

NASON

ENGINE PARTS

HEAVY DUTY EDITION 2



MACK®



IVECO



1300 662 766



VALVE SEAT INSERTS

S.B. International, Inc. is the exclusive marketer of J-LOY™ brand valve seat inserts. All J-LOY inserts are premium (hard) seats with a typical hardness range of 35-40 Rockwell "C" Scale. All valve seat inserts are individually cast to ensure proper material transfer and formation. Different alloys are utilized depending on the specific requirements of an engine or fuel delivery. The following information provides explanations for part number schema, materials, application usage and cutting procedures.

PART NUMBER EXPLANATION

Basic Part Number:

4 Digits (Nominal or Actual Outside Diameter)

Suffix:

1 Thru 49 = Different I.D. & Depth Versions

50 & Up = Oversized Inserts for Aluminum Cylinder Heads

E = Factory Installed Insert & Basic Part Number Is Actual O.D.

N = Star Series Non-Magnetic Material

Examples:

SB1562-1N

Same as SB1562-1 except Star Series material.

SB2088E-1

Factory-installed insert with 2.088 actual O.D.

HEAVY DUTY DIESEL INSERTS

J-LOY inserts for Heavy Duty Diesel Engines (Caterpillar, Cummins, Detroit Diesel, Mack, etc.) are supplied in materials that meet or exceed OEM specifications for the particular application. Standard size inserts are exact O.E. duplicates dimensionally and oversize inserts have been designed to meet particular requirements of the aftermarket.

THE "STAR SERIES" STORY

A Super-Premium valve seat insert is available from SBI. This valve seat designated "STAR SERIES" is a true Nickel Based Non-Magnetic insert developed for automotive and light to medium duty exhaust applications operating on Propane Gas (LPG). Due to a variety of factors, certain exhaust valve seats require a higher hot hardness characteristic. The Star Series insert was developed to retain hardness beyond 1600° to combat these high temperature engines. As alternative fuel is becoming more commonly use, it became apparent cylinder heads were experiencing premature and severe exhaust valve seat erosion (recession). This erosion was noted on hi-chrome stainless seats as well as other manufacturer's nickel base material. Using the Star Series valve seat insert in these applications will eliminate common wear issues and provide a greater longevity.

VALVES



In 1991, S.B. International entered the aftermarket valve arena with its famous E-LOY brand engine valves. SBI's valves quickly became as legendary as its J-LOY valve seat inserts; indeed, the legend lives on today.

All E-LOY engine valves are manufactured utilizing the latest processes, techniques and statistical methods available in the industry today. Materials used consist of Austenitic (Non-Magnetic) or Martensitic (Magnetic) Steels and Nickel Base Super Alloys along with other Cobalt, Iron and Nickel Base facing alloys which have been designed to run in modern unleaded fuel and Diesel engines. Chrome Plating is available where specific engine applications require it.



CAM BEARING/BUSHINGS

The seamless, 100% machined surface design provides the tightest tolerances in the industry. The centerless ground OD, centerless bored ID results in wall variations of .0004 in., giving the customer increased system design flexibility. Discrete manufacturing lines can supply both high and low volumes economically. We can be a valued strategic partner with our design, development and manufacturing capabilities.

Dura-Bond bimetal bearings are constructed of seamless steel tube with a thin layer of lead based babbitt material. Seamless construction makes installation easy, eliminating breakage and bearing surface interruptions.

Lead based babbitt provides ideal properties for nearly all engine applications. Babbitt's superior embedability, conformability, and anti-seizure characteristics have proven to reduce engine failures that harder bearing materials can cause.



Clevite / Mahle Original

Known as the high performance leader in internal engine bearings for years, Clevite continues their long standing commitment to building bearings that last longer and stand up to more abuse.



Gaskets

Two world known brands in gasket manufacture, Trusted by engine builders around the world for quality , performance and reliability.

INDEX

VEHICLE	PAGE	VEHICLE	PAGE
CATERPILLAR		CUMMINS	
3176 629ci 10.3L 6 Cyl Diesel	1	QSL 8.9L 541ci 6Cyl Diesel	42
3204 318ci 5.2L 4 Cyl Diesel	3	L10 10.0L 611ci 6Cyl Diesel	43
3208 636ci 10.5L V8 Diesel	5	ISM 10.8L 659ci 6Cyl Diesel	46
3406 893ci 14.6L 6cyl Diesel	8	M11 10.8L 659ci 6Cyl Diesel	47
3408 1099ci 18.L V8 Diesel	9	N14 14.0L 855ci 6Cyl Diesel	50
3412 1649ci 27L V12 Diesel	10	NH855 / NT855 14.0L 855CI 6Cyl Diesel	52
C7 7.2L 6Cyl Diesel	11	ISX 15.0L 915ci 6Cyl Diesel	54
C9 537ci 8.8L 6Cyl Diesel	13	ISX-E5 15.0L 915ci 6Cyl Diesel	56
C12 732ci 12.0L 6Cyl Diesel	16	QSX 15.0L 915ci 6Cyl Diesel	57
C15 893ci 14.6L 6Cyl Diesel	18	DETROIT	
C15 CERT 928ci 15.2L 6Cyl Diesel	19	50 Series 8.5L 519ci 4Cyl Diesel	59
C16 964ci 15.8L 6Cyl Diesel	20	53 Series 53ci X Number of Cylinders	60
C18 1106ci 18.1L 6Cyl Diesel	21	60 Series 11.1L 677ci 6Cyl Diesel	61
C27 1650ci 27.03L V12 Diesel	22	60 Series 12.7L 775ci 6Cyl Diesel	63
C32 1959ci 32.1L V12 Diesel	23	60 Series 14.0L 858ci 6Cyl Diesel	65
CHEVROLET		71 Series 71ci X Number of Cylinders	67
6.5 FCWG L65 6481cc V8 Turbo Diesel	24	92 Series 92ci X Number of Cylinders	68
CUMMINS		FORD NAVISTAR	
ISC 8.3L 505ci 8.3L 6cyl Diesel	27	IDI 7.3L 775.47ci 7300CC V8 T/ Diesel	69
6B / 6BT 5.9L 6Cyl Diesel	28		
QSB 5.9L 359ci 6Cyl Diesel	32		
ISB 5.9L 359ci 6Cyl Diesel	34		
ISB 6.7L 408ci 6cyl Diesel	37		
QSC 8.3L 505ci 6cyl Diesel	40		
ISL 8.9L 541ci 6Cyl Diesel	41		

INDEX

VEHICLE	PAGE	VEHICLE	PAGE
ISUZU			
4HE1-T / 4HE1-X 4.8L 4754CC T / Diesel 4Cyl	70		
4HK1-T 5.2L 5193CC 4Cyl Diesel	72		
6HE1 / 6HE1-T 7.1L 7130CC T / Diesel 6Cyl	73		
6HK1-T 7.8L 7790CC 6Cyl T / Diesel	75		
IVEVO / SCANIA			
IVEVO Cursor 13 12.9L 786ci 6Cyl	76		
MACK			
E7 12.0L 728ci 6Cyl	77		
E7 ETECH 12.0L 728ci 6Cyl	80		
VOLVO			
D11 10.8L 651ci 6Cyl	82		

NASON SELLS THE FOLLOWING BRANDS IN OUR HEAVY DUTY RANGE



CATERPILLAR

ENGINE	3176 629ci 10.3L 6 Cyl Diesel				YEAR			
CAPACITY	629ci / 10.3L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.92" / 124.87mm	STROKE	5.51" / 139.95mm					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1004 240-1005	Copper Stainless Steel
VALVE EXHAUST	01581S	Head Diam 1.654" Stem Diam 0.3717" Length 6.850" Seat Angle 45 Degree Tip Length 0.6330" Stellite Face Chrome Plating
VALVE INLET	01582 01582S	Head Dia 1.772" Stem Dia 0.3717" Length 6.850" Seat Angle 30 Degree Tip Length 0.5720" With Stellite Face
VALVE COLLETS	121-1000	Suits 3/8" Stem, 2 Round Beads
VALVE GUIDE	140-7447 140-7448 140-8592	Inlet - Conversion Guide 0.564" O.D. I.D. 0.3745" O.D. 0.5640" Length 2.625" Exhaust - Conversion Guide 0.564" O.D. I.D. 0.3745" O.D. 0.5640" Length 3.000" I.D. 0.3745" O.D. 0.6305" Chim O.D. 0.5322" Chim Height 0.232" Length 2.785"
VALVE STEM SEAL	122-1177	Nylon Material
VALVE SEAT INSERT EXHAUST	SB1711E-1C	O.D. Actual 1.7110" I.D. 1.4160" I.D. Top Tapper 1.525 Depth 0.3780" Seat Angle 45
VALVE SEAT INSERT INLET	SB1812E-8	O.D. Actual 1.8125" I.D. 1.5300" I.D. Top Tapper 1.580 Depth 0.3650" Seat Angle 30

CATERPILLAR Cont

ENGINE	3176 629ci 10.3L 6 Cyl Diesel				YEAR			
CAPACITY	629ci / 10.3L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.92" / 124.87mm	STROKE	5.51" / 139.95mm					

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1462	INNER Outer Diameter 0.920" Inner Diameter 0.680" Length 2.550" Seat Load Valve Closed 50 lbs Seat Load Height 1.800" Open Load Valve Open 104 lbs Open Load Height 1.300" Solid Height 1.281" Spring Type Single
	160-1463	OUTER Outer Diameter 1.336" Inner Diameter 0.972" Length 2.523" Seat Load Valve Closed 90 lbs Seat Load Height 2.000" Open Load Valve Open 203 lbs Open Load Height 1.425" Solid Height 1.325" Spring Type Single

CATERPILLAR

ENGINE	3204 318ci 5.2L 4 Cyl Diesel				YEAR			
CAPACITY	318CI / 5.2L	CYLINDERS	4	VALVE TRAIN	OHV	VALVES	2	
FUEL TYPE				CAM DRIVE				
BORE	4.50" / 114.30MM	STROKE	5.00" / 127.00MM					

ITEM	PART NUMBER	NOTES
VALVE EXHAUST	01378 01497S	Suits Non Turbo Applications Head Dia 1.804" Stem Dia 0.3715" Length 5.693" Seat Angle 45 Degree Tip Length 0.3217" Suits Turbo Application Head Dia 1.804" Stem Dia 0.3715" Length 5.683" Seat Angle 45 Degree Tip Length 0.3217" Stellite Face Chrome Plating
VALVE INLET	01379	Head Dia 2.094" Stem Dia 0.3725" Length 5.698" Seat Angle 30 Degree Tip Length 0.3220"
VALVE COLLETS	121-1000	Suits 3/8" Stem, 2 Round Beads
VALVE GUIDE	140-7681 140-7682	Intake - Conversion Guide 0.502" O.D. I.D. 0.3735" O.D. 0.5020" Length 2.579" Exhaust - Conversion Guide 0.502" O.D. I.D. 0.3735" O.D. 0.5021" Length 2.980"
VALVE STEM SEAL		
VALVE SEAT INSERT EXHAUST	SB1912E-1	O.D. Actual 1.9120" I.D. 1.6250" Depth 0.2812" Seat Angle 45
VALVE SEAT INSERT INLET	SB2150E-1	O.D. Actual 2.1500" I.D. 1.8593" Depth 0.2920" Seat Angle 30

CATERPILLAR cont

ENGINE	3204 318ci 5.2L 4 Cyl Diesel				YEAR			
CAPACITY	318CI / 5.2L	CYLINDERS	4	VALVE TRAIN	OHV	VALVES	2	
FUEL TYPE				CAM DRIVE				
BORE	4.50" / 114.30MM	STROKE	5.00" / 127.00MM					

ITEM	PART NUMBER	NOTES
VALVE SRING	160-1198	Use with Single Spring Applications Early Outer Diameter 1.552" Inner Diameter 1.138" Length 2.005" Seat Load Valve Closed 48 lbs Seat Load Height 1.802" Open Load Valve Open 174 lbs Open Load Height 1.302" Solid Height 1.141" Spring Type Single
	160-1228	Use with Single Spring Applications Outer Diameter 1.435" Inner Diameter 1.052" Length 1.900" Seat Load Valve Closed 52 lbs Seat Load Height 1.700" Open Load Valve Open 170 lbs Open Load Height 1.250" Solid Height 1.152" Spring Type Single

CATERPILLAR

ENGINE	3208 636ci 10.5L V8 Diesel				YEAR			
CAPACITY	636ci / 10.5L	CYLINDERS	V8	VALVE TRAIN	OHV	VALVES	2	
FUEL TYPE				CAM DRIVE				
BORE	4.50" / 114.30mm	STROKE	5.00" / 127.00mm					

ITEM	PART NUMBER	NOTES
VALVE EXHAUST	01378 01497S	Suits Non Turbo Applications Head Dia 1.804" Stem Dia 0.3715" Length 5.693" Seat Angle 45 Degree Tip Length 0.3217" Suits Turbo Application Head Dia 1.804" Stem Dia 0.3715" Length 5.683" Seat Angle 45 Degree Tip Length 0.3217" Stellite Face Chrome Plating
VALVE INLET	01379	Head Diam 2.094" Stem Diam 0.3725" Length 5.698" Seat Angle 30 Degree Tip Length 0.3220"
VALVE COLLETS	121-1000	Suits 3/8" Stem, 2 Round Beads
VALVE GUIDE	140-7447 140-7448 140-7681 140-7682 140-8356 140-8357	Inlet - Conversion Guide 0.564" O.D. I.D. 0.3745" O.D. 0.5640" Length 2.625" Exhaust - Conversion Guide 0.564" O.D. I.D. 0.3745" O.D. 0.5640" Length 3.000" Intake - Conversion Guide 0.502" O.D. I.D. 0.3735" O.D. 0.5020" Length 2.579" Exhaust - Conversion Guide 0.502" O.D. I.D. 0.3735" O.D. 0.5021" Length 2.980" Exhaust I.D. 0.3735" O.D. 0.5020" Length 2.980" Intake I.D. 0.3735" O.D. 0.5020" Length 2.578"

CATERPILLAR Cont

ENGINE	3208 636ci 10.5L V8 Diesel				YEAR			
CAPACITY	636ci / 10.5L	CYLINDERS	V8	VALVE TRAIN		OHV	VALVES	2
FUEL TYPE				CAM DRIVE				
BORE	4.50" / 114.30mm	STROKE		5.00" / 127.00mm				

ITEM	PART NUMBER	NOTES
VALVE STEM SEAL		
VALVE SEAT INSERT EXHAUST	SB1912E-1	O.D. Actual 1.9120" I.D. 1.6250" Depth 0.2812" Seat Angle 45
VALVE SEAT INSERT INLET	SB2150E-1	O.D. Actual 2.1500" I.D. 1.8593" Depth 0.2920" Seat Angle 30
VALVE SPRING	160-1198	Use with Single Spring Applications Early Outer Diameter 1.552" Inner Diameter 1.138" Length 2.005" Seat Load Valve Closed 48 lbs Seat Load Height 1.802" Open Load Valve Open 174 lbs Open Load Height 1.302" Solid Height 1.141"
	160-1217	Spring Type Single OUTER Outer Diameter 1.560" Inner Diameter 1.190" Length 2.038" Seat Load Valve Closed 42 lbs Seat Load Height 1.790" Open Load Valve Open 142 lbs Open Load Height 1.190" Solid Height 1.117"
	160-1218	Spring Type Single INNER Outer Diameter 1.050" Inner Diameter 0.794" Length 1.920" Seat Load Valve Closed 20 lbs Seat Load Height 1.672" Open Load Valve Open 70 lbs Open Load Height 1.072" Solid Height 0.988"

