABC	54° BBC	0° TDC	229-2034	213-1686	N / A	K2079	N / A
6	10° BTC	46° ABC	46° BBC	10° ATC	229-2313	213-1686	N / A	K1094	N / A
7	15° BTC	47° ABC	59° BBC	3° ATC	229-2036	213-1686	N / A	K1687	N / A
FORD OHC-4 122 (2.0L), 140 (2.3L), 1974-90									
1	1° BTC	39° ABC	45° BBC	5° BTC	229-2046	213-1703 / 214-2084	N / A	K2090 *	N / A
2	1° BTC	39° ABC	45° BBC	5° BTC	229-2046	213-1703 / 214-2084	N / A	K2090A **	N / A
3	6° BTC	44° ABC	50° BBC	0° TDC	229-2047	213-1703 / 214-2084	N / A	K2091 *	N / A
4	6° BTC	44° ABC	50° BBC	0° TDC	229-2047	213-1703 / 214-2084	N / A	K2091A **	N / A
5	11° BTC	49° ABC	55° BBC	5° ATC	229-2048	213-1703 / 214-2084	N / A	K2092 *	N / A
6	11° BTC	49° ABC	55° BBC	5° ATC	229-2048	213-1703 / 214-2084	N / A	K2092A **	N / A
FORD TRUCK L6 240-300, 1965-1995									
1	4° ATC	28° ABC	41° BBC	7° BTC	229-1964	213-1667	213-1682	K2080	N / A
2	2° BTC	36° ABC	51° BBC	3° ATC	229-1965	213-1667	213-1682	K2081	N / A
FORD V8 221-255-260-289-302, 1962-1989									
1	12° ATC	22° ABC	35° BBC	13° BTC	229-2055	213-1667	213-1682	K2042	N / A
2	6° ATC	30° ABC	43° BBC	9° BTC	229-1734	213-1667	213-1682	K2023	N / A
3	3° ATC	31° ABC	39° BBC	11° BTC	229-2056	213-1667	213-1682	K1690	N / A
4	1° ATC	35° ABC	48° BBC	4° BTC	229-2057	213-1667	213-1682	K2054	K2054R
5	3° BTC	35° ABC	49° BBC	11° BTC	229-1617	213-1667	213-1682	N / A	K2000R
6	4° BTC	34° ABC	44° BBC	6° BTC	229-2058	213-1667	213-1682	N / A	K2043R
7	4° BTC	38° ABC	46° BBC	2° BTC	229-2138	213-1667	213-1682	K1028	N / A

* Kit Contains Camshaft and Cam Followers

** Kit Contains Camshaft, Lifters and Cam Followers

Performance Camshaft Specifications by Application

Line No.	Perf. Code	Valve Lash		.050 Duration		SAE Duration		Cam Lift		Gross Valve Lift		Lobe C/L	Lobe Centers	
		Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.		Int.	Exh.
FORD V8 221-255-260-289-302, 1962-1989 (Cont.)														
8	SP	Hyd.	Hyd.	231	231	288	288	.320	.320	.512	.512	110	106	114
9	SP	.018	.018	228	228	273	273	.298	.298	.477	.477	114	108	120
10	CP	.020	.020	251	252	299	300	.330	.330	.528	.528	107	102	112
FORD V8 302 (5.0L) H.O., 1985-00, 351W (5.7L), 1994-97 Firing Order 1-3-7-2-6-5-4-8														
1	P	Hyd. Roller		212	222	289	300	.307	.318	.491	.509	112	107	117
2	P	Hyd. Roller		219	219	285	285	.311	.311	.498	.498	110	110	110
3	P	Hyd. Roller		220	223	286	292	.320	.320	.512	.512	112	109	115
4	P	Hyd. Roller		222	232	300	309	.318	.332	.509	.532	112	107	117
FORD V8 302 (5.0L) H.O., 351W (5.8L), 1969-94														
1	MPG	Hyd.	Hyd.	194	204	272	280	.265	.281	.424	.449	110	105	115
2	MPG	Hyd.	Hyd.	204	214	280	290	.281	.296	.450	.474	112	107	117
3	P	Hyd.	Hyd.	214	224	289	300	.296	.311	.473	.497	112	107	117
FORD V8 302 (5.0L) Non H.O., 1985-93 Firing Order 1-5-4-2-6-3-7-8														
1	SP	Hyd. Roller		227	234	298	302	.325	.325	.520	.520	112	107	117
FORD V8 351C-351M-400, 1970-82														
1	MPG	Hyd.	Hyd.	194	204	273	282	.265	.281	.458	.486	110	105	115
2	MPG	Hyd.	Hyd.	204	214	282	292	.281	.296	.486	.512	112	106	118
3	MPG	Hyd.	Hyd.	208	208	284	284	.280	.280	.484	.484	111	107	115
4	P	Hyd.	Hyd.	214	224	292	302	.296	.311	.512	.538	112	107	117
5	P	Hyd.	Hyd.	219	219	310	310	.292	.292	.505	.505	114	108	120
6	P	Hyd.	Hyd.	224	234	302	308	.311	.325	.538	.562	112	107	117
7	P	Hyd.	Hyd.	224	233	308	314	.291	.293	.503	.507	108	104	112
FORD V8 330-352-359-360-361-389-390-391-410-427-428, 1963-78														
1	MPG	Hyd.	Hyd.	204	214	282	292	.281	.296	.486	.512	112	107	117
2	P	Hyd.	Hyd.	214	214	292	292	.296	.296	.512	.512	110	105	115
3	P	Hyd.	Hyd.	218	218	296	296	.305	.305	.528	.528	110	105	115
4	P	Hyd.	Hyd.	224	224	315	315	.293	.293	.507	.507	112	109	115
FORD V8 370-429-460, 1968-89														
1	MPG	Hyd.	Hyd.	204	214	282	292	.281	.296	.486	.512	112	107	117
2	P	Hyd.	Hyd.	208	208	284	284	.280	.280	.484	.484	111	105	117
3	P	Hyd.	Hyd.	214	224	292	302	.296	.311	.512	.538	112	107	117
4	SP	Hyd.	Hyd.	234	244	312	322	.325	.340	.569	.595	112	107	117
OLDSMOBILE V8 260 (Type F), 307-350-400-403-425-455, 1965-84														
1	MPG	Hyd.	Hyd.	204	214	280	290	.280	.295	.448	.472	114	106	122
2	MPG	Hyd.	Hyd.	204	214	280	289	.281	.299	.450	.474	112	106	118
3	P	Hyd.	Hyd.	214	224	289	300	.296	.311	.474	.498	112	106	118
4	P	Hyd.	Hyd.	224	234	300	310	.310	.325	.496	.520	112	107	117
5	SP	Hyd.	Hyd.	232	232	329	329	.296	.296	.474	.474	113	107	119
6	CP	Hyd.	Hyd.	244	244	314	314	.297	.297	.475	.475	110	110	110
PONTIAC L4 151 (2.5L), 1979-90														
1	MPG	Hyd.	Hyd.	204	214	282	292	.280	.295	.490	.516	112	107	117
PONTIAC V8 301-316-326-347-350-370-389-400-421-428-455, 1955-81														
1	MPG	Hyd.	Hyd.	204	214	278	288	.281	.296	.422	.444	110	108	116
2	P	Hyd.	Hyd.	214	224	288	298	.296	.311	.444	.467	112	108	116
3	P	Hyd.	Hyd.	224	224	300	300	.291	.291	.437	.437	108	103	113
4	SP	Hyd.	Hyd.	231	231	287	287	.320	.320	.480	.480	110	106	114

Performance Camshaft Specifications by Application

Line No.	Valve Event Timing @ .050 Lift				Camshaft Part No.	Lifter/Cam Follower No.		Cam & Lifter Kit No.	
	Int.Open	Int. Close	Exh.Open	Exh. Close		Stock	Perf.	w/Stock Lifter	w/Perf. Lifter
FORD V8 221-255-260-289-302, 1962-1989 (Cont.)									
8	9° BTC	42° ABC	49° BBC	2° BTC	229-2292	213-1667	213-1682	K1269	K1269R
9	5° BTC	42° ABC	53° BBC	6° BTC	229-1616	213-1694	N / A	K1029	N / A
10	23° BTC	48° ABC	58° BBC	14° ATC	229-1623	213-1694	N / A	K1212	N / A
FORD V8 302 (5.0L) H.O., 1985-00, 351W (5.7L), 1994-97 Firing Order 1-3-7-2-6-5-4-8									
1	3° ATC	35° ABC	49° BBC	7° BTC	229-2358	213-1742	N / A	K1691	N / A
2	0° TDC	39° ABC	40° BBC	1° BTC	229-2216	213-1742	N / A	K1524	N / A
3	1° BTC	39° ABC	46° BBC	3° BTC	229-2377	213-1742	N / A	N / A	N / A
4	5° BTC	37° ABC	55° BBC	3° BTC	229-2359	213-1742	N / A	K1692	N / A
NOTE: On EFI applications, a mass air induction system must be utilized.									
FORD V8 302 (5.0L) H.O., 351W (5.8L), 1969-94									
1	8° ATC	22° ABC	37° BBC	13° BTC	229-2076	213-1667	213-1682	K2046	N / A
2	5° ATC	29° ABC	44° BBC	10° BTC	229-1775	213-1667	213-1682	K2024	N / A
3	0° TDC	34° ABC	49° BBC	5° BTC	229-2077	213-1667	213-1682	K2056	K2056R
FORD V8 302 (5.0L) Non H.O., 1985-93 Firing Order 1-5-4-2-6-3-7-8									
1	6° BTC	41° ABC	54° BBC	0° TDC	229-2378	213-1742	N / A	N / A	N / A
FORD V8 351C-351M-400, 1970-82									
1	8° ATC	22° ABC	37° BBC	13° BTC	229-2069	213-1667	213-1682	K2044	N / A
2	4° ATC	28° ABC	45° BBC	11° BTC	229-1733	213-1667	213-1682	K2025	N / A
3	3° ATC	31° ABC	39° BBC	11° BTC	229-2137	213-1667	213-1682	K1693	N / A
4	1° ATC	33° ABC	50° BBC	6° BTC	229-1884	213-1667	213-1682	K2055	N / A
5	1° BTC	38° ABC	49° BBC	10° BTC	229-2072	213-1667	213-1682	K1694	N / A
6	5° BTC	39° ABC	54° BBC	0° TDC	229-1658	213-1667	213-1682	K1695	K1695R
7	8° BTC	36° ABC	43° BBC	0° TDC	229-2295	213-1667	213-1682	K1192	K1192R
FORD V8 330-352-359-360-361-389-390-391-410-427-428, 1963-78									
1	5° ATC	29° ABC	44° BBC	10° BTC	229-1776	213-1669	N / A	K2026	N / A
2	2° BTC	32° ABC	42° BBC	8° BTC	229-2086	213-1669	N / A	K2047	N / A
3	4° BTC	34° ABC	44° BBC	6° BTC	229-2088	213-1669	N / A	K2048	N / A
4	3° BTC	41° ABC	47° BBC	3° BTC	229-1624	213-1669	N / A	K1026	N / A
FORD V8 370-429-460, 1968-89									
1	5° ATC	29° ABC	44° BBC	10° BTC	229-1732	213-1667	213-1682	K2027	N / A
2	1° ATC	29° ABC	41° BBC	13° BTC	229-2094	213-1667	213-1682	K1696	N / A
3	0° TDC	34° ABC	49° BBC	5° BTC	229-2311	213-1667	213-1682	K1697	N / A
4	10° BTC	44° ABC	59° BBC	5° ATC	229-2098	213-1667	213-1682	K1698	N / A
OLDSMOBILE V8 260 (Type F), 307-350-400-403-425-455, 1965-84									
1	4° ATC	28° ABC	49° BBC	15° BTC	229-1777	213-1674	213-1684	K2074	N / A
2	4° ATC	28° ABC	45° BBC	11° BTC	229-2100	213-1674	213-1684	K2028	N / A
3	1° ATC	33° ABC	50° BBC	6° BTC	229-2101	213-1674	213-1684	K2059	N / A
4	5° BTC	39° ABC	54° BBC	0° TDC	229-2298	213-1674	213-1684	N / A	K2014R
5	9° BTC	43° ABC	55° BBC	3° BTC	229-2104	213-1674	213-1684	K1200	K1200R
6	12° BTC	52° ABC	52° BBC	12° BTC	229-1644	213-1674	213-1684	K1699	K1699R
PONTIAC L4 151 (2.5L), 1979-90									
1	5° ATC	29° ABC	44° BBC	10° BTC	229-1822	213-1719	N / A	K2062	N / A
PONTIAC V8 301-316-326-347-350-370-389-400-421-428-455, 1955-81									
1	6° ATC	30° ABC	43° BBC	9° BTC	229-1778	213-1674	213-1684	K2029	N / A
2	1° ATC	35° ABC	48° BBC	4° BTC	229-1130	213-1674	213-1684	K2060	N / A
3	9° BTC	35° ABC	45° BBC	1° BTC	229-2134	213-1674	213-1684	K1033	N / A
4	9° BTC	42° ABC	49° BBC	2° BTC	229-2108	213-1674	213-1684	K1270	K1270R

* Kit Contains Camshaft and Cam Followers

** Kit Contains Camshaft, Lifters and Cam Followers

Performance Camshaft Specifications by Application

Line No.	Perf. Code	Valve Lash		.050 Duration		SAE Duration		Cam Lift		Gross Valve Lift		Lobe C/L	Lobe Centers	
		Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.		Int.	Exh.
TOYOTA OHC-4 2189 (20R), 2367cc (22R, 22RE), 1975-95														
1	P	Mech.	Mech.	214	224	N / A	N / A	.267	.275	.416	.429	110	105	115
2	P	Mech.	Mech.	224	234	N/A	N/A	.275	.283	.429	.442	110	105	115

Performance Camshaft Specifications by Application

Line No.	Valve Event Timing @ .050 Lift				Camshaft Part No.	Lifter/Cam Follower No.		Cam & Lifter Kit No.	
	Int.Open	Int. Close	Exh.Open	Exh. Close		Stock	Perf.	w/Stock Lifter	w/Perf. Lifter
TOYOTA OHC-4 2189 (20R), 2367cc (22R, 22RE), 1975-95									
1	2° BTC	32° ABC	47° BBC	3° BTC	229-2293	N / A / 214-2097	N / A	N / A	N / A
2	7° BTC	37° ABC	52° BBC	2° ATC	229-2303	N / A / 214-2097	N / A	N / A	N / A

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
213-1614	LV	ST	Ford:221(1932-1942),239(1939-1953),255(1949-1953) FordTrac:120 FordTrk:239(1939-1953)
213-1629	LV	ST	DearbMar:239(1954-1954),256(1954-1954),272(1955-1957),292(1955-1955) Ford:215(1952-1953), 223(1954-1964),239(1954-1954),256(1954-1954),272(1955-1957),292(1955-1962),312(1956-1960) FordInd:134(1953-1976),172(1955-1978),192(1972-1981),223(1954-1964),256(1954-1955),262(1961- 1964),292(1958-1964),172 Diesel(1958-1978),192 Diesel(1972-1981) FordMar:239,256,272,292(1955- 1962),312(1956-1960) FordTrac:172,223,172 Diesel,242 Diesel FordTrk:215(1952-1953),223(1954- 1964),239(1954-1955),256(1954-1955),262(1961-1964),272(1956-1958),292(1958-1964) IntcptMar:256(1954-1954)
213-1635	LV	ST	Chry:270(1955-1956),350(1958-1958),354(1956-1958),361(1958-1966),383(1959-1967),392(1957- 1958),413(1959-1965),426(1963-1965),440(1966-1967) ChryInd:259,315,331,361,383,413 ChryMar:331,361,413,426,440 DodTrk:241(1954-1954),259(1955-1956),270(1955-1956),315(1957- 1958),331(1954-1956),354(1957-1959),361(1960-1968),383(1967-1968),413(1960-1968)
213-1638	LV	ST	Checker:229(1980-1980),230(1964-1968),250(1969-1979),267(1980-1980),283(1965-1967),305(1978- 1980),307(1968-1969),327(1965-1969),350(1969-1979) ChrisCft:153,181,262,283,305,307,327,350,454 GMC:112(1982-1982),140(1960-1961),145(1961-1963),153(1962-1970),164(1964-1969),194(1962- 1966),200(1978-1979),215(1964-1965),229(1980-1984),230(1964-1970),250(1966-1979),262(1975- 1986),265(1955-1957),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968- 1973),327(1962-1969),348(1958-1961),350(1967-1986),396(1965-1971),400(1970-1976),402(1970- 1972),409(1961-1965),427(1967-1969),454(1970-1976) GMC Trk.:145(1961-1963),153(1963-1965), 164(1964-1964),194(1964-1966),200(1978-1979),229(1980-1984),230(1963-1969),250(1966-1984), 262(1985-1986),265(1955-1957),267(1979-1981),283(1957-1967),292(1963-1980),305(1976-1995), 307(1968-1973),327(1962-1969),348(1958-1965),350(1969-1996),366(1966-1990),396(1966-1971), 400(1974-1980),402(1970-1972),409(1962-1965),427(1968-1990),454(1970-1990) HardMar:181,305, 454 IsuTrk:350(1993-1995) MarPow:305,307,350(1969-1995),454(1969-1995) MercMar:153,181,229, 230,250,262,283,292,305,327,350,427,454(1988-1994) OMC:153,181,229,250,262,283,305,307,350, 454 PanJetMar:454 StksMar:250 Stud:194(1965-1966),230(1966-1966),283(1965-1966) ThermElec:153,230,262,283,292,305,307,327,348,350,409,427,454 VolPen:305,350
213-1646	LV	ST	GMC:350(1968-1969),365(1957-1958),390(1959-1963),400(1967-1969),429(1964-1966),430(1967- 1969) Jeep:350(1968-1969)
213-1649	HV	ST	Intlnd:263,264 IntTrac:175,200,221,263,264,282,291,301,166 Diesel,188 Diesel,236 Diesel,301 Diesel,414 Diesel,436 Diesel,466 Diesel NavInt:220(1950-1968),240(1950-1969),241(1963-1969), 264(1955-1969),265(1955-1969),269(1955-1956),282(1953-1962),308(1955-1969),301 Diesel(1960-1978),466 Diesel(1975-1987) PalMar:240(1950-1969),264(1955-1969),308(1955-1969)
213-1650	LV	ST	NavInt:152(1961-1968),196(1966-1980),266(1959-1972),304(1959-1980),345(1959-1982),392(1969- 1982) PalMar:196(1966-1980),304(1959-1980),345(1959-1982),392(1968-1982)
213-1656	LV	ST	ChrisCft:427 DearbMar:144(1960-1964),170(1961-1962),390(1961-1971),427(1960-1964) Ford:144(1960-1962),159(1972-1973),170(1961-1962),171(1974-1979),332(1958-1959),352(1958- 1966),390(1961-1971),406(1962-1963),410(1966-1967),427(1963-1968),428(1966-1970) FordInd:144(1960-1964),279(1952-1955),332(1956-1963),401(1958-1976),477(1958-1981),534(1958- 1981) FordMar:144(1960-1962),170(1961-1962),352(1960-1962),390(1961-1971),427(1966-1969), 534(1958-1981) FordTrk:144(1960-1964),170(1961-1972),171(1983-1986),279(1953-1955),302(1956- 1963),317(1953-1955),332(1956-1963),390(1967-1969),401(1958-1975),475(1973-1979),477(1958- 1981),534(1958-1981) IntcptMar:144(1960-1962),170(1961-1962) Seamstr:534 ThermElec:144(1960- 1962),170(1961-1962)
213-1662	LV	ST	AMC:327(1957-1960) Chry:318(1967-1967),326(1959-1959) DodTrk:318(1959-1968) Pack:374(1956-1956)
213-1664	LV	ST	ChrisCft:225 GMC:198(1962-1963),215(1961-1963),225(1964-1967),300(1964-1967),322(1956-1956), 340(1966-1967),364(1957-1961),401(1959-1966),425(1963-1966) GMC Trk.:322(1956-1959) Jeep:225(1966-1971) OMC:225,300(1964-1967) PalMar:215(1961-1963) StksMar:225 ThermElec:225
213-1667	LV	ST	CommMar:302(1968-1992),351(1969-1994),460(1973-1994) DearbMar:289,302,351 Ford:140(1984-1994),153(1986-1990),183(1986-1992),221(1962-1963),232(1982-1988),240(1965- 1972),255(1980-1982),260(1962-1965),289(1963-1968),302(1968-1985),351(1969-1991),400(1971- 1979),429(1968-1973),460(1968-1978) FordInd:240(1965-1974),300(1965-1993),302(1968-1993), 351(1969-1992),370(1979-1991),429(1979-1993),460(1973-1993) FordMar:221,240,260,289(1968- 1978),300,302(1968-1978),351(1970-1974),429(1968-1973),460(1968-1978) FordTrk:183(1986-1991), 232(1982-1983),240(1965-1974),255(1981-1982),289(1966-1968),300(1965-1996),302(1969-1992), 351(1969-1996),370(1979-1991),400(1972-1982),429(1970-1997),460(1973-1997) HardMar:460 HolMdyMar:302(1968-1978),351(1968-1978),460(1968-1978) IntcptMar:221(1962-1963),260(1962- 1965) JacMar:460(1968-1978) MercMar:302,351 OMC:302,351 OscoMar:300(1965-1994),302(1965- 1994),351(1965-1994) PalMar:302,351 PanJetMar:460 ThermElec:302,351 VolPen:302,351
213-1669	LV	ST	ChrisCft:427 DearbMar:144(1963-1964),170(1963-1972),390(1961-1971),427(1963-1964) Ford:144(1963-1964),170(1963-1972),200(1963-1983),250(1969-1980),332(1958-1959),352(1958- 1966),361(1958-1959),390(1961-1971),410(1966-1967),427(1968-1968),428(1966-1970),430(1958- 1965),462(1966-1968),2900(1988-1989) FordInd:200(1965-1974),332(1958-1959),361(1964-1978), 391(1964-1978),428(1964-1978) FordMar:144(1963-1964),170(1963-1972),200(1964-1983),250(1969- 1980),352(1958-1966),361(1958-1959),390(1961-1971),427(1966-1969) FordTrk:177(1986-1992), 200(1965-1974),250(1969-1974),330(1964-1978),352(1965-1967),359(1974-1975),360(1968-1976), 361(1964-1978),389(1975-1978),390(1968-1976),391(1964-1974),428(1969-1969) IntcptMar:144(1963- 1964),170(1963-1972),200(1964-1983) ThermElec:144(1963-1964),170(1963-1972),390(1961-1971)

