ENGINE Australia
The Diesel Parts Specialists

ENGINE SPECIFICATIONS

February 2001 ES-TOY07R1

General

Manufacturer	**TOYOTA**		
Model/Year	**2L-T**	**1984 – 7/1988**	**Turbocharged**
L/(CID)	2,446cc DIESEL	**No. of Cylinders**	4
Bore & Stroke	92.0mm X 92.0mm		
Firing Order	1 – 3 – 4 – 2		
Compression Ratio	20.0 : 1	**Idle Speed**	700 rpm
Comp. Pressure @ RPM	3.0 MPa @ 250 rpm	2.0 MPa min.	<490 kPa diff.
Oil Pressure	29 kPa min at idle	**Oil Capacity & Grade**	6.5 ltr dry CC-CD
Injection Timing	0.75 – 0.87 plunger	stroke at T.D.C.	

Block

Bore Diameter Standard	92.000 – 92.030 mm
Maximum Overbore	1.00 mm
Liner Flange Height & Fit	N/A Repair liners are available.
Crankshaft Housing Bore	66.000 – 66.020 mm
Camshaft Housing Bore	38.015 – 38.027 mm
Block Deck Height	0.20 mm warp limit

Pistons & Rings

Piston to Bore Clearance	0.05 – 0.07 mm @ 23 mm up from bottom of skirt
Piston Protrusion	0.56 – 0.66 mm
Gudgeon Pin Diameter	29.000 – 29.012 mm
Gudgeon Pin Clearance	0.004 – 0.012 mm Limit: 0.05 mm
Ring Equipment	Top: 2.0 mm (½K), 2nd: 2.0 mm; Oil: 4.0 mm.
Piston Ring End Gap	Top: 0.35 – 0.62 mm; 2nd: 0.20 – 0.47 mm; Oil: 0.20 – 0.52 mm.
Ring to Groove Clearance	Top: 0.02 – 0.065 mm; 2nd: 0.04 – 0.10 mm; Oil: 0.03 – 0.07 mm.

Connecting Rods

Big End Bore	58.004 – 58.024 mm
Pin End Bore	32.000 – 32.021 mm
Centre to Centre	147 mm
Big End Width	
Bush ID Finished	29.008 – 29.020 mm
Rod Side Clearance	0.080 – 0.200 mm Limit: 0.30 mm
Bend/Twist	0.05 mm/100mm bend 0.15 mm/100 mm twist

Camshaft

Journal Diameters	34.969 – 34.985 mm
End Play	0.055 – 0.155 mm Limit: 0.3 mm
Oil Clearance	0.022 – 0.074 mm Limit: 0.10 mm
Minimum Lobe Height	**Inlet** 46.29 mm **Exhaust** 47.25 mm
Bend Limit	0.10 mm circle runout

Crankshaft

Main Journal Standard	61.985 – 62.000 mm			
Conrod Journal Standard	54.988 – 55.000 mm			
Harmonic Balancer Diam.				
Crank Gear Diameter				
Seal Diameter				
Thrust Thickness	2.430 – 2.480 mm			
Main Bearing Clearance	0.034 – 0.065 mm std. Limit: 0.10 mm			
Conrod Bearing Clearance	0.036 – 0.064 mm std. Limit: 0.10 mm			
Crankshaft End Play	0.040 – 0.250 mm Limit: 0.30 mm			
Journal Radius	**Main** Undercut		**Conrod** Undercut	

Cylinder Head

Tappet Clearance	**Inlet**	0.25 mm HOT	**Exhaust**	0.36 mm HOT
Head Height	**New**	102 mm	**Warp**	0.2 mm Limit
Valve Seat Angle	**Inlet**	45°	**Exhaust**	45°
Valve Seat Width	**Inlet**	1.2 – 1.6 mm	**Exhaust**	1.2 – 1.6 mm
Valve Head Recess	**Inlet**	1.1 – 1.2 mm	**Exhaust**	1.3 – 1.4 mm
Valve Head Margin	**Inlet**	0.9 mm min.	**Exhaust**	1.0 mm min.
Valve Face Angle	**Inlet**	44.5°	**Exhaust**	44.5°
Valve Length	**Inlet**	122.95 mm	**Exhaust**	122.75 mm
Valve Stem Diameter	**Inlet**	8.473 – 8.489 mm	**Exhaust**	8.454 – 8.470 mm
Valve Guide Height	**Inlet**	16.3 – 16.7 mm	**Exhaust**	16.3 – 16.7 mm
Valve Guide Clear. Std.	**Inlet**	0.021 – 0.057 mm	**Exhaust**	0.040 – 0.076 mm
Valve Guide Clear. Limit	**Inlet**	0.10 mm	**Exhaust**	0.12 mm
Valve Spring Pressure	**Inlet**	29.2 kg	**Exhaust**	29.2 kg
Valve Spring Free Length	**Inlet**	47.98 mm	**Exhaust**	47.98 mm
Valve Spring Install. Height	**Inlet**	39.3 mm	**Exhaust**	39.3 mm
Precom. Chamber Protrus.		0.01 – 0.07 mm		

Torque Specifications

Main Bolts	10.5 kgf.m OILED			
Conrod Bolts	6.0 kgf.m OILED			
Head Bolts	12.0 kgf.m OILED			
Cam Cap Bolts	1.95 kgf.m OILED			
Manifold Bolts	**Inlet** 2.4 kgf.m		**Exhaust** 5.3 kgf.m	
Flywheel Bolts	12.5 kgf.m OILED			
Harmonic Balancer	14.0 kgf.m			

Torque Sequences