

ENGINE SPECIFICATIONS

GENERAL ENGINE SPECIFICATIONS

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Application	Specification
Displacement	182 Cu. In. (3.0L)
Bore	3.50" (89 mm)
Stroke	3.14" (80 mm)
Compression Ratio	9.3:1
Fuel System	PFI
Horsepower @ RPM	140 @ 4800
Torque Ft. Lbs. @ RPM	165 @ 3000

BEARING SPECIFICATIONS

MAIN & CONNECTING ROD BEARINGS SPECS

Application	In. (mm)
Crankshaft End Play	.004-.008 (.10-.20)
Main Bearings	
Journal Diameter	2.5190-2.5198 (63.973-64.003)
Journal Out-Of-Round	.0003 (.008)
Journal Taper	⁽¹⁾ .0003 (.008)
Journal Runout	.002 (.05)
Oil Clearance	
Desired	.0010-.0014 (.025-.036)
Allowable	.0005-.0023 (.013-.058)
Connecting Rod Bearings	
Journal Diameter	2.1253-2.1261 (53.983-54.003)
Journal Out-Of-Round	.0003 (.008)
Journal Taper	⁽¹⁾ .0003 (.008)
Oil Clearance	
Desired	.0010-.0014 (.025-.036)
Allowable	.0009-.0027 (.023-.069)
(1) Specification listed is per 1" (25.4 mm).	

CONNECTING ROD SPECIFICATIONS

CONNECTING ROD SPECIFICATIONS

Application	In. (mm)
Bore Diameter	
Pin Bore	.9096-.9112 (23.104-23.145)
Crankpin Bore	2.250 (57.15)
Ctr-To-Ctr Length	5.53 (140.5)
Maximum Bend	

	(1) .0016 (.040)
Maximum Twist	(1) .003 (.08)
Side Play	.006-.014 (.15-.36)
(1) Specification listed is per 1" (25.4 mm)	

PISTON/PIN/RING SPECIFICATIONS

PISTONS PINS & RINGS SPECIFICATIONS

Application	In. (mm)
Pistons ⁽¹⁾	
Clearance	.0012-.0023 (.030-.058)
Diameter	
Red	3.5024-3.5031 (89.962-89.978)
Blue	3.5035-3.5041 (88.988-89.004)
Yellow	3.5045-3.5051 (89.014-89.030)
Pins	
Diameter	.9119-.9124 (23.162-23.175)
Piston Fit	.0002-.0005 (.005-.013)
Rod Fit	Press Fit
Rings	
No. 1 & 2	
End Gap	.010-.020 (.25-.51)
Side Clearance	.0016-.0037 (.041-.094)
No. 3 (Oil)	
End Gap	.010-.049 (.25-1.24)
Side Clearance	Snug Fit
(1) Pistons are color-coded on dome of pistons. For correct piston selection, see FITTING PISTONS under CYLINDER BLOCK ASSEMBLY.	

CYLINDER BLOCK SPECIFICATIONS

CYLINDER BLOCK SPECIFICATIONS

Application	In. (mm)
Cylinder Bore	
Standard Diameter	3.50 (89.0)
Maximum Taper	.002 (.05)
Maximum Out-Of-Round	.002 (.05)
Maximum Deck Warpage	(1) .003 (.08)
(1) Specification is within a 6" (152 mm) area. DO NOT machine more than .010" (.25 mm) from original gasket surface.	

VALVE/VALVE SPRING SPECIFICATIONS

VALVES & VALVE SPRINGS SPECIFICATIONS

Application	In. (mm)
Intake Valves	
Face Angle	44°
Head Diameter	1.57 (39.9)
Minimum Margin	.0313 (.794)
Stem Diameter	.3126-.3134 (7.940-7.960)
Exhaust Valves	
Face Angle	44°
Head Diameter	1.30 (33.0)
Minimum Margin	.0313 (.794)
Stem Diameter	.3121-.3129 (7.927-7.948)
Valve Springs	
Free Length	1.84 (46.7)
Installed Height	1.58 (40.1)
Out-Of-Square	.078 (1.98)
Pressure ⁽¹⁾	
Valve Closed	65 @ 1.58 (30 @ 40.1)
Valve Open	180 @ 1.16 (82 @ 29.5)
(1) Lbs. @ In. (Kg @ mm).	

CYLINDER HEAD SPECIFICATIONS

CYLINDER HEAD SPECIFICATIONS

Application	In. (mm)
Maximum Warpage	⁽¹⁾ .007 (.18)
Valve Seats	
Seat Angle	45°
Seat Width	.06-.08 (1.5-2.0)
Maximum Seat Runout	.001 (.03)
Valve Guides	
Intake Valve	
Valve Guide I.D.	.3433-.3443 (8.720-8.745)
Valve Stem-To-Guide Oil Clearance	.0010-.0027 (.025-.069)
Exhaust Valve	
Valve Guide I.D.	.3433-.3443 (8.720-8.745)
Valve Stem-To-Guide Oil Clearance	.0015-.0032 (.038-.081)
(1) Maximum cylinder head wear limit is .010" (2.5 mm). DO NOT machine more than .010" (.25 mm) from original cylinder head thickness.	

CAMSHAFT SPECIFICATIONS

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Application	In. (mm)
Bearing Bore	

1 & 4	2.1531-2.1541 (54.689-54.714)
2 & 3	2.1334-2.1344 (54.188-54.214)
End Play	.001 (.03)
Journal Diameter	2.0074-2.0084 (50.988-51.013)
Journal Runout	.002 (.05)
Lobe Lift	.26 (6.60)
Lobe Wear Limit	.005 (.13)
Oil Clearance	.001-.003 (.03-.08)

VALVE LIFTERS SPECIFICATIONS

VALVE LIFTERS SPECIFICATIONS

Application	In. (mm)
Bore Diameter	.8752-.8767 (22.230-22.268)
Collapsed Lifter Clearance	.088-.189 (2.24-4.80)
Lifter Diameter	.874 (22.20)
Oil Clearance	.0007-.0027 (.018-.069)