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
213-1674	LV	ST	BarrMar:403(1977-1979),455(1968-1976) Berk:350(1968-1980),455(1968-1976) GMC:195(1961-1963),260(1975-1982),307(1980-1985),326(1964-1967),330(1964-1967),350(1968-1980),370(1958-1958),389(1959-1966),400(1965-1979),403(1977-1979),421(1963-1966),425(1965-1967),428(1967-1969),455(1968-1976) GMC Trk.:317(1956-1956),336(1958-1959),347(1957-1957) HardMar:350,403 JacMar:455(1968-1976) OldsMar:350(1968-1980),403(1977-1979),455(1968-1976) OscoMar:455(1968-1976) PanJetMar:350(1968-1980),403(1968-1980) StksMar:455
213-1675	LV	ST	AMC:250(1958-1961) Chry:170(1960-1969),198(1970-1974),225(1960-1980),273(1964-1969),277(1956-1957),318(1957-1988),326(1959-1959),340(1968-1973),360(1971-1980),361(1958-1966),383(1959-1971),400(1972-1978),413(1959-1965),426(1963-1965),440(1966-1978) ChryInd:318 ChryMar:170,198,225,318 DodTrk:170(1963-1968),198(1970-1971),225(1961-1980),273(1965-1966),318(1959-1968) MasFer:170,225 StksMar:318
213-1678	LV	ST	GMC:371(1957-1960),394(1959-1964),400(1966-1967),425(1966-1967) GMC Trk.:370(1957-1959)
213-1679	LV	ST	AMC:150(1983-1986),196(1961-1965),199(1965-1970),232(1964-1979),258(1971-1988),287(1963-1966),290(1966-1969),304(1970-1979),327(1961-1966),343(1967-1969),360(1970-1978),390(1968-1970),401(1971-1976) Chry:273(1968-1969),318(1968-1988),340(1968-1973),360(1971-1980) ChryMar:273,318,340,360 DodTrk:150(1996-2002),239(1987-1987),318(1968-1987),360(1969-1988) Eagle:150(1988-1989) GrayMar:258(1971-1980),304(1970-1979),360(1970-1978),390(1968-1970) Jeep:150(1983-2002),232(1966-1978),242(1987-2001),258(1971-1990),304(1971-1981),327(1966-1969),360(1971-1991),401(1974-1978) NavInt:232(1969-1972),258(1972-1974),400(1974-1975),404(1975-1982),446(1975-1981) PalMar:404(1975-1982) StksMar:318,360
213-1682	LV	P	Ford:221(1962-1963),255(1980-1982),260(1962-1965),289(1963-1968),302(1968-1985),351(1969-1991),400(1971-1979),429(1968-1973),460(1968-1978) FordTrk:255(1981-1982),289(1966-1968),302(1969-1991),351(1969-1993),370(1979-1980),400(1972-1982),429(1970-1997),460(1973-1997)
213-1683	LV	P	GMC:153(1962-1970),194(1962-1966),230(1964-1970),250(1966-1979),265(1955-1957),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),348(1958-1961),350(1967-1986),396(1965-1971),400(1970-1976),402(1970-1972),409(1961-1965),427(1966-1969),454(1970-1976) GMC Trk.:292(1963-1986) ThermElec:348,409
213-1684	LV	P	BarrMar:455(1968-1976) Berk:350(1968-1980),455(1968-1976) GMC:350(1968-1980),370(1958-1958),389(1959-1966),400(1965-1979),421(1963-1966),425(1965-1967),428(1967-1969),455(1968-1976) JacMar:455(1968-1976) OldsMar:350(1968-1980),455(1968-1976) OscoMar:455(1968-1976) PanJetMar:350(1968-1980)
213-1685	LV	ST	GMC:121(1983-1989),134(1990-1993),151(1977-1979),181(1982-1988),196(1978-1979),231(1975-1989),252(1980-1987),301(1977-1977),350(1969-1981),368(1980-1984),425(1977-1979),429(1967-1967),430(1967-1969),455(1970-1976),472(1968-1974),500(1970-1976) GMC Trk.:121(1983-1984),231(1978-1984),267(1982-1982),292(1981-1989),366(1991-1998),427(1991-1998),454(1991-1997) GrayMar:455(1970-1976) Jeep:350(1970-1971) MasFer:292
213-1686	LV	ST	Chry:383(1968-1971),400(1972-1978),440(1968-1978) ChryInd:413 ChryMar:383,400,440 DodTrk:361(1968-1977),383(1968-1971),400(1972-1980),413(1968-1977),440(1973-1980)
213-1692	LV	ST	ChrisCft:302 GMC:153(1962-1970),194(1962-1966),230(1964-1970),250(1966-1979),265(1955-1957),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),348(1958-1961),350(1967-1986),389(1959-1966),396(1965-1971),400(1967-1979),402(1970-1972),409(1961-1965),421(1963-1966),427(1966-1969),428(1967-1969),454(1970-1976),455(1970-1976) GMC Trk.:292(1963-1980),454(1970-1995) ThermElec:409 VolPen:302
213-1694	LV	ST	DearMar:289 Ford:240(1965-1972),260(1962-1965),289(1963-1968),302(1968-1985),351(1969-1991),400(1971-1979),429(1969-1971) FordMar:289(1971-1971),429(1969-1971) FordTrk:351(1970-1993),400(1972-1982),429(1970-1973)
213-1703	LV	ST	Ford:140(1974-1993) FordInd:140(1977-1993) FordTrk:121(1983-1988),140(1977-1994),153(1998-2001) MazTrk:153(1998-2001)
213-1705	LV	P	AMC:290(1966-1969),304(1970-1979),343(1967-1969),360(1970-1978),390(1968-1970),401(1971-1976) Chry:273(1964-1969),318(1967-1988),340(1968-1973),360(1971-1980)
213-1710	LV	ST	GMC:85(1976-1977),98(1976-1993),110(1982-1986),122(1987-1994) Passpt:122(1989-1990)
213-1718	LV	ST	ChryMar:122 Vol:121(1969-1975),182(1969-1974) VolPen:121(1969-1975)
213-1719	LV	ST	AMC:151(1980-1983) GMC:151(1979-1984),265(1980-1981),301(1978-1981) Jeep:151(1980-1983)
213-1720	HV	ST	Cat:636 Diesel
213-1721	LV	ST	Chry:225(1981-1983) DodTrk:225(1981-1987)
213-1722	LV	ST	Chry:135(1981-1994),153(1986-1995) DodTrk:135(1982-1988),153(1987-1995)
213-1723	LV	ST	Ford:98(1981-1985),116(1985-1989)
213-1724	LV	ST	GMC:173(1980-1989),189(1988-1994),207(1993-1995) GMC Trk.:173(1982-1993),189(1990-1995) IsuTrk:2827(1989-1991),3137(1991-1994) Jeep:173(1984-1986)
213-1725	LV	ST	FordTrk:420 Diesel(1983-1987),444 Diesel(1988-2001) GMC:307(1985-1990),260 Diesel(1982-1985),350 Diesel(1981-1985) GMC Trk.:260 Diesel(1982-1983),350 Diesel(1981-1984),379 Diesel(1982-1993),395 Diesel(1992-2002) Hummer:395 Diesel(1996-2002) NavInt:420 Diesel(1983-1987),444 Diesel(1988-1993)
213-1726	LV	ST	Audi:1471(1973-1974),1588(1975-1980),1715(1981-1984),2144(1978-1983),1588 Diesel(1982-1983),1986 Diesel(1979-1985) Chry:105(1978-1983) DodTrk:105(1982-1983) VW:1471(1974-1975),1588(1976-1980),1715(1981-1983),1780(1983-1984),1588 Diesel(1981-1983) VWTrk:1588(1980-1980),1715(1981-1983),1588 Diesel(1981-1984)
213-1727	HV	ST	Mack:672 Diesel,707 Diesel

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
213-1730	LV	ST	FordTrk:2960(1993-1995) Inf:2960(1990-1992) InfTrk:3275(1997-2000) Nis:2960(1984-1994) NisTrk:2960(1986-1998),3275(1996-2002)
213-1732	LV	ST	Toy:1995(1983-1986),2759(1982-1988)
213-1734	LV	ST	Toy:1839 Diesel(1985-1985),1974 Diesel(1986-1986) ToyTrk:2958(1988-1991)
213-1735	LV	ST	ToyTrk:1998(1984-1985),2237(1986-1990)
213-1736	LV	ST	Toy:1497(1992-1994),1587(1985-1993),1998(1986-1991),2164(1990-1992),2507(1988-1991), 2954(1986-1992)
213-1738	LV	ST	ChrisCft:262 GMC:151(1985-1992),204(1989-1993),231(1986-2003),252(1987-1988),262(1987-1993), 265(1994-1995),273(1988-1992),300(1991-1995),305(1987-1993),346(1997-2003),350(1987-1997) GMC Trk.:2001(2001-2001),151(1985-1993),231(1992-1995),262(1987-2003),294(1999-2003),305(1996- 2002),325(1999-2002),350(1996-2002),365(1999-2002) IsuTrk:262(1997-2000),350(1996-2002) MercMar:262 OMC:262 ThermElec:262
213-1739	HV	ST	IntInd:360 Diesel IntTrac:360 Diesel,414 Diesel,466 Diesel NavInt:360 Diesel(1987-1995),466 Diesel(1975-1987)
213-1742	LV	ST	CommMar:302(1992-1994),351(1994-1994) Ford:183(1992-2003),232(1989-2003),302(1985-1995) FordTrk:183(1992-2001),232(1995-2001),256(1997-2001),302(1992-2000),351(1994-1997) MazTrk:183(1994-2001)
213-1743	LV	ST	Ford:116(1987-1996),122(1997-2003)
213-1744	HV	ST	Deere:135,164,180,202,303,152 Diesel,164 Diesel,202 Diesel,219 Diesel,276 Diesel,303 Diesel,329 Diesel,359 Diesel,414 Diesel
213-1747	LV	ST	GMC:138(1988-1994) GMC Trk.:138(1993-1996)
213-1748	LV	ST	Audi:1780(1984-1987),2144(1984-1984),2226(1984-1987) VW:1780(1984-1985),2144(1983-1984), 2226(1985-1988),1588 Diesel(1985-1986)
213-1749	LV	ST	Ford:81(1990-1993),98(1987-1989),134(1989-1992) Maz:1597(1990-1993),2184(1988-1992), 2954(1988-1990) MazTrk:2184(1987-1993),2606(1989-1990),2954(1989-1990)
213-1750	LV	ST	Chry:201(1990-1996),230(1991-1992),318(1985-1989) DodTrk:201(1990-2003),230(1994-2003), 239(1988-2003),318(1988-2003),360(1989-2003),488(1994-2003) Eagle:201(1993-1996) Jeep:318(1993-1998),360(1998-1998)
213-1752	LV	ST	FordTrk:244(1990-2000)
213-1753	LV	ST	Chry:107(1989-1994),122(1985-1991),144(1992-1994),156(1986-1989),181(1988-2001),2497(1995- 2000) DodTrk:122(1985-1989),144(1990-1993),156(1985-1989),181(1987-2000) Eagle:107(1993-1994), 122(1989-1992),144(1992-1996) Mits:1755(1990-1992),1794(1985-1988),1997(1984-1993),2351(1985- 2001),2497(1995-1995),2555(1984-1989),2972(1989-2001) MitsTrk:1997(1984-1989),2351(1987-1999), 2555(1984-1989),2972(1989-2001)
213-1754	LV	ST	GMC:61(1985-2000)
213-1756	LV	ST	GMC:134(1994-2002),189(1993-2003),207(1999-2003) GMC Trk.:134(1994-2003),207(1996-2003) IsuTrk:134(1996-2000)
213-1757	LV	ST	Nis:1809(1988-1989),2960(1990-1996)
213-1758	LV	ST	Nis:1597(1991-1999)
213-1759	LV	ST	Nis:1998(1991-1996)
213-1760	LV	ST	Nis:2389(1991-1999) NisTrk:2389(1998-1998)
213-1761	LV	ST	Maz:1597(1988-1995),1839(1990-1999),1991(1993-1998),2254(1995-1997),2497(1998-2002)
213-1762	LV	ST	Maz:2954(1990-1991)
213-1763	LV	ST	Chry:122(1990-1994),181(1991-1996) Eagle:122(1990-1997) Mits:1595(1989-1992),1997(1989-1997), 2972(1991-1999)
213-1764	LV	ST	Sub:1781(1985-1994)
213-1765	LV	ST	GMC:146(1996-2002),207(1996-1997),244(1995-1999),281(1993-1999)
213-1766	LV	ST	DodTrk:226(2002-2003) Ford:155(1995-2002),181(1996-2003),281(1991-2003) FordTrk:181(2001- 2003),281(1997-2001),330(1997-2002),415(1997-2003) Jeep:226(2002-2003) MazTrk:181(2001-2002)
213-1767	LV	ST	Chry:122(1995-1999),148(1995-2000) DodTrk:148(1996-2000) Eagle:122(1995-1998) Mits:122(1995-1999)
213-1768	LV	ST	Maz:1489(1995-1998)
213-1769	LV	ST	Toy:1587(1993-1997),1762(1993-1997),2164(1992-2001),2959(1992-1993),2995(1994-2001), 2997(1993-1997) ToyTrk:(1998-2000),1998(1996-2000),2438(1990-2001),2694(1994-2001),2995(2001- 2001),3378(1995-2003)
213-1770	LV	ST	Toy:1497(1995-1997)
213-1771	LV	ST	Toy:1794(1998-2001)
213-1772	LV	ST	Lex:3969(1998-2000),4293(2001-2003) LexTrk:4663(1998-2001) ToyTrk:4663(1999-2001)
213-1773	LV	ST	Lex:3969(1995-1997)
213-1774	LV	ST	Mits:1834(1993-1996)
213-1775	HV	ST	Cat:3306 Diesel
213-1776	LV	ST	Chry:167(1998-2003)
213-1777	LV	ST	GMC Trk.:454(1996-2000),496(2001-2003)
213-1778	LV	ST	Sat:116(1991-2001)

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
213-1779	LV	P	ChrisCft:262 GMC:151(1985-1992),204(1989-1993),231(1986-2003),252(1987-1988),262(1987-1993),265(1994-1995),273(1988-1992),300(1991-1995),305(1987-1993),346(1997-2003),350(1987-1997) GMC Trk.:2001-2001),151(1985-1993),231(1992-1995),262(1987-2003),294(1999-2003),305(1996-2002),325(1999-2002),350(1996-2002),365(1999-2002) IsuTrk:262(1997-2000),350(1996-2002) MercMar:262 OMC:262 ThermElec:262
213-1780	LV	ST	GMC:134(2002-2003),212(1999-2002),244(2001-2002),281(2000-2003)
213-1781	HV	ST	Deere:270 Diesel,404 Diesel,466 Diesel
213-1782	HV	ST	Cumm:239 Diesel,359 Diesel,505 Diesel DodTrk:359 Diesel(1998-2002)
213-1784	LV	ST	GM Pass: 207 (3.4L) DOHC V6 Eng. (35mm OD, 1st. Design), (1991-1996)
213-1785	LV	ST	Honda Pass: 2997cc (3.0L) SOHC (1998-2002)
213-1786	LV	ST	Honda Pass: 2997cc (3.0L) SOHC V6 Eng. (2003)
213-1787	LV	ST	Isuzu Trk: 3165cc (3.2L) DOHC "6VD1" V6 Eng. (1998-2003)Honda Trk: 3165cc (3.2L) DOHC "6VD1" V6 Isuzu Eng. (1998-2003)
213-1788	LV	ST	Toyota Pass. & Trk. 2995cc (3.0L),1MZFE DOHC V6 Eng. (2001-2003) From 5/01
213-1789	LV	P	GM Pass. & Trk. 283-302-305-327-350-400 V8 Engs. Retrofit Roller (1957-95)
213-1790	LV	P	GM Pass. & Trk. 396-402-427-454 V8 Engs. Retrofit Roller (1965-95)
229-1130	LV	P	GMC:350(1968-1977),370(1958-1958),389(1959-1966),400(1967-1979),421(1963-1966),428(1967-1969),455(1970-1976)
229-1171	LV	ST	GMC:348(1958-1961),409(1963-1965) GMC Trk.:348(1958-1965),409(1962-1965) ThermElec:348,409
229-1187	LV	ST	GMC:326(1965-1967),370(1958-1958),389(1959-1964) GMC Trk.:287(1955-1955),317(1956-1956),336(1958-1959),347(1957-1957)
229-1198	LV	ST	Chry:277(1956-1957),318(1957-1966),326(1959-1959) ChryInd:318 DodTrk:318(1959-1968)
229-1210	LV	ST	DearbMar:272(1955-1957),292(1955-1955) Ford:272(1955-1957),292(1955-1962),312(1956-1960) FordInd:292(1958-1964) FordMar:272,292(1955-1962),312(1956-1960) FordTrk:272(1956-1958),292(1958-1964)
229-1251	LV	ST	GMC:235(1954-1955) GMC Trk.:235(1954-1958)
229-1252	LV	ST	GMC:235(1958-1958) GMC Trk.:235(1954-1955)
229-1273	LV	ST	GMC:265(1955-1957),283(1960-1962),327(1962-1962) GMC Trk.:265(1955-1957),283(1957-1962)
229-1274	LV	ST	Checker:283(1965-1967),307(1968-1969),327(1965-1969),350(1969-1979) GMC:283(1957-1967),305(1982-1983),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:283(1963-1967),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) IsuTrk:350(1993-1995) MarPow:350(1969-1995) Stud:283(1965-1966)
229-1293	LV	ST	GMC Trk.:235(1956-1958)
229-1301	LV	ST	Jeep:134(1951-1973)
229-1323	LV	ST	GMC:235(1958-1962) GMC Trk.:235(1959-1962)
229-1327	LV / HV	ST	Chry:350(1958-1958),361(1958-1966),383(1959-1971),400(1972-1978),413(1959-1965),426(1963-1965),440(1966-1978) ChryInd:361,413 DodTrk:383(1967-1971),400(1972-1980),440(1973-1980)
229-1338	LV	ST	GMC:216(1937-1952),235(1953-1953) GMC Trk.:216(1937-1953),235(1950-1953)
229-1364	LV	ST	GMC:215(1961-1963) OMC:300(1964-1967) PalMar:215(1961-1963)
229-1380	LV	ST	Chry:170(1960-1969),198(1970-1974),225(1960-1980) ChryMar:170,198 DodTrk:170(1961-1969),198(1970-1971),225(1961-1980) MasFer:170,225
229-1394	LV	ST	Checker:230(1964-1968),250(1969-1979) GMC:194(1962-1966),215(1964-1965),230(1964-1970),250(1966-1976) GMC Trk.:194(1964-1966),230(1963-1969),250(1966-1984) Stud:194(1965-1966),230(1966-1966)
229-1402	LV	ST	Ford:221(1962-1963),260(1962-1965)
229-1415	LV	ST	NavInt:266(1959-1972),304(1959-1980),345(1959-1982),392(1969-1982) PalMar:304(1959-1980),345(1959-1982),392(1968-1982)
229-1442	LV / HV	ST	ChryInd:361 DodTrk:361(1960-1971),413(1960-1971)
229-1443	LV	ST	DearbMar:390(1963-1965) Ford:352(1963-1966),390(1963-1968) FordMar:352(1963-1966),390(1963-1965) FordTrk:352(1965-1967) ThermElec:390(1963-1965)
229-1480	LV	ST	GMC Trk.:305(1960-1974),351(1960-1972),379(1973-1974),401(1960-1972),432(1973-1974),478(1964-1974),351 Diesel(1964-1967) Oliver:478(1962-1975)
229-1483	LV / HV	ST	FordInd:401(1958-1976),477(1958-1981),534(1958-1981) FordMar:534(1958-1981)FordTrk:401(1958-1975),475(1973-1979),477(1958-1981),534(1958-1981) Seamstr:534
229-1551	LV	ST	GMC Trk.:292(1963-1989) MasFer:292 MercMar:292 ThermElec:292
229-1601	LV	ST	CommMar:302(1968-1976) DearbMar:289,302 Ford:289(1963-1968),302(1968-1975) FordInd:302(1968-1976) FordMar:289 FordTrk:289(1966-1968),302(1969-1976)
229-1606	LV	ST	GMC:364(1957-1961),401(1959-1966),425(1963-1966)
229-1608	LV	ST	Ford:223(1961-1964) FordInd:223(1961-1964) FordTrk:223(1961-1964)
229-1609	LV	ST	Ford:223(1954-1961) FordInd:223(1954-1961) FordTrk:223(1954-1961)
229-1612	LV	CP	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) VolPen:302
229-1614	LV	CP	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:402(1970-1972)

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Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-1615	LV	SP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-1616	LV	SP	Ford:260(1962-1965),289(1963-1968),302(1968-1985) FordTrk:302(1969-1991)
229-1617	LV	P	Ford:260(1962-1965),289(1963-1968),302(1968-1985) FordTrk:302(1969-1991)
229-1621	LV	ST	FordInd:361(1964-1978),391(1964-1978),428(1964-1978) FordTrk:330(1964-1978),359(1974-1975),361(1964-1978),389(1975-1978),391(1964-1974)
229-1622	LV	CP	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) VolPen:302
229-1623	LV	CP	Ford:260(1962-1965),289(1963-1968),302(1968-1985) FordTrk:302(1969-1991)
229-1624	LV	P	ChrisCft:427 DearbMar:390(1963-1969) Ford:352(1963-1966),390(1963-1971),406(1963-1963),410(1966-1967),427(1963-1968),428(1966-1970) FordMar:390(1963-1971),427(1966-1969) FordTrk:360(1968-1976),390(1967-1976)
229-1626	LV	ST	GMC:326(1964-1967),350(1968-1976),389(1965-1966),400(1967-1976),428(1967-1969),455(1970-1976)
229-1629	LV	P	Chry:361(1958-1966),383(1959-1971),400(1972-1978),413(1965-1965),426(1963-1965),440(1966-1978) ChryMar:383,400,413,426,440
229-1633	LV	ST	DearbMar:390(1967-1971) Ford:390(1966-1971) FordMar:390(1967-1971) FordTrk:352(1967-1967),360(1968-1976),390(1968-1976) ThermElec:390(1967-1971)
229-1634	LV	ST	DearbMar:390(1966-1969) Ford:390(1963-1969),410(1966-1967),428(1966-1968) FordMar:390(1966-1969) FordTrk:390(1968-1969) ThermElec:390(1966-1969)
229-1636	LV	P	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976)
229-1637	LV	ST	GMC:396(1967-1971),427(1967-1969) GMC Trk.:366(1968-1972),396(1967-1971),427(1968-1998)
229-1640	LV	ST	DearbMar:144(1963-1964),170(1963-1972) Ford:144(1963-1964),170(1963-1972),200(1963-1972) FordInd:200(1965-1969) FordMar:144(1963-1964),170(1963-1972),200(1964-1972) FordTrk:200(1965-1968) IntcptMar:144(1963-1964),170(1963-1972),200(1964-1972) ThermElec:144(1963-1964),170(1963-1972)
229-1643	LV	ST	AMC:258(1981-1988) GrayMar:258(1971-1980) Jeep:232(1966-1970),258(1971-1990) NavInt:232(1969-1972),258(1972-1974)
229-1644	LV	CP	BarrMar:455(1968-1976) Berk:350(1968-1980),455(1968-1976) GMC:350(1968-1980),400(1966-1969),425(1965-1967),455(1968-1976) JacMar:455(1968-1976) OldsMar:350(1968-1980),455(1968-1976) OscoMar:455(1968-1976) PanJetMar:350(1968-1980)
229-1645	LV	ST	Chry:273(1968-1969),318(1967-1989) DodTrk:318(1967-1987),360(1987-1988) StksMar:318
229-1646	LV	ST	GMC:400(1967-1969),430(1967-1969),455(1970-1976) GrayMar:455(1970-1976)
229-1647	LV	ST	Ford:351(1971-1979),400(1971-1979) FordMar:351(1971-1974) FordTrk:351(1971-1982),400(1972-1982)
229-1648	LV	ST	BarrMar:403(1977-1979),455(1968-1974) Berk:350(1968-1980),455(1968-1974) GMC:307(1980-1984),350(1968-1980),400(1968-1969),403(1977-1979),455(1968-1976) HardMar:350,403 JacMar:455(1968-1974) OldsMar:350(1968-1980),403(1977-1979),455(1968-1974) OscoMar:455(1968-1976) PanJetMar:350(1968-1980),403(1968-1980) StksMar:455(1968-1974) Ford:429(1968-1973),460(1968-1978) FordInd:370(1979-1990),429(1979-1990),460(1973-1991) FordMar:429(1968-1973),460(1968-1978) FordTrk:370(1979-1990),429(1970-1990),460(1973-1997) HardMar:460 HolMdyMar:460(1968-1978) JacMar:460(1968-1978) PanJetMar:460
229-1650	LV	ST	GMC:350(1968-1975) Jeep:350(1968-1971)
229-1651	LV	ST	AMC:290(1966-1969),304(1970-1979),343(1967-1969),360(1970-1978),390(1968-1970),401(1971-1976) GrayMar:304(1970-1979),360(1970-1978),390(1968-1970) Jeep:304(1971-1981),360(1971-1991),401(1974-1978) NavInt:400(1974-1975)
229-1652	LV	ST	Ford:122(1971-1974)
229-1653	LV	SP	Chry:273(1964-1969),318(1967-1989),340(1968-1973),360(1971-1980)
229-1654	LV	ST	Chry:340(1968-1973),360(1971-1974) ChryMar:340 DodTrk:360(1971-1980)
229-1655	LV	ST	CommMar:351(1969-1983) Ford:351(1969-1986) FordInd:351(1969-1985) FordTrk:351(1969-1985)
229-1657	LV	ST	ChrisCft:225 GMC:198(1962-1963),225(1964-1967) Jeep:225(1966-1971) OMC:225 StksMar:225 ThermElec:225
229-1658	LV	P	Ford:351(1970-1979),400(1971-1979) FordTrk:351(1970-1982),400(1972-1982)
229-1660	LV	ST	GMC:368(1980-1984),425(1977-1979),472(1968-1974),500(1970-1976)
229-1661	LV	ST	GMC:454(1973-1975) GMC Trk.:454(1973-1980)
229-1663	LV	ST	Chry:360(1975-1980) DodTrk:360(1974-1988)
229-1664	LV	ST	DodTrk:361(1972-1977),413(1972-1977)
229-1665	LV	ST	Ford:200(1973-1983),250(1969-1980) FordMar:200(1973-1983),250(1969-1980) FordTrk:200(1973-1974),250(1969-1974) IntcptMar:200(1973-1983)
229-1666	LV	ST	Checker:267(1980-1980),305(1980-1980) GMC:262(1975-1976),267(1980-1982),305(1980-1988) GMC Trk.:267(1980-1982),305(1980-1995)
229-1668	LV	ST	Checker:305(1978-1979) GMC:267(1979-1979),305(1976-1980) GMC Trk.:267(1979-1979),305(1976-1980)
229-1675	LV	ST	Ford:171(1974-1979)
229-1678	LV	ST	GMC:231(1975-1977)

