

**Engine Mechanical Specifications LT4**

<b>Application</b>	<b>Metric</b>	<b>English</b>
<i>General Data</i>		
Engine Type	--	V8
Displacement	5.7L	350 CID
Bore	101.60 mm	4.000 in
Stroke	88.39 mm	3.480 in
Compression Ratio	--	10.67:1
Firing Order	--	1-8-4-3-6-5-7-2
Spark Plug Type	--	AC41-943
Spark Plug Gap	1.24 mm	0.050 in
Spark Plug Torque	20 N·m	15 lb ft
Oil Pressure	41.4 kPa at 1,000 engine rpm (Minimum) 124.1 kPa at 2,000 engine rpm 165.5 kPa at 4,000 engine rpm	6.0 psig at 1,000 engine rpm 18.0 psig at 2,000 engine rpm 24.0 psig at 4,000 engine rpm
Oil Filter Torque	20 N·m	15 lb ft
<i>Cylinder Bore</i>		
Diameter	101.618-101.643 mm	4.0007-4.0017 in
Out-of-Round Production	0.02 mm (Maximum)	0.001 in (Maximum)
Out-of-Round Service Limit	0.05 mm (Maximum)	0.002 in (Maximum)
Taper Production Thrust Side	0.012 mm (Maximum)	0.0005 in (Maximum)
Taper Production Relief Side	0.025 mm (Maximum)	0.0010 in (Maximum)
Service Limit	0.025 mm (Maximum)	0.0010 in (Maximum)
<i>Piston</i>		
Piston Bore Clearance Production	0.025-0.068 mm	0.0010-0.0027 in
Piston Bore Clearance Service Limit	0.068 mm (Maximum)	0.0027 mm (Maximum)
<i>Piston Rings</i>		
Piston Compression Ring Groove	0.050-0.090 mm	0.0019-0.0035 in

Clearance Production Top		
Piston Compression Ring Groove Clearance Production 2nd	0.050-0.090 mm	0.0019-0.0035 in
Piston Compression Ring Groove Clearance Service Limit	0.107 mm (Maximum)	0.0042 in (Maximum)
Piston Compression Ring Gap Production Top	0.25-0.40 mm	0.010-0.016 in
Piston Compression Ring Gap Production 2nd	0.46-0.66 mm (Maximum)	0.018-0.026 in (Maximum)
Piston Compression Ring Gap Service Limit	0.88 (Maximum)	0.035 in (Maximum)
Piston Oil Ring Groove Clearance Production	0.051-0.17 mm	0.002-0.007 in
Piston Oil Ring Groove Clearance Service Limit	0.20 mm (Maximum)	0.008 in (Maximum)
Piston Oil Ring Gap Production	0.25-0.76 mm	0.010-0.030 in
Piston Oil Ring Gap Service Limit	1.65 mm (Maximum)	0.065 in (Maximum)
<i>Piston Pin</i>		
Diameter	23.545-23.548 mm	0.9270-0.9271 in
Clearance in Piston Production	0.0120-0.0210 mm	0.0004-0.0008 in
Clearance in Piston Service Limit	0.025 mm (Maximum)	0.0010 in (Maximum)
Fit in Connecting Rod	0.021-0.040 mm (Interference)	0.0008-0.0016 in (Interference)
<i>Crankshaft</i>		
Crankshaft Journal Diameter #1	62.191-62.207 mm	2.4485-2.4491 in
Crankshaft Journal Diameter #2, #3, #4	62.191-62.207 mm	2.4485-2.4491 in
Crankshaft Journal Diameter #5	62.191-62.207 mm	2.4485-2.4491 in
Crankshaft Journal Taper Production	0.005 mm (Maximum)	0.0002 in (Maximum)
Crankshaft Journal Out-of-Round Production	0.005 mm (Maximum)	0.0002 in (Maximum)
Crankshaft Journal Out-of-Round Service Limit	0.025 mm (Maximum)	0.0010 in (Maximum)
Crankshaft Bearing Clearance Production #1	0.022-0.051 mm	0.0009-0.0020 in
Crankshaft Bearing Clearance Production #2, #3, #4	0.022-0.051 mm	0.0009-0.0020 in

Crankshaft Bearing Clearance Production #5	0.025-0.053 mm	0.0010-0.0021 in
Crankshaft Bearing Clearance Service Limit #1	0.025-0.051 mm	0.0010-0.0020 in
Crankshaft Bearing Clearance Service Limit #2, #3, #4	0.025-0.064 mm	0.0010-0.025 in
Crankshaft Bearing Clearance Service Limit #5	0.038-0.076 mm	0.0015-0.0030 mm
Crankshaft End Play	0.05-0.20 mm	0.002-0.008 in
Crankshaft Runout (At Rear Flange)	0.038 mm	0.0015 in
<i>Connecting Rod</i>		
Connecting Rod Journal Diameter	53.284-53.334 mm	2.0978-2.0998 in
Connecting Rod Journal Taper Production	0.007 mm (Maximum)	0.0003 in (Maximum)
Connecting Rod Journal Taper Service Limit	0.025 mm (Maximum)	0.0010 in (Maximum)
Connecting Rod Journal Out-of- Round Production	0.007 mm (Maximum)	0.0003 in (Maximum)
Connecting Rod Journal Out-of- Round Service Limit	0.025 mm (Maximum)	0.0010 in (Maximum)
Rod Bearing Clearance Production	0.033-0.088 mm	0.0013-0.0035 in
Rod Bearing Clearance Service Limit	0.025-0.076 mm	0.0010-0.0030 in
Rod Side Clearance	0.16-0.35 mm	0.006-0.024 in
<i>Camshaft</i>		
Journal Diameter	47.440-47.490 mm	1.8677-1.8697 in
End Play	0.11-0.30 mm	0.004-0.012 in
Lobe Lift	±0.050 mm	±0.002 in
Lobe Lift Intake	7.56 mm	0.298 in
Lobe Lift Exhaust	7.60 mm	0.299 in
<i>Valve System</i>		
Valve Lifter	--	Hydraulic
Valve Rocker Arm Ratio	--	1.60:1
Valve Lash	--	Net Build
Face Angle	45 degrees	
Seat Angle	46 degrees	

Seat Runout	0.05 mm (Maximum)	0.002 in (Maximum)
Seat Width Intake	0.76-1.27 mm	0.030-0.050 in
Seat Width Exhaust	1.52-2.03 mm	0.030-0.080 in
Stem Clearance Production Intake	0.025-0.069 mm	0.0010-0.0027 in
Stem Clearance Production Exhaust	0.025-0.069 mm	0.0010-0.0027 in
Stem Clearance Service Intake	0.093 mm (Maximum)	0.0037 in (Maximum)
Stem Clearance Service Exhaust	0.119 mm (Maximum)	0.0047 in (Maximum)
Valve Spring Free Length	54.5 mm	2.15 in
Valve Spring Pressure Closed	425-475 N at 45.2 mm	96-107 lb at 1.78 in
Valve Spring Pressure Open	1093-1213 N at 33.0 mm	246-273 lb at 1.30 in
Valve Spring Installed Height Intake	45.2 mm	1.78 in
Valve Spring Installed Height Exhaust	45.2 mm	1.78 in
Valve Lift Intake	12.10 mm	0.476 in
Valve Lift Exhaust	12.16 mm	0.479 in