

SPECIFICATIONS

ENGINE

Item	Specification
Displacement	1.6L
No. of cylinders	4
Bore/stroke	3.1-3.2 in (79-81.4 mm)
Firing order	1-3-4-2
Spark plug	12405
Spark plug gap	0.0-3.2 in (.8-81.4 mm)
Compression ratio	11:1
Engine and transaxle weight - automatic transaxle	346.6 lb (157.2 kg)
Engine weight - (with flywheel)	201.3 lb (91.3 kg)
Engine and transaxle weight - manual transaxle	367.3 lb (166.6 kg)

LUBRICANTS

Item	Specification
Motorcraft® SAE 5W-20 Premium Synthetic Blend Motor Oil (US); Motorcraft® SAE 5W-20 Super Premium Motor Oil (Canada)	XO-5W20-QSP (US); CXO-5W20- LSP12 (Canada)

ENGINE OIL CAPACITY

Item	Specification
Service fill including oil filter	4.28 qt (4.05 L)
Service fill without oil filter	3.96 qt (3.75 L)

OIL PRESSURE

Item	Specification
Oil pressure (hot @ 800 rpm)	14.5 psi (100 kPa)
Oil pressure (hot @ 2, 000 rpm)	29.0 psi (200 kPa)

CYLINDER BLOCK

Item	Specification
Cylinder bore diameter	3.110-3.111 in (79.005-79.025 mm)
Cylinder bore maximum out-of-round	0.0003 in (.008 mm)
Main bearing bore diameter	2.126-2.127 in (54-54.018 mm)
Head gasket surface flatness	0.1 mm/general 0.05 mm/200 x 200 (0.004 in/general) (0.0019 in/7.87 x 7.87)

PISTON

Item	Specification
Piston grade - single	3.1090-3.1095 in (78.9675-78.9825 mm)
Piston-to-bore clearance	0.0009-0.0023 in (.0225-.0575 mm)
Ring groove width - top	0.048-0.049 in (1.23-1.25 mm)
Ring groove width - 2nd	0.060-0.061 in (1.52-1.54 mm)
Ring groove width - oil	0.079-0.080 in (2.01-2.03 mm)
Piston skirt coating thickness	Skirt coated

PISTON PIN

Item	Specification
Diameter	0.709-0.709 in (17.996-18 mm)
Length	2.01-2.02 in (51-51.3 mm)
Piston-to-pin clearance	0.0005-0.0008 in (.012-.02 mm)
Pin-to-rod clearance	Press fit

CYLINDER HEAD

Item	Specification
Cylinder head flatness	0.004 in (.1 mm) overall
Valve lift @ zero lash (exhaust)	0.339 in (8.6 mm)
Valve lift @ zero lash (intake)	0.343 in (8.7 mm)
Valve guide diameter - bore	0.236-0.237 in (6-6.03 mm)
Valve seat width - intake/exhaust	0.0394 ± 0.0059 in (1 ±.15 mm)
Valve seat angle	45°
Valve seat runout	0.001 in (.029 mm)
Valve tappet bore diameter	1.13-1.15 in (28.8-29.2 mm)
Cam bore diameter	0.984-0.985 in (25-25.03 mm)

VALVE

Item	Specification
Valve head diameter - intake	1.185 ± 0.006 in (30.1 ±.15 mm)
Valve head diameter - exhaust	0.949 ± 0.006 in (24.1 ±.15 mm)
Valve stem diameter - intake	0.2350 ± 0.0003 in (5.968 ±.0075 mm)
Valve stem diameter - exhaust	0.2346 ± 0.0003 in (5.958 ±.0075 mm)
Valve stem-to-guide clearance - intake	0.0010-0.0027 in (.0245-.0695 mm)
Valve stem-to-guide clearance - exhaust	0.0012-0.0029 in (.0295-.0745 mm)
Valve face runout	0.001 in (.03 mm)
Valve face angle	44.5°

CRANKSHAFT

Item	Specification
Main bearing journal diameter	1.889-1.890 in (47.98-48 mm)

Production repair	1, 879.134-1, 879.921 in (47.73-47.75 mm)
Main bearing clearance	0.0009-0.0017 in (.024-.044 mm)
Connecting rod journal diameter	1.731-1.732 in (43.98-44 mm)
Production repair	1.722-1.722 in (43.73-43.75 mm)
End play	0.005-0.017 in (.12-.43 mm)

RINGS

Item	Specification
Width - top	0.0461-0.0469 in (1.17-1.19 mm)
Width - 2nd	0.0579-0.0589 in (1.47-1.495 mm)
Width - oil	0.079 in (2 mm)
Ring gap (in bore) - top	0.0071-0.0110 in (.18-.28 mm)
Ring gap (in bore) - 2nd	0.0276-0.0354 in (.7-.9 mm)
Ring gap (in bore) - oil	0.0079-0.0354 in (.2-.9 mm)

VALVE TAPPET

Item	Specification
Diameter	1.101-1.102 in (27.965-27.98 mm)
Tappet-to-valve clearance - intake	0.007-0.009 in (.17-.23 mm)
Tappet-to-valve clearance - exhaust	0.012-0.015 in (.31-.37 mm)
Tappet-to-bore clearance	0.0008-0.0026 in (.02-.065 mm)

CAMSHAFT

Item	Specification
End play	0.003-0.008 in (.07-.2 mm)
Lobe lift - intake	0.35 in (8.9 mm)
Lobe lift - exhaust	0.352 in (8.94 mm)
Runout (1) ⁽¹⁾	0.0008 in (.02 mm)
Thrust clearance	1.22-1.22 in (30.96-30.98 mm)
Journal diameter	0.9831 ± 0.0004 in (24.97 ± .01 mm)
Journal-to-bore clearance	0.0008-0.0028 in (.02-.07 mm)
(1) No. 3 Journal - Supported by No. 1 and No. 5 journals.	

CONNECTING ROD

Item	Specification
Running clearance	0.0009-0.0017 in (.024-.044 mm)
Bearing clearance	0.0009-0.0017 in (.024-.044 mm)
Bearing thickness (grade 1)	0.0590-0.0593 in (1.499-1.506 mm)
Bearing thickness (grade 2)	0.0593-0.0596 in (1.506-1.513 mm)
Bearing thickness (grade 3)	0.0596-0.0598 in (1.513-1.52 mm)

Bearing thickness (grade 4)	0.0598-0.0601 in (1.52-1.527 mm)
Crank bore diameter	1.851-1.852 in (47.025-47.045 mm)
Pin bore diameter	0.7073-0.7081 in (17.965-17.985 mm)
Length (center to center)	5.394 in (137 mm)