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Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-1679	LV	ST	Ford:140(1974-1984) FordInd:140(1977-1982) FordTrk:140(1977-1982)
229-1686	LV	ST	CommMar:302(1976-1991) Ford:255(1980-1982),302(1975-1985) FordInd:302(1976-1991) FordTrk:255(1981-1982),302(1976-1991)
229-1687	LV	ST	GMC Trk.:366(1973-1998),427(1973-1986)
229-1688	LV	ST	GMC:265(1980-1980),301(1977-1978),350(1976-1977),400(1977-1978)
229-1691	LV	ST	Nis:2393(1970-1973),2565(1974-1974),2753(1975-1977)
229-1692	LV	ST	Nis:1595(1969-1973),1770(1973-1974),1952(1974-1979) NisTrk:1595(1969-1973),1770(1974-1974), 1952(1975-1980)
229-1696	LV	ST	GMC:265(1981-1981),301(1978-1981)
229-1697	LV	ST	AMC:151(1980-1983) GMC:151(1979-1984) Jeep:151(1980-1983)
229-1699	LV	ST	Toy:2189(1975-1980),2366(1981-1985) ToyTrk:2189(1975-1980),2366(1981-1995)
229-1701	LV	ST	GMC:181(1982-1985),196(1978-1979),231(1978-1985),252(1980-1984)
229-1702	LV	ST	GMC:196(1978-1978),231(1977-1978) GMC Trk.:231(1978-1978)
229-1703	LV	ST	Checker:229(1980-1980) GMC:200(1978-1979),229(1980-1984) GMC Trk.:200(1978-1979),229(1980- 1984)
229-1704	LV	ST	GMC:260(1975-1982)
229-1707	LV / HV	ST	NavInt:404(1975-1982),446(1975-1981) PalMar:404(1975-1982)
229-1708	LV	ST	ChrisCft:153 GMC:151(1977-1979),153(1962-1970) GMC Trk.:153(1963-1965) MercMar:153 OMC:153 ThermElec:153
229-1709	LV	ST	Ford:1599(1978-1980)
229-1710	LV	ST	GMC:85(1976-1977),98(1976-1987)
229-1712	LV	ST	Chry:225(1981-1983) DodTrk:225(1981-1987)
229-1713	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968- 1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-1714	LV	ST	Hon:1169(1973-1973),1237(1974-1979)
229-1715	LV	ST	GMC Trk.:119(1982-1985),1817(1976-1982) Isu:1817(1981-1984),1949(1983-1987) IsuTrk:1817(1981-1982),1949(1983-1987) Opel:1817(1976-1979)
229-1716	LV	ST	Audi:1471(1973-1974),1588(1975-1980),1715(1981-1984) Chry:105(1978-1983) DodTrk:105(1982- 1983) VW:1457(1978-1980),1471(1974-1975),1588(1976-1980),1715(1981-1984),1780(1983-1984), 1471 Diesel(1979-1980) VWTrk:1588(1980-1980),1715(1981-1984)
229-1720	LV	ST	GMC:173(1980-1986) GMC Trk.:173(1982-1985),189(1990-1995) IsuTrk:3137(1991-1994) Jeep:173(1984-1986)
229-1722	HV	ST	Cum: NTC-250, 250S, 250 Formula, NTC-290, 290 Formula, NTC350, 350 Formula, NTC370, NTC400, NTE290 (5.500" Bore) Big Cam Engs.
229-1724	LV	ST	GMC:350 Diesel(1981-1985) GMC Trk.:350 Diesel(1981-1984)
229-1725	LV	ST	Hon:1488(1976-1979),1599(1976-1978),1751(1979-1980)
229-1726	LV	ST	Hon:1751(1980-1981)
229-1730	LV	MPG	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988), 307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957- 1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995) VolPen:302
229-1731	LV	MPG	GMC:181(1982-1985),196(1978-1979),231(1977-1987),252(1980-1984) GMC Trk.:231(1978-1984)
229-1732	LV	MPG	CommMar:460(1973-1996) Ford:429(1968-1973),460(1968-1978) FordInd:429(1979-1990),460(1973- 1991) FordMar:429(1968-1973),460(1968-1978) FordTrk:429(1979-1990),460(1973-1997) HolMdyMar:460(1968-1978) JacMar:460(1968-1978)
229-1733	LV	MPG	Ford:351(1970-1979),400(1971-1979) FordTrk:351(1971-1982),400(1972-1982)
229-1734	LV	MPG	CommMar:302(1968-1991) Ford:255(1980-1982),260(1962-1965),289(1963-1968),302(1968-1985) FordInd:302(1968-1991) FordTrk:289(1966-1968),302(1969-1991)
229-1735	LV	MPG	Chry:273(1964-1969),318(1967-1989),340(1968-1973),360(1971-1980) DodTrk:318(1967-1987), 360(1971-1988)
229-1736	LV	MPG	GMC:200(1978-1979),229(1980-1984) GMC Trk.:200(1978-1979),229(1980-1984)
229-1737	LV	P	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971), 402(1970-1972),454(1970-1995)
229-1742	HV	ST	Clark:568 Diesel DetID:568 Diesel MasFer:568 Diesel
229-1743	HV	ST	Cum. 5.5" Bore Engs.; All NRT & NRTC; NT280 , 310, 335, 380, 400, NTA370, 380, NTC230, 350, NHHTC290, Formula (Exc. Big Cam), NTA400, 420, NTC270, 290, NHTC270, NTF365, Power Torque 270 (Exc. Big Cam)
229-1744	LV	ST	Ford:232(1982-1983) FordTrk:232(1982-1983)
229-1745	LV	ST	Ford:98(1981-1985)
229-1747	LV	ST	Chry:122(1978-1978),156(1978-1985) DodTrk:122(1979-1982),156(1979-1984) Mits:2555(1983-1984) MitsTrk:2555(1983-1984)
229-1748	LV	ST	FordTrk:110(1972-1978),122(1979-1982) Maz:1586(1972-1977),1970(1979-1982) MazTrk:1586(1972- 1976),1796(1977-1978),1970(1979-1984)
229-1755	LV	ST	Chry:135(1981-1987),153(1986-1987) DodTrk:135(1982-1987),153(1987-1987)

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Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-1757	LV	ST	Hon:1488(1980-1983)
229-1758	LV	ST	Hon:1335(1981-1983)
229-1772	LV	ST	FordTrk:171(1983-1986)
229-1773	LV	ST	CommMar:302(1992-1993) Ford:302(1985-1991) FordTrk:302(1992-1993)
229-1774	LV	ST	Ford:302(1985-1995)
229-1775	LV	MPG	CommMar:351(1969-1993) Ford:302(1982-1984),351(1969-1991) FordInd:351(1969-1991) FordTrk:351(1969-1996)
229-1776	LV	MPG	ChrisCft:427 DearbMar:390(1963-1971) Ford:352(1963-1966),390(1963-1971),406(1963-1963), 410(1966-1967),427(1963-1968),428(1966-1970) FordMar:390(1963-1971),427(1966-1969) FordTrk:360(1968-1976),390(1968-1976),428(1969-1969)
229-1777	LV	MPG	BarrMar:403(1977-1979),455(1968-1976) Berk:350(1968-1980),455(1968-1976) GMC:260(1975-1982), 307(1980-1985),350(1968-1980),400(1966-1969),403(1977-1979),425(1965-1967),455(1968-1976) JacMar:455(1968-1976) OldsMar:350(1968-1980),403(1977-1979),455(1968-1976) OscoMar:455(1968-1976) PanJetMar:350(1968-1980),403(1968-1980)
229-1778	LV	MPG	GMC:301(1977-1981),326(1964-1967),350(1968-1977),370(1958-1958),389(1959-1966),421(1963- 1966),428(1967-1969),455(1970-1976)
229-1783	HV	ST	Cat:636 Diesel
229-1784	LV	MPG	GMC:173(1980-1989),189(1988-1993) GMC Trk.:173(1982-1993),189(1990-1995) IsuTrk:2827(1989- 1991),3137(1991-1994) Jeep:173(1984-1986)
229-1785	LV	ST	Ford:140(1984-1991),153(1986-1990)
229-1786	LV	MPG	AMC:290(1966-1969),304(1970-1979),343(1967-1969),360(1970-1978),390(1968-1970),401(1971- 1976) Jeep:304(1971-1981),360(1971-1991),401(1974-1978)
229-1787	LV	MPG	Chry:350(1958-1958),361(1958-1966),383(1959-1971),400(1972-1978),413(1959-1965),426(1963- 1965),440(1966-1978) DodTrk:361(1972-1977),383(1967-1971),400(1972-1980),413(1960-1977), 440(1973-1980)
229-1793	LV	ST	Ford:232(1984-1987)
229-1794	LV	ST	GMC:121(1983-1983)
229-1795	LV	ST	GMC:350(1976-1981)
229-1797	LV	ST	GMC:112(1982-1982),121(1984-1986) GMC Trk.:121(1983-1984)
229-1798	LV	ST	GMC:307(1985-1990)
229-1800	HV	ST	Detroit Diesel 6V-92T, 6V-92TA 6 Cyl. Diesel
229-1804	HV	ST	Detroit Diesel 8V-92TA 8 Cyl. Diesel
229-1821	LV	ST	GMC:252(1982-1987)
229-1822	LV	MPG	AMC:151(1980-1983) GMC:151(1979-1984) Jeep:151(1980-1983)
229-1826	HV	ST	Mack:672 Diesel
229-1827	LV	ST	Ford:98(1981-1985)
229-1829	LV	ST	GMC:262(1985-1986) GMC Trk.:262(1985-1986)
229-1830	HV	ST	Cat:893 Diesel OMC:350
229-1831	HV	ST	Cat:638 Diesel
229-1832	LV	MR	ChrisCft:262 GMC Trk.:262(1985-1986) IsuTrk:262(1997-1999) MercMar:262 OMC:262 ThermElec:262
229-1833	LV	MR	CommMar:351(1984-1993) DearbMar:351 Ford:351(1980-1991) FordInd:351(1984-1991) FordMar:351 FordTrk:351(1985-1993) HolMdyMar:351 MercMar:351 OMC:351 OscoMar:351 PalMar:351 ThermElec:351 VolPen:351
229-1834	LV	MR	DearbMar:351 FordMar:302,351 HolMdyMar:302,351 MercMar:302,351 OMC:302,351OscoMar:302, 351 PalMar:302,351 ThermElec:302,351 VolPen:302,351
229-1835	LV	ST	GMC:307(1983-1985)
229-1836	LV	ST	Ford:98(1982-1985)
229-1837	LV	ST	Chry:135(1981-1987),153(1986-1987) DodTrk:135(1982-1987),153(1987-1987)
229-1839	LV	ST	Ford:140(1983-1990) FordInd:140(1983-1987) FordTrk:121(1983-1988),140(1983-1987) OMC:140
229-1840	LV	ST	Ford:240(1965-1972) FordInd:240(1965-1974),300(1965-1992) FordMar:240,300 FordTrk:240(1965- 1974),300(1965-1996) OscoMar:300(1965-1996)
229-1841	LV	ST	GMC:231(1984-1989)
229-1844	HV	ST	Alc:426 Diesel
229-1847	HV	ST	Cat:893 Diesel
229-1848	HV	ST	Cat:1099 Diesel
229-1849	LV	ST	GMC Trk.:379 Diesel(1982-1993),395 Diesel(1992-2002) Hummer:395 Diesel(1997-2002)
229-1871	LV	ST	GMC:305(1983-1988),350(1982-1986)
229-1872	LV	ST	FordTrk:420 Diesel(1983-1987),444 Diesel(1988-1994) NavInt:420 Diesel(1983-1987),444 Diesel(1988-1993)
229-1874	HV	ST	Cummins 855 CID - 5.500" Bore
229-1875	LV	ST	GMC:151(1985-1989) GMC Trk.:151(1985-1991)
229-1876	LV	MPG	GMC Trk.:292(1963-1989)
229-1877	LV	ST	Chry:135(1984-1987)

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-1878	LV	MPG	GMC:194(1962-1966),230(1964-1970),250(1966-1979) GMC Trk.:194(1964-1966),230(1963-1969),250(1966-1984)
229-1879	LV	MR	ChrisCft:283,302,305,307,327,350 HardMar:305 MarPow:305,307 MercMar:283,305,327,350 OMC:283,305,307,350 ThermElec:283,305,307,327,350 VolPen:302,305,350
229-1880	LV	MR	ChrisCft:283,302,305,307,327,350 HardMar:305 MarPow:305,307 MercMar:283,305,327,350 OMC:283,305,307 ThermElec:283,305,307,327,350 VolPen:302,305,350
229-1881	LV	MR	ChrisCft:262 GMC Trk.:262(1990-1991) MercMar:262 OMC:262 ThermElec:262
229-1882	LV	MR	ChrisCft:262 MercMar:262 OMC:262 ThermElec:262
229-1883	LV	ST	Ford:351(1970-1974) FordMar:351(1970-1974) FordTrk:351(1970-1971)
229-1884	LV	P	Ford:351(1970-1979),400(1971-1979) FordTrk:351(1970-1982),400(1972-1982)
229-1885	HV	ST	IntTrac:414 Diesel,466 Diesel NavInt:466 Diesel(1975-1987)
229-1886	LV	ST	GMC:110(1982-1986)
229-1887	LV	ST	Chry:156(1981-1985) DodTrk:156(1984-1987)
229-1888	LV	ST	Nis:1952(1980-1981),2187(1982-1983) NisTrk:1952(1983-1985),2187(1981-1982),2389(1983-1989)
229-1889	LV	ST	Toy:2759(1982-1988)
229-1890	LV	ST	Toy:2759(1982-1988)
229-1892	LV	ST	GMC:98(1985-1988) Toy:1452(1980-1988),1587(1983-1988)
229-1894	LV	ST	Nis:1809(1984-1987),1974(1982-1988)
229-1895	LV	ST	Hon:1751(1982-1983)
229-1896	LV	ST	Nis:1488(1983-1984),1597(1983-1988)
229-1898	LV	MR	ChrisCft:454 HardMar:454 MarPow:454 MercMar:427,454(1988-1994) OMC:454 PanJetMar:454 ThermElec:427,454
229-1899	LV	MR	ChrisCft:454 HardMar:454 MarPow:454 MercMar:427,454(1988-1994) OMC:454 PanJetMar:454 ThermElec:427,454
229-1900	LV	MR	ChryMar:273,318,360 StksMar:360
229-1901	LV	MR	ChryMar:273,318,360 StksMar:360
229-1902	LV	ST	GMC:262(1987-1993) GMC Trk.:262(1987-1993)
229-1903	LV	ST	Chry:135(1984-1987)
229-1905	LV	ST	AMC:150(1983-1986) Jeep:150(1983-1995)
229-1907	LV	ST	Ford:116(1987-1989)
229-1908	LV	ST	Ford:116(1987-1989)
229-1910	LV	ST	Ford:116(1985-1986)
229-1911	LV	ST	Ford:116(1985-1986)
229-1915	LV	MPG	Chry:135(1988-1994),153(1988-1995) DodTrk:135(1988-1988),153(1988-1995)
229-1916	LV	ST	GMC:305(1987-1992),350(1987-1992)
229-1917	LV	ST	GMC:305(1987-1993),350(1991-1993)
229-1918	LV	ST	Ford:140(1985-1991)
229-1922	LV	ST	Chry:135(1988-1994),153(1988-1995) DodTrk:135(1988-1988),153(1988-1995)
229-1923	HV	ST	Cumm:672 Diesel,743 Diesel
229-1924	LV	MR	ChrisCft:181 HardMar:181 MercMar:181 OMC:181
229-1925	LV	ST	Ford:232(1988-1988)
229-1926	LV	ST	Ford:183(1986-1992) FordTrk:183(1986-1991)
229-1927	LV	ST	Ford:116(1985-1986)
229-1928	LV	ST	SuzTrk:1324(1986-1988)
229-1929	LV	ST	Jeep:242(1987-1995)
229-1933	LV	ST	GMC:181(1985-1986)
229-1934	LV	ST	Chry:156(1986-1989) DodTrk:156(1985-1989) MazTrk:2555(1987-1988) Mits:2555(1984-1989) MitsTrk:2555(1984-1989)
229-1935	LV	ST	GMC:121(1987-1989),134(1990-1993)
229-1936	LV	ST	GMC:122(1987-1994)
229-1937	LV	ST	GMC:181(1987-1988)
229-1938	LV	ST	Chry:181(1988-1989) DodTrk:181(1987-1989)
229-1939	LV	ST	Chry:181(1988-1989) DodTrk:181(1987-1989)
229-1940	LV	ST	Chry:135(1988-1994),153(1988-1995) DodTrk:135(1988-1988),153(1988-1995)
229-1941	LV	ST	GMC:138(1988-1994)
229-1942	LV	ST	GMC:138(1988-1994)
229-1943	LV	ST	Hon:1488(1984-1987)
229-1944	LV	ST	Hon:1342(1984-1987),1488(1984-1987)
229-1945	LV	ST	Audi:1780(1984-1987) VW:1780(1984-1985)
229-1946	LV	ST	GMC:122(1987-1991) Passpt:122(1989-1990)

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-1947	LV	ST	Chry:122(1984-1984) DodTrk:122(1983-1984) Mits:1794(1983-1985),1997(1984-1984) MitsTrk:1997(1983-1984)
229-1948	LV	ST	Chry:122(1984-1991) DodTrk:122(1984-1989) Eagle:122(1989-1991) Mits:1794(1985-1988),1997(1984-1988) MitsTrk:1997(1984-1989)
229-1949	LV	ST	GMC:110(1984-1986)
229-1950	HV	ST	Cumm:352 Diesel,378 Diesel
229-1951	HV	ST	Cumm:470 Diesel,504 Diesel,555 Diesel
229-1952	LV	ST	Ford:2900(1988-1990) FordTrk:177(1986-1992)
229-1953	LV	MR	ChrisCft:454 GMC:396(1967-1971),427(1967-1969),454(1970-1976) HardMar:454 MarPow:454 MercMar:427,454(1988-1994) OMC:454 PanJetMar:454 ThermElec:427,454
229-1954	HV	ST	Cumm:611 Diesel
229-1957	LV	MR	ChrisCft:454 HardMar:454 MarPow:454 MercMar:427,454(1988-1994) OMC:454 PanJetMar:454 ThermElec:427,454
229-1958	LV	MR	ChrisCft:454 HardMar:454 MarPow:454 MercMar:427,454(1988-1994) OMC:454 PanJetMar:454 ThermElec:427
229-1959	LV	MR	MercMar:230,250 OMC:250 StksMar:250 ThermElec:230
229-1962	LV	ST	Chry:181(1990-1995) DodTrk:181(1990-2000) Mits:2972(1997-1999) MitsTrk:2972(1989-1997)
229-1963	LV	ST	Chry:181(1990-1995) DodTrk:181(1990-2000) Mits:2972(1997-1999) MitsTrk:2972(1989-1997)
229-1964	LV	MPG	Ford:240(1965-1972) FordInd:240(1965-1974),300(1965-1992) FordMar:240,300 FordTrk:240(1965-1974),300(1965-1996) OskoMar:300(1965-1996)
229-1965	LV	P	Ford:240(1965-1972) FordInd:240(1965-1974),300(1965-1992) FordMar:240,300 FordTrk:240(1965-1974),300(1965-1996) OskoMar:300(1965-1996)
229-1966	LV	ST	Hon:1829(1984-1985)
229-1967	LV	ST	Hon:1829(1985-1985),1955(1987-1989)
229-1968	LV	ST	Hon:1829(1983-1987)
229-1969	LV	ST	Isu:1994(1985-1989),2254(1988-1989) IsuTrk:2254(1986-1995),2559(1988-1991)
229-1972	LV	P	AMC:290(1966-1969),304(1970-1979),343(1967-1969),360(1970-1978),390(1968-1970),401(1971-1976) Jeep:304(1971-1981),360(1971-1991),401(1974-1978)
229-1987	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1985),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995)
229-1988	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-1989	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-1990	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980)
229-1991	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-1993	LV	SP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-1994	LV	SP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-1995	LV	SP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1995),400(1974-1980)
229-1996	LV	CP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1995),400(1974-1980)
229-1998	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1995),400(1974-1980)
229-2004	LV	MPG	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1993)
229-2006	LV	P	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976)
229-2007	LV	P	GMC:396(1967-1971),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2011	LV	SP	GMC:396(1967-1971),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2020	LV	P	GMC:181(1982-1985),196(1978-1979),231(1977-1987),252(1980-1984) GMC Trk.:231(1978-1984)
229-2021	LV	MPG	Chry:273(1964-1969),318(1967-1989),340(1968-1973),360(1971-1980) DodTrk:318(1967-1987),360(1971-1988)

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Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-2023	LV	P	Chry:273(1964-1969),318(1967-1989),340(1968-1973),360(1971-1980) DodTrk:318(1967-1987),360(1971-1988)
229-2032	LV	P	Chry:350(1958-1958),361(1958-1966),383(1959-1971),400(1972-1978),413(1959-1965),426(1963-1965),440(1966-1978)
229-2034	LV	P	Chry:350(1958-1958),361(1958-1966),383(1959-1971),400(1972-1978),413(1959-1965),426(1963-1965),440(1966-1978) DodTrk:361(1972-1977),383(1967-1971),400(1972-1980),413(1960-1977),440(1973-1980)
229-2036	LV	CP	Chry:350(1958-1958),361(1958-1966),383(1959-1971),400(1972-1978),413(1959-1965),426(1963-1965),440(1966-1978)
229-2046	LV	P	Ford:140(1974-1990) FordTrk:121(1983-1988),140(1977-1987)
229-2047	LV	SP	Ford:140(1974-1990) FordTrk:121(1983-1988),140(1977-1987)
229-2048	LV	SP	Ford:140(1974-1990) FordTrk:121(1983-1988),140(1977-1987)
229-2055	LV	MPG	CommMar:302(1968-1991) Ford:221(1962-1963),255(1980-1982),260(1962-1965),289(1963-1968),302(1968-1985) FordMar:221,260 FordTrk:255(1981-1982),289(1966-1968),302(1969-1991) IntcptMar:221(1962-1963),260(1962-1965)
229-2056	LV	P	Ford:221(1962-1963),255(1980-1982),260(1962-1965),289(1963-1968),302(1968-1985) FordMar:221,260 FordTrk:302(1968-1991) IntcptMar:221(1962-1963),260(1962-1965)
229-2057	LV	P	Ford:221(1962-1963),255(1980-1982),260(1962-1965),289(1963-1968),302(1968-1985) FordTrk:255(1981-1982),289(1966-1968),302(1969-1991)
229-2058	LV	P	Ford:221(1962-1963),255(1980-1982),260(1962-1965),289(1963-1968),302(1968-1985) FordTrk:255(1981-1982),289(1966-1968),302(1969-1991)
229-2069	LV	MPG	Ford:351(1970-1979),400(1971-1979) FordTrk:351(1970-1982),400(1972-1982)
229-2072	LV	P	Ford:351(1970-1979),400(1971-1979) FordTrk:351(1970-1982),400(1972-1982)
229-2076	LV	MPG	Ford:302(1982-1984),351(1969-1991) FordTrk:351(1969-1996)
229-2077	LV	P	Ford:302(1982-1984),351(1969-1991) FordTrk:351(1969-1996)
229-2086	LV	P	ChrisCft:427 DearbMar:390(1963-1969) Ford:352(1963-1966),390(1963-1971),406(1963-1963),410(1966-1967),427(1963-1968),428(1966-1970) FordMar:390(1963-1971),427(1966-1969) FordTrk:360(1968-1976),390(1967-1976)
229-2088	LV	P	ChrisCft:427 Ford:352(1963-1966),390(1963-1971),406(1963-1963),410(1966-1967),427(1963-1968),428(1966-1970) FordMar:390(1963-1971),427(1966-1969) FordTrk:360(1968-1976),390(1967-1976)
229-2094	LV	P	Ford:429(1968-1973),460(1968-1978) FordMar:429(1968-1973),460(1968-1978) HolMdyMar:460(1968-1978) JacMar:460(1968-1978)
229-2098	LV	SP	Ford:429(1968-1973),460(1968-1978) FordTrk:429(1970-1973),460(1973-1997)
229-2100	LV	MPG	GMC:260(1975-1982),307(1980-1985),350(1968-1980),400(1966-1969),403(1977-1979),455(1968-1976)
229-2101	LV	P	GMC:260(1975-1982),307(1980-1985),350(1968-1980),400(1966-1969),403(1977-1979),455(1968-1976)
229-2104	LV	SP	BarrMar:455(1968-1976) Berk:350(1968-1980),455(1968-1976) GMC:350(1968-1980),400(1966-1969),425(1965-1967),455(1968-1976) JacMar:455(1968-1976) OldsMar:350(1968-1980),455(1968-1976) OsoMar:455(1968-1976) PanJetMar:350(1968-1980)
229-2108	LV	SP	GMC:265(1980-1981),301(1977-1981),326(1964-1967),327(1962-1969),350(1968-1977),370(1958-1958),389(1959-1966),400(1967-1979),421(1963-1966),428(1967-1969),455(1970-1976)
229-2115	HV	ST	NavInt:551 Diesel(1980-1988)
229-2116	LV	ST	Chry:98(1981-1990) Mits:1597(1985-1988)
229-2120	LV	CP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-2132	LV	MR	MercMar:229 OMC:229
229-2133	LV	MR	MercMar:229 OMC:229
229-2134	LV	P	GMC:265(1980-1981),301(1977-1981),326(1964-1967),350(1968-1977),370(1958-1958),389(1959-1966),421(1963-1966),428(1967-1969),455(1970-1976)
229-2135	LV	P	GMC:194(1962-1966),230(1964-1970),250(1966-1979)
229-2136	LV	MPG	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1993)
229-2137	LV	MPG	Ford:351(1970-1979),400(1971-1979) FordTrk:351(1970-1982),400(1972-1982)
229-2138	LV	P	Ford:221(1962-1963),255(1980-1982),260(1962-1965),289(1963-1968),302(1968-1985) FordMar:221,260 FordTrk:302(1968-1991) IntcptMar:221(1962-1963),260(1962-1965)
229-2141	LV	MPG	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995)
229-2142	LV	ST	Nis:1974(1986-1989)
229-2144	HV	ST	Cummins NH/NT Series 855 CiD - 5.500" Bore - Big Cam IV
229-2145	HV	ST	Cumm:611 Diesel
229-2146	LV	ST	GMC:92(1985-1989) Isu:1471(1985-1989)
229-2147	LV	ST	FordTrk:2960(1993-1995) Nis:2960(1984-1991) NisTrk:2960(1986-1996)
229-2148	LV	ST	FordTrk:2960(1993-1995) Nis:2960(1984-1991) NisTrk:2960(1986-1996)