CATERPILLAR Cont

ENGINE	3208 636ci 10.5L V8 Diesel				YEAR			
CAPACITY	636ci / 10.5L	CYLINDERS	V8	VALVE TRAIN	OHV	VALVES	2	
FUEL TYPE				CAM DRIVE				
BORE	4.50" / 114.30mm	STROKE	5.00" / 127.00mm					

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1228	Use with Single Spring Applications Outer Diameter 1.435" Inner Diameter 1.052" Length 1.900" Seat Load Valve Closed 52 lbs Seat Load Height 1.700" Open Load Valve Open 170 lbs Open Load Height 1.250" Solid Height 1.152" Spring Type Single

CATERPILLAR

ENGINE	3406E 893ci 14.6L 6c Cyl Diesel				YEAR		
CAPACITY	893ci / 14.6L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4
FUEL TYPE	Direct Injection			CAM DRIVE			
BORE	5.40" / 137mm	STROKE	6.50" / 165mm				

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1979	7 REQ
INJECTOR TUBE	240-1006 240-1044	Stainless Steel . Use 240-1006RB x 1, 240-1006RM x 1 and 240-1006RT x 1 O-rings Stainless Steel Use 240-1006RM x 2 and 240-1006RB x 1 O-rings
INJECTOR TUBE SEAL	240-1006RB 240-1006RM 240-1006RT	Navy – Viton / SMALL Green – Aflas / MEDIUM Dark Blue – Viton / LARGE
VALVE EXHAUST	01912	Head Diam 1.646" Stem Diam 0.3717" Length 7.953" Seat Angle 44 Degree Tip Length 0.6040" Nickel Base Inconel Material
VALVE INLET	01911	Head Diam 1.850" Stem Diam 0.3717" Length 7.951" Seat Angle 28 Degree Tip Length 0.5622" Nickel Base Inconel Material
VALVE COLLETS	121-1000	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3007	I.D. 0.3745" O.D. 0.6298" Length 3.358"
VALVE STEM SEAL	122-1373	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1687E-1N SB1693E-1N	O.D. Actual 1.6870" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Star Series O.D. Actual 1.6930" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Degrees Star Series
VALVE SEAT INSERT INLET	SB1891E-1	O.D. Actual 1.8910" I.D. 1.615" I.D. Top Taper 1.637" Depth 0.3060" Seat Angle 30

CATERPILLAR

ENGINE	3408E 1099ci 18L V8 Diesel				YEAR		
CAPACITY	1099ci 18L	CYLINDERS	V8	VALVE TRAIN	OHC	VALVES	4
FUEL TYPE	Direct Injection			CAM DRIVE			
BORE	5.40" / 137mm		STROKE	6.00in / 152mm			

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1006 240-1044	Stainless Steel . Use 240-1006RB x 1, 240-1006RM x 1 and 240-1006RT x 1 O-rings Stainless Steel Use 240-1006RM x 2 and 240-1006RB x 1 O-rings
INJECTOR TUBE SEAL	240-1006RB 240-1006RM 240-1006RT	Navy – Viton / SMALL Green – Aflas / MEDIUM Dark Blue – Viton / LARGE
VALVE EXHAUST	01912	Head Diam 1.646" Stem Diam 0.3717" Length 7.953" Seat Angle 44 Degree Tip Length 0.6040" Nickel Base Inconel Material
VALVE INLET	01911	Head Diam 1.850" Stem Diam 0.3717" Length 7.951" Seat Angle 28 Degree Tip Length 0.5622" Nickel Base Inconel Material
VALVE COLLETS	121-1000	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3007	I.D. 0.3745" O.D. 0.6298" Length 3.358"
VALVE STEM SEAL	122-1373	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1687E-1N SB1693E-1N	O.D. Actual 1.6870" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Star Series O.D. Actual 1.6930" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Degrees Star Series
VALVE SEAT INSERT INLET	SB1891E-1	O.D. Actual 1.8910" I.D. 1.615" I.D. Top Taper 1.637" Depth 0.3060" Seat Angle 30

CATERPILLAR

ENGINE	3412E 1649ci 27L V12 Diesel				YEAR			
CAPACITY	1649ci / 27L	CYLINDERS	V12	VALVE TRAIN		VALVES		
FUEL TYPE	Direct Injection			CAM DRIVE				
BORE	5.40" / 137mm	STROKE	6.00in / 152mm					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1006 240-1044	Stainless Steel . Use 240-1006RB x 1, 240-1006RM x 1 and 240-1006RT x 1 O-rings Stainless Steel Use 240-1006RM x 2 and 240-1006RB x 1 O-rings
INJECTOR TUBE SEAL	240-1006RB 240-1006RM 240-1006RT	Navy – Viton / SMALL Green – Aflas / MEDIUM Dark Blue – Viton / LARGE
VALVE EXHAUST	01912	Head Diam 1.646" Stem Diam 0.3717" Length 7.953" Seat Angle 44 Degree Tip Length 0.6040" Nickel Base Inconel Material
VALVE INLET	01911	Head Diam 1.850" Stem Diam 0.3717" Length 7.951" Seat Angle 28 Degree Tip Length 0.5622" Nickel Base Inconel Material
VALVE COLLETS	121-1000	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3007	I.D. 0.3745" O.D. 0.6298" Length 3.358"
VALVE STEM SEAL	122-1373	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1687E-1N SB1693E-1N	O.D. Actual 1.6870" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Star Series O.D. Actual 1.6930" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Degrees Star Series
VALVE SEAT INSERT INLET	SB1891E-1	O.D. Actual 1.8910" I.D. 1.615" I.D. Top Taper 1.637" Depth 0.3060" Seat Angle 30

CATERPILLAR

ENGINE	C7 7.2L 6 Cyl Diesel				YEAR			
CAPACITY	439ci / 7.2L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	3	
FUEL TYPE	Direct Injection			CAM DRIVE				
BORE	4.33" / 110mm	STROKE	5.00" / 127mm					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1003	Stainless Steel Use 240-1003R x 2, O-rings OE Part No 1240811, 1578373, 1590300, 2272911
	240-1036	Stainless Steel Use 240-1036RB x 1 & 240-1036RT x 1 O-Rings OE Part No 2271200
	240-1041	Stainless Steel Use 240-1041RB x 1 & 240-1041RT x 1 O-Rings OE Part No 3107255
INJECTOR TUBE SEAL	240-1003R 240-1036RB 240-1036RT 240-1041RB 240-1041RT	Green or Brown 2 Required Teal – Bottom Blue – Top Green – Bottom Navy – Top
VALVE EXHAUST	02160S	Head Dia 1.693" Stem Dia 0.3717" Length 7.839" Seat Angle 45 Degree Tip Length 0.2500" Includes Stellite Face & Chrome Plating
VALVE INLET	02161S	Head Diam 1.575" Stem Diam 0.3150" Length 7.209" Seat Angle 30 Degree Tip Length 0.4330" Includes Stellite Face & Chrome Plating
VALVE COLLETS	121-1000 121-1079	Suits 3/8" Stem, 2 Round Beads Suits 5/16" Stem, 1 Round Bead
VALVE GUIDE	140-3038	Inlet I.D. 0.3178" O.D. 0.5130" Length 3.175"
	140-3039	Exhaust I.D. 0.3745" O.D. 0.6300" Length 3.350"

CATERPILLAR Cont

ENGINE	C7 7.2L 6 Cyl Diesel				YEAR			
CAPACITY	439ci / 7.2L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	3	
FUEL TYPE	Direct Injection			CAM DRIVE				
BORE	4.33" / 110mm	STROKE	5.00" / 127mm					

ITEM	PART NUMBER	NOTES
VALVE STEM SEAL	122-1364	TOP HAT DESIGN
	122-1373	Viton Material Positive Type Seal With 0.375" Stem
VALVE SEAT INSERT EXHAUST	SB1656E-1	O.D. Actual 1.6560" I.D. 1.4100" Depth 0.2580" Seat Angle 30
	SB1656E-3	O.D. Actual 1.6560" I.D. 1.4100" Depth 0.2180" Seat Angle 30
VALVE SEAT INSERT INLET	SB1814E-4C	O.D. Actual 1.8140" I.D. 1.5500" Depth 0.2400" Seat Angle 45
VALVE SPRING	160-1453	INLET Outer Diameter 1.126" Inner Diameter 0.762" Length 2.660" Seat Load Valve Closed 68 lbs Seat Load Height 2.380" Open Load Valve Open 202 lbs Open Load Height 1.830" Solid Height 1.730"
	160-1454	Spring Type Single EXHAUST Outer Diameter 1.134" Inner Diameter 0.720" Length 3.627" Seat Load Valve Closed 149 lbs Seat Load Height 3.160" Open Load Valve Open 325 lbs Open Load Height 2.609" Solid Height 2.497" Spring Type Single

CATERPILLAR

ENGINE	C9 537ci 8.8L 6 Cyl Diesel				YEAR			
CAPACITY	537ci / 8.8L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.41" / 112.01mm	STROKE	5.87" / 149.10mm					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1036	Stainless Steel Use 240-1036RB x 1 & 240-1036RT x 1 O-Rings OE Part No 2271200
INJECTOR TUBE SEAL	240-1036RB 240-1036RT	TEAL – BOTTOM BLUE - TOP
VALVE EXHAUST	02261 13193	7.205" Length – Inconel Head Diam 1.417" Stem Diam 0.3717" Length 7.205" Seat Angle 45 Degree Tip Length 0.6150" 7.269" Length – Inconel Head Diam 1.417" Stem Diam 0.3717" Length 7.269" Seat Angle 44.25 Degree Tip Length 0.6141"
VALVE INLET	02260S 13192S	Head Diam 1.417" Stem Diam 0.3717" Length 7.264" Seat Angle 25 Degree Tip Length 0.6142" Head Diam 1.535" Stem Diam 0.3150" Length 7.264" Seat Angle 29.5 Degree Tip Length 0.4583"
VALVE COLLETS	121-1000 121-1079	Suits 3/8" Stem, 2 Round Beads Suits 5/16" Stem, 1 Round Bead
VALVE GUIDE	140-3058 140-3123	Both -With 0.3745 I.D. I.D. 0.3745" O.D. 0.6298" Chim O.D. 0.5050" Chim Heigh 0.242" Length 3.155" I.D. 0.3180" O.D. 0.5133" Chim O.D. 0.4455" Chim Heigh 0.242" Length 3.155"

CATERPILLAR Cont

ENGINE	C9 537ci 8.8L 6 Cyl Diesel				YEAR			
	CAPACITY	537ci / 8.8L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4
	FUEL TYPE				CAM DRIVE			
	BORE	4.41" / 112.01mm	STROKE	5.87" / 149.10mm				

ITEM	PART NUMBER	NOTES
VALVE STEM SEAL	122-1373 122-1424	With 0.375" Stem Inlet with 0.315" Stem
VALVE SEAT INSERT EXHAUST	SB1479E-1C	EXHAUST O.D. Actual 1.4790" I.D. 1.2950" I.D. Top Tapper 1.210 Depth 0.2570" Seat Angle 45
VALVE SEAT INSERT INLET	SB1459E-1 SB1577E-1	INLET O.D. Actual 1.4595" I.D. 1.2000" Depth 0.2170" Seat Angle 45 INLET O.D. Actual 1.5775" I.D. 1.4120" I.D. Top Tapper 1.340 Depth 0.2200" Seat Angle 30
VALVE SPRING	160-1572 160-1577	OUTER Outer Diameter 1.252" Inner Diameter 0.968" Length 2.319" Seat Load Valve Closed 70 lbs Seat Load Height 1.600" Open Load Valve Open 138 lbs Open Load Height 1.012" Solid Height 0.970" Spring Type Single INNER Outer Diameter 0.912" Inner Diameter 0.702" Length 2.330" Seat Load Valve Closed 36 lbs Seat Load Height 1.600" Open Load Valve Open 74 lbs Open Load Height 0.940" Solid Height 0.900" Spring Type Single

CATERPILLAR Cont

ENGINE	C9 537ci 8.8L 6 Cyl Diesel				YEAR			
CAPACITY	537ci / 8.8L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.41" / 112.01mm	STROKE	5.87" / 149.10mm					

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1586	Inlet - Inner Acert Models Outer Diameter 0.838" Inner Diameter 0.628" Length 2.371" Seat Load Valve Closed 34 lbs Seat Load Height 1.685" Open Load Valve Open 64 lbs Open Load Height 1.213" Solid Height 1.150" Spring Type Single
	160-1587	Inlet - Outer ACERT Model Outer Diameter 1.119" Inner Diameter 0.863" Length 2.903" Seat Load Valve Closed 68 lbs Seat Load Height 1.732" Open Load Valve Open 104 lbs Open Load Height 1.260" Solid Height 1.175" Spring Type Single

CATERPILLAR

ENGINE	C12 732ci 12.0L 6 Cyl Diesel				YEAR			
CAPACITY	732ci / 12.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	5.12" / 130.mm	STROKE	5.90" / 150.00mm					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1005	Stainless Steel
VALVE EXHAUST	01581S	Head Diam 1.654" Stem Diam 0.3717" Length 6.850" Seat Angle 45 Degree Tip Length 0.6330" Stellite Face Chrome Plating
VALVE INLET	01582 01582S	Head Diam 1.772" Stem Diam 0.3717" Length 6.850" Seat Angle 30 Degree Tip Length 0.5720" Chrome Plating With Stellite Face
VALVE COLLETS	121-1000	Suits 3/8" Stem, 2 Round Beads
VALVE GUIDE	140-8592	I.D. 0.3745" O.D. 0.6305" Chim O.D. 0.5322" Chim Heigh 0.232" Length 2.785"
VALVE STEM SEAL	122-1177	Nylon Material
VALVE SEAT INSERT EXHAUST	SB1711E-1C	O.D. Actual 1.7110" I.D. 1.4160" I.D. Top Tapper 1.525 Depth 0.3780" Seat Angle 45
VALVE SEAT INSERT INLET	SB1812E-8	O.D. Actual 1.8125" I.D. 1.5300" I.D. Top Tapper 1.580T Depth 0.3650" Seat Angle 30

CATERPILLAR Cont

ENGINE	C12 732ci 12.0L 6 Cyl Diesel				YEAR			
CAPACITY	732ci / 12.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	5.12" / 130.mm	STROKE	5.90" / 150.00mm					

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1462	INNER Outer Diameter 0.920" Inner Diameter 0.680" Length 2.550" Seat Load Valve Closed 50 lbs Seat Load Height 1.800" Open Load Valve Open 104 lbs Open Load Height 1.300" Solid Height 1.281" Spring Type Single
	160-1463	OUTER Outer Diameter 1.336" Inner Diameter 0.972" Length 2.523" Seat Load Valve Closed 90 lbs Seat Load Height 2.000" Open Load Valve Open 203 lbs Open Load Height 1.425" Solid Height 1.325" Spring Type Single

CATERPILLAR

ENGINE	C15 893ci 14.6L 6 Cyl Diesel				YEAR		
CAPACITY	893ci/ 14.6L	CYLINDERS	6 Cyl	VALVE TRAIN		VALVES	
FUEL TYPE	Direct Injection			CAM DRIVE			
BORE	5.40" / 137mm		STROKE	6.50" / 165mm			

