SPECIFICATIONS

GENERAL SPECIFICATION	
DISPLACEMENT	3.0L
NUMBER OF CYLINDERS	6
BORE AND STROKE	
Bore	89.00mm (3.50 in.)
Stroke	80.00mm (3.14 in.)
FIRING ORDER	1-4-2-5-3-6
OIL PRESSURE (HOT 2500 RPM)	40-60 PSI
DRIVE BELT TENSION	Self Tensioning

CYLINDER HEAD AND VALVE TRAIN	
COMBUSTION CHAMBER VOLUME (cc)	47.1-50.1cc
VALVE GUIDE BORE DIAMETER	
Intake and Exhaust	8.011-7.986mm (0.315-0.314 in.)
VALVE SEATS	
Width — Intake	1.5-2.0mm (.06-.08 in.)
Exhaust	2.0-2.5mm (.08-.10 in.)
Angle	45°
Runout (T.I.R.)	0.025mm (0.001 in.)
GASKET SURFACE FLATNESS	0.018mm (0.007 in.)
VALVE STEM TO GUIDE CLEARANCE	
Intake	0.026-0.071mm (0.001-0.0028 in.)
Exhaust	0.038-0.083mm (0.0015-0.0033 in.)
VALVE HEAD DIAMETER (GAGE)	
Intake	40.0mm (1.57 in.)
Exhaust	33.0mm (1.30 in.)
VALVE FACE RUNOUT LIMIT	0.05mm (0.002 in.)
VALVE FACE ANGLE	44°
VALVE STEM DIAMETER (STD.)	
Intake	7.960-7.940mm (0.3134-0.3126 in.)
Exhaust	7.948-7.928mm (0.3129-0.3121 in.)
Oversize	
Intake	8.340-8.320mm (0.3283-0.3276 in.)
Exhaust	8.328-8.308mm (0.3279-0.3271 in.)
Oversize	
Intake	8.720-8.700mm (0.3433-0.3425 in.)
Exhaust	8.708-8.688mm (0.3428-0.3420 in.)
VALVE SPRINGS	
Compression Pressure (Kg [Lb] @ Spec. Length)	
Loaded	
(Without Damper)	800.6N (180 lbs.) @ 29.5mm (1.16 in.)
Unloaded	
(Without Damper)	289.1N (65 lbs.) @ 40.1mm (1.58 in.)
Free Length (Approximate)	46.7mm (1.84 in.)
Assembled Height	40.08mm (1.58 in.)
Service Limit	10% Force Loss @ Specified Height
ROCKER ARM	
Ratio	1.61
VALVE TAPPET, HYDRAULIC	
Diameter (Std.)	22.206mm (0.874 in.)
Clearance to Bore	0.018-0.069mm (0.0007-0.0027 in.)
Service Limit	0.127mm (0.005 in.)
Hydraulic Leakdown Rate	(a)
Collapsed Tappet Gap (Nominal)	
Intake and Exhaust	2.15-4.69mm (0.085-0.185 in.)
Tappet Bore Diameter	22.268-22.230mm (0.8767-0.8752 in.)

CYLINDER BLOCK AND VALVE TRAIN — Cam Bores in Block	
CAMSHAFT BORE INSIDE DIAMETER	
No. 1	54.688-54.713mm (2.1531-2.1541 in.)
No. 2	54.188-54.213mm (2.1334-2.1344 in.)
No. 3	54.188-54.213mm (2.1334-2.1344 in.)
No. 4	54.688-54.713mm (2.1531-2.1541 in.)

CAMSHAFT	
LOBE LIFT	
INTAKE	6.604mm (0.260 in.)
EXHAUST	6.604mm (0.260 in.)
Allowable Lobe Lift Loss	0.127mm (0.005 in.)
THEORETICAL VALVE LIFT @ ZERO LASH	
Intake	10.65mm (0.419 in.)
Exhaust	10.65mm (0.419 in.)
ENDPLAY	
Production	0.025-0.13mm (.001-.005 in.)
Service Limit	0.127mm (0.005 in.)
JOURNAL TO BEARING	
CLEARANCE	0.025-0.076mm (0.001-0.003 in.)
JOURNAL DIAMETER	
All	50.987-51.013mm (2.0074-2.0084 in.)
CAM BEARING I.D.	51.038-51.063mm (2.0094-2.0104 in.)
Runout Limit	0.127mm (0.005 in.) Runout of No. 2 or No. 3 relative to No. 1 and No. 4
Out-of-Round Limit	0.010mm (0.0004 in.)

CYLINDER BLOCK	
HEAD GASKET SURFACE	
FLATNESS	0.08mm (0.003 in.) in 152.0mm (6.00 in.)
HEAD GASKET SURFACE FINISH (RMS)	2.3-3.8 micrometers
CYLINDER BORE	
Diameter	89.00mm (3.504 in.)
Surface Finish (RMS) micrometers	0.45-0.96
Out-of-Round Limit	0.015mm (0.0006 in.)
Out-of-Round Service Limit	0.050mm (0.002 in.)
Taper Service Limit	0.050mm (0.002 in.)
MAIN BEARING BORE DIAMETER	68.905mm (2.713 in.) 68.885mm (2.712 in.)

CRANKSHAFT AND FLYWHEEL	
MAIN BEARING JOURNAL	
DIAMETER	63.973-64.003mm (2.5190-2.5198 in.)
Out-of-Round Limit	0.008mm (0.0003 in.)
Taper Limit	0.015mm (0.0006 in.) TOTAL 0.008mm (0.0003 in.) per 25mm (1 in.)
Journal Runout Limit	0.05mm (0.002 in.) (2), 0.05mm (0.002 in.) (3)
Surface Finish (RMS)	0.25 micrometers (10.0 micro in.)
THRUST BEARING JOURNAL	
Length	25.775-25.825mm (1.0148-1.067 in.)
CONNECTING ROD JOURNAL	
Diameter	53.983-54.003mm (2.1253-2.1261 in.)
Out-of-Round Limit	0.008mm (0.0003 in.) MAX. 0.015mm (0.0006 in.) TOTAL
Taper Limit	0.008mm per 25mm (0.0003 in. per in.)
Surface Limit (RMS)	0.25 micrometers (10.0 micro in.)
MAIN BEARING THRUST FACE	
Surface Finish (RMS) 0.4 micrometers (0.157 micro in.) FRONT; 0.4 micrometers (0.157 micro in.) REAR;	
Runout Limit	0.025mm (0.001 in.)

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