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Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-2149	HV	ST	FordTrac:233 Diesel,256 Diesel,268 Diesel
229-2151	LV	ST	Maz:1490(1981-1985)
229-2152	LV	ST	Chry:86(1979-1984),92(1985-1991) Eagle:92(1989-1991) Hyun:1468(1986-1989) Mits:1468(1985-1990)
229-2153	LV	ST	Chry:318(1985-1989)
229-2155	LV	ST	Ford:302(1982-1984) FordTrk:351(1993-1996)
229-2156	LV	MPG	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995)
229-2157	LV	MPG	Chry:350(1958-1958),361(1958-1966),383(1959-1971),400(1972-1978),413(1959-1965),426(1963-1965),440(1966-1978) DodTrk:361(1972-1977),383(1967-1971),400(1972-1980),413(1960-1977),440(1973-1980)
229-2158	LV	ST	ToyTrk:3878(1969-1974),3956(1988-1992),4230(1975-1987)
229-2159	LV	ST	Maz:1998(1983-1987)
229-2166	LV	ST	Ford:81(1988-1989),98(1987-1987) Maz:1597(1986-1987)
229-2169	LV	ST	GMC:307(1986-1990)
229-2171	HV	ST	IntTrac:466 Diesel NavInt:466 Diesel(1988-1993)
229-2172	LV	ST	Ford:81(1989-1993),98(1988-1989)
229-2173	LV	ST	DodTrk:239(1987-1987)
229-2174	LV	MPG	AMC:199(1965-1970),232(1964-1979),258(1981-1988) Jeep:232(1966-1978),258(1971-1990)
229-2175	HV	ST	NavInt:360 Diesel(1987-1995)
229-2176	LV	ST	GMC:231(1986-1988)
229-2180	HV	ST	Deere:404 Diesel,466 Diesel
229-2185	HV	ST	DetD:500 Diesel
229-2186	HV	ST	DetD:500 Diesel
229-2188	HV	ST	Caterpillar 3208 Turbocharged 636 Diesel Eng. - 4.500" Bore
229-2189	HV	ST	Cat:425 Diesel
229-2191	HV	ST	Mack:672 Diesel
229-2192	LV	ST	Ford:232(1989-1995) FordTrk:232(1995-1995),256(1997-2001)
229-2193	LV	ST	Ford:232(1989-1997)
229-2194	LV	ST	Ford:140(1991-1993) FordTrk:140(1987-1997),153(1998-2001) MazTrk:153(1998-2001)
229-2195	LV	ST	Ford:116(1987-1990)
229-2196	LV	ST	Ford:116(1987-1990)
229-2197	HV	ST	Cat:893 Diesel
229-2198	HV	ST	NavInt:360 Diesel(1987-1995)
229-2199	LV	MPG	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-2200	LV	MPG	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-2201	LV	MPG	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:350(1969-1995)
229-2202	LV	MPG	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-2203	LV	MPG	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-2205	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976)
229-2206	LV	ST	GMC:98(1988-1993)
229-2208	HV	ST	Cummins 855 Series 6 Cyl. Diesel Engines - NTC300,NTC315 88 BIG CAM IV, NTC350 BIG CAM IV,FLEET 285, FLEET 300.
229-2209	HV	ST	Cummins 855 Series 6 Cyl. Diesel Engine NTCC400 BIG CAM IV, NTC444 BIGCAM IV, NTC365, NTC400 BIGCAM IV, NTE465, NTC450,NTA855-G2, NTAA410-40, NTE405
229-2210	HV	ST	Cummins 855 Series 6 Cyl. Engs: NHHT300/350 & NTC315 BIG CAM IV, NTCC240, NTCC300, NTCC350, NTCC400 & NTC475 BIG CAM III'S
229-2211	LV	ST	GMC:231(1988-1988)
229-2216	LV	P	Ford:302(1985-1994)
229-2217	LV	ST	FordTrk:429(1991-1994)
229-2218	LV	ST	GMC:138(1989-1994)
229-2219	LV	ST	GMC:138(1989-1994)
229-2221	LV	MR	ChrisCft:454 GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1993) MarPow:454 MercMar:454(1988-1994)
229-2222	LV	MR	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1993)

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-2223	LV	MR	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2224	LV	MPG	Checker:283(1965-1967),305(1978-1980) GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996)
229-2225	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1968),350(1969-1996),400(1974-1980) MarPow:350(1969-1995)
229-2226	LV	ST	Chry:156(1986-1989) DodTrk:156(1985-1989) Mits:2555(1984-1989) MitsTrk:2555(1984-1989)
229-2227	LV	ST	Chry:156(1981-1985) DodTrk:156(1984-1987)
229-2228	LV	MR	ChrisCft:454 GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1993) MarPow:454 MercMar:454(1988-1994)
229-2229	LV	ST	Toy:1456(1988-1994)
229-2231	LV	ST	Ford:134(1989-1992) Maz:2184(1988-1992)
229-2233	HV	ST	Cummins NT & NH 855 Series 5.5" Bore 6Cyl Diesel
229-2234	LV	ST	Chry:92(1991-1994) Eagle:92(1991-1996) Mits:1468(1990-1996)
229-2235	LV	ST	Chry:122(1989-1990),144(1992-1992) Eagle:122(1991-1992),144(1992-1992) Mits:1997(1989-1992) MitsTrk:2351(1992-1992)
229-2236	LV	ST	DodTrk:144(1990-1993) Mits:2351(1985-1987) MitsTrk:2351(1987-1996)
229-2237	LV	ST	Ford:116(1987-1989)
229-2238	LV	ST	Ford:116(1987-1989)
229-2239	LV	ST	Ford:116(1987-1990)
229-2242	LV	ST	MazTrk:1998(1986-1987)
229-2243	LV	ST	MazTrk:2184(1987-1993)
229-2244	LV	ST	ToyTrk:2958(1988-1994)
229-2245	LV	ST	ToyTrk:2958(1988-1994)
229-2251	LV	ST	FordTrk:244(1990-2000)
229-2252	LV	ST	FordTrk:244(1990-1992)
229-2253	LV	ST	Ford:116(1991-1996),122(1997-2003)
229-2254	LV	ST	GMC:231(1990-1995) GMC Trk.:231(1992-1995)
229-2256	LV	ST	GMC:204(1989-1990),231(1989-1990)
229-2257	LV	ST	DodTrk:318(1988-1991)
229-2258	LV	ST	DodTrk:360(1989-1992)
229-2259	LV	ST	GMC Trk.:454(1994-1997)
229-2260	LV	ST	GMC:151(1990-1990) GMC Trk.:151(1991-1993)
229-2261	LV	ST	GMC:151(1991-1992)
229-2262	LV	ST	GMC:151(1991-1991)
229-2263	LV	ST	GMC:151(1985-1989)
229-2264	LV	ST	GMC:151(1989-1990)
229-2265	HV	ST	Deere:381 Diesel
229-2266	LV	ST	Chry:201(1990-1997),230(1991-1993) DodTrk:201(1990-2000),230(1994-2000) Eagle:201(1993-1997)
229-2267	LV	ST	GMC:402(1972-1972),454(1970-1976) GMC Trk.:366(1985-1990),402(1970-1972),454(1970-1993)
229-2268	LV	ST	GMC:231(1979-1987) GMC Trk.:231(1979-1984)
229-2269	LV	ST	AMC:199(1965-1970),232(1964-1979),258(1971-1980) Jeep:232(1970-1978),258(1971-1980)
229-2270	LV	ST	GMC:250(1975-1979) GMC Trk.:250(1978-1982)
229-2272	LV	ST	Nis:2389(1989-1992) NisTrk:2389(1989-1994)
229-2273	LV	ST	DodTrk:239(1992-2003)
229-2274	LV	ST	DodTrk:318(1992-1993),360(1993-1997) Jeep:318(1993-1994)
229-2275	LV	ST	Ford:140(1992-1994)
229-2276	LV	ST	DodTrk:239(1988-1991)
229-2277	LV	ST	Nis:1597(1989-1990)
229-2278	LV	ST	GMC:204(1991-1993),231(1991-1991)
229-2279	LV	ST	Ford:144(1960-1962) FordTrk:144(1960-1964),170(1961-1972)
229-2280	LV	ST	GMC:173(1982-1989),189(1988-1993) GMC Trk.:173(1986-1993) IsuTrk:2827(1989-1991) Jeep:173(1987-1987)
229-2281	LV	ST	Hon:1488(1985-1987)
229-2283	LV	ST	FordTrk:302(1994-2000),351(1994-1997)
229-2285	LV	ST	FordTrk:244(1993-2000)
229-2286	LV	ST	GMC Trk.:262(1992-1995)
229-2287	LV	ST	GMC Trk.:262(1994-1996)

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-2289	LV	CP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980)
229-2290	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980)
229-2291	LV	CP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980)
229-2292	LV	SP	Ford:221(1962-1963),255(1980-1982),260(1962-1965),289(1963-1968),302(1968-1985) FordTrk:255(1981-1982),289(1966-1968),302(1969-1991)
229-2293	LV	P	Toy:2189(1975-1980),2366(1981-1985) ToyTrk:2189(1975-1980),2366(1981-1995)
229-2294	LV	CP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980)
229-2295	LV	P	Ford:400(1971-1979) FordTrk:351(1970-1982),400(1972-1982)
229-2296	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980)
229-2297	LV	CP	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980)
229-2298	LV	P	GMC:260(1975-1982),307(1980-1985),350(1968-1980),400(1966-1969),403(1977-1979),455(1968-1976)
229-2300	LV	SP	Chry:273(1964-1969),318(1967-1989),340(1968-1973),360(1971-1980) DodTrk:318(1967-1987),360(1971-1988)
229-2301	LV	CP	GMC:396(1967-1971),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2302	LV	P	Chry:135(1981-1987),153(1986-1987) DodTrk:135(1982-1987),153(1987-1987)
229-2303	LV	P	Toy:2189(1975-1980),2366(1981-1985) ToyTrk:2189(1975-1980),2366(1981-1995)
229-2305	LV	P	GMC:396(1967-1971),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2308	HV	ST	Cummins V8, V903-VT903 (Use W/1:1 Ratio Injector Rocker levers)
229-2311	LV	P	Ford:429(1968-1973),460(1968-1978) FordTrk:429(1970-1973),460(1973-1997)
229-2313	LV	SP	Chry:350(1958-1958),361(1958-1966),383(1959-1971),400(1972-1978),413(1959-1965),426(1963-1965),440(1966-1978) DodTrk:361(1972-1977),383(1967-1971),400(1972-1980),413(1960-1977),440(1973-1980)
229-2315	LV	ST	Ford:232(1994-1995)
229-2316	LV	ST	Ford:183(1992-1994)
229-2317	LV	ST	Ford:183(1992-1999) FordTrk:183(1992-1998)
229-2318	LV	ST	FordTrk:183(1993-2001) MazTrk:183(1994-1998)
229-2319	LV	ST	Chry:122(1990-1994) Eagle:122(1990-1994) Mits:1997(1989-1994)
229-2320	LV	ST	Chry:122(1990-1994) Eagle:122(1990-1994) Mits:1997(1989-1994)
229-2321	LV	ST	Chry:122(1990-1994) Eagle:122(1990-1994) Mits:1997(1989-1994)
229-2322	LV	ST	Chry:122(1989-1994) Eagle:122(1989-1994) Mits:1997(1989-1994)
229-2323	LV	ST	Chry:383(1968-1971),400(1972-1975),440(1968-1978)
229-2324	LV	ST	DodTrk:318(1994-2003) Jeep:318(1995-1998)
229-2325	LV	ST	GMC:134(1994-1997) GMC Trk.:134(1994-1997) IsuTrk:134(1996-1997)
229-2326	LV	ST	GMC:189(1993-1999),207(1999-1999) GMC Trk.:207(1996-1999)
229-2327	LV	ST	GMC Trk.:454(1996-2000)
229-2328	LV	ST	GMC Trk.:262(1996-2002) IsuTrk:262(1997-2000)
229-2329	LV	ST	Ford:332(1958-1959),352(1958-1962),390(1961-1962)
229-2331	LV	ST	Ford:281(1991-1999) FordTrk:281(1997-1999)
229-2332	LV	ST	Ford:281(1991-1999) FordTrk:281(1997-1999)
229-2333	LV	ST	Ford:281(1991-1999) FordTrk:281(1997-1999)
229-2334	LV	ST	Ford:281(1991-1999) FordTrk:281(1997-1999)
229-2335	LV	ST	GMC:98(1988-1992) Toy:1587(1988-1991)
229-2336	LV	ST	GMC:98(1988-1992) Toy:1587(1988-1991)
229-2337	LV	ST	GMC:346(1998-2000)
229-2338	LV	ST	DodTrk:150(1996-2002) Jeep:150(1996-2002)
229-2339	LV	ST	Toy:1998(1987-1991),2164(1990-1992)
229-2340	LV	ST	Toy:1998(1987-1991),2164(1990-1992)
229-2341	LV	ST	GMC:61(1989-2000)
229-2342	LV	ST	Toy:2954(1986-1992)

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-2343	LV	ST	Toy:2954(1986-1992)
229-2344	LV	ST	GMC:98(1989-1992) Toy:1587(1988-1993)
229-2345	LV	ST	GMC:98(1989-1992) Toy:1587(1988-1993)
229-2346	LV	ST	GMC:98(1993-1997) Toy:1587(1993-1997)
229-2347	LV	ST	GMC:98(1993-1997) Toy:1587(1993-1997)
229-2348	LV	ST	Chry:122(1989-1994) Eagle:122(1989-1994) Mits:1997(1989-1994)
229-2349	LV	ST	MazTrk:2606(1989-1994)
229-2350	LV	MR	GMCMar:262
229-2351	LV	MR	GMCMar:305,350
229-2353	LV	MR	GMCMar:454
229-2354	LV	ST	GMC Trk.:305(1996-2002),350(1996-2002) IsuTrk:350(1996-2002)
229-2355	LV	P	GMC:262(1987-1993) GMC Trk.:262(1987-1993)
229-2356	LV	P	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:454(1981-1995)
229-2357	LV	SP	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:454(1981-1995)
229-2358	LV	P	Ford:302(1985-1994)
229-2359	LV	P	Ford:302(1985-1994)
229-2360	LV	MPG	Checker:305(1978-1980),350(1969-1979) GMC:267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980)
229-2361	LV	ST	GMC:231(1995-2003)
229-2362	LV	ST	Ford:232(1996-1998) FordTrk:232(1996-2001)
229-2363	LV	ST	GMC:350(1995-1997)
229-2364	LV	ST	GMC:350(1994-1996)
229-2365	LV	ST	GMC:350(1992-1994)
229-2366	LV	P	GMC:305(1987-1992),350(1987-1993) GMC Trk.:350(1996-2002)
229-2367	LV	P	GMC:346(1998-2000)
229-2368	LV	SP	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2369	LV	CP	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2370	LV	P	GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976),402(1970-1972) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1968),350(1969-1995),400(1974-1980),402(1970-1972)
229-2373	LV	ST	GMC:134(2002-2004) Sat:134(2002-2004) Saturn Truck:134(2002-2004)
229-2374	LV	ST	GMC:134(2002-2004) Sat:134(2002-2004) Saturn Truck:134(2002-2004)
229-2375	LV	ST	GMC:134(1998-2002)
229-2376	LV	ST	DodTrk:360(1998-2002)
229-2377	LV	P	Ford:302(1985-1995) FordTrk:302(1994-2000) GMC:350(1984-1986)
229-2378	LV	SP	Ford:302(1985-1995) FordTrk:302(1994-2000)
229-2379	LV	ST	Ford:1989(1996-2003)
229-2380	LV	ST	Ford:1989(1996-2003)
229-2381	LV	ST	Ford:1989(1995-1997)
229-2382	LV	ST	Ford:1989(1995-1997)
229-2383	LV	ST	FordTrk:415(1997-2003)
229-2384	LV	ST	FordTrk:415(1997-2003)
229-2385	LV	ST	Hon:1590(1992-1995)
229-2386	LV	ST	Hon:1590(1996-2000)
229-2387	LV	ST	Hon:1595(1994-2000)
229-2388	LV	ST	Hon:1595(1994-2000)
229-2389	LV	MPG	GMC:305(1987-1993),350(1987-1993) GMC Trk.:305(1996-2002),350(1996-2002)
229-2390	LV	P	GMC:305(1987-1993),350(1987-1993) GMC Trk.:305(1996-2002),350(1996-2002)
229-2391	LV	P	GMC:305(1987-1993),350(1987-1993) GMC Trk.:305(1996-2002),350(1996-2002)
229-2392	LV	SP	GMC:305(1987-1993),350(1987-1993) GMC Trk.:305(1996-2002),350(1996-2002)
229-2393	LV	MPG	GMC:350(1994-1997)
229-2394	LV	P	GMC:350(1994-1997)
229-2395	LV	SP	GMC:350(1994-1997)
229-2396	LV	P	GMC Trk.:454(1996-2000)
229-2397	LV	P	GMC Trk.:454(1996-2000)
229-2398	LV	SP	GMC Trk.:454(1996-2000)
229-2399	LV	ST	ToyTrk:1998(1984-1985),2237(1986-1990)

Numerical Listing

Part No.	Vehicle Type LV = Light Vehicle HV = Heavy Vehicle	Perf. Code	Application
229-2400	LV	MPG	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995) VolPen:302
229-2401	LV	P	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995) VolPen:302
229-2402	LV	SP	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995) VolPen:302
229-2403	LV	MPG	ChrisCft:302 GMC:262(1975-1976),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1988),307(1968-1973),327(1962-1969),350(1967-1986),400(1970-1976) GMC Trk.:267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),400(1974-1980) MarPow:350(1969-1995) VolPen:302
229-2404	LV	P	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2405	LV	P	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2406	LV	SP	GMC:396(1967-1971),402(1970-1972),427(1967-1969),454(1970-1976) GMC Trk.:396(1967-1971),402(1970-1972),454(1970-1995)
229-2407	HV	ST	John Deere Series "300" 4 Cyl. Eng.
229-2408	HV	ST	John Deere Series "300" 6 Cyl. Eng.
229-2409	LV	ST	Chry. Pass. 122 (2.0L) SOHC 4 Cyl. Eng. (1996-2001)
229-2410	LV	ST	Chry. Pass. 122 (2.0L) SOHC 4 Cyl. Eng. (1995)
229-2411	LV	ST	GM Trk. 262 (4.3L) VIN "W" V6 Eng. (1995)
229-2412	LV	ST	GM Pass. 189 (3.1L) 207 (3.4L) V6 Eng. (2000-2002)
229-2413	LV	ST	Dodge Trk. 201 (3.3L) V6 Eng. (2001-2003)
229-2414	LV	ST	Dodge Trk. 230 (3.8L) V6 Eng. (2001-2003)
229-2415	HV	ST	Cummins V8, V903-VT903 (Use W/1:2 Ratio Injector Rocker levers)
229-6000	LV	ST	GMC:173(1980-1989),189(1988-1994),200(1978-1979),229(1980-1984),262(1975-1986),265(1955-1996),267(1979-1982),283(1957-1967),302(1967-1969),305(1976-1993),307(1968-1973),327(1962-1969),348(1958-1961),350(1967-1997),400(1970-1976),402(1970-1972),409(1961-1965),427(1966-1969),454(1970-1980) GMC Trk.:173(1982-1993),189(1990-1995),200(1978-1979),229(1980-1984),262(1985-1986),265(1955-1957),267(1979-1982),283(1957-1967),305(1976-1995),307(1968-1973),327(1962-1969),350(1969-1996),396(1966-1971),400(1975-1980),402(1970-1972),454(1970-1980) Stud:283(1965-1966)

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
AC-Delco		Allis Chalmers		Beck Arnley (Cont.)		Beck Arnley (Cont.)	
HL100	213-1738	4029000	229-1844	0200040	229-1725	0200155	229-2345
HL101	213-1725	4035435	229-1844	0200041	229-1725	0200156	229-2346
HL105	213-1738	American Motors Co.		0200042	229-1725	0200157	229-2347
HL106	213-1738	1237736	229-1650	0200043	229-1725	0200158	229-2349
HL112	213-1738	1357868	229-1657	0200044	229-1725	0200161	229-2152
HL-118	213-1756	1382995	229-1650	0200045	229-1725	0200163	229-2319
HL124	213-1738	3004643	213-1679	0200046	229-1725	0200163	229-2321
HL128	213-1738	3004647	213-1679	0200047	229-1725	0200164	229-2320
HL15	213-1646	3144537	213-1662	0200048	229-1726	0200164	229-2322
HL19	213-1638	3151444	213-1675	0200049	229-1652	0200165	229-2242
HL20	213-1638	3160304	213-1679	0200050	229-1691	0200166	229-2236
HL212	213-1738	3171242	229-1643	0200051	229-1716	0213229	213-1748
HL22	213-1669	3172303	213-1679	0200054	229-1679	0221401	213-1718
HL23	213-1669	3180259	229-1651	0200061	229-1747	0221415	213-1732
HL25	213-1674	3180454	213-1679	0200073	229-1726	0221426	213-1726
HL28	213-1662	3180609	213-1679	0200075	229-1895	0221427	213-1703
HL32	213-1635	3189883	213-1679	0200076	229-1968	022-1579	213-1748
HL35	213-1674	3190810	213-1679	0200077	229-1968	0221607	213-1730
HL36	213-1662	3190895	213-1679	0200078	229-1966	0221632	213-1764
HL38A	213-1650	3190901	213-1679	0200079	229-1966	0224000	213-1734
HL39	213-1638	3190935	213-1679	0200080	229-1968	0224001	213-1769
HL40	213-1664	3222276	213-1679	0200082	229-1757	0224002	213-1758
HL44	213-1667	33002981	229-1929	0200083	229-1758	0224003	213-1760
HL45	213-1669	4485713	229-2269	0200087	229-2281	0224004	213-1736
HL46	213-1674	4485717	229-1651	0200088	229-1943	0224005	213-1757
HL47	213-1664	4486476	229-1651	0200089	229-1944	0224006	213-1770
HL49	213-1669	4488140	229-1651	0200092	229-1892	0224007	213-1724
HL50	213-1674	4488879	229-2269	0200095	229-1888	0224008	213-1771
HL51	213-1674	4488880	229-1651	0200096	229-1896	0224009	213-1772
HL54	213-1638	5231740	213-1646	0200100	229-2158	0224010	213-1773
HL55	213-1678	5232245	213-1664	0200101	229-1709	0227000	213-1753
HL57	213-1685	5232245	213-1664	0200104	229-1716	0227001	213-1749
HL58	213-1685	5232765	213-1685	0200105	229-2159	0227002	213-1761
HL59	213-1638	5234695	213-1646	0200106	229-1889	0227003	213-1762
HL60	213-1679	6440371	213-1662	0200107	229-1890	0227004	213-1763
HL62	213-1674	6476060	213-1662	0200109	229-2151	BMW	
HL63	213-1686	800517	229-1301	0200110	229-1894	1132-1727-471	213-1747
HL64	213-1684	8120663	229-2269	0200114	229-1948	Caterpillar	
HL65	213-1638	8120817	229-2269	0200115	229-1969	1N4407	229-1831
HL66	213-1638	8121156	229-1651	0200116	229-1967	1W5060	229-1848
HL67	213-1674	8122929	213-1679	0200117	229-2142	2W4196	229-1783
HL68	213-1679	8126514	229-1643	0200120	229-1928	2W4197	229-1783
HL69	213-1667	8129668	229-1651	0200121	229-2148	2W4238	229-2188
HL71	213-1679	8132248	213-1719	0200122	229-2147	2W4239	229-2188
HL72	213-1703	8132249	229-1697	0200123	229-2152	2W6944	229-1783
HL73	213-1710	8132907	229-1643	0200124	229-2243	2W7980	229-1848
HL75	213-1685	8132910	229-1643	020-0125	229-2399	4W1765	229-2197
HL75A	213-1685	8133009	229-1643	0200127	229-2336	4W2430	229-2197
HL77	213-1719	8171242	229-2269	0200129	229-2335	5S3972	229-1831
HL77A	213-1685	83500249	229-1905	0200130	229-2172	6N4990	229-1830
HL78	213-1638	83500766	213-1724	0200131	229-2166	6N4991	229-1830
HL81	213-1724	83503402	229-1929	0200132	229-1934	7C3862	229-2189
HL81A	213-1724	83507203	229-1905	0200135	229-1945	7C3863	229-1831
HL82	213-1725	8983500	229-1720	0200137	229-2229	7C3864	229-1831
HL83	213-1685	8983500249	229-1905	0200138	229-1967	7S3161	213-1775
HL83A	213-1685	8983500766	213-1724	0200139	229-1720	7W3796	229-1847
HL84A	213-1725	8983500767	229-1720	0200140	229-1887	8N3981	229-1831
HL85	213-1685	8983503402	229-1929	0200141	229-2272	8N4111	229-2189
HL85A	213-1685	J3189883	213-1679	0200142	229-2340	9L9630	213-1720
HL86	213-1725	J3222276	213-1679	0200143	229-2277	9N5786	213-1720
HL86A	213-1725	Beck Arnley		0200144	229-2245	9N6608	229-2188
HL86B	213-1725	0200019	229-1699	0200145	229-2244	9Y1722	229-1831
HL86C	213-1725	0200020	229-1692	0200148	229-2339	9Y1723	229-2189
HL97A	213-1725	0200021	229-1692	0200149	229-2231	9Y3355	229-2188
ML10	213-1675	0200022	229-1692	0200151	229-2342	Chrysler	
ML4	213-1692	0200025	229-1748	0200152	229-2343	1325943	213-1635
ML8	213-1656	0200029	229-1715	0200153	229-2341	1489024	213-1635
ML9	213-1629	0200039	229-1714	0200154	229-2344		