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1979	7 REQ
INJECTOR TUBE	240-1006 240-1044	Stainless Steel . Use 240-1006RB x 1, 240-1006RM x 1 and 240-1006RT x 1 O-rings Stainless Steel Use 240-1006RM x 2 and 240-1006RB x 1 O-rings
INJECTOR TUBE SEAL	240-1006RB 240-1006RM 240-1006RT	Navy – Viton / SMALL Green – Aflas / MEDIUM Dark Blue – Viton / LARGE
VALVE EXHAUST	01912	Head Diam 1.646" Stem Diam 0.3717" Length 7.953" Seat Angle 44 Degree Tip Length 0.6040" Nickel Base Inconel Material
VALVE INLET	01911	Head Diam 1.850" Stem Diam 0.3717" Length 7.951" Seat Angle 28 Degree Tip Length 0.5622" Nickel Base Inconel Material
VALVE COLLETS	121-1000	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3007	I.D. 0.3745" O.D. 0.6298" Length 3.358"
VALVE STEM SEAL	122-1373	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1687E-1N SB1693E-1N	O.D. Actual 1.6870" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Star Series O.D. Actual 1.6930" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Degrees Star Series
VALVE SEAT INSERT INLET	SB1891E-1	O.D. Actual 1.8910" I.D. 1.615" I.D. Top Taper 1.637" Depth 0.3060" Seat Angle 30

CATERPILLAR

ENGINE	C15 CERT 928ci 15.2L 6 Cyl Diesel				YEAR		
CAPACITY	928ci 15.2L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4
FUEL TYPE	Direct Injection			CAM DRIVE			
BORE	5.40" / 137mm		STROKE	6.75" / 171mm			

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1979	7 REQ
INJECTOR TUBE	240-1006 240-1044	Stainless Steel . Use 240-1006RB x 1, 240-1006RM x 1 and 240-1006RT x 1 O-rings Stainless Steel Use 240-1006RM x 2 and 240-1006RB x 1 O-rings
INJECTOR TUBE SEAL	240-1006RB 240-1006RM 240-1006RT	Navy – Viton / SMALL Green – Aflas / MEDIUM Dark Blue – Viton / LARGE
VALVE EXHAUST	01912	Head Diam 1.646" Stem Diam 0.3717" Length 7.953" Seat Angle 44 Degree Tip Length 0.6040" Nickel Base Inconel Material
VALVE INLET	01911	Head Diam 1.850" Stem Diam 0.3717" Length 7.951" Seat Angle 28 Degree Tip Length 0.5622" Nickel Base Inconel Material
VALVE COLLETS	121-1000	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3007	I.D. 0.3745" O.D. 0.6298" Length 3.358"
VALVE STEM SEAL	122-1373	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1687E-1N SB1693E-1N	O.D. Actual 1.6870" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Star Series O.D. Actual 1.6930" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Degrees Star Series
VALVE SEAT INSERT INLET	SB1891E-1	O.D. Actual 1.8910" I.D. 1.615" I.D. Top Taper 1.637" Depth 0.3060" Seat Angle 30

CATERPILLAR

ENGINE	C16 964ci 15.8L 6 Cyl Diesel				YEAR		
CAPACITY	964ci / 15.8L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4
FUEL TYPE	Direct Injection			CAM DRIVE			
BORE	5.50" / 140mm		STROKE	6.75" / 171mm			

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1979	7 REQ
INJECTOR TUBE	240-1006 240-1044	Stainless Steel . Use 240-1006RB x 1, 240-1006RM x 1 and 240-1006RT x 1 O-rings Stainless Steel Use 240-1006RM x 2 and 240-1006RB x 1 O-rings
INJECTOR TUBE SEAL	240-1006RB 240-1006RM 240-1006RT	Navy – Viton / SMALL Green – Aflas / MEDIUM Dark Blue – Viton / LARGE
VALVE EXHAUST	01912	Head Diam 1.646" Stem Diam 0.3717" Length 7.953" Seat Angle 44 Degree Tip Length 0.6040" Nickel Base Inconel Material
VALVE INLET	01911	Head Diam 1.850" Stem Diam 0.3717" Length 7.951" Seat Angle 28 Degree Tip Length 0.5622" Nickel Base Inconel Material
VALVE COLLETS	121-1000	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3007	I.D. 0.3745" O.D. 0.6298" Length 3.358"
VALVE STEM SEAL	122-1373	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1687E-1N SB1693E-1N	O.D. Actual 1.6870" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Star Series O.D. Actual 1.6930" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Degrees Star Series
VALVE SEAT INSERT INLET	SB1891E-1	O.D. Actual 1.8910" I.D. 1.615" I.D. Top Taper 1.637" Depth 0.3060" Seat Angle 30

CATERPILLAR

ENGINE	C18 1106ci 18.1L 6 Cyl Diesel				YEAR			
CAPACITY	1106ci / 18.1L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	Direct Injection			CAM DRIVE				
BORE	5.71" / 145mm		STROKE	7.12" / 183mm				

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1979	7 REQ
INJECTOR TUBE	240-1006 240-1044	Stainless Steel . Use 240-1006RB x 1, 240-1006RM x 1 and 240-1006RT x 1 O-rings Stainless Steel Use 240-1006RM x 2 and 240-1006RB x 1 O-rings
INJECTOR TUBE SEAL	240-1006RB 240-1006RM 240-1006RT	Navy – Viton / SMALL Green – Aflas / MEDIUM Dark Blue – Viton / LARGE
VALVE EXHAUST	01912	Head Diam 1.646" Stem Diam 0.3717" Length 7.953" Seat Angle 44 Degree Tip Length 0.6040" Nickel Base Inconel Material
VALVE INLET	01911	Head Diam 1.850" Stem Diam 0.3717" Length 7.951" Seat Angle 28 Degree Tip Length 0.5622" Nickel Base Inconel Material
VALVE COLLETS	121-1000	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3007	I.D. 0.3745" O.D. 0.6298" Length 3.358"
VALVE STEM SEAL	122-1373	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1687E-1N SB1693E-1N	O.D. Actual 1.6870" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Star Series O.D. Actual 1.6930" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Degrees Star Series
VALVE SEAT INSERT INLET	SB1891E-1	O.D. Actual 1.8910" I.D. 1.615" I.D. Top Taper 1.637" Depth 0.3060" Seat Angle 30

CATERPILLAR

ENGINE	C27 1650ci 27.03L V12 Diesel				YEAR		
CAPACITY	1650ci / 27.03L	CYLINDERS	V12	VALVE TRAIN	OHC	VALVES	
FUEL TYPE	Direct Injection			CAM DRIVE			
BORE	5.40" / 137mm	STROKE	6.00in / 152mm				

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1979	7 REQ
INJECTOR TUBE	240-1006 240-1044	Stainless Steel . Use 240-1006RB x 1, 240-1006RM x 1 and 240-1006RT x 1 O-rings Stainless Steel Use 240-1006RM x 2 and 240-1006RB x 1 O-rings
INJECTOR TUBE SEAL	240-1006RB 240-1006RM 240-1006RT	Navy – Viton / SMALL Green – Aflas / MEDIUM Dark Blue – Viton / LARGE
VALVE EXHAUST	01912	Head Diam 1.646" Stem Diam 0.3717" Length 7.953" Seat Angle 44 Degree Tip Length 0.6040" Nickel Base Inconel Material
VALVE INLET	01911	Head Diam 1.850" Stem Diam 0.3717" Length 7.951" Seat Angle 28 Degree Tip Length 0.5622" Nickel Base Inconel Material
VALVE COLLETS	121-1000	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3007	I.D. 0.3745" O.D. 0.6298" Length 3.358"
VALVE STEM SEAL	122-1373	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1687E-1N SB1693E-1N	O.D. Actual 1.6870" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Star Series O.D. Actual 1.6930" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Degrees Star Series
VALVE SEAT INSERT INLET	SB1891E-1	O.D. Actual 1.8910" I.D. 1.615" I.D. Top Taper 1.637" Depth 0.3060" Seat Angle 30

CATERPILLAR

ENGINE	C32 1959ci 32.1L V12 Diesel				YEAR		
CAPACITY	1959ci / 32.1L	CYLINDERS	V12	VALVE TRAIN	OHC	VALVES	4
FUEL TYPE	Direct Injection			CAM DRIVE			
BORE	5.71" / 145mm	STROKE	6.38" / 162mm				

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1979	7 REQ
INJECTOR TUBE	240-1006 240-1044	Stainless Steel . Use 240-1006RB x 1, 240-1006RM x 1 and 240-1006RT x 1 O-rings Stainless Steel Use 240-1006RM x 2 and 240-1006RB x 1 O-rings
INJECTOR TUBE SEAL	240-1006RB 240-1006RM 240-1006RT	Navy – Viton / SMALL Green – Aflas / MEDIUM Dark Blue – Viton / LARGE
VALVE EXHAUST	01912	Head Diam 1.646" Stem Diam 0.3717" Length 7.953" Seat Angle 44 Degree Tip Length 0.6040" Nickel Base Inconel Material
VALVE INLET	01911	Head Diam 1.850" Stem Diam 0.3717" Length 7.951" Seat Angle 28 Degree Tip Length 0.5622" Nickel Base Inconel Material
VALVE COLLETS	121-1000	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3007	I.D. 0.3745" O.D. 0.6298" Length 3.358"
VALVE STEM SEAL	122-1373	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1687E-1N SB1693E-1N	O.D. Actual 1.6870" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Star Series O.D. Actual 1.6930" I.D. 1.4375" I.D. Top Taper 1.546" Depth 0.3650" Seat Angle 45 Degrees Star Series
VALVE SEAT INSERT INLET	SB1891E-1	O.D. Actual 1.8910" I.D. 1.615" I.D. Top Taper 1.637" Depth 0.3060" Seat Angle 30

CHEVROLET

ENGINE	6.5 FCWG L65 6481cc V8 OHV 16V T/Diesel				YEAR	1992 – 2002		
CAPACITY	6481cc / 396ci / 6.5L		V8	VALVE TRAIN		OHV	VALVES	2
FUEL TYPE	TURBO DIESEL			CAM DRIVE	CHAIN			
BORE	4.060in / 103.1mm	STROKE		3.820in / 97.0mm				

ITEM	PART NUMBER	NOTES
COOLING		
FAN CLUTCH	22154 22605 22606	4 Bolt Type Fan Clutch 6 Bolt Type Fan Clutch-M8 6 Bolt Type Fan Clutch-5/16"
THERMOSTAT	TH00182G1	82 Celsius/180 Fahrenheit
WATER PUMP	W9081	Single Thermostat Round Hub
CYLINDER BLOCK		
CON ROD BEARINGS	8CB1286P	CHECK CATALOGUE FOR VARIOUS SIZES
FLEXPLATE	FRA-142	
HARMONIC BALANCER	PB1490-N	Crank Bore : 40.65mm (1.6in) Ring Diameter : 201.65mm (7.94in) Nose Diameter : 59.29mm (2.334in) Weight : 12.35Lbs Overall Width : 62mm (2.44in)
MAIN BEARING SET	5M2091P 5M2091PN	Federal Mogul. CHECK CATALOGUE FOR VARIOUS SIZES Engine Pro CHECK CATALOGUE FOR VARIOUS SIZES
Mellings OIL PUMP	M-55I M255-294S	6.2L All 6.5L Up to 1996 1997 ON, Includes screen
OIL PUMP DRIVE SHAFT	IS-55H	Mellings
SINGLE PISTON	RP7052-STD	CHECK CATALOGUE FOR VARIOUS SIZES Bore Diameter : 4.054" / 102.97mm Piston Length : 3.62" / 91.94mm Piston Skirt Clearance : 0.0040" / 0.12mm Measure Skirt Clearance At : 0.630" from the bottom of skirt Piston Pin Diameter : 1.22" / 30.988mm Head Type Description : Ricardo Bowl Compression Height : Reduced .010" Top Ring : 3.00mm 2nd Ring : 2.0mm Oil Ring : 4.00mm Note 1 : Hard Anodized Head
HASTING RING SET	2M4744	CHECK CATALOGUE FOR VARIOUS SIZES Suits RP7052M Piston

CHEVROLET cont

ENGINE	6.5 FCWG L65 6481cc V8 OHV 16V T/Diesel				YEAR	1992 – 2002		
CAPACITY	6481cc / 396ci / 6.5L		V8	VALVE TRAIN		OHV	VALVES	2
FUEL TYPE	TURBO DIESEL			CAM DRIVE	CHAIN			
BORE	4.060in / 103.1mm	STROKE		3.820in / 97.0mm				

ITEM	PART NUMBER	NOTES
CYLINDER HEAD		
CAMSHAFT BEARINGS	GM-7	
HEAD BOLT SET	NHBS621	2 required per engine
CAM FOLLOWER	RHT2104	
VALVE EXHAUST	EX4491	Head Diam MM 38.98 Stem Diam MM 9.44 Length MM 129.84 Cotter Grove Type 1AB
VALVE GUIDE EXHAUST	VG9716	ID Dia 0.373" OD Dia 0.502" Length 2.188" Note Spiral I.D
VALVE GUIDE INLET	VG9715	ID Dia 0.343" OD Dia 0.502" Length 2.125" Note Spiral I.D
VALVE INLET	IN2287FM	Head Diam 46.00 MM Stem Diam 8.67 MM Length 129.74 MM Cotter Grove Type 1AB
DRIVE BELT, DRIVE BELT TENSIONER & IDLER		
RIBBED BELT	6PK2565/ 6PK2565N	GATES / OPTIBELT BRAND
TENSIONER	38118	K8 6.5L V8 16V OHV EFI Diesel FCWG 1998-00
IDLER PULLEY	38006	Steel Smooth/Backside 76mm x 17mm x 30.5mm
GASKETS		
CONVERSION SET	CS3678A	Mahle Original
CRANKSHAFT REAR SEAL	BS40604	Fel-Pro
EXHAUST MANIFOLD	MS91587	
HEAD GASKET	9521PT 9701PT	010" Thicker For Refaced Blocks
INLET MANIFOLD	MS91585	

CHEVROLET cont

ENGINE	6.5 FCWG L65 6481cc V8 OHV 16V T/Diesel				YEAR	1992 – 2002		
CAPACITY	6481cc / 396ci / 6.5L		V8	VALVE TRAIN		OHV	VALVES	2
FUEL TYPE	TURBO DIESEL			CAM DRIVE	CHAIN			
BORE	4.060in / 103.1mm	STROKE		3.820in / 97.0mm				

ITEM	PART NUMBER	NOTES
GASKETS cont		
PLENUM GASKET SET	MS90176-1	
TIMING COVER SET	TCS45554	
VALVE REGRIND SET	HSU8726-1	Does Not Include Head Gaskets
TIMING		
CRANKSHAFT GEAR	S375	
TIMING CHAIN	222181	

CUMMINS

ENGINE	ISC 8.3L 6 Cyl Diesel				YEAR			
CAPACITY	505ci / 8.3L	CYLINDERS	6 Cyl	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE	Common Rail Diesel		CAM DRIVE					
BORE	4.49in / 114mm	STROKE	5.31in / 145mm					

ITEM	PART NUMBER	NOTES
CYLINDER HEAD BOLTS	FP-3960043	26 REQ
VALVE EXHAUST	13163	Head Diam 1.496" Stem Diam 0.3138" Length 5.423" Seat Angle 45 Degree Tip Length 0.3358* Inconel Material with Letter "O" or "X" Stamped on Head
VALVE INLET	13162	Head Diam 1.496" Stem Diam 0.3138" Length 5.423" Seat Angle 30 Degree Tip Length 0.3350 Inconel Material
VALVE COLLETS	121-1079	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-8715	I.D. 0.3163" O.D. 0.5512" Length 1.949" Suits both Inlet & Exhaust guides
VALVE STEM SEAL	122-1439	Viton Material Positive Type Seal- Top Hat Style
VALVE SPRING	160-1526 160-1595	Suits both Inlet & Exhaust. Suits Exhaust with Rotator
VALVE SEAT INSERT EXHAUST	SB1554E-2	O.D. Actual 1.5545" I.D. 1.3010" I.D. Top Taper 1.348" Depth 0.1900" Seat Angle 45
VALVE SEAT INSERT INLET	SB1554E-1	O.D. Actual 1.5545" I.D. 1.2800" I.D. Top Taper 1.324" Depth 0.2360" Seat Angle 30
GASKETS SET TOP END	FP-4089758 FP-4089958 FP-4955643	Suits 2002-2007 HCPR Engines Suits 1998-2002 CAPS Engines Suits 2007 On HCPR Engines

