7.5L ENGINE MECHANICAL SPECIFICATIONS

Description		English Specifications	Metric Specifications
Pistons			
Diameter	9		
Coded red:		4.3577-4.3583	110.686-110.700
Coded blue:		4.3589-4.3595	110.716-110.731
.003 oversize:		4.3601-4.3607	110.747-110.762
Piston to bore clearance selective fit:		0.0022-0.0030	0.056-0.076
Piston pin bore diameter:		1.0401-1.0406	26.419-26.431
Ring groove width compression:			
Top:		0.0805-0.0815	2.045-2.070
Bottom:		0.0805-0.0815	2.045-2.070
Oil:		0.188-0.189	4.775-4.801
Piston pins			
Length:		3.290-3.320	83.566-84.328
Diameter			
Standard:		1.0398-1.0403	26.411-26.424
.001 oversize:		1.0410-1.0413	26.441-26.449
To piston pin bore clearance (selective fit):		0.0002-0.0004	0.005-0.010
To connecting rod bushing clearance: Interference fit			
Piston rings			
Ring width			
Top Compression:		0.077-0.078	1.956-.1981
Bottom compression:		0.077-0.078	1.956-.1981
Side clearance	10		
Top compression:		0.0013-0.0033	0.033-0.084
Bottom compression:		0.0013-0.0033	0.0330-0.0840
Oil: snug			
Ring gap			
Top compression:		0.010-0.020	0.2540-0.5080
Bottom compression:		0.010-0.020	0.2540-0.5080
Oil (steel rail):		0.010-0.035	0.2540-0.8890
Camshaft			
Lobe lift	11		
Intake:		0.25200	6.40080
Exhaust:		0.27800	7.06120
End-play			
Standard:		0.001-0.006	0.0254-0.1524
Maximum:		0.00900	0.22800
Camshaft journal to bearing clearanc	12	0.001-0.003	0.0254-0.076
Camshaft drive			
Journal diameter (standard)	13		
No. 1:		2.1238-2.1248	53.9445-53.9699
No. 2:		2.1238-2.1248	53.9445-53.9699
No. 3:		2.1238-2.1248	53.9445-53.9699
No. 4:		2.1238-2.1248	53.9445-53.9699
No. 5:		2.1238-2.1248	53.9445-53.9699
Bearing inside diameter			
No. 1:		2.1258-2.1268	53.9953-54.0207
No. 2:		2.1258-2.1268	53.9953-54.0207
No. 3:		2.1258-2.1268	53.9953-54.0207
No. 4:		2.1258-2.1268	53.9953-54.0207
No. 5:		2.1258-2.1268	53.9953-54.0207
Camshaft front bearing location:	14	0.040-0.060	1.0160-1.5240
Timing chain deflection (max.):		0.50000	12.70000
Oil pump and oil capacity			
Relief valve spring pressure @ specified length:		20.6 lbs-22.6. @ 2.49 in.	9.35-10.26 kg @ 6.32mm
Driveshaft to housing clearance:		0.0015-0.0030	0.0381-0.076
Relief valve to housing clearance:		0.0015-0.0030	0.0381-0.076
Rotor assembly end clearance:		0.0040 maximum	0.100 maximum
Outer race to housing clearance:		0.0010-0.0130	0.0254-0.3300
Engine oil capacity			
U.S. quarts: 5			
Imperial quarts: 4.2			
Litres: 4.7			

1 Unless otherwise specified with a different measurement (for example, psi, kPa, lbs., N, etc.)
2 Compression pressure (PSI) of the lowest cylinder must be at least 75 percent of the highest to be within specification
3 Valve seat angle: 45 degrees
4 Service limit: 0.005 in. (0.127mm)
5 Time required for plunger to leak down 0.625 in. (15.87mm) under load of 50 lbs. (22.5 kg) using leak down fluid in tappet
6 Service limit: 10 percent loss pressure
7 Service limit: 0.005 in. (0.127mm)