Clevite to OEM/Competitors Cam & Lifter Interchange

Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Chrysler (Cont.)		Chrysler (Cont.)		Chrysler (Cont.)		Clevite (Old No.) (Cont.)	
1531204	213-1635	4049330	213-1679	53020586	213-1750	136	229-2211
1555176	213-1635	4049338	213-1679	53021077	213-1766	138	229-2176
1618667	229-1198	4071002	229-2323	53021101	229-2376	145	229-1892
1632123	213-1662	4071085	229-1327	8350066	213-1679	148	229-1935
1739608	229-1327	4071745	213-1679	83503402	229-1929	1517	229-2203
1825890	229-1198	4095897	213-1721	J3189883	213-1679	1518	229-2296
1851904	213-1635	4104437	229-1380	MD011476	229-2116	1519	229-2199
1852552	213-1662	4105271	229-1712	MD023151	229-1747	1520	229-2200
1855188	229-1327	4105275	229-1712	MD023152	229-1747	1521	229-2201
1859721	229-1442	4105348	213-1722	MD026730	229-1887	1524	229-2216
1944712	229-1198	4105776	229-1755	MD030560	229-2152	153	229-1881
1945345	213-1635	4106028	213-1721	MD038149	229-2152	154	229-1902
1947016	229-1198	4179768	229-1645	MD040760	229-1947	155	229-1917
1947318	213-1662	4186155	213-1675	MD068149	229-2152	156	229-1916
1947322	213-1635	4201193	229-1755	MD072177	213-1753	1650	229-2259
2084029	213-1635	4227660	213-1721	MD073744	229-1948	1651	229-2144
2084033	213-1662	4227879	229-1645	MD077306	229-1934	1652	229-2275
2128644	229-1380	4240007	213-1722	MD093714	213-1753	1653	229-2260
2129203	229-1327	4271910	229-1755	MD096765	229-1938	1654	229-2280
2203250	213-1675	4293817	229-1755	MD104374	229-1939	1657	229-2278
2264105	229-1380	4293819	229-1877	MD128969	229-2322	1658	229-2283
2268405	229-1327	4323235	213-1750	MD128973	229-2320	1662	229-2285
2268464	229-1198	4323239	229-2153	MD128974	229-2319	1668	229-2286
2268990	229-1198	4323717	229-2173	MD131485	229-2235	1669	229-2287
2465852	229-1380	4387335	229-2257	MD145655	229-1963	179	229-1939
2468038	213-1675	4387661	229-2258	MD145656	229-1962	180	229-1962
2469501	213-1675	4387677	213-1750	MD148080	229-2234	181	229-1963
2532190	229-1327	4387682	213-1750	MD149309	213-1763	182	229-1938
2658362	229-1645	4387850	229-1922	MD151382	213-1753	187	229-1187
2806708	213-1662	4397751	213-1750	MD153628	229-2321	196	229-1908
2808385	213-1662	4448049	229-2266	MD180084	229-2234	198	229-1907
2808569	213-1635	4448304	229-2276	MD339767	213-1753	199	229-1910
2843014	213-1675	4448479	229-1940	Clevite (Old No.)		2019	229-1730
2843563	229-1380	4483763	229-2257	1016	229-2290	204	229-1918
2843564	229-2323	4494467	213-1750	1017	229-2120	205	229-2194
2899144	229-1645	4621685	229-2266	1018	229-2297	206	229-2192
2899206	229-1654	4621938	213-1750	1023	229-1612	207	229-2193
2899856	213-1679	4636790	213-1750	1023	229-1622	209	229-1840
2899860	213-1686	4636794	213-1750	1026	229-1624	210	229-1210
2899864	213-1679	4636809	229-2257	1028	229-1617	226	229-1923
2899872	213-1679	4636811	229-2276	1028	229-2138	228	229-1936
3004647	213-1686	4663985	213-1776	1029	229-1616	234	229-2276
3418239	213-1679	4667140	213-1767	1032	229-2135	239	229-2173
3418411	213-1679	4667667	229-2410	1033	229-1130	242	229-1942
3420039	213-1679	4713439	213-1750	1033	229-2134	243	229-1941
3420039	213-1686	4740269	213-1679	1064	229-1614	244	229-2219
3512033	229-1629	4761387	229-2266	1065	229-1636	250	229-1946
3512589	229-1654	4777128	229-2409	1090	229-2294	251	229-1251
3512635	229-1645	4781013AA	229-2413	1094	229-2313	252	229-1252
3512639	229-1380	4781061AA	229-2414	1137	229-1713	253	229-1757
3512903	229-1629	5011790AA	213-1782	1138	229-1614	254	229-1944
3512907	229-2323	5073596AA	213-1766	1177	229-2300	255	229-1943
3549989	213-1679	5214658	229-1663	1192	229-2295	256	229-2281
3577181	229-1327	5214671	229-1654	1200	229-2104	261	229-2279
3614316	213-1679	5214671	229-1663	1211	229-1615	262	229-1896
3614320	213-1679	5214724	229-1663	1212	229-1623	263	229-2277
3614321	213-1679	5240460	229-1716	1246	229-2291	268	229-1894
3671475	229-1664	5240508	213-1726	1261	229-1993	269	229-1888
3675869	229-1901	5240967	229-1716	1262	229-2289	272	229-2272
3675870	229-1900	5245590	213-1750	1269	229-2292	273	229-1273
3751252	213-1679	53006706	229-2273	127	229-1905	274	229-1274
3751262	213-1679	53006707	229-2274	1272	229-2032	293	229-1293
3751267	213-1679	53006708	229-2274	1287	229-2301	301	229-1301
3789544	229-1380	53008514	213-1750	130	229-1937	323	229-1323
3830025	229-1663	53009173	213-1750	131	229-1933	327	229-1327
4006767	213-1679	53010574AA	213-1679	133	229-1841	339	229-1338
4041998	229-1654	53020282	229-2273	134	229-1937	343	229-2172
4042000	229-1663	53020283	229-2324			364	229-1364

Clevite to OEM/Competitors Cam & Lifter Interchange

Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Clevite (Old No.) (Cont.)		Clevite (Old No.) (Cont.)		Clevite (Old No.) (Cont.)		Clevite (Old No.) (Cont.)	
380	229-1380	780	229-1795	909	229-1829	H2083	213-1669
386	229-1742	781	229-1678	910	229-1773	H2089	213-1721
395	229-1708	782	229-1702	911	229-1774	H2095	213-1724
415	229-1415	783	229-1704	912	229-1875	H2102	213-1723
442	229-1442	784	229-1688	914	229-1836	H2104	213-1725
443	229-1443	785	229-1696	917	229-2263	H2105	213-1722
448	229-1640	786	229-1697	932	229-1885	H2148	213-1738
480	229-1480	787	229-2270	933	229-1849	H2167	213-1750
483	229-1483	788	229-1710	934	229-2185	H2201	213-1725
501	229-1924	789	229-1710	935	229-2186	H2205	213-1742
502	229-2133	790	229-1715	936	229-1874	H2217	213-1743
503	229-2132	792	229-1716	937	229-1722	H2236	213-1747
504	229-1959	793	229-1647	938	229-1826	H6000	213-1753
506	229-1882	794	229-2155	940	229-1903	H6010	213-1734
507	229-1879	795	229-1748	942	229-1887	H812	213-1635
508	229-1880	796	229-1707	943	229-1934	H817	213-1638
509	229-1953	798	229-1725	950	229-2171	H817R	213-1683
510	229-1899	799	229-1714	951	229-2175	H846	213-1646
511	229-1898	801	229-1699	952	229-2191	H879	213-1662
512	229-1958	805	229-1703	954	229-2188	H896	213-1664
513	229-1957	811	229-1783	955	229-1783	H900	213-1667
516	229-1901	812	229-1755	956	229-1830	H900R	213-1682
517	229-1833	813	229-2268	957	229-2197	H945	213-1650
518	229-1834	814	229-1703	958	229-1847	H951	213-1674
521	229-1900	815	229-1712	959	229-1848	H951R	213-1684
551	229-1551	816	229-1643	966	229-2189	H957	213-1678
560	229-1601	817	229-1666	975	229-1926	H969	213-1685
563	229-1608	8172	229-1950	976	229-1952	H976	213-1686
564	229-1606	8173	229-1951	978	229-1911	M2000	213-1694
568	229-1743	818	229-1835	979	229-2210	M2084	213-1675
579	229-1840	819	229-1649	980	229-2209	M872	213-1656
586	229-1646	820	229-1654	981	229-2208	M892	213-1629
592	229-1713	821	229-1402	985	229-2308	M992	213-1692
619	229-1621	822	229-1648	986	229-1954	S2000	229-1617
633	229-1394	823	229-1720	987	229-2145	S2012	229-2098
636	229-2267	824	229-1701	988	229-2233	S2014	229-2298
641	229-1626	825	229-1821	989	229-1844	S2016	229-1786
642	229-1634	826	229-1797	991	229-1929	S2019	229-1730
643	229-1633	827	229-1886	994	229-2261	S2020	229-2004
644	229-1654	828	229-1745	995	229-2263	S2021	229-2021
645	229-1645	829	229-1785	996	229-2264	S2022	229-1787
645	229-1663	830	229-1744	997	229-2256	S2023	229-1734
700	229-1883	832	229-1709	998	229-2256	S2024	229-1775
702	229-1648	835	229-1798	999	229-2166	S2025	229-1733
703	229-1648	836	229-2153	CA100	229-6000	S2026	229-1776
705	229-1651	837	229-1724	CS205	229-2194	S2027	229-1732
709	229-1650	838	229-1871	EAT2084	213-1675B	S2029	229-1778
710	229-2269	839	229-1827	EAT872	213-1656B	S2030	229-1731
713	229-1660	840	229-1871	EHT2011	213-1679B	S2031	229-1735
719	229-1665	841	229-2254	EHT2012	213-1703BT	S2033	229-2156
720	229-1657	843	229-1922	EHT2056	213-1710BT	S2034	229-1737
723	229-1652	844	229-1949	EHT2077	213-1719B	S2035	229-1736
725	229-2323	845	229-1793	EHT2083	213-1669B	S2036	229-1784
726	229-1665	846	229-1872	EHT2095	213-1724B	S2037	229-1972
727	229-1661	847	229-2198	EHT2102	213-1723B	S2038	229-1987
730	229-1649	848	229-2115	EHT2105	213-1722BT	S2039	229-1989
733	229-1849	849	229-1877	EHT2201	213-1725BT	S2042	229-2055
736	229-1664	850	229-2274	EHT817R	213-1683B	S2047	229-2086
741	229-1691	852	229-2257	EHT900	213-1667B	S2048	229-2088
742	229-1692	853	229-2266	EHT945	213-1650BT	S2050	229-2202
756	229-1679	854	229-2258	EHT951	213-1674B	S2051	229-1988
765	229-1675	855	229-2276	EHT969	213-1685B	S2052	229-2006
767	229-1647	856	229-2273	EHT976	213-1686B	S2058	229-2311
773	229-1647	900	229-1839	H2011	213-1679	S2060	229-1130
774	229-1686	901	229-2280	H2011R	213-1705	S2061	229-1990
775	229-1687	906	229-1772	H2012	213-1703	S2062	229-1822
778	229-1668	907	229-1747	H2056	213-1710	S2065	229-1878
779	229-1643	908	229-1794	H2077	213-1719	S2066	229-1876

Clevite to OEM/Competitors Cam & Lifter Interchange

Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Clevite (Old No.) (Cont.)		Cummins Engine Co. (Cont.)		Eaton Components (Cont.)		Elgin (Cont.)	
S2068	229-1832			VL107	213-1766	E-1116-P	229-2228
S2074	229-1777	3023229	229-1743	VL109	213-1710	E-1120-P	229-2203
S2075	229-1995	3025518	229-1874	VL111RH	213-1684	E-1121-P	229-2205
S2076	229-1998	3025524	229-2210	VL112RH	213-1705	E-1122-P	229-2174
S2077	229-2305	3026975	229-1874	VL113	213-1743	E-1127-P	229-2224
S2079	229-2034	3036117	229-1954	VL114	213-1725	E-1128-P	229-2141
S2080	229-1964	3036697	229-2233	VL115	213-1738	E-1129-P	229-2225
S2081	229-1965	3037523	229-2145	VL116	213-1747	E-1132-P	229-2120
S2090	229-2046	3042568	229-1874	VL119	213-1735	E-1133-P	229-2289
S2091	229-2047	3049023	229-1722	VL123	213-1778	E-1134-P	229-2389
S2092	229-2048	3049024	229-1874	VL124	213-1765	E-1135-P	229-2392
S2095	229-2293	3051132	229-2209	VL138	213-1756	E-1137-P	229-2136
S2096	229-2303	3053525	229-2208	VL140	213-1750	E-1143-P	229-2301
Competition Cams		3058957	229-2144	VL141	213-1753	E-1146-P	229-2300
353-2	213-1789	3087651	229-2144	VL146	213-1749	E-1147-P	229-2157
354-2	213-1790	3087652	229-2209	VL150	213-1752	E-1150-P	229-2055
Crane Camshafts		3277462	229-1951	VL163	213-1777	E-1151-P	229-2056
114102	229-2199	3277463	229-1950	VL171	213-1776	E-1155-P	229-2137
114112	229-2200	3277464	229-1951	VL172	213-1738	E-1156-P	229-2295
114122	229-2201	3608786	229-2208	VL173	213-1767	E-1160-P	229-2094
11532	213-1789	3801030	229-1923	VL174	213-1779	E-1164-P	229-2216
132561	229-2228	3801047	229-1722	VL175	213-1780	E-1178-P	229-1964
13532	213-1790	3801063	229-1722	VL66RH	213-1683	E1503S	229-1844
444132	229-2216	3801426	229-2210	VL67RH	213-1682	E1504S	229-1783
967601	229-1713	3801448	229-2233	Elgin		E1505S	229-1831
99168-1	229-6000	3801749	229-2209	C1048P	229-2088	E1524S	229-1742
C274	229-1274	3801763	229-1722	E1005P	229-2156	E1530S	229-1848
C327	229-1327	3803903	229-2144	E1011P	229-1994	E1531S	229-1830
C443	229-1443	3803904	229-2209	E1012P	229-1777	E-1532-S	229-2197
C572	229-1633	3895662	229-2145	E1013P	229-1822	E1533S	229-1847
C574	229-1637	3895679	229-1954	E-1016-P	229-1832	E1535S	229-1923
C576	229-1626	3925031	213-1782	E-1017-P	229-2358	E-1536-S	229-1743
C577	229-1645	3931623	213-1782	E-1018-P	229-2359	E-1537-S	229-1722
C578	229-1654	Detroit Diesel		E1019P	229-1991	E1539S	229-1872
C579	229-1840	5117853	229-1742	E1021P	229-1878	E1540S	229-1885
C580	229-1647	5117872	229-1742	E1022P	229-1876	E1541S	229-1826
C585	229-1650	8923733	229-2185	E-1024-P	229-1996	E-1545-S	229-1951
C589	229-1649	8923734	229-2186	E-1025-P	229-2291	E1553S	229-1874
C590	229-1648	Eaton Components		E-1026-P	229-2135	E-1564-S	229-1954
C593	229-1652	VL005	213-1646	E-1027-P	229-2138	E-1566-S	229-1950
C596	229-1661	VL008	213-1635	E-1028-P	229-2290	E-1571-S	229-1899
C619	229-1621	VL009	213-1669	E1033P	229-1881	E-1572-S	229-1898
C628	229-1668	VL013	213-1662	E-1034-P	229-2108	E-1573-S	229-1882
C642	229-1637	VL021	213-1629	E-1041-P	229-1972	E-1575-S	229-1879
C643	229-1655	VL024	213-1656	E-1046-P	229-2058	E-1576-S	229-1880
C644	229-1394	VL026	213-1649	E1048P	229-2088	E-1579-S	229-1901
C663	229-1394	VL031	213-1675	E1051P	229-2055	E-1580-S	229-1900
C664	229-1679	VL032	213-1650	E-1055-P	229-2311	E-1581-S	229-1834
C667	229-1601	VL035	213-1667	E-1057-P	229-2098	E-1587-S	229-1959
C669	229-1601	VL036N	213-1614	E-1058-P	229-2069	E-1588-S	229-1924
C671	229-1697	VL037	213-1638	E-1059-P	229-2076	E-1589-S	229-1953
C707	229-1666	VL041	213-1664	E1060P	229-2086	E-1590-S	229-2133
C719	229-1703	VL048	213-1694	E1064P	229-1958	E-1591-S	229-2132
C720	229-1701	VL049	213-1674	E1065P	229-1989	E-1594-S	229-2180
C779	229-1626	VL059	213-1678	E-1066-P	229-2007	E-1596-S	229-2191
Cummins Engine Co.		VL063	213-1692	E-1067-P	229-1995	E-1601-S	229-1928
129860	229-1923	VL064	213-1686	E-1069-P	229-1987	E-1602-S	229-2158
143450	229-1743	VL073	213-1685	E-1070-P	229-2305	E-1604-S	229-1969
152960	229-1743	VL073	213-1719	E-1074-P	229-2298	E-1605-S	229-2151
199180	229-2415	VL083	213-1703	E-1094-P	229-2323	E-1606-S	229-2159
212260	229-1951	VL086	213-1723	E-1095-P	229-1965	E1609S	229-1925
215580	229-2308	VL087	213-1722	E-1100-P	229-2199	E-1612-S	229-1947
3000850	229-1722	VL088	213-1721	E-1101-P	229-2200	E-1613-S	229-1948
3020914	229-1722	VL089	213-1679	E-1102-P	229-2046	E-1614-S	229-1946
3021588	229-1722	VL094	213-1724	E-1103-P	229-2047	E-1615-S	229-1945
3023177	229-1743	VL100	213-1742	E-1104-P	229-2048	E-1618-S	229-2166
3023228	229-1923	VL106	213-1750	E-1105-P	229-2201	E-1619-S	229-1952
						E-1620-S	229-2146

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Elgin (Cont.)		Elgin (Cont.)		Elgin (Cont.)		Elgin (Cont.)	
E-1622-S	229-1758	E-1716-S	229-2340	E589S	229-1649	E-849-S	229-1896
E-1623-S	229-1944	E-1717-S	229-2244	E590S	229-1648	E-850-S	229-1894
E-1625-S	229-1757	E-1718-S	229-2245	E592S	229-1665	E-851-S	229-1888
E-1626-S	229-1943	E-1719-S	229-2266	E593S	229-1652	E-855-S	229-1892
E-1627-S	229-1726	E171S	229-1171	E594S	229-1660	E-857-S	229-1890
E-1628-S	229-1895	E-1720-S	229-2324	E596S	229-1661	E-858-S	229-1889
E-1629-S	229-1968	E-1721-S	229-2257	E597S	229-1664	E859S	229-1849
E-1630-S	229-1966	E-1722-S	229-2258	E619S	229-1621	E860S	229-1871
E-1631-S	229-1967	E-1723-S	229-2253	E626S	229-1663	E-861-S	229-2153
E-1632-S	229-2115	E-1726-S	229-2276	E640S	229-1675	E-865-S	229-2280
E-1633-S	229-2142	E-1727-S	229-2273	E643S	229-1655	E866S	229-1910
E-1634-S	229-2148	E-1728-S	229-2283	E662S	229-1657	E867S	229-1905
E-1635-S	229-2147	E-1729-S	229-2316	E663S	229-1394	E868S	229-1875
E-1643-S	229-1963	E-1730-S	229-2318	E664S	229-1679	E869S	229-2263
E-1644-S	229-1962	E-1731-S	229-2317	E677S	229-1709	E870S	229-1833
E-1645-S	229-2172	E-1732-S	229-2327	E724S	229-1704	E871S	229-1949
E-1646-S	229-2173	E-1732-S	229-2353	E725S	229-1688	E873S	229-1933
E-1647-S	229-2176	E-1733-S	229-2285	E-726-S	229-1795	E-874-S	229-1937
E-1648-S	229-2169	E-1734-S	229-2315	E727S	229-1696	E875S	229-1877
E-1649-S	229-1937	E-1736-S	229-2361	E728S	229-1702	E876S	229-1916
E1650S	229-2211	E-1737-S	229-2286	E-729-S	229-2270	E-877-S	229-1939
E-1651-S	229-2152	E-1738-S	229-2287	E731S	229-1701	E-878-S	229-1938
E-1652-S	229-2116	E-1744-S	229-2342	E-731-S	229-2268	E879S	229-1903
E-1654-S	229-2219	E-1745-S	229-2343	E732S	229-1697	E-880-S	229-1922
E-1655-S	229-2218	E-1751-S	229-2331	E733S	229-1703	E-880-S+20	229-1940
E-1656-S	229-2206	E-1751-S+20	229-2333	E735S	229-1710	E-881-S	229-2155
E-1657-S	229-2192	E-1752-S	229-2332	E737S	229-1687	E882S	229-1911
E-1658-S	229-2193	E-1752-S+20	229-2334	E738S	229-1715	E884S	229-1827
E-1661-S	229-2194	E-1768-S	229-2327	E741S	229-1716	E886S	229-1927
E-1665-S	229-2195	E-1770-S	229-2326	E744S	229-1692	E888S	229-1907
E-1666-S	229-2196	E187S	229-1187	E750S	229-1686	E889S	229-1908
E-1667-S	229-2242	E193S	229-1609	E753S	229-1748	E-890-S	229-1929
E-1668-S	229-2243	E198S	229-1198	E754S	229-1714	E891S	229-1918
E-1669-S	229-2335	E210S	229-1210	E756S	229-1707	E892S	229-1926
E-1670-S	229-2336	E251S	229-1251	E767S	229-1699	E-893-S	229-1935
E-1671-S	229-2399	E252S	229-1252	E779S	229-1643	E-894-S	229-1941
E-1673-S	229-2217	E261S	229-2279	E780S	229-1720	E-895-S	229-1942
E1674S	229-2231	E273S	229-1273	E781S	229-1678	E896S	229-1917
E-1675-S	229-2281	E274S	229-1274	E782S	229-1666	E-897-S	229-1934
E-1676-S	229-2236	E293S	229-1293	E783S	229-1668	E-899-S	229-1936
E-1679-S	229-2229	E301S	229-1301	E784S	229-1724	E901P	229-1612
E-1680-S	229-2171	E323S	229-1323	E786S	229-1708	E-9021-S	229-2349
E-1682-S	229-2186	E327S	229-1327	E-787-S	229-2267	E902P	229-1622
E-1683-S	229-2185	E338S	229-1338	E788S	229-1712	E903P	229-1713
E-1684-S	229-2235	E364S	229-1364	E802S	229-1747	E905P	229-1614
E-1685-S	229-2234	E380S	229-1380	E806S	229-1883	E907P	229-2072
E-1686-S	229-1902	E402S	229-1402	E808S	229-1745	E908P	229-2104
E-1689-S	229-2259	E415S	229-1415	E809S	229-1744	E912P	229-1786
E-1690-S	229-2260	E442S	229-1442	E811S	229-1616	E-913-P	229-2020
E-1691-S	229-2262	E443S	229-1443	E816S	229-1725	E915P	229-1731
E-1696-S	229-2264	E480S	229-1480	E826S	229-1755	E916P	229-1615
E-1697-S	229-2256	E483S	229-1483	E828S	229-1772	E-917-P	229-2294
E-1698-S	229-2278	E551S	229-1551	E829S	229-1793	E919P	229-2202
E-1699-S	229-2254	E560S	229-1601	E830S	229-1794	E920P	229-1993
E-169-S	229-2329	E563S	229-1608	E831S	229-1797	E-921-P	229-1990
E-1701-S	229-2275	E564S	229-1606	E835S	229-1773	E922P	229-1988
E-1702-S	229-2251	E572S	229-1633	E836S	229-1774	E-923-P	229-1730
E-1703-S	229-2252	E573S	229-1634	E837S	229-1798	E927P	229-1736
E-1704-S	229-2341	E574S	229-1637	E838S	229-1821	E928P	229-1636
E-1705-S	229-2344	E575S	229-1640	E839S	229-1829	E-929-P	229-2011
E-1706-S	229-2345	E576S	229-1626	E-840-S	229-1887	E930P	229-1737
E-1707-S	229-2346	E577S	229-1645	E842S	229-1840	E931P	229-2004
E-1708-S	229-2347	E578S	229-1654	E843S	229-1839	E932P	229-2006
E-1711-S	229-2348	E580S	229-1647	E844S	229-1785	E933P	229-1653
E-1712-S	229-2322	E-582-S	229-2269	E845S	229-1886	E-936-P	229-2023
E-1713-S	229-2277	E585S	229-1650	E846S	229-1841	E937P	229-1735
E-1714-S	229-2272	E586S	229-1646	E847S	229-1835	E938P	229-2021
E-1715-S	229-2339	E587S	229-1651	E848S	229-1836	E-939-P	229-1629

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Elgin (Cont.)		Elgin (Cont.)		Engine Dynamics (Cont.)		EngineTech (Cont.)	
E-940-P	229-2036	HL-6035	213-1764	S592	229-1713	L2083	213-1669
E942P	229-1787	HL-7000	213-1766	S619	229-1621	L2089	213-1721
E943P	229-2032	HL-7002	213-1752	S633	229-1394	L2095	213-1724
E947P	229-1617	HL-7005	213-1776	S636	229-1637	L2102	213-1723
E948P	229-1623	HL-9001	213-1763	S641	229-1626	L2104	213-1725
E-949-P	229-2292	HL-9002	213-1761	S642	229-1634	L2105	213-1722
E-950-P	229-2057	HL-9003	213-1754	S643	229-1633	L2128	213-1752
E951P	229-1734	HL-9007	213-1758	S644	229-1654	L2148	213-1738
E953P	229-1733	HL-9009	213-1759	S645	229-1645	L2167	213-1750
E-954-P	229-1884	HL-9020	213-1784	S645	229-1663	L2205	213-1742
E959P	229-1775	HRL4680	213-1725	S700	229-1647	L2217	213-1743
E-960-P	229-2077	VT-1872	213-1656	S702	229-1648	L2236	213-1747
E963P	229-1624	VT-1892	213-1629	S705	229-1651	L2250	213-1763
E966P	229-1776	VT-1992	213-1692	S709	229-1650	L2254	213-1749
E967P	229-1732	VT-2000	213-1694	S710	229-1643	L2270	213-1756
E975P	229-1644	VT-2032	213-1614	S713	229-1660	L2273	213-1765
E-976-P	229-2100	VT-2041	213-1649	S719	229-1665	L2276	213-1761
E-977-P	229-2101	VT-2071	213-1718	S720	229-1657	L2278	213-1767
E-978-P	229-2134	VT-2073	213-1720	S723	229-1652	L3400	213-1784
E979P	229-1778	VT-2082	213-1739	S725	229-1629	L4600	213-1766
E980P	229-1130	VT-2084	213-1675	S726	229-1665	L4649	213-1754
E-988-P	229-2034	VT-6003	213-1736	S727	229-1661	L5127	213-1760
E997P	229-1658	VT-6016	213-1726	S730	229-1649	L5129	213-1758
E999P	229-1784	VT-6024	213-1757	S736	229-1664	L6000	213-1753
HL-1812	213-1635	VT-6054	213-1769	S741	229-1691	L6004	213-1736
HL-1817	213-1638	Engine Dynamics		S742	229-1692	L6005	213-1735
HL-1817HP	213-1683	1023	229-1612	S756	229-1679	L6600	213-1730
HL-1846	213-1646	1023	229-1622	S765	229-1675	L6603	213-1732
HL-1855	213-1650	1026	229-1624	S767	229-1647	L6610	213-1734
HL-1879	213-1662	1028	229-1617	S773	229-1647	L6615	213-1769
HL-1896	213-1664	1033	229-1130	S774	229-1686	L6620	213-1759
HL-1900	213-1667	1064	229-1614	S775	229-1687	L6625	213-1761
HL-1900HP	213-1682	1065	229-1636	S778	229-1668	L7400	213-1777
HL-1937	213-1675	1093	229-1629	S779	229-1643	L812	213-1635
HL-1945	213-1650	1211	229-1615	S780	229-1795	L817	213-1638
HL-1949	213-1669	1212	229-1616	S781	229-1678	L817X	213-1683
HL-1951	213-1674	1212	229-1623	S782	229-1702	L846	213-1646
HL-1951HP	213-1684	S187	229-1187	S783	229-1704	L896	213-1664
HL-1957	213-1678	S198	229-1198	S784	229-1688	L900	213-1667
HL-1969	213-1685	S210	229-1210	S785	229-1696	L900X	213-1682
HL-1976	213-1686	S251	229-1251	S786	229-1697	L945	213-1650
HL-2011	213-1679	S252	229-1252	S787	229-1394	L951	213-1674
HL-2011HP	213-1705	S261	229-2279	S789	229-1710	L951X	213-1684
HL-2012	213-1703	S273	229-1273	S790	229-1715	L957	213-1678
HL-2056	213-1710	S274	229-1274	S792	229-1716	L969	213-1685
HL-2077	213-1719	S293	229-1293	S793	229-1647	L976	213-1686
HL-2083	213-1669	S301	229-1301	S794	229-1655	MT2000	213-1694
HL-2089	213-1721	S323	229-1323	S796	229-1707	MT2084	213-1675
HL-2095	213-1724	S327	229-1327	S798	229-1725	MT872	213-1656
HL-2102	213-1723	S339	229-1338	S799	229-1714	MT937	213-1675
HL-2104	213-1725	S364	229-1364	S801	229-1699	MT992	213-1692
HL-2105	213-1722	S380	229-1380	S805	229-1703	F.P. Diesel	
HL-2148	213-1738	S386	229-1742	S8083	229-1722	FP-199180	229-2415
HL-2198	213-1730	S402	229-1402	S811	229-1783	FP-215580	229-2308
HL-2201	213-1725	S415	229-1415	S813	229-1701	FP-2W4197	229-1783
HL-2205	213-1742	S442	229-1442	S823	229-1720	FP-2W7980	229-1848
HL-2207B	213-1790	S443	229-1443	S824	229-1701	FP-3023177	229-1743
HL-2207E	213-1789	S448	229-1640	S825	229-1821	FP-3037523	229-2145
HL-2217	213-1743	S480	229-1480	S826	229-1797	FP-3049024	229-1874
HL-2236	213-1747	S483	229-1483	S827	229-1886	FP-3277462	229-1951
HL-2251	213-1748	S551	229-1551	S829	229-1785	FP-3277463	229-1950
HL-2252	213-1778	S560	229-1601	EngineTech		FP-3608786	229-2208
HL-2254	213-1749	S563	229-1608	L2011	213-1679	FP-3801030	229-1923
HL-2255	213-1765	S564	229-1606	L2011X	213-1705	FP-3801426	229-2210
HL-2269	213-1750	S568	229-1743	L2012	213-1703	FP-3801448	229-2233
HL-6000	213-1753	S579	229-1840	L2056	213-1710	FP-3801749	229-2209
HL-6004	213-1732	S586	229-1646	L2077	213-1719	FP-3801763	229-1722
HL-6005	213-1735						