CUMMINS

ENGINE	6B / 6BT 5.9L 359ci 6 Cyl Diesel				YEAR			
CAPACITY	539ci / 5.9L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	2	
FUEL TYPE	Direct Injection / Direct Injection Turbo			CAM DRIVE				
BORE	4.020" / 102mm	STROKE	4.720" / 120mm					

ITEM	PART NUMBER	NOTES
VALVE EXHAUST	01664	Head Diam 1.654" Stem Diam 0.3138" Length 5.076" Seat Angle 45 Degree Tip Length 0.2362"
	01801	Head Diam 1.654" Stem Diam 0.3138" Length 5.135" Seat Angle 45 Degree Tip Length 0.2950" Inconel
	01862	Suits Natural Gas Engines Head Diam 1.654" Stem Diam 0.3138" Length 5.081" Seat Angle 20 Degree Tip Length 0.2440" Inconel
VALVE INLET	01665	Head Diam 1.772" Stem Diam 0.3138" Length 5.084" Seat Angle 30 Degree Tip Length 0.2360"
	02257	Suits Natural Gas Engines Head Diam 1.772" Stem Diam 0.3138" Length 5.084" Seat Angle 20 Degree Tip Length 0.2360"
VALVE COLLETS	121-1079	Suits 5/16" Stem, 1 Round Bead

CUMMINS Cont

ENGINE	6B / 6BT 5.9L 359ci 6 Cyl Diesel					YEAR		
	539ci / 5.9L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	2	
	Direct Injection / Direct Injection Turbo			CAM DRIVE				
	BORE	4.020" / 102mm	STROKE	4.720" / 120mm				

ITEM	PART NUMBER	NOTES
VALVE GUIDE	140-8177	INLET I.D. 0.3162" O.D. 0.5528" Length 2.382"
	140-8177SA	Intake - Suits Ultra Low Sulfur Diesel I.D. 0.3162" O.D. 0.5528" Length 2.382"
	140-8178	Special Alloy EXHAUST I.D. 0.3160" O.D. 0.5528" Length 2.052"
	140-8178SA	Exhaust - Suits Ultra Low Sulfur Diesel I.D. 0.3160" O.D. 0.5528" Length 2.052"
VALVE STEM SEAL	122-1053	Viton Material Positive Type Seal- Black Colour Exhaust
	122-1269	Viton Material Positive Type Seal- Orange Colour Intake
	122-1365	Viton Material Positive Type Seal- Top Hat Style Inl & Exh
VALVE SEAT INSERT EXHAUST	SB1722E-1	EXHAUST O.D. Actual 1.7220" I.D. 1.3570" I.D. Top Taper 1.574" Depth 0.2650" Seat Angle 45
	SB1722E-3	Exhaust (Natural Gas) O.D. Actual 1.7220" I.D. 1.3820" I.D. Top Taper 1.455" Depth 0.2650" Seat Angle 20

CUMMINS Cont

ENGINE	6B / 6BT 5.9L 359ci 6 Cyl Diesel				YEAR			
CAPACITY	539ci / 5.9L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	2	
FUEL TYPE	Direct Injection / Direct Injection Turbo			CAM DRIVE				
BORE	4.020" / 102mm	STROKE	4.720" / 120mm					

ITEM	PART NUMBER	NOTES
VALVE SEAT INSERT INLET	SB1853E-1 SB1853E-1	INLET O.D. Actual 1.8530" I.D. 1.4980" I.D. Top Taper 1.700" Depth 0.2370" Seat Angle 30 INLET O.D. Actual 1.8530" I.D. 1.4950" I.D. Top Taper 1.556" Depth 0.2710" Seat Angle 20
VALVE SPRING	160-1348 160-1379	Suits Intake & Exhaust - Length 2.235" Outer Diameter 1.325" Inner Diameter 0.942" Length 2.235" Seat Load Valve Closed 59 lbs Seat Load Height 2.000" Open Load Valve Open 180 lbs Open Load Height 1.550" Solid Height 1.350" Spring Type Single Suits Intake & Exhaust - Length 2.385" Outer Diameter 1.320" Inner Diameter 0.948" Length 2.385" Seat Load Valve Closed 78 lbs Seat Load Height 2.000" Open Load Valve Open 174 lbs Open Load Height 1.650" Solid Height 1.400" Spring Type Single

CUMMINS Cont

ENGINE	6B / 6BT 5.9L 359ci 6 Cyl Diesel				YEAR			
CAPACITY	539ci / 5.9L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	2	
FUEL TYPE	Direct Injection / Direct Injection Turbo			CAM DRIVE				
BORE	4.020" / 102mm	STROKE	4.720" / 120mm					

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1459	Suits Intake & Exhaust - Length 2.194" Outer Diameter 1.342" Inner Diameter 0.968" Length 2.194" Seat Load Valve Closed 38 lbs Seat Load Height 2.010" Open Load Valve Open 184 lbs Open Load Height 1.440" Solid Height 1.280" Spring Type Single
	160-1527	Suits Intake & Exhaust - Length 2.518" Outer Diameter 1.275" Inner Diameter 0.947" Length 2.518" Seat Load Valve Closed 79 lbs Seat Load Height 1.930" Open Load Valve Open 144 lbs Open Load Height 1.504" Solid Height 1.370" Spring Type Single

CUMMINS

ENGINE	QSB 5.9L 359ci 6 Cyl Diesel				YEAR			
CAPACITY	359ci / 5.9L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.02" / 102.0mm	STROKE	4.72" / 120.00mm					

ITEM	PART NUMBER	NOTES
VALVE EXHAUST	13006	With Letter N In Head Head Diam 1.299" Stem Diam 0.2756" Length 4.893" Seat Angle 30 Degree Tip Length 0.3000"
	13161	With Letter O in Head (Inconel) Head Diam 1.299" Stem Diam 0.2756" Length 4.893" Seat Angle 45 Degree Tip Length 0.3000"
VALVE INLET	02014	Head Diam 1.299" Stem Diam 0.2756" Length 4.907" Seat Angle 30 Degree Tip Length 0.2990"
VALVE COLLETS	121-1097	Suits 7mm Stem, 1 Round Bead
VALVE GUIDE	140-3021	Intake - Suits Heads With Single Flange On Guide I.D. 0.2776" O.D. 0.5015" Chim O.D. 0.511" Chim Height 0.360" Length 1.937"
	140-3022	Exhaust - Suits Heads With Single Flange On Guide I.D. 0.2776" O.D. 0.5015" Chim O.D. 0.511" Chim Height 0.360" Length 2.020"
	140-3033	Intake - Suits Heads With Dual Flange On Guide I.D. 0.2776" O.D. 0.5015" Chim O.D. 0.5110" Chim Height 0.334" Length 1.937"

CUMMINS Cont

ENGINE	QSB 5.9L 359ci 6 Cyl Diesel				YEAR			
CAPACITY	359ci / 5.9L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.02" / 102.0mm	STROKE	4.72" / 120.00mm					

ITEM	PART NUMBER	NOTES
VALVE GUIDE	140-3034 140-3080 140-3081	Exhaust - Suits Heads With Dual Flange On Guide I.D. 0.2780" O.D. 0.5015" Chim O.D. 0.5110" Chim Heigh 0.3340" Length 2.020" Inlet - With Out Seal Boss I.D. 0.2775" O.D. 0.4395" Length 1.937" Exhaust - With Out Seal Boss I.D. 0.2775" O.D. 0.4395" Length 2.020"
VALVE STEM SEAL	122-1334 122-1335 122-1370 122-1371 122-1477	Exhaust - Metal Clad VITON GREEN Inlet - Metal Clad Inlet - Top Hat Style Exhaust - Green Top Hat Style Both - Black Top Hat Style
VALVE SEAT INSERT EXHAUST	SB1375E-2N	O.D. Actual 1.3750" I.D. 1.1000" I.D. Top Taper 1.130" Depth 0.2270" Seat Angle 45
VALVE SEAT INSERT INLET	SB1375E-1	O.D. Actual 1.3750" I.D. 1.1000" I.D. Top Taper 1.140" Depth 0.2270" Seat Angle 30
VALVE SPRING	160-1484	Suits Intake & Exhaust - Length 1.852" Outer Diameter 1.084" Inner Diameter 0.744" Length 1.852" Seat Load Valve Closed 76 lbs Seat Load Height 1.390" Open Load Valve Open 150 lbs Open Load Height 1.060" Solid Height 1.000" Spring Type Single

CUMMINS

ENGINE	ISB 5.9L 359ci 6 Cyl Diesel				YEAR			
CAPACITY	359ci / 5.9L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.02" / 102.0MM	STROKE	4.72" / 120.0MM					

ITEM	PART NUMBER	NOTES
VALVE EXHAUST	02015	Head Diam 1.299" Stem Diam 0.2756" Length 4.893" Seat Angle 45 Degree Tip Length 0.3000"
	13006	With Letter N In Head Head Diam 1.299" Stem Diam 0.2756" Length 4.893" Seat Angle 30 Degree Tip Length 0.3000"
	13161	With Letter O in Head (Inconel) Head Diam 1.299" Stem Diam 0.2756" Length 4.893" Seat Angle 45 Degree Tip Length 0.3000"
VALVE INLET	02014	Head Diam 1.299" Stem Diam 0.2756" Length 4.907" Seat Angle 30 Degree Tip Length 0.2990"
VALVE COLLETS	121-1097	Suits 7mm Stem, 1 Round Bead
VALVE SPRING	160-1484	Suits Intake & Exhaust - Length 1.852" Outer Diameter 1.084" Inner Diameter 0.744" Length 1.852" Seat Load Valve Closed 76 lbs Seat Load Height 1.390" Open Load Valve Open 150 lbs Open Load Height 1.060" Solid Height 1.000" Spring Type Single

CUMMINS Cont

ENGINE	ISB 5.9L 359ci 6 Cyl Diesel				YEAR			
CAPACITY	359ci / 5.9L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.02" / 102.0MM	STROKE	4.72" / 120.0MM					

ITEM	PART NUMBER	NOTES
VALVE GUIDE	140-3021	Intake - Suits Heads With Single Flange On Guide I.D. 0.2776" O.D. 0.5015" Chim O.D. 0.511" Chim Heigh 0.360" Length 1.937"
	140-3022	Exhaust - Suits Heads With Single Flange On Guide I.D. 0.2776" O.D. 0.5015" Chim O.D. 0.511" Chim Heigh 0.360" Length 2.020"
	140-3033	Intake - Suits Heads With Dual Flange On Guide I.D. 0.2776" O.D. 0.5015" Chim O.D. 0.5110" Chim Heigh 0.334" Length 1.937"
	140-3034	Exhaust - Suits Heads With Dual Flange On Guide I.D. 0.2780" O.D. 0.5015" Chim O.D. 0.5110" Chim Heigh 0.3340" Length 2.020"
	140-3080	Inlet - With Out Seal Boss I.D. 0.2775" O.D. 0.4395" Length 1.937"
	140-3081	Exhaust - With Out Seal Boss I.D. 0.2775" O.D. 0.4395" Length 2.020"
VALVE STEM SEAL	122-1334	Exhaust - Metal Clad
	122-1335	Inlet - Metal Clad
	122-1370	Inlet - Top Hat Style
	122-1371	Exhaust - Green Top Hat Style
	122-1477	Both - Black Top Hat Style

CUMMINS Cont

ENGINE	ISB 5.9L 359ci 6 Cyl Diesel				YEAR			
CAPACITY	359ci / 5.9L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.02" / 102.0MM	STROKE	4.72" / 120.0MM					

ITEM	PART NUMBER	NOTES	
VALVE SEAT INSERT EXHAUST	SB1375E-2N	O.D. Actual I.D. Depth Seat Angle	1.3750" 1.1000" I.D. Top Taper 1.130" 0.2270" 45
VALVE SEAT INSERT INLET	SB1375E-1	O.D. Actual I.D. Depth Seat Angle	1.3750" 1.1000" I.D. Top Taper 1.140" 0.2270" 30

CUMMINS

ENGINE	ISB 6.7L 408ci 6 Cyl Diesel				YEAR			
CAPACITY	408Ci /6.7L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.21" / 106.9MM	STROKE	4.88" / 120MM					

ITEM	PART NUMBER	NOTES
VALVE EXHAUST	02015	Head Diam 1.299" Stem Diam 0.2756" Length 4.893" Seat Angle 45 Degree Tip Length 0.3000"
	13006	With Letter N In Head Head Diam 1.299" Stem Diam 0.2756" Length 4.893" Seat Angle 30 Degree Tip Length 0.3000"
	13161	With Letter O in Head (Inconel) Head Diam 1.299" Stem Diam 0.2756" Length 4.893" Seat Angle 45 Degree Tip Length 0.3000"
VALVE INLET	02014	Head Diam 1.299" Stem Diam 0.2756" Length 4.907" Seat Angle 30 Degree Tip Length 0.2990"
VALVE COLLETS	121-1097	Suits 7mm Stem, 1 Round Bead
VALVE SPRING	160-1484	Suits Intake & Exhaust - Length 1.852" Outer Diameter 1.084" Inner Diameter 0.744" Length 1.852" Seat Load Valve Closed 76 lbs Seat Load Height 1.390" Open Load Valve Open 150 lbs Open Load Height 1.060" Solid Height 1.000" Spring Type Single

CUMMINS Cont

ENGINE	ISB 6.7L 408ci 6 Cyl Diesel				YEAR			
CAPACITY	408Ci / 6.7 L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.21" / 106.9 MM	STROKE	4.88" / 124.0MM					

ITEM	PART NUMBER	NOTES
VALVE GUIDE	140-3021	Intake - Suits Heads With Single Flange On Guide I.D. 0.2776" O.D. 0.5015" Chim O.D. 0.511" Chim Heigh 0.360" Length 1.937"
	140-3022	Exhaust - Suits Heads With Single Flange On Guide I.D. 0.2776" O.D. 0.5015" Chim O.D. 0.511" Chim Heigh 0.360" Length 2.020"
	140-3033	Intake - Suits Heads With Dual Flange On Guide I.D. 0.2776" O.D. 0.5015" Chim O.D. 0.5110" Chim Heigh 0.334" Length 1.937"
	140-3034	Exhaust - Suits Heads With Dual Flange On Guide I.D. 0.2780" O.D. 0.5015" Chim O.D. 0.5110" Chim Heigh 0.3340" Length 2.020"
	140-3080	Inlet - With Out Seal Boss I.D. 0.2775" O.D. 0.4395" Length 1.937"
	140-3081	Exhaust - With Out Seal Boss I.D. 0.2775" O.D. 0.4395" Length 2.020"
VALVE STEM SEAL	122-1334	Exhaust - Metal Clad
	122-1335	Inlet - Metal Clad
	122-1370	Inlet - Top Hat Style
	122-1371	Exhaust - Green Top Hat Style
	122-1477	Both - Black Top Hat Style

