5.4L DOHC ENGINE MECHANICAL SPECIFICATIONS

Description	English Specifications	Metric Specifications
Pistons (cont'd)		
Piston pin bore diameter	0.864-0.865 in.	22.008-22.015mm
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.	1.520-1.540mm
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.	0.25-0.40mm
Oil control ring	0.006-0.026 in.	0.15-0.65mm

5.8L ENGINE MECHANICAL SPECIFICATIONS

Description	Footnotes	English Specifications (in.)	Metric Specifications (mm)
Cylinder Block			
Cylinder bore			
Standard size:		4.0000-4.0048	101.600-101.722
Maximum out-of-round:		0.0015	0.0381
Maximum taper:		0.0100	0.2540
Main bearing			
Bore diameter:		3.1922-3.1930	81.08-81.10
Crankshaft to rear face of block runout (TIR max.):		0.0050	0.1270
Distributor shaft bearing bore diameter:		.5155-.5170	13.09-13.13
Head gasket surface flatness:			
Overall:		0.0060	0.1524
In any 6 in. (152.4mm):		0.0030	0.0080
Head gasket Surface finish (RMS):		60-150	-
Tappet bore diameter:		0.8752-0.8767	22.23-22.69
Cylinder Head			
Combustion chamber volume	2	3.70-3.88 cid	60.6-63.6 cc
Valve guide bore diameter			
Intake:		0.3433-0.3443	8.719-8.745
Exhaust:		0.3433-0.3443	8.719-8.745
Valve seat	3		
Maximum runout:		0.0020	0.0051
Gasket surface flatness			
Overall:		0.0060	0.1524
In any 6 in. (152.4mm):		0.0030	0.0762
Valve Rocker Arm Shaft, Pushrods and Tappets			
Rocker arm lift ration to 1: 1.59			
Pushrod runout TIR maximum:		0.0150	0.3810
Valve tappet or lifter			
Standard diameter:		0.8740-0.8745	22.199-22.212
Clearance to bore:	4	0.0007-0.0027	0.0178-0.0068
Hydraulic lifter leakdown rate:	5	10 to 50 seconds for 1/16 travel	
Collapsed tappet gap			
Allowable:		0.092-0.192	2.337-4.876
Desired:		0.112-0.172	2.845-4.369
Valves			
Valve stem to guide clearance			
Intake:		0.0010-0.0027	0.00254-0.0686
Exhaust:		0.0015-0.0032	0.0381-0.0813
Valve head diameter			
Intake:		1.770-1.794	44.958-45.567
Exhaust:		1.453-1.468	36.906-37.287
Maximum valve face runout:		0.0020	0.0508
Valve springs			
Valve spring compression pressure @ specified height			
Intake:	6	74-82 lbs. @ 1.78 in.	33.57-37.19 kg @ 45.21mm
		190-210 lbs. @ 1.20 in.	86.18-95.25 kg @ 30.48mm
Exhaust:		76-84 lbs. @ 1.6 in.	34.47-38.10 kg @ 40.64mm
		190-210 lbs. @ 1.20 in.	86.18-95.25 kg @ 30.48mm