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
F.P. Diesel (Cont.)		Ford (Cont.)		Ford (Cont.)		Ford (Cont.)	
FP-3803903	229-2144	C2OE-6500-A	213-1667	D0OZ-6500-A	213-1667	E4DZ6250A	229-1793
FP-3895679	229-1954	C3OZ6250A	229-1640	D0ZZ6250A	229-1616	E53Z6250A	229-1918
FP-3925031	213-1782	C3OZ6250B	229-1402	D0ZZ6500A	213-1694	E5AE-6500-AC	213-1742
FP-3931623	213-1782	C3OZ6250C	229-1616	D10Z6500A	213-1667	E5AZ6250A	229-1773
FP-454GC568AP1	229-1826	C3AE6500A	213-1629	D1AZ6250A	229-1647	E5AZ6500A	213-1742
FP-454GC578C	229-2191	C3AZ6250A	229-1443	D1AZ6500A	213-1667	E5FE-6500-CA	213-1723
FP-489172	229-2115	C3AZ6250B	229-1483	D1AZ6500B	213-1667	E5FZ6250A	229-1911
FP-4W2430	229-2197	C3AZ6250E	229-1601	D1FZ6250A	229-1652	E5FZ-6250-D	229-1927
FP-5117853	229-1742	C3AZ6250H	229-1608	D1ZZ6500B	213-1694	E5FZ6500A	213-1723
FP-7C3862	229-2189	C3AZ6250S	229-1443	D27Z6250A	229-1748	E5TZ6250C	229-1840
FP-7C3864	229-1831	C3AZ6250U	229-1443	D27Z6250B	229-1748	E5ZZ6250A	229-1774
FP-7S3161	213-1775	C3AZ6250V	229-1601	D2JE-6250-BA	229-1833	E5ZZ6250C	229-1839
FP-8923733	229-2185	C3DE6500B	213-1669	D2JE6250CA	229-1834	E5ZZ6250D	229-1839
FP-8923734	229-2186	C3DZ6250A	229-1640	D2RY6250A	229-1675	E6DZ6250A	229-1926
FP-8N9245	229-1830	C3DZ6250B	229-1640	D2RY6250B	229-1652	E6FZ6250A	229-1910
FP-9N5786	213-1720	C3DZ6500A	213-1669	D2RY6500A	213-1656	E6TN6250AA	229-2149
FP-9Y3355	229-2188	C3DZ6500B	213-1669	D2VY6250B	229-1649	E6TZ6250A	229-1952
FP-R33778	229-2265	C3MY6250B	229-1443	D2ZY6250B	229-1883	E6TZ6500A	213-1669
FP-R52773	213-1781	C3MY6250C	229-1443	D2ZZ6250B	229-1883	E7FZ6250A	229-2195
FP-R71530	229-2180	C3SV-6500-A	213-1669	D3OZ6250A	229-2155	E7FZ6250B	229-2196
FP-T20073	213-1744	C3SZ6500A	213-1669	D3OZ6250C	229-1601	E7FZ6250C	229-1908
Ford		C3TZ6250D	229-1772	D3AZ6250A	229-1647	E7FZ6250D	229-1907
5750692	213-1669	C3TZ6250E	229-1210	D3DZ6250A	229-1665	E7FZ6500A	213-1743
5752073	213-1629	C3TZ6250G	229-1609	D4AZ6250A	229-1647	E7GZ6250A	229-2166
5752074	213-1656	C3VE-6500-A	213-1669	D4AZ6250B	229-1647	E7GZ6250B	229-2166
70HM6250BD	229-1652	C4AE-6500-A	213-1669	D4FZ6250A	229-1679	E7TZ6250C	229-2194
81SM-6500-D1H	213-1723	C4AZ6500B	213-1656	D4FZ6500A	213-1703	E7TZ6250D	229-1840
81SM-6500-D2H	213-1723	C4DE-6500-A	213-1669	D4ZZ6250A	229-1675	E7TZ6250E	229-1840
85TM-6500-AA	213-1669	C4OE-6500-A	213-1667	D5OZ6250A	229-1686	E8BZ6250A	229-2166
85TM-6500-AB	213-1669	C4TE-6500-A	213-1669	D5DZ6250A	229-1665	E8DZ6250A	229-1925
8N6500	213-1614	C4TZ6250A	229-1210	D5DZ6250B	229-1665	E92Z6250A	229-2231
90TM-3500-AF	213-1752	C4TZ6250B	229-1621	D5TZ6250A	229-1840	E92Z-6C501-A	213-1749
91A6500AX	213-1614	C4TZ6250C	229-1621	D6OZ6250C	229-1655	E92Z6C501B	213-1749
B3AE6500A	213-1614	C4TZ6250E	229-1621	D6EE-6C501-A1A	213-1703	E9BZ6250A	229-2172
B50-6500-A	213-1669	C4TZ6500A	213-1669	D6FZ6500A	213-1703	E9EE-6500-A2A	213-1743
B5A6250C	229-1210	C4TZ6500B	213-1669	D7FZ6250A	229-1679	E9FZ6500A	213-1743
B5Q6500A	213-1656	C5OZ6250A	229-1640	D7TZ6250A	229-1840	E9JY6250C	229-2172
B6A6250C	229-1210	C5OZ6250Z	229-1640	D7TZ6250B	229-1840	E9JY6250D	229-2172
B6A6500A	213-1629	C5AE-6500-A	213-1667	D7VY6250A	229-1649	E9SE-6500-AA	213-1742
B6AZ6250A	229-1210	C5AZ6250A	229-1840	D8AE-6500-A	213-1667	E9SZ6250A	229-2193
B7A6250B	229-1210	C5AZ6500B	213-1656	D8ED-6C501-A1A	213-1703	E9SZ6250B	229-2192
B7A6250C	229-1210	C5TZ6250A	229-1840	D8RZ6250A	229-1709	E9SZ6500A	213-1742
B8A-6250-B	229-2329	C6AE-6500-A	213-1669	D9HZ6250A	229-1649	E9TZ6500A	213-1725
B8A6250C	229-1210	C6AE-6500-B	213-1669	D9HZ6500A	213-1667	EAA6500A	213-1629
B8A6500A	213-1656	C6AZ6250A	229-1634	D9TZ6250A	229-1647	EAA6500D	213-1629
B8AZ-6250-B	229-2329	C6AZ6500A	213-1669	D9ZZ6250A	229-1675	EAD6500	213-1669
B8C6500A	213-1629	C7OZ6250A	229-1640	E0AZ6250A	229-1833	EAM6500A	213-1656
B8S6500A	213-1669	C7AE-6500-A	213-1667	E0EE-6C501-AA	213-1703	EBJ6500A	213-1669
B9TE6500A	213-1656	C7AZ6250A	229-1633	E0SZ6250A	229-1686	ECU6500A	213-1669
B9TE6500A1	213-1656	C7AZ6250C	229-1601	E1FZ6250A	229-1745	EDG6500A	213-1669
C0AE-6250-A	229-2329	C7DZ6250A	229-1640	E1FZ6500A	213-1723	EDL6500A	213-1656
C0AE6500A	213-1669	C7NN6250B	229-2149	E1RZ6250A	229-1745	EOAZ6250A	229-1833
C0AZ6250A	229-2329	C8AE-6500-A	213-1669	E1TN6250AA	229-2149	F0BZ6250A	229-2172
C0AZ6500C	213-1694	C8AZ6500A	213-1669	E1TZ6250A	229-1840	F0CZ-6250-A	229-2253
C0DE6250A	229-2279	C8AZ6500B	213-1669	E1ZZ6250A	229-1679	F0DE-6500-AA	213-1667
C0DE6250B	229-2279	C8SZ6250A	229-1649	E2DZ6250A	229-1744	F0TZ6250A	229-2252
C0DZ6250B	229-2279	C8VY6250A	229-1649	E2EE-6500-CA	213-1723	F0TZ-6250-B	229-2251
C0TE6250A	229-1483	C9OZ6250A	229-1655	E2FZ6250A	229-1827	F0TZ-6500-A	213-1752
C0TZ6250C	229-1483	C9AE-6500-A	213-1669	E2FZ6250B	229-1827	F1AE-6C501-BB	213-1766
C0TZ6250D	229-1483	C9DZ6250A	229-1665	E2FZ6500B	213-1723	F1AZ6250C	229-1773
C1SE-6250-A	229-2329	C9ZZ6250A	229-1616	E2GZ6250A	229-1836	F1AZ-6C501-A	213-1766
C1VE6500A	213-1669	CAZ-6500-A	213-1669	E3FZ6250A	229-1745	F1AZ-6C501-B	213-1766
C2OZ6500A	213-1667	D0OZ6500A	213-1667	E3FZ6250B	229-1827	F1BZ6250A	229-2172
C2OZ6500B	213-1667	D0AE-6500-A	213-1667	E3TZ6250A	229-1839	F1CZ-6C501-A	213-1743
C2OZ6500C	213-1667	D0AE-6500-E	213-1667	E3TZ6250B	229-1872	F1DZ6500A	213-1667
C2OZ6500D	213-1667	D0AZ6250B	229-1647	E3TZ6250D	229-1772	F1HZ6250A	229-2217
C2AZ-6250-B	229-2329	D0AZ6250C	229-1647	E3TZ6500A	213-1725	F1HZ6250C	229-2217
		D0AZ-6500-A	213-1667	E43Z6250A	229-1785	F1TZ6250A	229-1833

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Ford (Cont.)		General Motors Corp. (Cont.)		General Motors Corp. (Cont.)		General Motors Corp. (Cont.)	
F1TZ-6250-B	229-1649	10101439	229-2264	14057996	229-1794	22545578	229-2219
F1ZZ6250A	229-1774	10101761	229-2261	14058000	229-1797	2376359	229-1480
F23Z6250A	229-2316	10103699	229-1935	14060649	229-1703	24100005	213-1780
F23Z6250B	229-2275	10111773	229-1916	14060651	229-1274	24500052	229-2256
F2AE-6C501-AB	213-1766	10118636	229-2280	14060653	229-1666	24501457	229-2278
F2AZ-6250-A	229-2331	10118675	229-1720	14060655	229-1871	24501458	229-2254
F2AZ-6250-B	229-2332	10124661	229-2260	14066308	229-1849	24503401	229-2254
F2AZ-6500-A	213-1742	10124682	229-2262	14077973	229-1829	24505674	229-2326
F2CE-6500-A2B	213-1743	10128238	229-1917	14079565	229-1797	24505811	229-2361
F2CE-6500-B2B	213-1743	10144047	229-2286	14088839	229-1274	24507450	229-2412
F2CZ6500A	213-1743	10144065	229-2287	14088841	229-1666	24507072	229-2219
F2SE-6500-AA	213-1742	10144176	229-1902	14088843	229-1871	24574570	229-2325
F2SZ6500A	213-1742	10166324	229-2280	14088844	229-1666	24574779	229-2375
F2TZ6250A	229-1840	10166337	229-2326	14088846	229-1829	24576399	229-2325
F2TZ6250B	229-1840	10166850	229-2259	14090055	229-1935	2470932	229-1480
F33Z6250A	229-2316	10172776	229-1902	14093630	229-1917	25178085	213-1754
F3CZ6500A	213-1743	10184912	229-2325	14093643	229-1916	25510019	229-1701
F3DZ-6250-C	229-2317	10214713	229-1902	14093686	229-1902	25510049	229-2268
F3TZ-6250-A	229-2251	10224241	229-2365	14094097	229-1666	25517479	229-1841
F3TZ6250B	229-2285	10241264	229-2354	14094728	229-1871	25522674	229-2176
F47Z6250A	229-2318	10241691	229-2328	14095789	229-1832	25523930	229-1937
F47Z6250B	229-2318	10241693	229-2411	14096209	229-1958	25526849	229-1933
F4SZ6250A	229-2315	10243779	229-2364	14096233	229-1881	25527389	229-1937
F4TZ6250B	229-2283	1029616	229-1697	14096234	229-1882	25531056	229-2176
F57E-6C501-BA	213-1703	1164950	229-1364	14096458	229-1957	25531839	229-2211
F57F-6C501-CA	213-1703	1173318	229-1606	14097324	229-2350	25533155	229-2211
F57Z6250A	229-2318	1178587	229-1606	14097395	229-2351	25533424	229-2256
F57Z-6250-B	229-2194	1185918	229-1606	1429464	229-1678	25533983	229-2256
F58Z-6250-A	229-2317	1196037	229-1606	1486583	229-1660	25535229	229-2254
F5RZ-6250-A	229-2382	1233232	229-1646	1497211	229-1660	25535546	229-2278
F5RZ-6250-B	229-2381	12338325	229-2256	1618652	229-1660	25536869	229-2278
F65E-6C501-AA	213-1766	12338326	229-2256	1622143	229-1821	259472	229-1187
F67E-6C501-AA	213-1703	12339315	229-2211	1628822	229-1821	2770015	229-1708
F67J-6C501-AA	213-1766	1237651	229-1650	17085565	213-1685	330882	229-1687
F67Z-6500-AA	213-1703	1237665	229-1646	17085566	213-1638	330884	229-1687
F6AZ-6250-CA	229-2331	1237736	229-1650	17085567	213-1674	353040	229-1661
F6AZ-6250-DA	229-2332	1239629	229-1646	17085568	213-1724	357149	229-1666
F6AZ-6250-EA	229-2331	1246739	229-1646	17088137	213-1747	360527	229-1710
F6DZ-6C501-A	213-1766	1249464	229-1678	17088144	213-1747	361495	229-1710
F6ZZ-6250-A	229-2362	1251348	229-1795	17089102	213-1747	361995	229-1668
F77Z-6500-AB	213-1766	12551622	229-2353	17089852	213-1738	3704212	229-1273
F7UZ-6250-AA	229-2383	12551705	229-2363	17091161	213-1747	3733431	229-1274
F7UZ-6250-BC	229-2384	12552296	229-2327	17105697	213-1754	3744901	229-1171
F8CZ-6250-AA	229-2416	1255666	229-1702	17105951	213-1747	3752735	229-1323
F8CZ-6250-DA	229-2417	12557812	229-2337	17106046	213-1784	3779410	213-1638
FIH6250B	229-1649	1255854	229-1701	17106263	213-1754	3788984	229-1394
M-6250-E303	229-2216	12560965	229-2337	17108288	213-1784	3789544	229-1551
PB8M6500A	213-1669	12564012	213-1779	17120060	213-1777	3799644	213-1638
YC2Z-6250-AA	229-2384	12565413	229-2375	17120061	213-1777	380270	213-1638
YC2Z-6250-BA	229-2383	12565549	229-2325	17120070	213-1756	3836482	229-1251
YS4Z-6250-AA	229-2380	12576400	213-1738	17120090	213-1738	3836483	229-1252
YS4Z-6250-DA	229-2379	1262835	229-2268	17120735	213-1738	3836484	229-1293
General Motors Corp.		1264395	229-1701	17120991	213-1747	3836491	229-1338
10002464	229-1696	1357868	229-1657	17121905	213-1738	3847998	229-1551
10002977	229-1688	1362243	229-1606	17122490	213-1738	3849346	229-1612
10006745	229-1697	1362245	229-1364	21000740	213-1765	3863151	229-1713
10007424	229-1696	1362248	229-1657	21006678	213-1765	3864497	229-1394
10011299	229-1696	1368090	229-1606	21006693	213-1765	3864918	229-1394
10027766	229-2263	1382148	229-1646	21015025	213-1765	3869997	213-1638
10028717	229-1886	1382995	229-1650	22506227	229-1648	3873843	229-1953
10029787	229-1875	14014447	229-1703	22510099	229-1724	3874872	229-1637
10044525	229-2260	14014475	229-1666	22519934	229-1835	3883986	229-1953
10044530	229-2263	14018762	229-1797	22527149	229-1798	3891515	229-1637
10055487	229-1881	14022642	229-1849	22530992	229-1941	3891590	229-1959
10066049	229-1916	14024278	229-1720	22530993	229-1942	3892340	229-1898
10088148	229-1902	14031378	229-2280	22531804	229-2169	3896929	229-1274
10088155	229-1917	14044613	229-1871	22545577	229-2218	3896962	229-1615

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General Motors Corp. (Cont.)		General Motors Corp. (Cont.)		General Motors Corp. (Cont.)		Hi-Tech (Cont.)	
3904362	229-1614	5232895	213-1674	94380758	213-1754	202101	229-1655
3906688	229-1899	5232900	213-1674	94614814	213-1710	202102	229-1734
3918962	229-1274	5233315	213-1710	94658949	229-1936	202103	229-1617
3927140	229-1622	5233335	213-1685	94658951	229-1946	202109	229-2076
3935464	229-1637	5233410	213-1685	94840049	229-1892	202201	229-1647
3937765	229-1924	5233465	213-1725	94844697	229-2335	202202	229-1733
3943957	213-1747	5233515	213-1719	94844698	229-2336	202206	229-2137
3963544	229-2267	5233605	213-1725	94844703	213-1736	202301	229-1634
3998962	229-1879	5233645	213-1725	94847312	229-2344	202306	229-2086
400084	229-1648	5233745	213-1738	94847313	229-2345	202401	229-1649
400117	229-1648	5234000	213-1725	94853598	229-2346	202403	229-1732
402194	229-2104	5234150	213-1724	94853599	229-2347	202501	229-1679
402486	229-1648	5234160	213-1724	94855434	229-2346	202504	229-2047
402569	229-1644	5234200	213-1685	94856355	229-2346	202514	229-2048
409717	229-1648	5234212	213-1724	94856356	229-2347	202701	229-1745
460168	229-1710	5234235	213-1685	96060049	229-2341	203401	229-1744
461373	229-1703	5234295	213-1725	96061666	213-1754	203501	229-1210
464286	229-1710	5234305	213-1735	9779066	229-1626	203601	229-1686
466334	229-1710	5234320	213-1685	9779067	229-1626	203801	229-1772
473436	229-1687	5234330	213-1685	9779068	229-1626	204001	229-1483
476523	229-1720	5234360	213-1685	18526-89	213-1750	204101	229-1872
483555	229-1626	5234400	213-1719	Hi-Tech		204201	229-1748
491255	229-1626	5234435	213-1725	100901	229-1702	204301	229-1633
491266	229-1626	5234464	213-1725	101001	229-1274	204401	229-1793
494957	229-1626	5234470	213-1725	101002	229-1730	204900	229-1833
499359	229-1708	5234485	213-1685	101004	229-1993	204901	229-2155
518111	229-1187	5234530	213-1725	101006	229-1730	205401	229-1839
519640	229-1187	5234625	213-1725	101007	229-1988	205501	229-1785
5231355	213-1674	5234660	213-1738	101009	229-2156	205601	229-1774
5231360	213-1674	5234670	213-1738	101015	229-1995	206201	229-1907
5231430	213-1638	5234680	213-1725	101201	229-1703	206301	229-1908
5231465	213-1638	5234695	213-1646	101202	229-1736	206401	229-1910
5231470	213-1664	5234755	213-1725	101301	229-1720	206701	229-1911
5231475	213-1638	5234890	213-1738	101801	229-1480	206901	229-1918
5231615	213-1674	5234905	213-1725	101901	229-1849	207001	229-1926
5231655	213-1678	5235455	213-1754	102001	229-1666	207301	229-1925
5231740	213-1646	5235498	213-1738	102101	229-1668	207401	229-1773
5231970	213-1664	526793	229-1688	102201	229-1710	207701	229-1840
5232090	213-1664	527471	229-1688	102301	229-1794	207801	229-2194
5232100	213-1638	5322745	213-1738	102501	229-1637	208001	229-1623
5232110	213-1638	537441	229-1626	102601	229-1715	208401	229-2172
5232205	213-1678	547686	229-1688	102701	229-1687	252501	229-2151
5232245	213-1664	549112	229-1688	103001	229-1661	252601	229-2159
5232265	213-1674	549431	229-1688	103101	229-1612	274	229-1274
5232275	213-1664	549640	229-1187	103301	229-1614	275RV	229-2156
5232280	213-1638	550638	229-1704	103801	229-2280	303001	229-1645
5232320	213-1674	562298	229-1704	104800	229-1958	303002	229-1735
5232375	213-1674	562299	229-1648	105001	229-1797	303006	229-2021
5232385	213-1674	562303	229-1648	105101	229-1839	303106	229-2157
5232435	213-1678	6262809	229-2270	105501	229-1935	303113	229-2034
5232450	213-1638	6262944	229-1879	105901	229-1902	303201	229-1755
5232510	213-1685	6269734	229-2133	106001	229-1871	303301	229-1380
5232565	213-1638	6269983	229-2132	12202	229-1722	303401	229-1198
5232570	213-1674	6272972	229-1880	12204	229-1874	304501	229-1887
5232575	213-1674	90106632	229-1949	12301	229-2144	304601	229-1712
5232660	213-1638	90169203	229-1886	151101	229-1829	304701	229-1922
5232670	213-1638	90200003	229-1886	151201	229-1821	305201	229-1877
5232675	213-1674	90264937	229-2206	179R	229-1713	305601	229-1663
5232675	213-1684	90537423	229-2374	20001	229-1783	353501	229-1415
5232695	213-1692	90537424	229-2373	20003	229-1830	353601	229-1885
5232700	213-1638	90537666	229-2373	20005	229-1847	404003	229-1130
5232720	213-1638	90537730	229-2374	202001	229-1601	404101	229-1697
5232750	213-1674	91172320	229-2341	202002	229-1734	404201	229-1708
5232755	213-1674	91173039	229-2341	202008	229-2058	404301	229-1626
5232765	213-1685	9341350	229-1924	202009	229-2055	404801	229-1886
5232780	213-1674	94132993	229-2146	20203	229-1884	405001	229-1875
5232810	213-1685	94203084	229-1715			405101	229-2263
						405301	229-1949