CUMMINS Cont

ENGINE	ISB 6.7L 408ci 6 Cyl Diesel				YEAR			
CAPACITY	408Ci / 6.7L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.21" / 106.9MM	STROKE	4.88" / 124.0MM					

ITEM	PART NUMBER	NOTES	
VALVE SEAT INSERT EXHAUST	SB1375E-2N	O.D. Actual I.D. Depth Seat Angle	1.3750" 1.1000" I.D. Top Taper 1.130" 0.2270" 45
VALVE SEAT INSERT INLET	SB1375E-1	O.D. Actual I.D. Depth Seat Angle	1.3750" 1.1000" I.D. Top Taper 1.140" 0.2270" 30

CUMMINS

ENGINE	QSC 8.3L 6 Cyl Diesel			YEAR			
CAPACITY	505ci / 8.3L	CYLINDERS	6 CYL	VALVE TRAIN	OHV	VALVES	4
FUEL TYPE	Common Rail Diesel	CAM DRIVE					
BORE	4.49in / 114mm	STROKE	5.31in / 145mm				

ITEM	PART NUMBER	NOTES
CYLINDER HEAD BOLTS	FP-3960043	26 REQ
VALVE EXHAUST	13163	Head Diam 1.496" Stem Diam 0.3138" Length 5.423" Seat Angle 45 Degree Tip Length 0.3358* Inconel Material with Letter "O" or "X" Stamped on Head
VALVE INLET	13162	Head Diam 1.496" Stem Diam 0.3138" Length 5.423" Seat Angle 30 Degree Tip Length 0.3350 Inconel Material
VALVE COLLETS	121-1079	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-8715	I.D. 0.3163" O.D. 0.5512" Length 1.949" Suits both Inlet & Exhaust guides
VALVE STEM SEAL	122-1439	Viton Material Positive Type Seal- Top Hat Style
VALVE SPRING	160-1526	Suits both Inlet & Exhaust. 160-1595 Suits Exhaust with Rotator
VALVE SEAT INSERT EXHAUST	SB1554E-2	O.D. Actual 1.5545" I.D. 1.3010" I.D. Top Taper 1.348" Depth 0.1900" Seat Angle 45
VALVE SEAT INSERT INLET	SB1554E-1	O.D. Actual 1.5545" I.D. 1.2800" I.D. Top Taper 1.324" Depth 0.2360" Seat Angle 30
GASKETS SET TOP END	FP-4089958 FP-4089978	Suits 1998-2002 CAPS Engines Suits HCPR Engines

CUMMINS

ENGINE	ISL 8.9L 6 Cyl Diesel				YEAR			
CAPACITY	541ci / 8.9L	CYLINDERS	6 Cyl	VALVE TRAIN	OHV	VALVES		
FUEL TYPE	Common Rail Turbo Charged			CAM DRIVE				
BORE	4.49in / 114mm	STROKE	5.69in / 145mm					

ITEM	PART NUMBER	NOTES
CYLINDER HEAD BOLTS	FP-3960043	26 REQ
VALVE EXHAUST	13163	Head Diam 1.496" Stem Diam 0.3138" Length 5.423" Seat Angle 45 Degree Tip Length 0.3358* Inconel Material with Letter "O" or "X" Stamped on Head
VALVE INLET	13162	Head Diam 1.496" Stem Diam 0.3138" Length 5.423" Seat Angle 30 Degree Tip Length 0.3350 Inconel Material
VALVE COLLETS	121-1079	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-8715	I.D. 0.3163" O.D. 0.5512" Length 1.949" Suits both Inlet & Exhaust guides
VALVE STEM SEAL	122-1439	Viton Material Positive Type Seal- Top Hat Style
VALVE SPRING	160-1526 160-1595	Suits both Inlet & Exhaust. Suits Exhaust with Rotator
VALVE SEAT INSERT EXHAUST	SB1554E-2	O.D. Actual 1.5545" I.D. 1.3010" I.D. Top Taper 1.348" Depth 0.1900" Seat Angle 45
VALVE SEAT INSERT INLET	SB1554E-1	O.D. Actual 1.5545" I.D. 1.2800" I.D. Top Taper 1.324" Depth 0.2360" Seat Angle 30
GASKETS SET TOP END	FP-4089758 FP-4089958 FP-4955643	Suits 2002-2007 HCPR Engines Suits 1998-2002 CAPS Engines Suits 2007 On HCPR Engines

CUMMINS

ENGINE	QSL 8.9L 6 Cyl Diesel				YEAR			
CAPACITY	541ci / 8.9L	CYLINDERS	6 Cyl	VALVE TRAIN		OHV	VALVES	4
FUEL TYPE	Common Rail Turbo Charged			CAM DRIVE				
BORE	4.49in / 114mm		STROKE	5.69in / 145mm				

ITEM	PART NUMBER	NOTES
CYLINDER HEAD BOLTS	FP-3960043	26 REQ
VALVE EXHAUST	13163	Head Diam 1.496" Stem Diam 0.3138" Length 5.423" Seat Angle 45 Degree Tip Length 0.3358* Inconel Material with Letter "O" or "X" Stamped on Head
VALVE INLET	13162	Head Diam 1.496" Stem Diam 0.3138" Length 5.423" Seat Angle 30 Degree Tip Length 0.3350 Inconel Material
VALVE COLLETS	121-1079	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-8715	I.D. 0.3163" O.D. 0.5512" Length 1.949" Suits both Inlet & Exhaust guides
VALVE STEM SEAL	122-1439	Viton Material Positive Type Seal- Top Hat Style
VALVE SPRING	160-1526 160-1595	Suits both Inlet & Exhaust. Suits Exhaust with Rotator
VALVE SEAT INSERT EXHAUST	SB1554E-2	O.D. Actual 1.5545" I.D. 1.3010" I.D. Top Taper 1.348" Depth 0.1900" Seat Angle 45
VALVE SEAT INSERT INLET	SB1554E-1	O.D. Actual 1.5545" I.D. 1.2800" I.D. Top Taper 1.324" Depth 0.2360" Seat Angle 30
GASKETS SET TOP END	FP-4089958 FP-4089978	Suits 1998-2002 CAPS Engines Suits HCPR Engines

CUMMINS

ENGINE	L10 10.0L 611ci 6 Cyl Diesel				YEAR			
CAPACITY	611Ci / 10.0L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE				
BORE	4.92" / 125.0MM	STROKE	5.34" / 136.0MM					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1009 240-1010 240-1011	Copper - Thin Nose Early Copper - Heavy Nose Early Stainless - Late
INJECTOR TUBE SEAL	240-1009R 240-1011R	Black O-Ring – Early O-Ring Black - Late
VALVE EXHAUST	01531 01658S 01662S 01662SNR	Suits Up to 1991 With Letter N In Head Head Diam 1.673" Stem Diam 0.3789" Length 6.940" Seat Angle 30 Degree Tip Length 0.4122" With Letter J In Head Head Diam 1.673" Stem Diam 0.3789" Length 6.944" Seat Angle 30 Degree Tip Length 0.4122" With Letter S In Head Head Diam 1.673" Stem Diam 0.3789" Length 7.695" Seat Angle 30 Degree Tip Length 0.4122" Suits Early With Radius On Combustion Chamber & Square Edge Seat Face Head Diam 1.673" Stem Diam 0.3789" Length 7.695" Seat Angle 30 Degree Tip Length 0.4122"
VALVE INLET	01532	Suits Up to 1991 6.945" Length Head Diam 1.673" Stem Diam 0.3789" Length 6.945" Seat Angle 30 Degree Tip Length 0.4122"
VALVE INLET & EXHAUST	01663 01720S	Suits From 1991 7.690" Length (SAME DIMENSIONS APART FROM LENGTH) With Letter F In Head Head Diam 1.673" Stem Diam 0.3793" Length 6.945" Seat Angle 30 Degree Tip Length 0.4120"

CUMMINS Cont

ENGINE	L10 10.0L 611ci 6 Cyl Diesel				YEAR			
CAPACITY	611Ci / 10.0L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE				
BORE	4.92" / 125.0MM	STROKE	5.34" / 136.0MM					

ITEM	PART NUMBER	NOTES
VALVE COLLETS	121-1027	Suits .379" Stem, 1 Round Bead
VALVE GUIDE	140-3008	I.D. 0.3819" O.D. 0.6506" Chim O.D. 0.564" Chim Heigh 0.307" Length 3.374"
	140-7625	I.D. 0.3819" O.D. 0.6504" Length 2.934"
	140-7625SA	2.934" Length For Ultra Low Sulfur Diesel I.D. 0.3819" O.D. 0.6504" Length 2.934"
	140-8210	I.D. 0.3819" O.D. 0.5045" Chim O.D. 0.5638" Chim Heigh 0.276" Length 2.633"
	140-8210SA	2.633" Length For Ultra Low Sulfur Diesel I.D. 0.3819" O.D. 0.5045" Chim O.D. 0.5638" Chim Heigh 0.276" Length 2.633"
VALVE STEM SEAL	122-1241 122-1374	Use With Short Guide 140-8210 Use With Long Guide 140-3008
VALVE SEAT INSERT	SB1812E-4	O.D. Actual 1.8120" I.D. 1.4500"
	Both - 0.1860" Depth	Depth 0.1860" Seat Angle 30
	SB1812E-4T	O.D. Actual 1.8120" I.D. 1.5200"
	Both - 0.2240" Depth	Depth 0.2240" Seat Angle 30

CUMMINS Cont

ENGINE	L10 10.0L 611ci 6 Cyl Diesel				YEAR			
CAPACITY	611Ci / 10.0L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE				
BORE	4.92" / 125.0MM	STROKE	5.34" / 136.0MM					

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1303	Inner – Length 3.100" Outer Diameter 0.983" Inner Diameter 0.713" Length 3.100" Seat Load Valve Closed 60 lbs Seat Load Height 2.308" Open Load Valve Open 100 lbs Open Load Height 1.783" Solid Height 1.663" Spring Type Single
	160-1304	Outer - Length 3.300" Outer Diameter 1.440" Inner Diameter 1.026" Length 3.300" Seat Load Valve Closed 132 lbs Seat Load Height 2.589" Open Load Valve Open 230 lbs Open Load Height 2.073" Solid Height 1.954" Spring Type Single
	160-1414	Length 4.067"Outer Diameter 1.194" Inner Diameter 0.780" Length 4.067" Seat Load Valve Closed 190 lbs Seat Load Height 3.338" Open Load Valve Open 339 lbs Open Load Height 2.814" Solid Height 2.678" Spring Type Single

CUMMINS

ENGINE	ISM 10.8L 659ci 6 Cyl Diesel				YEAR			
CAPACITY	659Ci 10.8L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.92" / 125.00MM	STROKE	5.79" / 147.00MM					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1009 240-1011	Copper - Thin Nose Early Stainless - Late
INJECTOR TUBE SEAL	240-1011R	O-Ring Black - Late
VALVE EXHAUST	01662S 01662SNR	With Letter S In Head Head Diam 1.673" Stem Diam 0.3789" Length 7.695" Seat Angle 30 Degree Tip Length 0.4122" Suits Early With Radius On Combustion Chamber & Square Edge Seat Face Head Diam 1.673" Stem Diam 0.3789" Length 7.695" Seat Angle 30 Degree Tip Length 0.4122"
VALVE INLET	01663 Suits From 1991 7.690" Length	Head Diam 1.673" Stem Diam 0.3789" Length 7.690" Seat Angle 30 Degree Tip Length 0.4122"
VALVE COLLETS	121-1027	Suits .379" Stem, 1 Round Bead
VALVE GUIDE	140-3008	I.D. 0.3819" O.D. 0.6506" Chim O.D. 0.564" Chim Height 0.307" Length 3.374"
VALVE STEM SEAL	122-1374	Use With Long Guide 140-3008
VALVE SEAT INSERT	SB1812E-9 BOTH	O.D. Actual 1.8125" I.D. 1.4300" Depth 0.1860" Seat Angle 30
VALVE SPRING	160-1414	Outer Diameter 1.194" Inner Diameter 0.780" Length 4.067" Seat Load Valve Closed 190 lbs Seat Load Height 3.338" Open Load Valve Open 339 lbs Open Load Height 2.814" Solid Height 2.678" Spring Type Single

CUMMINS

ENGINE	M11 10.8L 659ci 6 Cyl Diesel				YEAR			
CAPACITY	659Ci / 10.8L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE				
BORE	4.92" / 125.0MM	STROKE	5.79" / 147.0MM					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1009 240-1010 240-1011	Copper - Thin Nose Early Copper - Heavy Nose Early Stainless - Late
INJECTOR TUBE SEAL	240-1009R 240-1011R	Black O-Ring – Early O-Ring Black - Late
VALVE EXHAUST	01531 01658S 01662S 01662SNR	Suits Up to 1991 With Letter N In Head Head Diam 1.673" Stem Diam 0.3789" Length 6.940" Seat Angle 30 Degree Tip Length 0.4122" With Letter J In Head Head Diam 1.673" Stem Diam 0.3789" Length 6.944" Seat Angle 30 Degree Tip Length 0.4122" With Letter S In Head Head Diam 1.673" Stem Diam 0.3789" Length 7.695" Seat Angle 30 Degree Tip Length 0.4122" Suits Early With Radius On Combustion Chamber & Square Edge Seat Face Head Diam 1.673" Stem Diam 0.3789" Length 7.695" Seat Angle 30 Degree Tip Length 0.4122"
VALVE INLET	01532	Suits Up to 1991 6.945" Length Head Diam 1.673" Stem Diam 0.3789" Length 6.945" Seat Angle 30 Degree Tip Length 0.4122"
VALVE INLET & EXHAUST	01663 01720S	Suits From 1991 7.690" Length (SAME DIMENSIONS AS ABOVE APART FROM LENGTH) With Letter F In Head Head Diam 1.673" Stem Diam 0.3793" Length 6.945" Seat Angle 30 Degree Tip Length .4120"

CUMMINS Cont

ENGINE	M11 10.8L 659ci 6 Cyl Diesel				YEAR			
CAPACITY	659Ci / 10.8L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE				
BORE	4.92" / 125.0MM	STROKE	5.79" / 147.0MM					

ITEM	PART NUMBER	NOTES
VALVE COLLETS	121-1027	Suits .379" Stem, 1 Round Bead
VALVE GUIDE	140-3008	I.D. 0.3819" O.D. 0.6506" Chim O.D. 0.564" Chim Heigh 0.307" Length 3.374"
	140-7625	I.D. 0.3819" O.D. 0.6504" Length 2.934"
	140-7625SA	2.934" Length For Ultra Low Sulfur Diesel I.D. 0.3819" O.D. 0.6504" Length 2.934"
	140-8210	I.D. 0.3819" O.D. 0.5045" Chim O.D. 0.5638" Chim Heigh 0.276" Length 2.633"
	140-8210SA	2.633" Length For Ultra Low Sulfur Diesel I.D. 0.3819" O.D. 0.5045" Chim O.D. 0.5638" Chim Heigh 0.276" Length 2.633"
VALVE STEM SEAL	122-1241 122-1374	Use With Short Guide 140-8210 Use With Long Guide 140-3008
VALVE SEAT INSERT	SB1812E-4	O.D. Actual 1.8120" I.D. 1.4500"
	Both - 0.1860" Depth	Depth 0.1860" Seat Angle 30
	SB1812E-4T	O.D. Actual 1.8120" I.D. 1.5200"
	Both - 0.2240" Depth	Depth 0.2240" Seat Angle 30

CUMMINS Cont

ENGINE	M11 10.8L 659ci 6 Cyl Diesel				YEAR			
CAPACITY	659Ci / 10.8L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE				
BORE	4.92" / 125.0MM	STROKE	5.79" / 147.0MM					

