

SPECIFICATIONS (Continued)

GENERAL SPECIFICATIONS

DISPLACEMENT	3.0L/3.2L
NUMBER OF CYLINDERS	6
BORE AND STROKE	
Bore 3.0L	89.00mm (3.5039 in.)
Bore 3.2L	92.0mm (3.6220 in.)
Stroke 3.0L/3.2L	80.00mm (3.1496 in.)
FIRING ORDER	1-4-2-5-3-6
OIL PRESSURE (Hot, Idling)	Min. 12.8 PSI
DRIVE BELT TENSION	SEE CHART

CYLINDER HEAD AND VALVE TRAIN

COMBUSTION CHAMBER VOLUME 3.0L	47.0-48.0 cc
COMBUSTION CHAMBER VOLUME 3.2L	46.7-48.3 cc
VALVE GUIDE BORE DIAMETER	
Intake and Exhaust	6.000-6.018 mm (0.2362-0.2369 in.)
VALVE SEATS	
Width — Intake	1.0-1.4mm (0.039-0.055 in.)
— Exhaust	1.0-1.4mm (0.039-0.055 in.)
Angle	45°
Width Limit	1.5mm (0.06 in.)
GASKET SURFACE FLATNESS	0.2mm (0.008 in.)
VALVE STEM TO GUIDE CLEARANCE	
Intake	0.025-0.058mm (0.0010-0.0023 in.)
Exhaust	0.030-0.063mm (0.0012-0.0025 in.)
VALVE HEAD DIAMETER (GAGE)	
Intake	35mm (1.38 in.)
Exhaust	30mm (1.18 in.)
MARGIN THICKNESS LIMIT	0.5mm (0.02 in.)
VALVE FACE ANGLE	45.5°
VALVE STEM DIAMETER (STD.)	
Intake	5.960-5.975mm (0.2346-0.2352 in.)
Exhaust	5.955-5.970mm (0.2344-0.2350 in.)
VALVE SPRINGS	
Compression Pressure (Kg [Lb] @ Spec. Length)	
Maximum Load	537.4 N (120.8 lbs.) @ 30.2mm (1.19 in.)
Set Load	188.3 N (42.3 lbs.) @ 38.7mm (1.52 in.)
Free Length (Approximate)	44.82mm (1.76 in.)
Service Limit	10% Force Loss @ Specified Height
VALVE LIFTER	
Diameter (Std.)	31.970-31.994mm (1.2587-1.2596 in.)
Clearance to Bore	0.024-0.036mm (0.0009-0.0014 in.)
Service Limit	0.07mm (0.003 in.)
VALVE CLEARANCE	
Intake	0.15-0.25mm (0.006-0.010 in.)
Exhaust	0.25-0.35mm (0.010-0.014 in.)
CAMSHAFT BORE INSIDE DIAMETER	
All	31.000-31.025mm (1.2205-1.2215 in.)

CAMSHAFT 3.0L

LOBE LIFT	
Intake	8.5mm (0.335 in.)
Exhaust	8.0mm (0.315 in.)
LOBE HEIGHT	
Intake	41.81-41.91mm (1.6461-1.650 in.)
Limit	41.80mm (1.6457 in.)
Exhaust	41.31-41.41mm (1.6264-1.6303 in.)
Limit	41.30mm (1.6260 in.)
END PLAY	
Service Limit	0.30mm (0.012 in.)
JOURNAL TO BEARING CLEARANCE	0.025-0.066mm (0.0010-0.0026 in.)
JOURNAL DIAMETER	
All	30.959-30.975mm (1.2189-1.2195 in.)

CAMSHAFT 3.2L

LOBE LIFT	
Intake	8.0mm (0.315 in.)
Exhaust	8.0mm (0.315 in.)
LOBE HEIGHT	
Intake	41.31-41.41 (1.6264-1.6303)
Limit	41.30 (1.6260 in.)
Exhaust	41.31-41.41mm (1.6264-1.6303 in.)
Limit	41.30mm (1.6260 in.)

ENDPLAY

Service Limit	0.30mm (0.012 in.)
JOURNAL TO BEARING CLEARANCE	0.025-0.066mm (0.0010-0.0026 in.)
JOURNAL DIAMETER	
All	30.959-30.975mm (1.2189-1.2195 in.)

CYLINDER BLOCK

HEAD GASKET SURFACE FLATNESS	0.05mm (0.002 in.)
CYLINDER BORE	
Diameter 3.0L	89.000-89.030mm (3.5039-3.5051 in.)
3.2L	92.000-92.030mm (3.6220-3.6232 in.)
Surface Finish (RMS) micrometers	①
Out-of-Round Limit	0.01mm (0.0004 in.)
Out-of-Round Service Limit	0.02mm (0.0008 in.)
Taper Service Limit	0.02mm (0.0008 in.)
MAIN BEARING BORE DIAMETER	68.000mm (2.677 in.)

CRANKSHAFT AND FLYWHEEL

MAIN BEARING JOURNAL DIAMETER	63.976-64.000mm (2.5187-2.5197 in.)
Out-of-Round Limit	0.02mm (0.0008 in.)
Taper Limit	0.02mm (0.0008 in.)
Journal Runout Limit	0.06mm (0.0024 in.)
THRUST BEARING Thickness	2.227-2.277mm (0.0877-0.0896 in.)
CONNECTING ROD JOURNAL Diameter	51.976-52.000mm (2.0463-2.0472 in.)
Out-of-Round Limit	0.02mm (0.0008 in.)
Taper Limit	0.02mm (0.0008 in.)

FLYWHEEL RING GEAR LATERAL RUNOUT (T.I.R.)

CRANKSHAFT END PLAY	0.021-0.221mm (0.0008-0.0087 in.)
CONNECTING ROD BEARINGS Clearance to Crankshaft	
Desired	0.024-0.056mm (0.0009-0.0022 in.)
Allowable	0.08mm (0.0031 in.)
Bearing Wall Thickness (Std.)	1.484-1.496mm (0.0584-0.0589 in.)
MAIN BEARINGS Clearance to Crankshaft	
Desired	0.028-0.056mm (0.0011-0.0022 in.)
Allowable	0.08mm (0.0031 in.)
Bearing Wall Thickness (Std.)	1.981-1.998mm (0.0780-0.0787 in.)

CONNECTING ROD, PISTON AND RINGS

CONNECTING ROD Piston Pin Bore Diameter 3.0L	21.005-21.017mm (0.8270-0.8274 in.)
3.2L	22.005-22.017 (0.8663-0.8668)
Crankshaft Bearing Bore Diameter	55.000-55.016mm (2.1653-2.1660 in.)
Length (Center-to-Center)	146.75-146.85mm (5.778-5.781 in.)
ALIGNMENT (BORE-TO-BORE MAX. DIFF.)	
Twist	0.15 per 100mm (0.0015 per in.)
Bend	0.05 per 100 mm (0.0005 per in.)
SIDE CLEARANCE (ASSEMBLED TO CRANK)	
Standard	0.16-0.312mm (0.0063-0.0123 in.)
Service Limit	0.35mm MAX. (0.0138 in. MAX.)

PISTON 3.0L

Diameter Coded (STD.)	88.960-88.990mm (3.5023-3.5035 in.)
Coded (O/S: 0.25)	①

① Specification not available at time of publication.

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