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Hi-Tech (Cont.)		Hi-Tech (Cont.)		Honda (Cont.)		Isuzu (Cont.)	
454501	229-2180	H2167	213-1750	14110PE1900	229-1943	8-14088-839-0	229-1274
505001	229-1702	H2205	213-1742	14110PEO660	229-1944	8-17120-735-0	213-1738
505002	229-1731	H2205B	213-1742BT	14110PEO670	229-1944	894132993	229-2146
505101	229-1678	H2217	213-1743	14111634000	229-1714	8941329931	229-2146
505201	229-1650	H2217B	213-1743BT	14111-P06-A80	229-2385	8941367841	229-1969
505301	229-1702	H2236	213-1747	14111-P30-G00	229-2387	894203084	229-1715
505601	229-1646	H2236B	213-1747BT	14111-P30-G00	229-2387	8942151890	229-1969
505801	229-1937	H2244	213-1752	14111PC6000	229-1968	8-94380-758-0	213-1754
506101	229-2211	H2244B	213-1752BT	14111PC6010	229-1968	8-94425-686-0	213-1754
506201	229-1841	H2251	213-1748	14111PC6900	229-1968	8944603241	229-1969
506301	229-1937	H2269	213-1750	14111PC6901	229-1968	8-97010-727-0	213-1749
560	229-1601	H2269B	213-1750BT	14111PC7000	229-1968	8-97148-296-1	213-1787
561RV	229-2055	H2270	213-1756	14111PC7010	229-1968	ITM Automotive Parts, Inc.	
606008	229-1972	H2270B	213-1756BT	14111PD2660	229-1966	0561100	229-1715
606101	229-1643	H2271	213-1766	14111PD2670	229-1966	0561220	229-1747
606301	229-1643	H2271B	213-1766BT	14111PD6000	229-1967	0561510	229-1691
606601	229-1905	H2272	213-1754	14111PE7000	229-2281	0561700	229-1692
606801	229-1929	H2273	213-1765	14111PH2900	229-1967	0561800	229-1692
648	229-1649	H2274	213-1763	14111PH4000	229-1967	0561900	229-1679
651	229-1648	H2276	213-1761	14111PJ0000	229-1967	0562200	229-1714
657101	229-1747	H2278	213-1767	14111PJO010	229-1967	0562240	229-1725
657801	229-1938	H2278B	213-1767BT	14121-P30-G00	229-2388	0562250	229-1726
657901	229-1939	H6000	213-1753	14820-P8A-A01	213-1785	0562400	229-1725
666	229-1679	H6005	213-1735	14820-P8F-A01	213-1786	0562520	229-1699
670	229-1647	H812	213-1635	8-97148-296-1	213-1787	0562800	229-1699
674	229-1655	H817	213-1638	Hyundai		0562900	229-1692
702	229-1702	H817B	213-1638BT	24100-21000	229-2152	0563100	229-1691
707001	229-1699	H817R	213-1683	24610-32824	213-1753	0563500	229-1716
707401	229-1889	H817RB	213-1683BT	24610-33020	213-1763	0563510	229-1716
808701	229-1888	H846	213-1646	24610-33040	213-1763	0563600	229-1716
858401	229-1943	H846B	213-1646BT	24610-33050	213-1763	0564380	229-1725
901001	229-2219	H855	213-1650	International		0564400	229-1758
901401	229-1946	H855B	213-1650BT	151985R3	229-1415	0564420	229-1757
909101	229-1724	H879	213-1662	151985R4	229-1415	0564430	229-1726
909201	229-1648	H896	213-1664	151985R5	229-1415	0564440	229-1755
909401	229-1835	H896B	213-1664BT	1802340C1	213-1739	0564460	229-1772
909501	229-2104	H900	213-1667	1802505C1	229-1885	0564530	229-1745
909701	229-1942	H900B	213-1667BT	1804449C1	229-1872	0565001	213-1703
909801	229-1798	H900R	213-1682	1804449C91	229-1872	0565007	213-1722
909901	229-2218	H951B	213-1674BT	1805072C91	229-1872	0565034	213-1748
A2084	213-1675	H969	213-1685	1809910C1	229-2198	Jeep	
A2084B	213-1675BT	H969B	213-1685BT	1810744C1	229-2171	53006646	229-1905
A872	213-1656	H976	213-1686	1811649C91	229-2171	53020497	229-2338
A872B	213-1656BT	H976B	213-1686BT	1815538C1	229-2175	John Deere	
A892	213-1629	Honda		217158R91	213-1650	AR100384	229-2180
A914	213-1694	14110657040	229-1725	217158R92	213-1650	AR100385	229-2180
A992	213-1692	14110657050	229-1725	387026C91	229-1643	AR100386	229-2180
A992B	213-1692BT	14110671000	229-1725	387095C1	213-1679	AR32731	229-2265
H2011	213-1679	14110671770	229-1725	421221C91	229-1643	AR32732	229-2265
H2011B	213-1679BT	14110689000	229-1725	433562C1	213-1679	AR44394	229-2180
H2011R	213-1705	14110689010	229-1725	438037C91	229-1643	AR63280	229-2180
H2012	213-1703	14110689900	229-1725	445102C91	229-1643	AR69270	229-2180
H2056	213-1710	14110689901	229-1725	445285C1	229-1651	AR71709	229-2180
H2056B	213-1710BT	14110-P07-000	229-2385	446571C1	213-1679	AR74144	229-2180
H2083	213-1669	14110-P09-A00	229-2385	446801C1	229-1707	AR79610	229-2180
H2083B	213-1669BT	14110-P28-A00	229-2385	446801CI	229-1707	AR84064	229-2180
H2089	213-1721	14110-P2P-A00	229-2386	489172C1	229-2115	R33778	229-2265
H2089B	213-1721BT	14110PA5010	229-1758	684729-C1	213-1649	R52773	213-1781
H2095	213-1724	14110PA6900	229-1757	75524R3	213-1649	R71529	229-2180
H2095B	213-1724BT	14110PA6902	229-1757	911776R3	213-1649	R71530	229-2180
H2102	213-1723	14110PB2000	229-1726	Isuzu		R71531	229-2180
H2102B	213-1723BT	14110PB2020	229-1726	8-05232-720-0	213-1638	R82820	229-2407
H2104	213-1725	14110PC1010	229-1895	8052342120	213-1724	R82821	229-2408
H2104B	213-1725BT	14110PC1020	229-1895	8101186360	229-2280	RE15727	229-2180
H2105	213-1722	14110PC1901	229-1895	8-10118-675-0	229-1720	T20073	213-1744
H2105B	213-1722BT	14110PC1902	229-1895	8-10241-264-0	229-2354		
H2148	213-1738	14110PE1000	229-1943	8140313780	229-2280		
H2148B	213-1738BT						

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
KSG		Melling (Cont.)		Melling (Cont.)		Melling (Cont.)	
ML2011H	213-1679	22121	229-1832	CCS23	229-1666	J-2236	213-1747BT
ML2012H	213-1703	22124	229-1879	CCS24	229-1668	J-2240	213-1767BT
ML2077H	213-1719	22125	229-1880	CCS25	229-2267	J-2244	213-1752BT
ML2083H	213-1669	22200	229-1713	CCS26	229-2270	J-2270	213-1756BT
ML2095H	213-1724	22203	229-1988	CCS27	229-1703	J-2271	213-1766BT
ML2102H	213-1723	22204	229-1737	CCS28	229-1708	J-812	213-1635BT
ML2104H	213-1725	22210	229-1990	CCS29	229-1293	J-817	213-1638BT
ML2148H	213-1738	22214	229-2006	CCS3	229-1273	J-846	213-1646BT
ML2167H	213-1750	22215	229-2225	CCS30	229-1720	J-872	213-1656BT
ML2205H	213-1742	22216	229-1708	CCS31	229-1687	J892	213-1629BT
ML817H	213-1638	22217	229-1898	CCS32	229-1710	J-896	213-1664BT
ML900H	213-1667	22218	229-1899	CCS33	229-1794	J-900	213-1667BT
ML951H	213-1674	22221	229-2351	CCS34	229-1797	J-900R	213-1683BT
ML969H	213-1685	22222	229-2350	CCS35	229-1829	J-939	213-1649BT
ML992M	213-1692	22296	229-1636	CCS36	229-1849	J-945	213-1650BT
Mack Trucks Inc.		22301	229-1993	CCS37	229-1871	J-951	213-1674BT
454GC4223P1	229-1826	22305	229-1995	CCS38	229-1902	J-969	213-1685BT
454GC568AP1	229-1826	22320	229-1615	CCS39	229-1917	J-976	213-1686BT
454GC578C	229-2191	22410	229-1612	CCS4	229-1171	J-992	213-1692BT
72GC340	213-1727	22450	229-2294	CCS40	229-1916	JB2000	213-1694
72GC347	213-1727	23101	229-1735	CCS41	229-1703	JB2011	213-1679
Mazda		23102	229-1787	CCS42	229-1935	JB2011R	213-1705
030512420A	229-1748	23123	229-2021	CCS5	229-1252	JB2012	213-1703
AM1412421	229-1934	23203	229-2023	CCS6	229-1323	JB2032	213-1614
AM15-12-9X0	213-1753	23204	229-2032	CCS7	229-1394	JB2041	213-1649
B63012420	229-2166	23205	229-1901	CCS9	229-1551	JB2056	213-1710
B67512420	229-2172	23211	229-1629	CFC1	229-2279	JB2071	213-1718
B67512420A	229-2172	23302	229-2313	CFC3	229-1640	JB2077	213-1719
B67512420B	229-2172	23321	229-2036	CLT2	229-1715	JB2079	213-1738
B67512420B	229-2172	24101	229-1734	CRV1	229-1993	JB2083	213-1669
E30112421A	229-2151	24102	229-1733	CRV3	229-1988	JB2084	213-1675
F201-12-420	229-2231	24103	229-1732	CRV4	229-1737	JB2089	213-1721
F240-12-420	229-2243	24104	229-1776	DRV4	229-2032	JB2095	213-1724
F80112420	229-2159	24105	229-1775	FCC1	229-1748	JB2102	213-1723
F8B5-12-100B	213-1749	24107	229-2155	FCC-2	229-1748	JB2104	213-1725
FE3012420B	229-2159	24203	229-2057	FOV6	229-1609	JB2105	213-1722
FE85-12-420-A	229-2242	24204	229-1884	FOV7	229-1608	JB-2205	213-1742
FE8512420B	229-2242	24206	229-2311	FOV8	229-1840	JB2217	213-1743
G601-12-420	229-2349	24212	229-1617	FOV9	229-1665	JB-2225	213-1750
JE26-12-100B	213-1762	24218	229-1624	HSC1	229-1725	JB-2236	213-1747
JF01-12-100	213-1749	24224	229-2072	HSC10	229-1966	JB-2240	213-1767
JFY112100	213-1749	24303	229-1658	HSC11	229-1967	JB-2244	213-1752
KJ01-12-183A	213-1768	24409	229-1623	HSC12	229-1968	JB2250	213-1753
KL01-12-101B	213-1761	25101	229-2100	HSC2	229-1725	JB-2254	213-1749
Z501-12-183	213-1768	25211	229-2101	HSC4	229-1726	JB-2270	213-1756
ZZ10-12-431	213-1752	25309	229-1644	HSC5	229-1757	JB-2271	213-1766
ZZMO-12-420	229-2194	25310	229-2104	HSC6	229-1758	JB-6004	213-1732
ZZM1-12-420A	229-2318	26204	229-1130	HSC7	229-1714	JB-6050	213-1754
ZZM1-12-431	213-1742	29818	213-1683	HSC8	229-1943	JB-6051	213-1765
ZZM3-12-420	229-2194	29901	213-1682	HSC9	229-1944	JB-6054	213-1769
ZZM4-12-420	229-2318	29952	213-1684	J16	213-1614	JB812	213-1635
ZZM6-12-431	213-1703	C10P	229-1612	J-2000	213-1694BT	JB817	213-1638
ZZMO-12-431	213-1703	C20P	229-1615	J2011	213-1679BT	JB817R	213-1683
Melling		C396P	229-1614	J-2012	213-1703BT	JB846	213-1646
20101	229-1786	C396S	229-1636	J-2041	213-1649BT	JB855	213-1650
21101	229-2020	C400P	229-1713	J-2056	213-1710BT	JB872	213-1656
21102	229-1731	C410P	229-1990	J-2077	213-1719BT	JB879	213-1662
22100	229-2136	C700P	229-1622	J-2079	213-1738BT	JB892	213-1629
22101	229-1730	C750P	229-2294	J-2083	213-1669BT	JB896	213-1664
22102	229-2004	C7S	229-2202	J-2084	213-1675BT	JB900	213-1667
22105	229-1784	CASC4	229-1660	J-2089	213-1721BT	JB900R	213-1682
22107	229-2202	CASC5	229-1821	J-2095	213-1724BT	JB914	213-1694
22109	229-2200	CCR14	229-2006	J-2102	213-1723BT	JB937	213-1675
22110	229-2201	CCS1	229-1251	J-2104	213-1725BT	JB939	213-1649
22111	229-2156	CCS18	229-1394	J-2105	213-1722BT	JB945	213-1650
22114	229-2141	CCS2	229-1274	J-2205	213-1742BT	JB951	213-1674
22117	229-1924	CCS20	229-1637	J-2217	213-1743BT	JB951R	213-1684
22119	229-1881	CCS22	229-1661	J-2225	213-1750BT	JB957	213-1678

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Melling (Cont.)		Melling (Cont.)		Melling (Cont.)		Melling (Cont.)	
JB969	213-1685	MC1256	229-2316	MTC5	229-1784	SPC9	229-1688
JB971	213-1674	MC1257	229-2317	MTD1	229-1735	SPD11	229-1327
JB976	213-1686	MC1258	229-2276	MTD2	229-1787	SPD12	229-1198
JB992	213-1692	MC1260	229-2252	MTF1	229-1734	SPD16	229-1442
JX2000	213-1694	MC1261	229-2257	MTF2	229-1733	SPD20	229-1645
JX2011	213-1679	MC1262	229-2274	MTF3	229-1732	SPD22	229-1654
JX2011R	213-1705	MC1263	229-2258	MTF4	229-1732	SPD24	229-1664
JX2012	213-1703	MC-1266	229-2344	MTF4	229-1776	SPD25	229-1663
JX2032	213-1614	MC-1267	229-2345	MTF5	229-1775	SPD27	229-1712
JX2041	213-1649	MC1268	229-2264	MTF6	229-1964	SPD28	229-1755
JX2056	213-1710	MC1269	229-2260	MTO1	229-2100	SPD3	229-1380
JX2071	213-1718	MC1270	229-2262	MTP1	229-1778	SPD30	229-1877
JX2077	213-1719	MC-1272	229-2339	MTP2	229-1822	SPD31	229-2323
JX2083	213-1669	MC-1273	229-2340	PPD23	229-2021	SPD32	229-1747
JX2084	213-1675	MC1274	229-2287	RFP2	229-1713	SPD33	229-1903
JX2089	213-1721	MC1275	229-2286	ROC10	229-2104	SPD34	229-1922
JX2095	213-1724	MC1276	229-2335	ROC9	229-1644	SPD35	229-1940
JX2102	213-1723	MC1277	229-2336	RPC4	229-1130	SPD8	229-1327
JX2104	213-1725	MC1278	229-2318	RPD11	229-1629	SRC5	229-1651
JX2105	213-1722	MC1279	229-2334	RPD20	229-1653	SRC6	229-2269
JX812	213-1635	MC1280	229-2333	RPD21	229-2036	SRC7	229-1643
JX817	213-1638	MC1287	229-1648	RYB12	229-1617	SRC8	229-1643
JX817R	213-1683	MC1288	229-2283	RYB18	229-1624	SRC9	229-1905
JX846	213-1646	MC1289	229-2285	RYB24	229-1658	SVW1	229-1716
JX855	213-1650	MC1290	229-2280	RYB24	229-2072	SWC1	229-1301
JX872	213-1656	MC-1292	229-2361	RYB9	229-1623	SYB11	229-1601
JX879	213-1662	MC-1293	229-2346	SBC10	229-1701	SYB12	229-1616
JX892	213-1629	MC-1294	229-2347	SBC11	229-1795	SYB13	229-1443
JX896	213-1664	MC-1295	229-2348	SBC12	229-1701	SYB14	229-1483
JX900	213-1667	MC-1297	229-2338	SBC12	229-2268	SYB16	229-1621
JX900R	213-1682	MC1298	229-2244	SBC13	229-1702	SYB19	229-1649
JX914	213-1694	MC-1300	229-2341	SBC14	229-1841	SYB2	229-1210
JX937	213-1675	MC1301	229-2331	SBC15	229-1933	SYB20	229-1655
JX939	213-1649	MC1302	229-2332	SBC16	229-1937	SYB21	229-1647
JX945	213-1650	MC1303	229-2325	SBC3	229-1606	SYB22	229-1634
JX951	213-1674	MC1304	229-2326	SBC4	229-1646	SYB23	229-1633
JX951R	213-1684	MC1309	229-2324	SBC5	229-1650	SYB24	229-1655
JX957	213-1678	MC-1310	229-2342	SBC8	229-1657	SYB25	229-1601
JX969	213-1685	MC-1311	229-2343	SBC9	229-1678	SYB26	229-1686
JX971	213-1674	MC1316	229-2327	SBOT1	229-1364	SYB27	229-1647
JX976	213-1686	MC762	229-2153	SDC1	229-1692	SYB28	229-1647
JX992	213-1692	MC769	229-1887	SDC2	229-1691	SYB29	229-1883
MC1200	229-2152	MC794	229-1895	SDC6	229-1896	SYB30	229-2155
MC1210	229-2147	MC796	229-2151	SDC7	229-1894	SYB31	229-1745
MC1220	229-2148	MC797	229-2159	SDC-8	229-1888	SYB32	229-1744
MC1230	229-2142	MC803	229-2158	SFP1	229-1652	SYB33	229-1793
MC1231	229-2192	MC809	229-1929	SFP2	229-1679	SYB34	229-1827
MC1233	229-2211	MC810	229-1934	SFP4	229-1675	SYB35	229-1833
MC1234	229-2206	MC-814	229-1952	SFP5	229-1709	SYB36	229-1772
MC1235	229-2218	MC816	229-1947	SGM2	229-1480	SYB37	229-1839
MC1236	229-2219	MC817	229-1948	SIH1	229-1415	SYB38	229-1840
MC1237	229-2195	MC820	229-1939	SIH5	229-1707	SYB39	229-1836
MC1238	229-2196	MC821	229-1946	SIH6	229-1872	SYB42	229-1910
MC1239	229-1969	MC822	229-1938	SOC10	229-1704	SYB43	229-1773
MC1240	229-2173	MC830	229-2116	SOC-11	229-1724	SYB44	229-1907
MC1241	229-1925	MC831	229-1941	SOC14	229-1798	SYB45	229-1908
MC1242	229-2217	MC832	229-1942	SOC9	229-1648	SYB46	229-1911
MC1243	229-1963	MC835	229-2194	SPC10	229-1697	SYB47	229-1927
MC1244	229-1962	MC836	229-2176	SPC11	229-1696	SYB48	229-1785
MC1245	229-2231	MC839	229-2146	SPC13	229-1708	SYB49	229-1918
MC1246	229-2236	MC840	229-2166	SPC14	229-2280	SYB50	229-1926
MC1247	229-2229	MC841	229-2172	SPC15	229-1886	SYB51	229-1774
MC1249	229-2256	MTA1	229-1786	SPC16	229-1949	SYB8	229-2329
MC1250	229-2278	MTB-1	229-2020	SPC17	229-1875	SYB9	229-1402
MC1251	229-2254	MTB2	229-1731	SPC18	229-2263	TSC1	229-1699
MC1252	229-2266	MTC1	229-1730	SPC19	229-1936	TSC6	229-1892
MC1253	229-2273	MTC2	229-2004	SPC2	229-1187		
MC1255	229-2275	MTC4	229-1736	SPC4	229-1626		

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Mercury Marine		Nissan (Cont.)		SB International (Cont.)		Sealed Power (Cont.)	
17340	213-1738	1302030R00	229-2272	VL66RH	213-1683	CS-1044M	229-1880
424-2422	229-1708	1302040F00	229-2272	VL67RH	213-1682	CS-1045M	229-1899
424-3864	229-1924	1302040F01	229-2272	VL73	213-1685	CS-1046M	229-1898
430-3161	229-1959	1302084A00	229-2277	VL8	213-1635	CS-1047M	229-1958
431-3357	229-1880	1306113P20	229-2147	VL83	213-1703	CS-1048M	229-1957
431-3427	229-1899	1306113P80	229-2147	VL86	213-1723	CS-1049M	229-1832
431-4734	229-1953	1306119P80	229-2147	VL87	213-1722	CS-1051M	229-1881
431-5943	229-1879	13061V5210	229-2147	VL88	213-1721	CS-1052M	229-1882
431-803186	229-2350	13061V5280	229-2147	VL89	213-1679	CS-1055M	229-1901
431-811658	229-2351	13231-53F02	213-1760	VL9	213-1669	CS-1056M	229-1900
431-811840	229-1881	13231-53Y01	213-1758	VL94	213-1724	CS-1057M	229-1834
431-824327	229-2350	13231-53Y11	213-1758	Sealed Power		CS1061R	229-2400
431-8968	229-2133	1323158S12	213-1757	A-914	213-1694	CS1065R	229-2351
431-9433	229-1832	1323159S00	213-1757	AT2000	213-1694	CS-1068M	229-1924
431-9691	229-1881	1323179S00	213-1757	AT-2000B	213-1694BT	CS-1069R	229-2174
431-9830	229-1958	13231V5003	213-1730	AT2041	213-1649	CS1070R	229-2401
447-4062	229-1833	13231V5004	213-1730	AT-2041B	213-1649BT	CS1071R	229-2402
447-5098	229-1881	13234-53J01	213-1759	AT2071	213-1718	CS1072R	229-2404
451-7892	229-2228	1368601E4126	229-1691	AT2073	213-1720	CS1073R	229-2403
56153	213-1667	Saturn		AT2082	213-1739	CS1074R	229-2405
72638	213-1638	21006357	213-1778	AT2084	213-1675	CS1075R	229-2406
93722	213-1683	21015025	213-1765	AT-2084B	213-1675BT	CS1079R	229-2389
Mitsubishi		24100005	213-1780	AT-2212	213-1775	CS1080R	229-2390
M04667140	213-1767	SB International		AT6003	213-1736	CS-1081	229-1844
MD021352	229-1747	170-1001	213-1739	AT-6010	213-1769	CS1081R	229-2392
MD023151	229-1747	170-1011	213-1775	AT6024	213-1757	CS1084	229-2263
MD072177	213-1753	170-1012	213-1649	AT770	213-1614	CS-1084R	229-1775
MD085045	229-2236	170-1012	213-1649	AT787	213-1656	CS-1085R	229-1733
MD093714	213-1753	170-1013	213-1720	AT850	213-1649	CS-1086R	229-1732
MD128968	229-2348	VL100	213-1742	AT872	213-1656	CS-1087R	229-1784
MD128969	229-2322	VL106	213-1750	AT872B	213-1656BT	CS-1088R	229-2004
MD128973	229-2320	VL107	213-1766	AT892	213-1629	CS-1089R	229-1735
MD128974	229-2319	VL109	213-1710	AT-892B	213-1629BT	CS-108R	229-1617
MD131485	229-2235	VL112RH	213-1705	AT914	213-1694	CS-1092M	229-1959
MD148080	229-2234	VL113	213-1743	AT939	213-1649	CS-1093M	229-1953
MD149309	213-1763	VL114	213-1725	AT953	213-1744	CS-1094M	229-2133
MD151382	213-1753	VL115	213-1738	AT992	213-1692	CS-1095R	229-1990
MD153628	229-2321	VL116	213-1747	AT-992B	213-1692BT	CS-1096M	229-2132
MD171130	213-1774	VL119	213-1736	CS-1002R	229-2224	CS-1098R	229-1787
MD180084	229-2234	VL120	213-1754	CS1003	229-1794	CS-109R	229-1623
MD337687	213-1763	VL121	213-1730	CS-1003R	229-2141	CS-1100R	229-1658
MD339767	213-1753	VL123	213-1778	CS1004	229-1798	CS-1102R	229-1776
MD359419	213-1774	VL124	213-1765	CS-1004R	229-2136	CS-1103R	229-2156
MD376687	213-1774	VL13	213-1662	CS-1006R	229-2021	CS-1104R	229-2202
MD377054	213-1763	VL132	213-1789	CS-1007R	229-2157	CS-1105R	229-2203
Nissan		VL133	213-1790	CS-1010R	229-2137	CS-1106R	229-2205
1300117C80	229-1888	VL135	213-1763	CS-1011R	229-2086	CS-1108R	229-2294
1300119P80	229-2148	VL-138	213-1756	CS-1011R	229-2086	CS-1112R	229-1731
1300122000	229-1692	VL141	213-1753	CS-1013R	229-1988	CS-1114R	229-1736
130012200SV	229-1692	VL149	213-1761	CS-1014R	229-1730	CS-1116R	229-2032
1300127F80	229-2142	VL150	213-1752	CS-1015R	229-1737	CS-112R	229-2290
13001D0201	229-1894	VL163	213-1777	CS-1016R	229-2020	CS-1138R	229-1991
13001D0282	229-1894	VL171	213-1776	CS-1019R	229-2023	CS-1139R	229-2305
13001D3501	229-2142	VL172	213-1738	CS-1020R	229-2057	CS-1140R	229-2301
13001D3581	229-2142	VL173	213-1767	CS-1021R	229-1884	CS-1149R	229-2199
13001DO200	229-1894	VL21	213-1629	CS-1022R	229-1130	CS-1150R	229-2200
13001H2700	229-1692	VL24	213-1656	CS-1023R	229-2101	CS-1151R	229-2201
13001N3626	229-1691	VL31	213-1675	CS-1024R	229-2100	CS1152R	229-2391
13001U2000	229-1692	VL32	213-1650	CS1026	229-1715	CS-1156R	229-2046
13001V5210	229-2148	VL35	213-1667	CS-1026R	229-1786	CS-1158R	229-2055
13001V5280	229-2148	VL37	213-1638	CS-1027R	229-1822	CS-1159R	229-2311
13001W0402	229-1888	VL41	213-1664	CS-1028R	229-1987	CS-1160R	229-2098
13001W0480	229-1888	VL48	213-1694	CS-1033R	229-1878	CS-1161R	229-2069
13001-W0483	229-1888	VL49	213-1674	CS-1034R	229-1876	CS-1163R	229-2056
1302021M00	229-1896	VL5	213-1646	CS1036	229-1827	CS-1167R	229-2006
1302021M01	229-1896	VL519	213-1735	CS-1038R	229-1778	CS-1168R	229-1994
1302021M02	229-1896	VL63	213-1692	CS1041	229-1830	CS-1169R	229-1989
		VL64	213-1686	CS-1043M	229-1879	CS-1170R	229-2007