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1303	Inner
		Outer Diameter 0.983"
		Inner Diameter 0.713"
		Length 3.100"
		Seat Load Valve Closed 60 lbs
		Seat Load Height 2.308"
		Open Load Valve Open 100 lbs
		Open Load Height 1.783"
		Solid Height 1.663"
		Spring Type Single
	160-1304	Outer
		Outer Diameter 1.440"
		Inner Diameter 1.026"
		Length 3.300"
		Seat Load Valve Closed 132 lbs
		Seat Load Height 2.589"
		Open Load Valve Open 230 lbs
		Open Load Height 2.073"
		Solid Height 1.954"
		Spring Type Single
	160-1414	Length 4.067"
		Outer Diameter 1.194"
		Inner Diameter 0.780"
		Length 4.067"
		Seat Load Valve Closed 190 lbs
		Seat Load Height 3.338"
		Open Load Valve Open 339 lbs
		Open Load Height 2.814"
		Solid Height 2.678"
		Spring Type Single

CUMMINS

ENGINE	N14 14.0L 855ci 6 Cyl Diesel				YEAR			
CAPACITY	855Ci / 14.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE				
BORE	5.50" / 139.7MM	STROKE	6.00" / 152.4MM					

ITEM	PART NUMBER	NOTES
CAM BEARINGS		
INJECTOR TUBE	240-1009 240-1011	Copper - Thin Nose Early Stainless - Late
INJECTOR TUBE SEAL	240-1009R 240-1011R	Black O-Ring – Early O-Ring Black - Late
VALVE EXHAUST	01659S 01661S 01847S	With Letter S or J Head Diam 1.870" Stem Diam 0.3789" Length 7.726" Seat Angle 30 Degree Tip Length 0.4120" With Letter X Head Diam 1.870" Stem Diam 0.3789" Length 7.726" Seat Angle 30 Degree Tip Length 0.4120" With Letter Y or F or J Head Diam 1.870" Stem Diam 0.3789" Length 7.722" Seat Angle 45 Degree Tip Length 0.4120"
VALVE INLET	01660 01756	With Letter O Head Diam 1.870" Stem Diam 0.3789" Length 7.723" Seat Angle 30 Degree Tip Length 0.4120" With Letter O Head Diam 1.870" Stem Diam 0.3789" Length 7.750" Seat Angle 20 Degree Tip Length 0.4120"

CUMMINS Cont

ENGINE	N14 14.0L 855ci 6 Cyl Diesel				YEAR			
CAPACITY	855Ci / 14.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE				
BORE	5.50" / 139.7MM	STROKE	6.00" / 152.4MM					

ITEM	PART NUMBER	NOTES
VALVE COLLETS	121-1076	Suits .3789" Stem, 1 Round Bead
VALVE GUIDE	140-8134 140-8134SA	I.D. 0.3819" O.D. 0.7518" Chim O.D. 0.6200" Chim Heigh 0.400" Length 3.400" For Ultra Low Sulfur Diesel I.D. 0.3819" O.D. 0.5133" Chim O.D. 0.7518" Chim Heigh 0.400" Length 3.400"
VALVE STEM SEAL	122-1239	Viton Material Top Hat Design
VALVE SEAT INSERT EXHAUST	SB1953E-2C SB2006E-7C	O.D. Actual 1.9535" I.D. 1.6400" I.D. Top Taper 1.670" Depth 0.2150" Seat Angle 45 Exhaust - 91N14 O.D. Actual 2.0060" I.D. 1.6900" Depth 0.2150" Seat Angle 30
VALVE SEAT INSERT INLET	SB1953E-3 SB2006E-5	Inlet - 94N14 O.D. Actual 1.9535" I.D. 1.6400" I.D. Top Taper 1.828" Depth 0.1950" Seat Angle 20 Inlet N14 91N14, Both MH/MT855 91N14 O.D. Actual 2.0060" I.D. 1.6900" Depth 0.2140" Seat Angle 30
VALVE SPRING	160-1302	Outer Diameter 1.383" Inner Diameter 0.969" Length 3.420" Seat Load Valve Closed 120 lbs Seat Load Height 2.810" Open Load Valve Open 225 lbs Open Load Height 2.210" Solid Height 2.066" Spring Type Single

CUMMINS

ENGINE	NH855 / NT855				YEAR			
CAPACITY	855Ci / 14.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE				
BORE	5.50" / 139.7MM	STROKE	6.00" / 152.4MM					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1009 240-1010 240-1011	Copper - Thin Nose Early Copper - Heavy Nose Early Stainless - Late
INJECTOR TUBE SEAL	240-1009R 240-1011R	Black O-Ring – Early O-Ring Black - Late
VALVE INLET & EXHAUST	00602 00602S	With Letter N Head Diam 1.870" Stem Diam 0.4505" Length 7.063" Seat Angle 30 Degree Tip Length 0.4010" With Letter S or J Head Diam 1.870" Stem Diam 0.4505" Length 7.063" Seat Angle 30 Degree Tip Length 0.4010"
VALVE INLET	00603	Inlet - With Letter O
VALVE SPRING	160-1177 160-1305	Outer Diameter 1.257" Inner Diameter 0.903" Length 2.685" Seat Load Valve Closed 70 lbs Seat Load Height 2.250" Open Load Valve Open 155 lbs Open Load Height 1.720" Solid Height 1.610" Spring Type Single Outer Diameter 1.500" Inner Diameter 1.086" Length 2.635" Seat Load Valve Closed 89 lbs Seat Load Height 2.240" Open Load Valve Open 217 lbs Open Load Height 1.670" Solid Height 1.552" Spring Type Single

CUMMINS Cont

ENGINE	NH855 / NT855				YEAR		
CAPACITY	855Ci / 14.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE			
BORE	5.50" / 139.7MM	STROKE	6.00" / 152.4MM				

ITEM	PART NUMBER	NOTES
VALVE COLLETS	121-1006	Suits 11.5mm Stem, 2 Round Beads
VALVE GUIDE	140-6452	I.D. 0.4528" O.D. 0.7205" Chim O.D. 0.6614" Chim Heigh 0.449" Length 3.195"
	140-7264	I.D. 0.4530" O.D. 0.7620" Length 3.400"
	140-7994	3.400" Length With Out Sharp Top Edge I.D. 0.4530" O.D. 0.7518" Length 3.400"
	140-7994SA	3.400" Length With Out Sharp Top Edge & Ultra Low Suphur Diesel I.D. 0.4530" O.D. 0.7518" Length 3.400"
VALVE STEM SEAL	122-1362	Viton Material
VALVE SEAT INSERT	SB2003E-1	O.D. Actual 2.0030" I.D. 1.6875" Depth 0.2003" Seat Angle 30
	SB2003E-1N SB2006E-1	Turbo & High Heat Applications Star Series O.D. Actual 2.0060" I.D. 1.6875" Depth 0.2812" Seat Angle 30
	SB2006E-1N SB2006E-5	Turbo & High Heat Applications Star Series Inlet N14 91N14, Both MH/MT855 91N14 O.D. Actual 2.0060" I.D. 1.6900" Depth 0.2140" Seat Angle 30

CUMMINS

ENGINE	ISX 915ci 15.0L 6 Cyl Diesel				YEAR			
	CAPACITY	915ci / 15.0L	CYLINDERS	6 Cyl	VALVE TRAIN	OHC	VALVES	4
	FUEL TYPE	Direct Injection Turbo Charged			CAM DRIVE			
	BORE	5.39in / 137mm	STROKE	6.65in / 169mm				

ITEM	PART NUMBER	NOTES
CAMSHAFT BEARINGS	SH2138	7 REQ
INJECTOR SHAFT BEARINGS	SH2136 SH2137	4 REQ 3 REQ
VALVE EXHAUST	02263S 13309S	Head Diam 1.790" Stem Diam 0.3789" Length 8.810" Seat Angle 45 Degree Tip Length 0.7579" Includes Stellite Face & Chrome Plating Head 1.790" Stem 0.3789" Length 8.810" Inconel Includes stellite face
VALVE INLET	02262 13308	Head Diam 1.870" Stem Diam 0.3789" Length 8.502" Seat Angle 20 Degree Tip Length 0.4669" Includes Chrome Plating Inconel (With Letter "I" In Head) Head Diam 1.870" Stem Diam 0.3789" Length 8.503" Seat Angle 20 Degree Tip Length 0.4669 Inconel Material
VALVE COLLETS	121-1091	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3061	I.D. 0.3819" O.D. 0.6506" Length 4.105" Suits both Inlet & Exhaust guides- with seal groove in chimney Replaces early guide without seal groove on chimney

CUMMINS cont.

ENGINE	ISX 915ci 15.0L 6 Cyl Diesel				YEAR			
CAPACITY	915ci / 15.0L	CYLINDERS	6 Cyl	VALVE TRAIN		OHC	VALVES	4
FUEL TYPE	Direct Injection Turbo Charged			CAM DRIVE				
BORE	5.39in / 137mm		STROKE	6.65in / 169mm				

ITEM	PART NUMBER	NOTES
VALVE STEM SEAL	122-1448	Metal Clad Viton Positive Type Seal Use with valve guide 140-3061 (includes groove in chimney) SBI part number 122-1379 supersede to 122-1448
	122-1463	Top Hat Style Seal Viton Positive Type Seal
VALVE SPRING		
VALVE SEAT INSERT EXHAUST	SB1874E-2	O.D. Actual 1.8740" I.D. 1.5550" I.D. Top Taper 1.725" Depth 0.2375" Seat Angle 45
VALVE SEAT INSERT INLET	SB1953E-4	O.D. Actual 1.9535" I.D. 1.6400" I.D. Top Taper 1.819" Depth 0.1950" Seat Angle 20
	SB1953E-4C	Inlet - Dual Camshaft Cylinder Heads ISX15, QSX15 O.D. Actual 1.9535" I.D. 1.6400" I.D. Top Taper 1.819" Depth 0.1950" Seat Angle 20 Cobalt Material
GASKETS SET TOP END	FP-2881767 FP-4955595 FP-4955596	Suits HPCR Engines Suits Non-EGR Engines Suits EGR Engines

CUMMINS

ENGINE	ISX E5 915ci 15.0L 6 Cyl Diesel				YEAR		
CAPACITY	915ci / 15.0L	CYLINDERS	6 Cyl	VALVE TRAIN	OHC	VALVES	4
FUEL TYPE	Direct Injection Turbo Charged			CAM DRIVE			
BORE	5.39in / 137mm		STROKE	6.65in / 169mm			

ITEM	PART NUMBER	NOTES
CAMSHAFT BEARINGS	SH2138	7 REQ
VALVE EXHAUST	13309S	Includes Stellite Face & Chrome Plating Head 1.790" Stem 0.3789" Length 8.810" Inconel Includes stellite face
VALVE COLLETS	121-1091	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3061	I.D. 0.3819" O.D. 0.6506" Length 4.105" Suits both Inlet & Exhaust guides- with seal groove in chimney Replaces early guide without seal groove on chimney
VALVE STEM SEAL	122-1448	Metal Clad Viton Positive Type Seal Use with valve guide 140-3061 (includes groove in chimney) SBI part number 122-1379 supersede to 122-1448
	122-1463	Top Hat Style Seal Viton Positive Type Seal
VALVE SEAT INSERT INLET	SB1953E-4 Sb1953E-4C	O.D. Actual 1.9535" I.D. 1.6400" I.D. Top Taper 1.819" Depth 0.1950" Seat Angle 20 Inlet - Dual Camshaft Cylinder Heads ISX15, QSX15 O.D. Actual 1.9535" I.D. 1.6400" I.D. Top Taper 1.819" Depth 0.1950" Seat Angle 20 Cobalt Material

CUMMINS

ENGINE	QSX 915ci 15.0L 6 Cyl Diesel				YEAR			
CAPACITY	915ci / 15.0L	CYLINDERS	6 Cyl	VALVE TRAIN	OHC	VALVES		
FUEL TYPE	Direct Injection Turbo Charged			CAM DRIVE				
BORE	5.39in / 137mm		STROKE	6.65in / 169mm				

ITEM	PART NUMBER	NOTES
CAMSHAFT BEARINGS	SH2138	7 REQ
INJECTOR SHAFT BEARINGS	SH2136 SH2137	4 REQ 3 REQ
VALVE EXHAUST	02263S 13309S	Head Diam 1.790" Stem Diam 0.3789" Length 8.810" Seat Angle 45 Degree Tip Length 0.7579" Includes Stellite Face & Chrome Plating Head 1.790" Stem 0.3789" Length 8.810" Inconel Includes stellite face
VALVE INLET	02262 13308	Head Diam 1.870" Stem Diam 0.3789" Length 8.502" Seat Angle 20 Degree Tip Length 0.4669" Includes Chrome Plating Head Diam 1.870" Stem Diam 0.3789" Length 8.503" Seat Angle 20 Degree Tip Length 0.4669 Inconel Material
VALVE COLLETS	121-1091	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-3061	I.D. 0.3819" O.D. 0.6506" Length 4.105" Suits both Inlet & Exhaust guides- with seal groove in chimney Replaces early guide without seal groove on chimney

CUMMINS cont.

ENGINE	QSX 915ci 15.0L 6 Cyl Diesel				YEAR			
CAPACITY	915ci / 15.0L	CYLINDERS	6 Cyl	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	Direct Injection Turbo Charged			CAM DRIVE				
BORE	5.39in / 137mm		STROKE	6.65in / 169mm				

ITEM	PART NUMBER	NOTES
VALVE STEM SEAL	122-1448	Metal Clad Viton Positive Type Seal Use with valve guide 140-3061 (includes groove in chimney) SBI part number 122-1379 supersede to 122-1448
	122-1463	Top Hat Style Seal Viton Positive Type Seal
VALVE SPRING		
VALVE SEAT INSERT EXHAUST	SB1874E-2	O.D. Actual 1.8740" I.D. 1.5550" I.D. Top Taper 1.725" Depth 0.2375" Seat Angle 45
VALVE SEAT INSERT INLET	SB1953E-4	O.D. Actual 1.9535" I.D. 1.6400" I.D. Top Taper 1.819" Depth 0.1950" Seat Angle 20
GASKETS SET TOP END	FP-2881767 FP-4955595 FP-4955596	Suits HPCR Engines Suits Non-EGR Engines Suits EGR Engines

DETROIT DIESEL

ENGINE	50 Series 519ci 8.5L Diesel				YEAR		
CAPACITY	519ci / 8.5L	CYLINDERS	4	VALVE TRAIN	OHV	VALVES	4
FUEL TYPE	Direct Injection Turbo			CAM DRIVE			
BORE	5.12in / 130mm	STROKE	5.47in / 139mm				

ITEM	PART NUMBER	NOTES
VALVE EXHAUST	13001	Head Diam 1.556" Stem Diam 0.3429" Length 8.497" Seat Angle 30 Degree Tip Length 0.6150" Inconel Material Engines With EGR From 2003 (Inconel)
VALVE INLET	13000 13083S	Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Chrome Plating Engines With EGR From 2003 Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Inconel with Stellite Face Marine Engines (Inconel)
VALVE COLLETS	121-1080	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-8591	ID 0.3453" OD 0.5635" Length 4.006" Suits both Inlet & Exhaust guides Guide Bore Reaming Required
VALVE STEM SEAL	122-1242	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1628E-3	O.D. Actual 1.6285" I.D. 1.3571" I.D. Top Taper 1.414" Depth 0.2490" Seat Angle 30
VALVE SEAT INSERT INLET	SB1819E-1	O.D. Actual 1.8195" I.D. 1.5571" Depth 0.2830" Seat Angle 30

