ENGINE MECHANICAL

0316B–02

SERVICE DATA

2TR–FE:

Idle speed		600 to 700 rpm
Compression	Compression pressure	1,230 kPa (12.5 kgf/cm^2, 178 psi) or more
	Minimum pressure	883 kPa (9.0 kgf/cm^2, 128 psi)
	Difference between each cylinder	98 kPa (1.0 kgf/cm^2, 14 psi) or less
CO concentration		1.5 ± 0.5 %
Ignition timing	Terminals TC and CG of DLC3 connected	3 to 7° BTDC idle
	Terminals TC and CG of DLC3 disconnected	5 to 15° BTDC idle
Cylinder head set bolt outside diameter	Standard	10.76 to 10.97 mm (0.4236 to 0.4319 in.)
	Minimum	10.40 mm (0.4094 in.)

1GR–FE:

Ignition timing	Terminals TC and CG of DLC3 connected	8 to 12° BTDC at idle (Transmission in neutral position)
	Terminals TC and CG of DLC3 disconnected	7 to 24° BTDC at idle (Transmission in neutral position)
Idle speed		650 to 750 rpm (Transmission in neutral position)
Compression	Compression pressure	1.3 MPa (13.3 kgf/cm^2, 189 psi) or more
	Minimum pressure	1.0 MPa (10.2 kgf/cm^2, 145 psi)
	Difference between each cylinder	0.1 MPa (1.0 kgf/cm^2, 15 psi) or less
Valve clearance		
Intake	(Cold)	0.15 to 0.25 mm (0.006 to 0.010 in.)
Exhaust		0.29 to 0.39 mm (0.011 to 0.015 in.)
Intake manifold		
Intake air surge tank side warpage	Maximum	0.8 mm (0.031 in.)
Cylinder head side warpage		0.2 mm (0.008 in.)
Exhaust manifold		
Warpage	Maximum	0.7 mm (0.028 in.)
Cylinder head set bolt outside diameter	Standard	10.85 to 11.00 mm (0.4272 to 0.4331 in.)
	Minimum	10.7 mm (0.421 in.)

1KD–FTV:

Idle speed		650 to 750 rpm
Maximum speed		4,500 to 4,700 rpm
Compression	Compression pressure	2,700 kPa (27.5 kgf/cm^2, 391 psi) or more
	Minimum pressure	2,200 kPa (22.5 kgf/cm^2, 320 psi) or more
	Difference between each cylinder	500 kPa (5.0 kgf/cm^2, 71 psi) or less
Valve clearance		
Intake	(Cold)	0.20 to 0.30 mm (0.0079 to 0.0118 in.)
Exhaust		0.35 to 0.45 mm (0.0138 to 0.0177 in.)
Cylinder head set bolt outside diameter	Standard	11.76 to 11.97 mm (0.463 to 0.471 in.)
	Minimum	11.60 mm (0.457 in.)
Cylinder head gasket		
New cylinder head gasket thickness	A	0.80 to 0.90 mm (0.0315 to 0.0354 in.)
	B	0.85 to 0.95 mm (0.0335 to 0.0374 in.)
	C	0.90 to 1.00 mm (0.0354 to 0.0394 in.)
	D	0.95 to 1.05 mm (0.0374 to 0.0413 in.)
	E	1.00 to 1.10 mm (0.0394 to 0.0433 in.)