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Sealed Power (Cont.)		Sealed Power (Cont.)		Sealed Power (Cont.)		Sealed Power (Cont.)	
CS-1179R	229-1622	CS-1562	229-2320	CS-619	229-1621	CS736	229-1726
CS-118R	229-1612	CS-1563	229-2321	CS-620	229-1969	CS-737	229-1757
CS-1217R	229-1734	CS-1564	229-2261	CS-622	229-1944	CS-739	229-1702
CS-1218R	229-1624	CS-1565	229-2257	CS-633	229-1394	CS-740	229-1701
CS1219	229-1626	CS-1566	229-2234	CS-636	229-1637	CS-741	229-1755
CS-1222R	229-2216	CS-1567	229-2325	CS-637	229-1483	CS-742	229-1783
CS-1224R	229-2011	CS-1568	229-2324	CS-641	229-1626	CS743	229-1748
CS-1230	229-1840	CS-1569	229-2326	CS-642	229-1634	CS-745	229-1772
CS-1231R	229-2077	CS-1572	229-2328	CS-643	229-1633	CS-746	229-1747
CS-130R	229-2134	CS-1574	229-2331	CS-644	229-1654	CS-748	229-1793
CS-140R	229-1629	CS-1575	229-2332	CS-645	229-1645	CS-749	229-1874
CS1452	229-2211	CS-1579	229-2325	CS-646	229-1651	CS-750	229-1794
CS-1463	229-2229	CS-165R	229-1614	CS-647	229-1650	CS-751	229-1821
CS1500	229-1626	CS-167R	229-2120	CS-648	229-1649	CS-752	229-1797
CS-1501	229-2276	CS-169	229-2329	CS650	229-1647	CS-755	229-1888
CS-1502	229-2273	CS-171	229-1171	CS-650	229-1883	CS-756	229-1829
CS-1503	229-2266	CS-173R	229-2295	CS-651	229-1835	CS-758	229-1798
CS-1504	229-2275	CS-175R	229-1636	CS-652	229-2269	CS-759	229-1773
CS-1505	229-2256	CS-176R	229-2104	CS-656	229-1660	CS-760	229-1774
CS-1506	229-2254	CS-178R	229-2300	CS-657	229-1657	CS-761	229-2155
CS-1507	229-2260	CS-179R	229-1713	CS-658	229-1665	CS-762	229-2153
CS-1508	229-2236	CS-180R	229-2135	CS-659	229-1652	CS763	229-2280
CS-1509	229-2231	CS-181R	229-2036	CS-660	229-1661	CS-764	229-1833
CS-1510	229-2251	CS-184R	229-2225	CS-661	229-2323	CS-766	229-1871
CS-1511	229-2252	CS-185R	229-1615	CS-663	229-1664	CS-767	229-1839
CS-1512	229-2348	CS-186R	229-1993	CS-664	229-1675	CS-768	229-1836
CS-1513	229-2322	CS187	229-1626	CS-665	229-1663	CS-769	229-1887
CS-1514	229-2278	CS-187	229-1187	CS-666	229-1679	CS-770	229-1849
CS-1515	229-2335	CS-187R	229-1996	CS667	229-1647	CS-771	229-1872
CS-1516	229-2336	CS-189R	229-2291	CS-668	229-1686	CS-772	229-1890
CS-1518	229-2264	CS-193R	229-2138	CS-669	229-1687	CS-773	229-1889
CS-1519	229-2262	CS-195R	229-2358	CS-673	229-1668	CS-774	229-2267
CS-1520	229-2317	CS-198	229-1198	CS-674	229-1655	CS-775	229-1877
CS-1521	229-2243	CS-198R	229-2298	CS-675	229-1678	CS-776	229-1826
CS-1522	229-2259	CS-199R	229-2108	CS-676	229-1795	CS-778	229-1886
CS-1523	229-1928	CS-210	229-1210	CS-677	229-2270	CS-779	229-1905
CS1524	229-1649	CS-226	229-1923	CS-679	229-1951	CS-780	229-1910
CS-1524	229-2217	CS-251	229-1251	CS-680	229-1722	CS-781	229-2263
CS-1525	229-2245	CS-252	229-1252	CS-681	229-1709	CS-782	229-1875
CS-1526	229-2244	CS-261	229-2279	CS-685	229-1692	CS-783	229-1902
CS-1528	229-2333	CS-273	229-1273	CS686	229-1691	CS-784	229-1949
CS-1529	229-2334	CS-274	229-1274	CS-690	229-1688	CS-785	229-1922
CS-1530	229-2316	CS-293	229-1293	CS-691	229-1696	CS-786	229-1925
CS-1531	229-2318	CS-301	229-1301	CS-696	229-1697	CS-787	229-1926
CS-1532	229-2253	CS-323	229-1323	CS-698	229-1704	CS-788	229-1785
CS-1533	229-2283	CS-327	229-1327	CS-702	229-2268	CS-789	229-1918
CS-1536	229-2285	CS-338	229-1338	CS-703	229-1707	CS-790	229-1908
CS-1537	229-2286	CS-364	229-1364	CS-707	229-1648	CS-791	229-1907
CS-1538	229-2287	CS-380	229-1380	CS-708	229-1708	CS-792	229-1841
CS-1539	229-2280	CS-386	229-1742	CS-709	229-1712	CS-793	229-1917
CS-1541	229-2361	CS-402	229-1402	CS-711	229-1666	CS-794	229-1895
CS-1542	229-2235	CS-415	229-1415	CS-712	229-1703	CS-796	229-2151
CS-1543	229-2272	CS-442	229-1442	CS-713	229-1643	CS-797	229-2159
CS-1544	229-2342	CS-443	229-1443	CS-714	229-1691	CS-798	229-1896
CS-1545	229-2343	CS-448	229-1640	CS-715	229-1720	CS-799	229-1894
CS-1547	229-2344	CS-480	229-1480	CS-716	229-1716	CS-800	229-1892
CS-1548	229-2345	CS-551	229-1551	CS-718	229-1724	CS-803	229-2158
CS-1549	229-2346	CS-559	229-1609	CS-719	229-1699	CS804	229-1716
CS-1550	229-2347	CS560	229-1601	CS-720	229-1715	CS-805	229-1885
CS-1551	229-2339	CS-563	229-1608	CS-721	229-1725	CS-807	229-1911
CS-1552	229-2340	CS-564	229-1606	CS-722	229-1714	CS808	229-1916
CS-1554	229-2338	CS-568	229-1743	CS-723	229-1726	CS-809	229-1929
CS-1556	229-2153	CS579	229-1840	CS-724	229-1748	CS-810	229-1934
CS-1557	229-2258	CS-586	229-1646	CS-732	229-1745	CS-811	229-1935
CS-1558	229-2274	CS-593	229-1616	CS-732.38mm	229-1827	CS-812	229-1933
CS-1559	229-2273	CS602	229-1747	CS-733	229-1744	CS-813	229-1937
CS-1560	229-2315	CS604	229-1747	CS-734	229-1710	CS-814	229-1952
CS-1561	229-2319	CS-614	229-2242	CS-735	229-1758	CS-816	229-1947

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Sealed Power (Cont.)		Sealed Power (Cont.)		Sealed Power (Cont.)		Topline	
CS-817	229-1948	HT2011	213-1679	HT832	213-1662	ALAMA12	213-1749
CS818	229-1840	HT-2011B	213-1679BT	HT846	213-1646	ALAMI4H	213-1753
CS-820	229-1938	HT2011R	213-1705	HT-846B	213-1646BT	CAMIS6	229-1969
CS-821	229-1946	HT2012	213-1703	HT855	213-1650	LIF049	213-1748
CS-822	229-1939	HT-2012B	213-1703BT	HT-855B	213-1650BT	LIFC26	213-1767
CS-823	229-1830	HT2056	213-1710	HT879	213-1662	LIFD27	213-1757
CS-824	229-2197	HT-2056B	213-1710BT	HT896	213-1664	LIFD29	213-1758
CS-825	229-1847	HT2077	213-1719	HT-896B	213-1664BT	LIFD30	213-1759
CS-826	229-1831	HT-2077B	213-1719BT	HT900	213-1667	LIFD31	213-1760
CS-827	229-1848	HT2083	213-1669	HT-900B	213-1667BT	LIFM16	213-1763
CS-830	229-2116	HT-2083B	213-1669BT	HT900R	213-1682	LIFMA13	213-1761
CS-831	229-1941	HT2089	213-1721	HT-900RB	213-1682BT	LIFMA18	213-1762
CS-832	229-1942	HT-2089B	213-1721BT	HT944	213-1674	LIFMA19	213-1768
CS-833	229-2144	HT2095	213-1724	HT949	213-1669	LIFSU8	213-1764
CS-834	229-1954	HT-2095B	213-1724BT	HT950	213-1669	LIFS22	213-1754
CS-835	229-2194	HT2102	213-1723	HT951	213-1674	LIFTO18	213-1736
CS-836	229-2176	HT-2102B	213-1723BT	HT-951B	213-1674BT	LIFTO18	213-1770
CS-837	229-2145	HT2104	213-1725	HT951R	213-1684	LIFTO19	213-1732
CS-838	229-1936	HT-2104B	213-1725BT	HT957	213-1678	LIFTO25	213-1769
CS-839	229-2146	HT2105	213-1722	HT969	213-1685	LIFTO31	213-1734
CS-840	229-2166	HT-2105B	213-1722BT	HT-969B	213-1685BT	LIFTO39	213-1771
CS-841	229-2172	HT2122	213-1750	HT976	213-1686	MA12F	229-2231
CS-842	229-2173	HT2148	213-1738	HT-976B	213-1686BT	MI5	229-2236
CS-843	229-2148	HT-2148B	213-1738BT	MR1889	229-6000	TO26	229-2229
CS-844	229-2147	HT2167	213-1750	RHT786	213-1675	Toyota	
CS-845	229-2142	HT2198	213-1730	RHT807	213-1669	13501-10010	229-2229
CS-846	229-1966	HT2205	213-1742	RHT812	213-1635	13501-15020	229-2344
CS-847	229-1967	HT-2205B	213-1742BT	RHT817	213-1638	13501-15030	229-2344
CS-848	229-1968	HT2217	213-1743	RHT832	213-1662	13501-15040	229-2346
CS-849	229-1943	HT-2217B	213-1743BT	RHT846	213-1646	13501-15050	229-2346
CS-850	229-2169	HT2220	213-1750	RHT849	213-1669	13501-16010	229-2335
CS-852	229-2211	HT2225	213-1750	RHT855	213-1650	13501-16030	229-2335
CS-853	229-2191	HT2236	213-1747	RHT879	213-1662	13501-42010	229-2342
CS-856	229-2180	HT-2236B	213-1747BT	RHT896	213-1664	13501-42020	229-2342
CS-857	229-2206	HT2244	213-1752	RHT900	213-1667	13501-42030	229-2342
CS-859	229-2208	HT-2244B	213-1752BT	RHT949	213-1669	1350143010	229-1890
CS-860	229-2192	HT2251	213-1748	RHT950	213-1669	13501-43030	229-1890
CS-861	229-2193	HT2254	213-1749	RHT951	213-1674	13501-65011	229-2245
CS-862	229-2195	HT-2269	213-1750	RHT957	213-1678	13501-74020	229-2339
CS-863	229-2196	HT-2269B	213-1750BT	RHT963	213-1679	13501-74030	229-2339
CS-864	229-1963	HT2270	213-1756	RHT969	213-1685	13502-15010	229-2345
CS-865	229-1962	HT-2270B	213-1756BT	RHT976	213-1686	13502-15020	229-2345
CS-866	229-2152	HT-2271	213-1766	RHT977	213-1679	13502-15030	229-2347
CS-868	229-2218	HT-2271B	213-1766BT	RMT770	213-1614	13502-15040	229-2347
CS-869	229-2219	HT-2272	213-1754	RMT787	213-1614	13502-16010	229-2336
CS870	229-1675	HT-2273	213-1765	RMT816	213-1629	13502-16030	229-2336
CS-875	229-2399	HT-2274	213-1763	RMT850	213-1649	13502-42010	229-2343
CS877	229-1679	HT-2275	213-1784	RMT872	213-1656	13502-42020	229-2343
CS878	229-1601	HT-2275B	213-1784BT	RMT873	213-1675	1350243010	229-1889
CS879	229-1686	HT-2276	213-1761	RMT873A	213-1675	13502-43030	229-1889
CS882	229-1701	HT-2277	213-1757	RMT873B	213-1675	13502-65011	229-2244
CS883	229-1702	HT-2278	213-1767	RMT892	213-1629	13502-74010	229-2340
CS889	229-1697	HT-2278B	213-1767BT	RMT906	213-1656	13502-74020	229-2340
CS897	229-1703	HT-2279	213-1777	RMT910	213-1692	13502-74903	229-2340
CS-906	229-2281	HT-2279B	213-1777BT	RMT914	213-1694	13502-74904	229-2340
CS908	229-2155	HT-2281	213-1738	RMT937	213-1675	1351114010	229-1892
CS915	229-2148	HT5000RA	213-1789	Subaru		1351138011	229-1699
CS-922	229-1940	HT5010RA	213-1790	13229-AA000	213-1764	1351160052	229-2158
CS-923	229-1945	HT6000	213-1753	13230-AA110	213-1749	1351160060	229-2158
CS938	229-1699	HT6004	213-1732	13242-AA034	213-1749	13511-73902	229-2399
CS957	229-1747	HT6005	213-1735	13242-AA110	213-1749	13750-50020	213-1773
CS963	229-1748	HT6007	213-1753	Suzuki		1375070010	213-1732
CS965	229-1745	HT812	213-1635	1271082601	229-1928	1375071010	213-1735
CS966	229-1744	HT-812B	213-1635BT	1271083000	229-1928	13750-71020	213-1735
CS973	229-1772	HT817	213-1638	12891-86511	213-1754	13751-11010	213-1770
CS987	229-1773	HT-817B	213-1638BT	12891-86512	213-1754	1375116010	213-1736
CS988	229-1774	HT817R	213-1683			13751-22040	213-1771
CS999	229-1716	HT-817RB	213-1683BT				

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
Toyota (Cont.)		TRW (Cont.)		TRW (Cont.)		TRW (Cont.)	
13751-46740	213-1788	TM626	229-1663	TM779	229-2148	TP108	229-1617
13751-50031	213-1772	TM628	229-1668	TM782	229-1896	TP109	229-1623
1375164011	213-1734	TM629	229-1666	TM783	229-1798	TP112	229-1615
13751-74020	213-1769	TM640	229-1675	TM787	229-1827	TP112N	229-1615
TRW		TM641	229-1678	TM788	229-1841	TP117	229-2135
TM171	229-1171	TM642	229-1637	TM789	229-1886	TP118	229-1612
TM187	229-1187	TM643	229-1655	TM790	229-1836	TP130	229-1130
TM193N	229-1609	TM644	229-1394	TM791	229-1793	TP130	229-2134
TM198	229-1198	TM645	229-1701	TM792	229-1797	TP140	229-1629
TM210	229-1210	TM663	229-1394	TM793	229-2280	TP144	229-1624
TM210D	229-1210	TM664	229-1679	TM794	229-1821	TP147	229-1622
TM240	229-1713	TM665	229-1795	TM795	229-1829	TP153	229-1636
TM251	229-1251	TM666	229-1702	TM796	229-1910	TP156	229-1653
TM252	229-1252	TM667	229-1701	TM797	229-1849	TP158	229-1658
TM261	229-2279	TM668	229-1688	TM798	229-1839	TP158	229-2072
TM273	229-1273	TM669	229-1601	TM799	229-1774	TP165	229-1614
TM274	229-1274	TM670	229-1696	TM800	229-1773	TP166	229-2036
TM293	229-1293	TM671	229-1697	TM801	229-1840	TP167	229-2104
TM301	229-1301	TM672	229-1643	TM805	229-1871	TP168	229-1993
TM301D	229-1301	TM673	229-1647	TM806	229-1969	TP173	229-1737
TM323	229-1323	TM677	229-1709	TM808	229-1887	TP174	229-1988
TM327	229-1327	TM678	229-1748	TM814	229-1902	TP177	229-1734
TM338	229-1338	TM679	229-1715	TM816	229-1905	TP185	229-1735
TM364	229-1364	TM680	229-1725	TM817	229-1889	TP186	229-2004
TM380	229-1380	TM690	229-1692	TM818	229-1890	TP187	229-1730
TM386	229-1742	TM691	229-1725	TM819	229-2263	TP188	229-1731
TM394	229-1394	TM693	229-1726	TM821	229-1785	TP190	229-1778
TM402	229-1402	TM694	229-1725	TM822	229-1875	TP194	229-1733
TM415	229-1415	TM695	229-2152	TM823	229-1949	TP196	229-1732
TM442	229-1442	TM697	229-1747	TM824	229-1651	TP197	229-1736
TM443	229-1443	TM699	229-2116	TM826	229-1911	TP201	229-2155
TM448	229-1640	TM705	229-1686	TM829	229-1877	TP202	229-1787
TM480	229-1480	TM706	229-1648	TM830	229-1922	TP203	229-2032
TM483	229-1483	TM707	229-1666	TM831	229-1917	TP204	229-1130
TM551	229-1551	TM708	229-1643	TM832	229-1916	TP206	229-1658
TM560	229-1601	TM709	229-1710	TM833	229-1918	TP207	229-1784
TM563	229-1608	TM710	229-1687	TM834	229-1907	TP209	229-1822
TM564	229-1606	TM711	229-1703	TM835	229-1908	TP232	229-1991
TM568	229-1743	TM712	229-1720	TM836	229-1936	TP239	229-1615
TM572	229-1633	TM713	229-1724	TM837	229-1940	TP243	229-1616
TM574	229-1637	TM716	229-1712	TM838	229-1934	TP244	229-1883
TM575	229-1640	TM717	229-1745	TM839	229-1929	TP256	229-2199
TM576	229-1626	TM719	229-1703	TM840	229-1946	TP257	229-2200
TM577	229-1645	TM720	229-1701	TM841	229-1937	TP258	229-2201
TM578	229-1654	TM721	229-1704	TM842	229-1933	VL13	213-1662
TM579	229-1840	TM722	229-1708	TM843	229-1967	VL138	213-1692
TM580	229-1647	TM723	229-1744	TM844	229-1948	VL16	213-1635
TM582	229-1643	TM724	229-1755	TM845	229-1947	VL205	213-1726
TM585	229-1650	TM726	229-1772	TM846	229-1938	VL206	213-1718
TM586	229-1646	TM727	229-1714	TM847	229-1939	VL208	213-1710
TM587	229-1651	TM728	229-1794	TM850	229-1942	VL21	213-1629
TM588	229-1187	TM731	229-1758	TM851	229-2176	VL211	213-1744
TM589	229-1649	TM736	229-1892	TM852	229-1935	VL212	213-1722
TM590	229-1648	TM740	229-2158	TM853	229-1935	VL213	213-1721
TM591	229-1657	TM741	229-1888	TM855	229-1926	VL214	213-1723
TM592	229-1665	TM743	229-1894	TM856	229-1952	VL217	213-1724
TM593	229-1652	TM747	229-1944	TM858	229-2153	VL223	213-1730
TM594	229-1660	TM751	229-2151	TM860	229-1925	VL227	213-1725
TM595	229-1663	TM753	229-1748	TM861	229-2276	VL228	213-1719
TM596	229-1661	TM754	229-2159	TM862	229-1945	VL229	213-1719
TM597	229-1664	TM755	229-1943	TM864	229-2146	VL230	213-1738
TM601	229-1691	TM756	229-1943	TM866	229-1917	VL231	213-1753
TM602	229-1692	TM760	229-1757	TM876	229-2172	VL234	213-1738
TM603	229-1692	TM761	229-1944	TM877	229-2206	VL237	213-1738
TM608	229-1699	TM763	229-1895	TM880	229-2194	VL238	213-1738
TM619	229-1621	TM765	229-1966	TM883	229-2211	VL24	213-1656
TM623	229-1716	TM766	229-1967	TM884	229-2219	VL240	213-1750
		TM778	229-2147	TM885	229-2218	VL241	213-1736

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
TRW (Cont.)		Wolverine (Cont.)		Wolverine (Cont.)		Wolverine (Cont.)	
VL248	213-1725	CS4105	229-1879	CS830	229-2266	WG1115	229-1651
VL252	213-1743	CS4106	229-1880	CS831	229-2276	WG1116	229-1735
VL253	213-1742	CS4107	229-1958	CS832	229-2273	WG1118	229-1654
VL26	213-1649	CS4109	229-1901	CS834	229-2257	WG1121	229-1327
VL27	213-1675	CS4110	229-1900	CS835	229-2194	WG1123	229-1601
VL31	213-1675	CS4111	229-1834	CS837	229-2285	WG1126	229-1776
VL32	213-1650	CS4114	229-1957	CS841	229-1821	WG1128	229-2156
VL35	213-1667	CS4117	229-1959	CS855	229-1652	WG1129	229-1637
VL36N	213-1614	CS4124	229-2228	CS856	229-1905	WG1131	229-1736
VL37	213-1638	CS443	229-1443	CS858	229-1903	WG1132	229-1784
VL41	213-1664	CS480	229-1394	CS863	229-2211	WG1134	229-1626
VL43	213-1692	CS480	229-1480	CS866	229-1652	WG-1136	229-1972
VL44	213-1669	CS579	229-1840	CS870	229-2218	WG1139	229-1989
VL48	213-1694	CS580	229-1840	CS871	229-2219	WG1143	229-2055
VL49	213-1674	CS585	229-1646	CS872	229-2217	WG-1144	229-2058
VL5	213-1646	CS586	229-1646	CS875	229-2258	WG1151	229-2086
VL51	213-1674	CS625	229-1663	CS876	229-2274	WG1152	229-2088
VL54	213-1656	CS628	229-1668	CS888	229-2262	WG1158	229-2202
VL58	213-1679	CS629	229-1666	CS889	229-2260	WG1159	229-1988
VL59	213-1678	CS635	229-1637	CS890	229-2261	WG1160	229-2006
VL66RH	213-1683	CS637	229-1483	CS891	229-2263	WG1162	229-2032
VL67RH	213-1682	CS647	229-1650	CS892	229-2264	WG-1164	229-1884
VL68RM	213-1656	CS652	229-2269	CS909	229-2259	WG1167	229-2311
VL69	213-1638	CS661	229-2267	CS912	229-2281	WG1169	229-1130
VL72RH	213-1686	CS667	229-1839	CS917	229-2315	WG1181	229-1832
VL73	213-1685	CS669	229-2268	CS918	229-2275	WG1182	229-1881
VL79	213-1686	CS670	229-1703	CS921	229-2319	WG1191	229-2072
VL8	213-1635	CS673	229-1709	CS922	229-2320	WG-1194	229-2076
VL83	213-1703	CS677	229-2270	CS935	229-2321	WG-5021	229-2047
VL9	213-1669	CS680	229-1697	CS936	229-2322	WG-5022	229-2048
Volkswagen		CS681	229-1688	HL1812	213-1635	WG5024	229-2094
026109101	229-1945	CS682	229-1696	HL1817	213-1638	WG5025	229-2056
026109101A	229-1945	CS687	229-1827	HL1900	213-1667	WG5028	229-2323
026109101G	229-1945	CS702	229-1687	HL1949	213-1669	WG-5031	229-1998
034-109-309	213-1747	CS709	229-1712	HL1951	213-1674	WG5042	229-2199
034-109-309AC	213-1747	CS712	229-2316	HL1969	213-1685	WG5043	229-2200
034-109-309AD	213-1747	CS713	229-1643	HL1976	213-1686	WG5044	229-2201
034-109-309N	213-1747	CS714	229-2280	HL2012	213-1703	WG5053	229-2291
049109101C	229-1716	CS715	229-1720	HL2095	213-1724	WG5071	229-2203
049109101H	229-1716	CS718	229-1724	HL2110	213-1742	WG5072	229-2205
056109101B	229-1716	CS720	229-1877	HL2111	213-1738	WG5074	229-2303
056109311A	213-1726	CS730	229-2317	WG1006	229-2036	WG5077	229-2293
074109309	213-1748	CS742	229-1692	WG1011	229-1993	WG5112	229-2216
074109311A	213-1748	CS745	229-1772	WG1013	229-2104	WG900	229-6000
605139410	213-1747	CS746	229-1747	WG1015	229-2292	WG969	229-1629
Volvo		CS747	229-1755	WG-1036	229-2034	WG972	229-1614
1218630-0	213-1718	CS748	229-1793	WG1038	229-1616	WG973	229-1615
Wolverine		CS750	229-1794	WG1043	229-1658	WG975	229-1617
CS171	229-1171	CS751	229-1922	WG1045	229-1713	WG976	229-1623
CS187	229-1187	CS752	229-1797	WG1053	229-1612	WG981	229-1624
CS2002	229-1844	CS754	229-1829	WG-1064	229-1995	WG987	229-1636
CS2004	229-1831	CS758	229-1798	WG1074	229-2298	WG989	229-1622
CS2005	229-1830	CS759	229-1773	WG1078	229-1991	WG991	229-1644
CS2007	229-1847	CS760	229-1774	WG1079	229-1994	WG995	229-1713
CS2008	229-1848	CS762	229-2263	WG1080	229-1958	WG997	229-2294
CS2011	229-1743	CS764	229-1833	WG1081	229-2305	WG999	229-1653
CS2012	229-1722	CS767	229-1841	WG1100	229-1786	World Parts	
CS2044	229-1885	CS768	229-1836	WG1101	229-1615	W11691	229-2158
CS2045	229-1872	CS771	229-1871	WG1103	229-1730	W11714	229-1716
CS2048	229-1849	CS778	229-1875	WG1104	229-2004	W11716	229-1692
CS210	229-1210	CS792	229-1716	WG1105	229-2021	W11717	229-1692
CS261	229-2279	CS795	229-1748	WG1106	229-1787	W11718	229-1691
CS301	229-1301	CS799	229-1714	WG1107	229-1734	W11719	229-1714
CS364	229-1364	CS800	229-1699	WG1108	229-1775	W11723	229-1699
CS-4101	229-1899	CS804	229-1835	WG1109	229-1733	W11727	229-1748
CS4102	229-1898	CS824	229-2256	WG1111	229-1732	W11729	229-1725
CS4103	229-1882	CS827	229-2256	WG1113	229-1778	W11730	229-1725
		CS828	229-2278	WG1114	229-1731		

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Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number	Replaces Number	Part Number
World Parts (Cont.)		World Parts (Cont.)		World Parts (Cont.)		World Parts (Cont.)	
W11731	229-1725	W11745	229-1699	W11760	229-1692	W16005	213-1726
W11738	229-1747	W11746	229-1716	W11762	229-1715	W16500	229-1726
W11741	229-1725	W11749	229-1692	W11764	229-1691	W16501	229-1725
W11742	229-1725	W11756	229-1716	W11785	229-1652	W16502	229-1709
W11743	229-1725	W11759	229-1757	W11931	213-1718	W16503	229-1679