DETROIT DIESEL

ENGINE	53 Series 4 Valve Diesel				YEAR			
CAPACITY	53ci x No Cylinders	CYLINDERS		VALVE TRAIN	OHV	VALVES		
FUEL TYPE				CAM DRIVE				
BORE	3.875in / 98.425mm	STROKE	4.500in / 114.000mm					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1012 240-1013	Copper - Thin Nose Copper - Thick Nose
INJECTOR TUBE SEAL	240-1013R	Black - Viton
VALVE EXHAUST	00759 01018	Engines With Out Turbo Head Diam 1.090" Stem Diam 0.2484" Length 5.552" Seat Angle 30 Degree Tip Length 0.3100" Engines With Turbo Head Diam 1.090" Stem Diam 0.2484" Length 5.552" Seat Angle 30 Degree Tip Length 0.3100" Inconel Material
VALVE INLET		
VALVE COLLETS	121-1017	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-6254	ID 0.2510" OD 0.4998" Length 2.360"
VALVE STEM SEAL	122-1224	Teflon Material Metal Clad
VALVE SEAT INSERT EXHAUST	SB1161E-1	O.D. Actual 1.1610" I.D. 0.9750" Depth 0.2220" Seat Angle 30
VALVE SEAT INSERT INLET		
WATER DIRECTOR	240-1016	Steel

DETROIT DIESEL

ENGINE	60 Series 677ci 11.1L Diesel				YEAR		
CAPACITY	677ci / 11.1L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4
FUEL TYPE	Direct Injection Turbo			CAM DRIVE			
BORE	5.12in / 130mm	STROKE	5.47in / 139mm				

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1986	7 REQ
INJECTOR TUBE	240-1017 240-1028 240-1035	Copper Copper Thick Nose Early Threaded Stainless Steel
INJECTOR TUBE SEAL	240-1017R 240-1035R	Green – Viton Brown – Viton
INJECTOR TUBE SHIM	240-1035SH+007 240-1035SH+012 240-1035SH+018	0.007" Stainless Steel 0.012" Stainless Steel 0.018" Stainless Steel
VALVE EXHAUST	01566 13001	Engines With Out EGR Head Diam 1.556" Stem Diam 0.3430" Length 8.497" Seat Angle 30 Degree Tip Length 0.6149" Chrome Plating Engines With EGR From 2003 (Inconel) Head Diam 1.556" Stem Diam 0.3429" Length 8.497" Seat Angle 30 Degree Tip Length 0.6150" Inconel Material
VALVE INLET	01567 13000 13083S	Engines With Out EGR Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Chrome Plating Engines With EGR From 2003 Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Chrome Plating Marine Engines (Inconel) Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Inconel with Stellite Face

DETROIT DIESEL Cont.

ENGINE	60 Series 677ci 11.1L Diesel				YEAR			
CAPACITY	677ci / 11.1L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	Direct Injection Turbo			CAM DRIVE				
BORE	5.12in / 130mm	STROKE	5.47in / 139mm					

ITEM	PART NUMBER	NOTES
VALVE COLLETS	121-1080	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-8591	ID 0.3453" OD 0.5635" Length 4.006" Suits both Inlet & Exhaust guides
VALVE STEM SEAL	122-1242	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1628E-3	O.D. Actual 1.6285" I.D. 1.3571" I.D. Top Taper 1.414" Depth 0.2490" Seat Angle 30
VALVE SEAT INSERT INLET	SB1819E-1	O.D. Actual 1.8195" I.D. 1.5571" Depth 0.2830" Seat Angle 30

DETROIT DIESEL

ENGINE	60 Series 775ci 12.7L Diesel				YEAR		
CAPACITY	775ci / 12.7L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4
FUEL TYPE	Direct Injection Turbo			CAM DRIVE			
BORE	5.12in / 130mm	STROKE	6.30in / 160mm				

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1986	7 REQ
INJECTOR TUBE	240-1017 240-1028 240-1035	Copper Copper Thick Nose Early Threaded Stainless Steel
INJECTOR TUBE SEAL	240-1017R 240-1035R	Green – Viton Brown – Viton
INJECTOR TUBE SHIM	240-1035SH+007 240-1035SH+012 240-1035SH+018	0.007" Stainless Steel 0.012" Stainless Steel 0.018" Stainless Steel
VALVE EXHAUST	01566 13001	Engines With Out EGR Head Diam 1.556" Stem Diam 0.3430" Length 8.497" Seat Angle 30 Degree Tip Length 0.6149" Chrome Plating Engines With EGR From 2003 (Inconel) Head Diam 1.556" Stem Diam 0.3429" Length 8.497" Seat Angle 30 Degree Tip Length 0.6150" Inconel Material
VALVE INLET	01567 13000 13083S	Engines With Out EGR Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Chrome Plating Engines With EGR From 2003 Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Chrome Plating Marine Engines (Inconel) Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Inconel with Stellite Face

DETROIT DIESEL Cont.

ENGINE	60 Series 775ci 12.7L Diesel				YEAR			
CAPACITY	775ci / 12.7L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	Direct Injection Turbo			CAM DRIVE				
BORE	5.12in / 130mm	STROKE	6.30in / 160mm					

ITEM	PART NUMBER	NOTES
VALVE COLLETS	121-1080	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-8591	ID 0.3453" OD 0.5635" Length 4.006" Suits both Inlet & Exhaust guides
VALVE STEM SEAL	122-1242	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1628E-3	O.D. Actual 1.6285" I.D. 1.3571" I.D. Top Taper 1.414" Depth 0.2490" Seat Angle 30
VALVE SEAT INSERT INLET	SB1819E-1	O.D. Actual 1.8195" I.D. 1.5571" Depth 0.2830" Seat Angle 30

DETROIT DIESEL

ENGINE	60 Series 858ci 14.0L Diesel				YEAR		
CAPACITY	858ci / 14.0L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4
FUEL TYPE	Direct Injection Turbo			CAM DRIVE			
BORE	5.24in / 133mm	STROKE	6.62in / 168mm				

ITEM	PART NUMBER	NOTES
CAM BEARINGS	SH1986	7 REQ
INJECTOR TUBE	240-1017 240-1028 240-1035	Copper Copper Thick Nose Early Threaded Stainless Steel
INJECTOR TUBE SEAL	240-1017R 240-1035R	Green – Viton Brown – Viton
INJECTOR TUBE SHIM	240-1035SH+007 240-1035SH+012 240-1035SH+018	0.007" Stainless Steel 0.012" Stainless Steel 0.018" Stainless Steel
VALVE EXHAUST	01566 13001	Engines With Out EGR Head Diam 1.556" Stem Diam 0.3430" Length 8.497" Seat Angle 30 Degree Tip Length 0.6149" Chrome Plating Engines With EGR From 2003 (Inconel) Head Diam 1.556" Stem Diam 0.3429" Length 8.497" Seat Angle 30 Degree Tip Length 0.6150" Inconel Material
VALVE INLET	01567 13000 13083S	Engines With Out EGR Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Chrome Plating Engines With EGR From 2003 Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Chrome Plating Marine Engines (Inconel) Head Diam 1.732" Stem Diam 0.3435" Length 8.498" Seat Angle 30 Degree Tip Length 0.5949" Inconel with Stellite Face

DETROIT DIESEL Cont.

ENGINE	60 Series 858ci 14.0L Diesel				YEAR			
CAPACITY	858ci / 14.0L	CYLINDERS	6	VALVE TRAIN	OHC	VALVES	4	
FUEL TYPE	Direct Injection Turbo			CAM DRIVE				
BORE	5.24in / 133mm	STROKE	6.62in / 168mm					

ITEM	PART NUMBER	NOTES
VALVE COLLETS	121-1080	Sold as Single Collet 2 Required Per Valve
VALVE GUIDE	140-8591	ID 0.3453" OD 0.5635" Length 4.006" Suits both Inlet & Exhaust guides
VALVE STEM SEAL	122-1242	Viton Material Positive Type Seal
VALVE SEAT INSERT EXHAUST	SB1628E-3	O.D. Actual 1.6285" I.D. 1.3571" I.D. Top Taper 1.414" Depth 0.2490" Seat Angle 30
VALVE SEAT INSERT INLET	SB1819E-1	O.D. Actual 1.8195" I.D. 1.5571" Depth 0.2830" Seat Angle 30

DETROIT DIESEL

ENGINE	71 Series 4 Valve Diesel				YEAR			
CAPACITY	71ci x No Cylinders	CYLINDERS		VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.125in / 104.78mm	STROKE	5.000in / 127.00mm					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1012 240-1013	Copper - Thin Nose Copper - Thick Nose
INJECTOR TUBE SEAL	240-1013R	Black – Viton

DETROIT DIESEL

ENGINE	92 Series 4 Valve Diesel				YEAR			
CAPACITY	92ci x No Cylinders	CYLINDERS		VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.840in / 123.00mm	STROKE	5.000in / 127.00mm					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1012 240-1013	Copper - Thin Nose Copper - Thick Nose
INJECTOR TUBE SEAL	240-1013R	Black – Viton

FORD NAVISTAR DIESEL

ENGINE	7.3L IDI Navistar 7300cc V8 OHV 16V T/Diesel				YEAR			
CAPACITY	445.47ci / 7.3L	CYLINDERS	V8	VALVE TRAIN		OHV	VALVES	2
FUEL TYPE	Direct Injection			CAM DRIVE				
BORE	4.1102in / 104.4mm	STROKE		4.1811in / 106.2mm				

ITEM	PART NUMBER	NOTES
COOLING		
WATER PUMP	W8186	
CYLINDER HEAD		
HEAD BOLT SET	NHBS550	
CAM FOLLOWER	RHT2104	
DRIVE BELT, DRIVE BELT TENSIONER & IDLER		
DRIVE BELT SOLUTION KIT	22434K	Ford F-Series 7.3L V8 Turbo Diesel 7.4JU2N 1999-April 28, 2001 Kit includes upper & lower hose Fleet Runner long-life fleet-rated belt
	22690K	Ford F-Series 7.3L V8 Turbo Diesel 7.4JU2N April 29, 2001-2003 Kit includes upper & lower hose Fleet Runner long-life fleet-rated belt
IDLER PULLEY	38028	Steel Smooth/Backside 76mm x 17mm x 37mm
TENSIONER	38191	
GASKETS		
Exhaust Manifold	MS3859	Ford F250 7.3 Ltr V8 OHV 16V 2001 - 2007 Ford F350 7.3 Ltr V8 OHV 16V 2001 – 2007
Rocker Cover	RC3383	Ford F250 7.3 Ltr V8 OHV 16V 2001 - 2007 Ford F350 7.3 Ltr V8 OHV 16V 2001 – 2007

ISUZU

ENGINE	4HE1-T / 4HE1-X TURBO DIESEL		YEAR				
CAPACITY	4754CC / 4.8L	CYLINDERS	4	VALVE TRAIN	OHV	VALVES	
FUEL TYPE	DIRECT INJECTION DIESEL			CAM DRIVE			
BORE	4.331" / 110.0MM	STROKE	4.921" / 125.0MM				

ITEM	PART NUMBER	NOTES	
MAINS BEARINGS	5M1837	VARIOUS SIZES	
HEAD BOLT SET	HBS142		
VALVE EXHAUST	02238	Head Diam	1.654"
		Stem Diam	0.3516"
		Length	5.537"
		Seat Angle	45 Degree
		Tip Length	0.4504
VALVE INLET	02237	Head Diam	1.969"
		Stem Diam	0.3523"
		Length	5.549"
		Seat Angle	45 Degree
		Tip Length	0.4508"
	02239	Head Diam	1.830"
		Stem Diam	0.3522"
		Length	5.551"
		Seat Angle	30 Degree
		Tip Length	0.4520"
VALVE COLLETS			
VALVE GUIDE	140-3054	I.D.	0.3547"
		O.D.	0.5526"
		Length	2.365"
	PVG0604	Outside Diameter	0.5525
		Inside Diameter	0.354
		Length	2.44
VALVE STEM SEAL	122-1369	Viton Material Top Hat Style	
VALVE SEAT INSERT EXHAUST	SB1697E-1	O.D. Actual	1.6975"
		I.D.	1.5420" I.D. Top Taper 1.450"
		Depth	0.2760"
		Seat Angle	45
VALVE SEAT INSERT INLET	SB1894E-1	O.D. Actual	1.8945"
		I.D.	1.6605" I.D. Top Taper 1.570"
		Depth	0.2920"
		Seat Angle	30
	SB2013E-1	O.D. Actual	2.0130"
		I.D.	1.8010" I.D. Top Taper 1.770"
		Depth	0.2885"
		Seat Angle	45

ISUZU Cont

ENGINE	4HE1-T / 4HE1-X TURBO DIESEL			YEAR			
CAPACITY	4754CC / 4.8L	CYLINDERS	4	VALVE TRAIN	OHV	VALVES	
FUEL TYPE	DIRECT INJECTION DIESEL			CAM DRIVE			
BORE	4.331" / 110.0MM	STROKE	4.921" / 125.0MM				

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1551	EXHAUST – INNER
		Outer Diameter 1.060"
		Inner Diameter 0.819"
		Length 2.322"
		Seat Load Valve Closed 23 lbs
		Seat Load Height 1.880"
		Open Load Valve Open 69 lbs
		Open Load Height 1.200"
	160-1552	Solid Height 1.146"
		Spring Type Single
		EXHAUST – OUTER
		Outer Diameter 1.560"
		Inner Diameter 1.128"
		Length 2.491"
		Seat Load Valve Closed 54 lbs
		Seat Load Height 2.015"
	160-1553	Open Load Valve Open 179 lbs
		Open Load Height 1.225"
		Solid Height 1.175"
		Spring Type Single
		INLET – INNER
		Outer Diameter 1.058"
		Inner Diameter 0.802"
		Length 2.083"
	160-1554	Seat Load Valve Closed 19 lbs
		Seat Load Height 1.825"
		Open Load Valve Open 78 lbs
		Open Load Height 1.185"
		Solid Height 1.150"
		Spring Type Single
		INLET – OUTER
		Outer Diameter 1.489"
		Inner Diameter 1.119"
		Length 2.199"
		Seat Load Valve Closed 48 lbs
		Seat Load Height 1.875"
		Open Load Valve Open 177 lbs
		Open Load Height 1.245"
		Solid Height 1.208"
		Spring Type Single

ISUZU

ENGINE	4HK1-T SOHC 16V				YEAR			
CAPACITY	5193CC / 5.2L	CYLINDERS	4	VALVE TRAIN	SOHC	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE	GEAR			
BORE	4.527" / 115MM	STROKE	4.921" / 125MM					

ITEM	PART NUMBER	NOTES
VALVE EXHAUST	13122	Head Diam 1.456" Stem Diam 0.3120" Length 5.128" Seat Angle 45 Degree Tip Length 0.4173" Inconel
VALVE INLET	13121	Head Diam 1.457" Stem Diam 0.3130" Length 5.140" Seat Angle 30 Degree Tip Length 0.4173"
VALVE COLLETS		
VALVE GUIDE	140-3101	I.D. 0.3150" O.D. 0.5526" Chim O.D. 0.5025" Chim Heigh 0.315" Length 2.245"
VALVE STEM SEAL	122-1137 122-1413	Viton Material Metal Clad OE Part No 125690060, 8971203070 Viton Material Top Hat Style OE Part No 8972107020
VALVE SPRING	160-1570 160-1571	INLET Outer Diameter 1.285" Inner Diameter 0.945" Length 2.386" Seat Load Valve Closed 44 lbs Seat Load Height 2.055" Open Load Valve Open 184 lbs Open Load Height 1.300" Solid Height 1.262" Spring Type Single EXHAUST Outer Diameter 1.272" Inner Diameter 0.948" Length 2.780" Seat Load Valve Closed 47 lbs Seat Load Height 2.370" Open Load Valve Open 183 lbs Open Load Height 1.375" Solid Height 1.334" Spring Type Single

