

ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS

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Application	Specification
Displacement	330 Cu. In. (5.4L)
Bore	3.55" (90.2 mm)
Stroke	4.17" (105.8 mm)
Fuel System	SFI
Compression Ratio	9.0:1

CRANKSHAFT, MAIN BEARINGS & CONNECTING ROD BEARINGS SPECIFICATIONS

CRANKSHAFT, MAIN & CONNECTING ROD BEARINGS

Application	In. (mm)
Crankshaft End Play	.003-.015 (.08-.38)
Main Bearings	
Journal Diameter	2.6568-2.6576 (67.483-67.503)
Journal Out-Of-Round	.0003 (.008)
Journal Taper	.0002 (.005)
Oil Clearance	.0009-.0019 (.024-.048)
Connecting Rod Bearings	
Journal Diameter	2.0859-2.0867 (52.983-53.003)
Journal Out-Of-Round	.0003 (.008)
Journal Taper	.0002 (.005)
Oil Clearance	.0010-.0025 (.025-.064)

PISTONS, PISTON PINS & PISTON RINGS SPECIFICATIONS

PISTONS, PINS & RINGS

Application	In. (mm)
Pistons	
Clearance	.0005-.0010 (.012-.025)
Diameter	
Code 1	(1)
Code 2	3.5502-3.5506 (90.175-90.185)
Code 3	(1)
Pins	
Diameter	.8662-.8663 (22.001-22.003)
Pin-To-Piston Clearance	.0002-.0004 (.005-.010)
Rod Fit	.0003-.0009 (.008-.023)
Rings	
No. 1	
End Gap	.005-.011 (.13-.28)

Side Clearance	(1)
No. 2	
End Gap	.010-.016 (.25-.40)
Side Clearance	(1)
No. 3 (Oil)	
End Gap (Steel Rail)	(1)
Side Clearance	.006-.026 (.15-.66)
(1) Information is unavailable from manufacturer.	

CONNECTING RODS SPECIFICATIONS

CONNECTING RODS

Application	In. (mm)
Bore Diameter	
Piston Pin Bore	.8666-.8671 (22.012-22.024)
Crankpin Bore	2.0877-2.0885 (53.027-53.049)
Center-To-Center Length	6.657 (169.10)
Maximum Bend ⁽¹⁾	.0015 (.038)
Maximum Twist ⁽¹⁾	.0020 (.050)
Side Play	
Standard	.0069-.0118 (.175-.300)
Service Limit	.019 (.48)
(1) Measured from bore-to-bore.	

CYLINDER HEAD SPECIFICATIONS

CYLINDER HEAD

Application	Specification
Maximum Warpage	⁽¹⁾ .004" (.10 mm)
Intake & Exhaust Valve Seats	
Seat Angle	44.5-45.0°
Seat Width	
Intake	.05-.06" (1.3-1.5mm)
Exhaust	.075-.082" (1.9-2.1mm)
Maximum Seat Runout	.001" (.025 mm)
Valve Guides	
Valve Stem-To-Guide Oil Clearance	
Intake Valve	.0008-.0027" (.020-.069 mm)
Exhaust Valve	.0018-.0037" (.046-.094 mm)
(1) If maximum warpage is exceeded, replace cylinder head.	

BALANCE SHAFT SPECIFICATIONS

BALANCE SHAFT

Application	In. (mm)
Bearing Bore Diameter	1.0625-1.0635 (26.987-27.012)
End Play	.001-.007 (.03-.19)
Journal Diameter	1.0605-1.0615 (26.936-26.962)
Oil Clearance	.0010-.0030 (.025-.080)
Gear Backlash	.0003-.0051 (.008-.130)

CAMSHAFT SPECIFICATIONS

CAMSHAFT

Application	In. (mm)
Bearing Bore Diameter	1.0625-1.0635 (26.987-27.012)
End Play	.001-.007 (.03-.19)
Journal Diameter	1.0605-1.0615 (26.936-26.962)
Lobe Lift	
Intake	.280 (7.11)
Exhaust	.295 (7.50)
Oil Clearance	.001-.003 (.03-.08)

CYLINDER BLOCK SPECIFICATIONS

CYLINDER BLOCK

Application	In. (mm)
Cylinder Bore	
Standard Diameter	
Grade 1	3.5512-3.5516 (90.200-90.210)
Grade 2	3.5516-3.5520 (90.210-90.220)
Grade 3	3.5520-3.5524 (90.220-90.230)
Maximum Taper	(1)
Maximum Out-Of-Round	(1)
Maximum Deck Warpage	(1)
(1) Information is unavailable from manufacturer.	

ENGINE VALVES & VALVE SPRINGS SPECIFICATIONS

VALVES & VALVE SPRINGS

Application	Specification
Valves	
Intake	
Face Angle	45.25-45.75°
Head Diameter	1.747-1.757" (44.37-44.63 mm)
Minimum Margin	.031" (.80 mm)
Stem Diameter	.2746-.2754" (6.975-6.995 mm)

Valve Face Runout	.002" (.05 mm)
Exhaust	
Face Angle	45.25-45.75°
Head Diameter	1.334-1.343" (33.88-34.12 mm)
Minimum Margin	.031" (.80 mm)
Stem Diameter	.2736-.2744" (6.949-6.970 mm)
Valve Face Runout	.002" (.05 mm)
Valve Springs	
Free Length	2.101" (53.37 mm)
Out-Of-Square	2.0°
Lbs. @ In. (kg @ mm)	
Pressure	
Valve Closed	65 @ 1.57 (29.5 @ 40.0)
Valve Open	150 @ 1.10 (68.0 @ 28.0)