6.8L ENGINE MECHANICAL SPECIFICATIONS

Description	English Specifications	Metric Specifications
Cylinder Block (cont'd)		
Out-of-round (service limit)	0.00079 in.	0.020mm
Taper limit	0.00023 in.	0.006mm
Main bearing bore	2.85-2.851 in.	72.400-72.424mm
Crankshaft		
Main bearing journal diameter	2.65-2.657 in.	67.483-67.503mm
Main bearing journal taper	0.0007 in.	0.02mm
Main bearing journal run-out	0.002 in.	0.05mm
Main bearing-to-crankshaft clearance	0.0011-0.0026 in.	0.027-0.065mm
Bearing wall thickness	0.095-0.10 in.	2.436-2.545mm
Connecting rod bearing journal diameter	2.087-2.867 in.	52.988-53.003mm
Crankshaft free end-play	0.130-0.301 in.	0.075-0.377mm
Crankshaft runout-to-rear face of the block	0.002 in.	0.05mm
Connecting Rod		
Connecting rod bearing-to-crankshaft clearance	0.001-0.0027 in.	0.027-0.069mm
Connecting rod bearing wall thickness	0.096-0.0965 in.	2.444-2.452mm
Connecting rod main bearing bore diameter	2.234-2.24 in.	56.756-56.876mm
Connecting rod length (center-to-center)	6.65 in.	169.1mm
Connecting rod-to-crank side clearance (standard)	0.0006-0.0177 in.	0.015-0.45mm
Connecting rod-to-crank side clearance (maximum)	0.02 in.	0.5mm
Connecting rod main bearing journal taper	0.0005 in.	0.015 mm
Pistons		
Piston diameter	3.550 in.	90.180mm +/- 0.005mm
Piston-to-bore clearance	0.0005-0.001 in.	0.012-0.026mm
Piston pin bore diameter	0.864-0.865 in.	22.015-22.04mm
Piston pin bore length	2.44-2.443 in.	61.93-62.05mm
Piston pin-to-rod clearance	0.0006-0.00157 in.	0.015-0.040mm
Piston pin-to-piston clearance	0.0002-0.0004 in.	0.005-0.010mm
Piston ring side clearance		
Upper compression ring	0.0012-0.0031 in.	0.030-0.080mm
Lower compression ring	0.0012-0.0031 in.	0.030-0.080mm
Oil control ring	0.0010-0.0077 in.	0.027-0.196mm
Piston ring groove width		
Upper compression ring	0.060-0.0610 in.	1.530-1.550mm
Lower compression ring	0.060-0.0602 in.	1.520-1.530mm
Oil control ring	0.1192-0.1201 in.	3.030-3.050mm
Piston ring gap		
Upper compression ring	0.005-0.011 in.	0.13-0.28mm
Lower compression ring	0.01-0.02 in.	0.23-0.49mm
Oil control ring	0.006-0.026 in.	0.15-0.66mm
Balance Shaft System		
Balance shaft journal diameter	1.062-1.061 in.	26.962-26.936mm
Balance shaft journal-to-cylinder head clearance	0.00098-0.003 in.	0.025-0.076mm
Cylinder head balance shaft journal clearance	1.063-1.062 in.	27.012-26.987mm
Gear backlash	0.0031-0.0050 in.	0.0076-0.1295mm
Balance shaft end-play	0.00157-0.00709 in.	0.04-0.18mm
Alignment (bore-to-bore max. twist)		
Bore-to-bore max. twist	0.002 in. +/-	0.05mm +/-
Bore-to-bore max. bend	0.00142 in. +/-	0.038mm +/-
Side-play		
Standard	0.016 +/- 0.010 in.	0.410 +/- 0.26mm
Max.	0.026 in.	0.670mm

Max. - Maximum
Min. - Minimum

7.3L DIESEL ENGINE MECHANICAL SPECIFICATIONS

Description	Footnotes	English Specifications (in.)	Metric Specifications (mm)
Cylinder Block			
Cylinder bore			
Standard size:		4.1096-4.1103	104.384-104.402
Oversize			
.010 (.254mm):		4.1143	104.5020
.020 (.508mm):		4.1243	104.7560
.030 (.762mm):		4.1343	105.0100
Maximum out-of-round:		0.0020	0.0508
Maximum taper:		0.0020	0.0508
Main bearing			
Bore diameter:	2	3.3152-3.3162	84.21-84.23
Head gasket surface flatness:			