ISUZU

ENGINE	6HE1 / 6HE1-T				YEAR			
CAPACITY	7130CC / 7.1 L	CYLINDERS	6	OHV		VALVES		
FUEL TYPE	DIESEL / TURBO DIESEL			CAM DRIVE	GEAR			
BORE	4.331" / 110MM	STROKE	4.92" / 125MM					

ITEM	PART NUMBER	NOTES
MAIN BEARINGS	7M1837	VARIOUS SIZES
VALVE EXHAUST	02238	Head Diam 1.654" Stem Diam 0.3516" Length 5.537" Seat Angle 45 Degree Tip Length 0.4.504
VALVE INLET	02237 02239	Head Diam 1.969" Stem Diam 0.3523" Length 5.549" Seat Angle 45 Degree Tip Length 0.4508" Head Diam 1.830" Stem Diam 0.3522" Length 5.551" Seat Angle 30 Degree Tip Length 0.4520"
VALVE GUIDE	140-3054 PVG0604	I.D. 0.3547" O.D. 0.5526" Length 2.365" Outside Diameter 0.5525 Inside Diameter 0.354 Length 2.44
VALVE STEM SEAL	122-1369	Viton Material Top Hat Style
VALVE SEAT INSERT EXHAUST	SB1697E-1	O.D. Actual 1.6975" I.D. 1.5420" I.D. Top Taper 1.450" Depth 0.2760" Seat Angle 45
VALVE SEAT INSERT INLET	SB1894E-1 SB2013E-1	O.D. Actual 1.8945" I.D. 1.6605" I.D. Top Taper 1.570" Depth 0.2920" Seat Angle 30 O.D. Actual 2.0130" I.D. 1.8010" I.D. Top Taper 1.770" Depth 0.2885" Seat Angle 45

ISUZU Cont

ENGINE	6HE1 / 6HE1-T				YEAR			
CAPACITY	7130CC / 7.1 L	CYLINDERS	6	OHV		VALVES		
FUEL TYPE	DIESEL / TURBO DIESEL			CAM DRIVE	GEAR			
BORE	4.331" / 110MM	STROKE	4.92" / 125MM					

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1553	INLET – INNER
		Outer Diameter 1.058"
		Inner Diameter 0.802"
		Length 2.083"
		Seat Load Valve Closed 19 lbs
		Seat Load Height 1.825"
		Open Load Valve Open 78 lbs
		Open Load Height 1.185"
		Solid Height 1.150"
	160-1554	Spring Type Single
		INLET – OUTER
		Outer Diameter 1.489"
		Inner Diameter 1.119"
		Length 2.199"
		Seat Load Valve Closed 48 lbs
		Seat Load Height 1.875"
		Open Load Valve Open 177 lbs
		Open Load Height 1.245"
	160-1566	Solid Height 1.208"
		Spring Type Single
		EXHAUST - INNER
		Outer Diameter 0.990"
		Inner Diameter 0.754"
		Length 2.423"
		Seat Load Valve Closed 24 lbs
		Seat Load Height 1.960"
		Open Load Valve Open 78 lbs
	160-1567	Open Load Height 1.200"
		Solid Height 1.135"
		Spring Type Single
		EXHAUST – OUTER
		Outer Diameter 1.468"
		Inner Diameter 1.128"
		Length 2.789"
		Seat Load Valve Closed 64 lbs
		Seat Load Height 2.075"
		Open Load Valve Open 150 lbs
		Open Load Height 1.300"
		Solid Height 1.238"
		Spring Type Single

ISUZU

ENGINE	6HK1-T SOHC 24V TURBO DIESEL				YEAR			
CAPACITY	7790CC / 7.8L	CYLINDERS	6	VALVE TRAIN	SOHC	VALVES	4	
FUEL TYPE	DIRECT INJECTION TURBO			CAM DRIVE	GEAR			
BORE	4.527" / 115MM	STROKE	4.921" / 125MM					

ITEM	PART NUMBER	NOTES	
VALVE EXHAUST	13122	Head Diam	1.456"
		Stem Diam	0.3120"
		Length	5.128"
		Seat Angle	45 Degree
		Tip Length	0.4173"
VALVE INLET	13121	Head Diam	1.457"
		Stem Diam	0.3130"
		Length	5.140"
		Seat Angle	30 Degree
		Tip Length	0.4173"
VALVE COLLETS			
VALVE GUIDE	140-3101	I.D.	0.3150"
		O.D.	0.5526"
		Chim O.D.	0.5025"
		Chim Heigh	0.315"
		Length	2.245"
VALVE STEM SEAL	122-1137	Viton Material Metal Clad	
VALVE SPRING INLET	160-1549	Outer Diameter	1.305"
		Inner Diameter	0.943"
		Length	2.618"
		Seat Load Valve Closed	57 lbs
		Seat Load Height	2.030"
		Open Load Valve Open	143 lbs
		Open Load Height	1.285"
		Solid Height	1.255"
		Spring Type	Single
VALVE SPRING EXHAUST	160-1550	Outer Diameter	1.305"
		Inner Diameter	0.943"
		Length	2.691"
		Seat Load Valve Closed	62 lbs
		Seat Load Height	2.035"
		Open Load Valve Open	148 lbs
		Open Load Height	1.300"
		Solid Height	1.253"
		Spring Type	Single

IVEVO / SCANIA

ENGINE	Ivevo Cursor 13				YEAR		
CAPACITY	786Ci / 12.9L	CYLINDERS	6	VALVE TRAIN	SOHC	VALVES	4
FUEL TYPE				CAM DRIVE			
BORE	5.315" / 135.0MM	STROKE	5.905 " / 150.0MM				

ITEM	PART NUMBER	NOTES
VALVE EXHAUST	13452	Head Diam 1.811" Stem Diam 0.3924" Length 7.799" Seat Angle 45 Degree Tip Length 0.3976" Inconel OE Part No 504080352, 504293892
VALVE INLET	13451	Head Diam 1.850" Stem Diam 0.3924" Length 7.845" Seat Angle 30 Degree Tip Length 0.3976" OE Part No 500355778
VALVE GUIDE	140-3209 140-3210	INLET I.D. 0.3944" O.D. 0.6305" Chim O.D. 0.552" Chim Heigh 0.225" Length 3.820" OE Part No 500390993, 504375602 EXHAUST I.D. 0.3944" O.D. 0.6305" Chim O.D. 0.522" Chim Heigh 0.225" Length 3.820" OE Part No 500390994, 504375600
VALVE STEM SEAL	122-1500	Viton Material
VALVE SEAT INSERT EXHAUST	SB1853E-3	O.D. Actual 1.8535" I.D. 1.5150" I.D. Top Taper 1.6446 Depth 0.3080" Seat Angle 45
VALVE SEAT INSERT INLET	SB1940E-2	O.D. Actual 1.9405" I.D. 1.5150" I.D. Top Taper 1.6305 Depth 0.3010" Seat Angle 30

MACK

ENGINE	Mack E7 12.0L 728ci 6 Cyl Diesel				YEAR			
CAPACITY	728Ci / 12.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.876" / 123.86MM	STROKE	6.500" / 165.10MM					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1020	Cast Iron OE Part No 12GC212A
INJECTOR TUBE SEAL		
VALVE EXHAUST	01570	Head Diam 1.573" Stem Diam 0.3715" Length 6.867" Seat Angle 30 Degree Tip Length 0.4095" Nickel Base Inconel Chrome Plating
	01750	6.887" Length With Letter Y Head Diam 1.573" Stem Diam 0.3715" Length 6.887" Seat Angle 30 Degree Tip Length 0.4095" Nickel Base Inconel Chrome Plating
VALVE INLET	01571S	Head Diam 1.694" Stem Diam 0.3725" Length 6.955" Seat Angle 30 Degree Tip Length 0.4095" Stellite Face Chrome Plating
VALVE COLLETS	121-1094	Suits 3/8 Stem, 1 Square Bead
VALVE STEM SEAL	122-1274	Viton Material Metal Clad
VALVE SPRING	160-1189	Outer Diameter 1.410" Inner Diameter 1.056" Length 2.106" Seat Load Valve Closed 117 lbs Seat Load Height 1.850" Open Load Valve Open 160 lbs Open Load Height 1.530" Solid Height 1.350" Spring Type Single

MACK Cont

ENGINE	Mack E7 12.0L 728ci 6 Cyl Diesel				YEAR			
CAPACITY	728Ci / 12.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.876" / 123.86MM	STROKE	6.500" / 165.10MM					

ITEM	PART NUMBER	NOTES
VALVE SPRING	160-1624	Outer Diameter 1.427" Inner Diameter 1.063" Length 2.940" Seat Load Valve Closed 105 lbs Seat Load Height 2.150" Open Load Valve Open 206 lbs Open Load Height 1.500" Solid Height 1.430" Spring Type Single
VALVE GUIDE	140-8007	Unfinished I.D. Ream to Size I.D. 0.4313" O.D. 0.6884" Chim O.D. 0.6740" Chim Height 0.630" Length 3.146" OE Part No 714GB217P2
	140-8008	For 7/16" Stem Valves I.D. 0.4375" O.D. 0.6884" Chim O.D. 0.6740" Chim Height 0.630" Length 3.146" OE Part No 714GB217P2
	140-8010	For 3/8" Stem Valves I.D. 0.3750" O.D. 0.6884" Chim O.D. 0.6790" Chim Height 0.630" Length 3.155" OE Part No 714GB222P2, 714GB3103P2
	140-8105	For 7/16" Stem Valves I.D. 0.4375" O.D. 0.6886" Chim O.D. 0.6650" Chim Height 0.870" Length 3.406" OE Part No 714GB26P2

MACK Cont

ENGINE	Mack E7 12.0L 728ci 6 Cyl Diesel				YEAR			
CAPACITY	728Ci / 12.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE			CAM DRIVE					
BORE	4.876" / 123.86MM	STROKE	6.500" / 165.10MM					

ITEM	PART NUMBER	NOTES	
VALVE SEAT INSERT EXHAUST	SB1692E-1N	O.D. Actual I.D. Depth Seat Angle	1.6925" 1.4300" 0.2480" 30
VALVE SEAT INSERT INLET	SB1831E-1	O.D. Actual I.D. Depth Seat Angle	1.8315" 1.5550" 0.2800" 30

MACK

ENGINE	E7 ETECH 12.0L 728ci 6 Cyl Diesel				YEAR			
CAPACITY	728Ci / 12.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.876" / 123.86MM	STROKE	6.500" / 165.10MM					

ITEM	PART NUMBER	NOTES
INJECTOR TUBE	240-1023	Cast Iron OE Part No 12GC412
INJECTOR TUBE SEAL		
VALVE EXHAUST	02095	Head Diam 1.573" Stem Diam 0.3715" Length 6.952" Seat Angle 30 Degree Tip Length 0.5095" Nickel Base Inconel Chrome Plating OE Part No 20706223, 688GC344
VALVE INLET	01910S 13307S	Head Diam 1.694" Stem Diam 0.3725" Length 6.955" Seat Angle 20 Degree Tip Length 0.4095" Stellite Face Chrome Plating OE Part No 690GC411, 690GC417, 690GC427 7.051" Length With Letter J In Head Head Diam 1.694" Stem Diam 0.3725" Length 7.051" Seat Angle 20 Degree Tip Length 0.5087" Stellite Face Chrome Plating OE Part No 690GC410, 690GC425, 690GC432
VALVE COLLETS	121-1094	Suits 3/8 Stem, 1 Square Bead
VALVE GUIDE	140-3043 140-8010	ASET Version Use With 122-1361 Stem Seal I.D. 0.3750" O.D. 0.6884" Chim O.D. 0.5900" Chim Heigh 0.429" Length 3.110" For 3/8" Stem Valves I.D. 0.3750" O.D. 0.6884" Chim O.D. 0.6790" Chim Heigh 0.630" Length 3.155"

MACK Cont

ENGINE	E7 ETECH 12.0L 728ci 6 Cyl Diesel				YEAR			
CAPACITY	728Ci / 12.0L	CYLINDERS	6	VALVE TRAIN	OHV	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.876" / 123.86MM	STROKE	6.500" / 165.10MM					

ITEM	PART NUMBER	NOTES
VALVE STEM SEAL	122-1274	Viton Material Metal Clad OE Part No 446GC296, 446GC328
	122-1361	Viton Material Metal Clad OE Part No 25633189, 446GC332
VALVE SEAT INSERT EXHAUST	SB1692E-1N	O.D. Actual 1.6925" I.D. 1.4300" Depth 0.2480" Seat Angle 30
VALVE SEAT INSERT INLET	SB1831E-2	O.D. Actual 1.8315" I.D. 1.5500" Depth 0.2530" Seat Angle 20
VALVE SPRING	160-1466	Outer Diameter 1.044" Inner Diameter 0.808" Length 2.875" Seat Load Valve Closed 17 lbs Seat Load Height 2.500" Open Load Valve Open 54 lbs Open Load Height 1.700" Solid Height 1.200"
	160-1624	Spring Type Single Outer Diameter 1.427" Inner Diameter 1.063" Length 2.940" Seat Load Valve Closed 105 lbs Seat Load Height 2.150" Open Load Valve Open 206 lbs Open Load Height 1.500" Solid Height 1.430" Spring Type Single

VOLVO

ENGINE	D11 10.8L 661ci 6 Cyl Diesel				YEAR			
CAPACITY	661cc / 10.8L	CYLINDERS	6	VALVE TRAIN	SOHC	VALVES	4	
FUEL TYPE				CAM DRIVE				
BORE	4.840" / 123.0mm	STROKE	5.980 / 152.0mm					

ITEM	PART NUMBER	NOTES
CAM BEARINGS		
INJECTOR TUBE	240-1046 240-1053	Copper - Does Not Use Internal Washer OE Part No 21098621, 3183368, 85104134, 85124276 Late Stainless Steel Use With 240-1046R OE Part No 21401136, 85137065
INJECTOR TUBE SEAL	240-1046R	Black – Viton OE Part No 20536487, 3165747
VALVE EXHAUST	13376S	Head Diam 1.496" Stem Diam 0.3133" Length 7.587" Seat Angle 30 Degree Tip Length 0.4882" Stellite Face OE Part No 20564020, 21430918, 2064020, 21430918
VALVE INLET	13375S	Head Diam 1.575" Stem Diam 0.3136" Length 7.560" Seat Angle 30 Degree Tip Length 0.4882" Inconel OE Part No 20737586, 20737856
VALVE COLLETS	121-1024	Suits 8mm Stem, 3 Round Beads
VALVE GUIDE	140-3157	I.D. 0.3157" O.D. 0.5905" Chim O.D. 0.474" Chim Height 0.240" Length 3.285" OE Part No 20904074, 1546437, 20817645, 2090474, 20905400, 20919484
VALVE STEM SEAL	122-1469	Viton Material Metal Clad Style

VOLVO Cont

ENGINE	D11 10.8L 661ci 6 Cyl Diesel				YEAR			
	CAPACITY	661cc / 10.8L	CYLINDERS	6	VALVE TRAIN	SOHC	VALVES	4
	FUEL TYPE				CAM DRIVE			
	BORE	4.840" / 123.0mm	STROKE	5.980 / 152.0mm				

[illegible]

extra

[illegible]

[illegible]

