
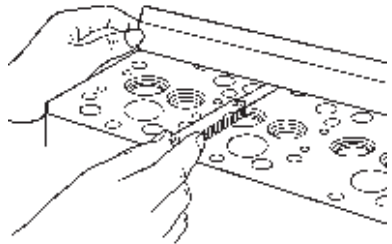

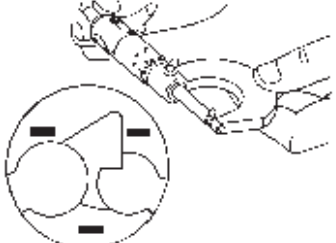
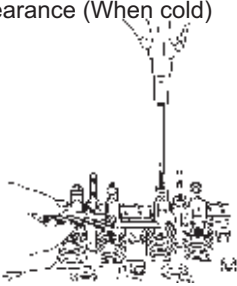
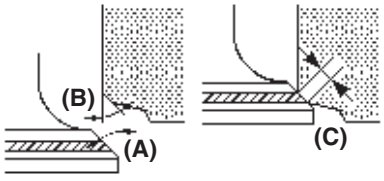
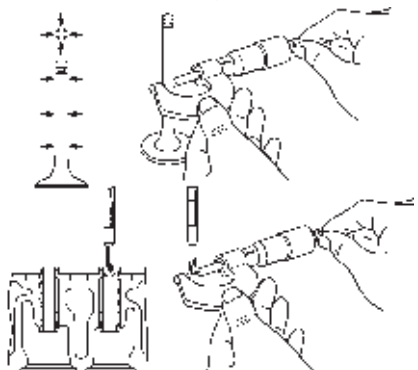
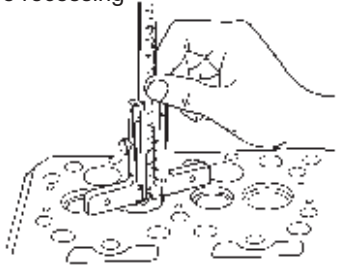
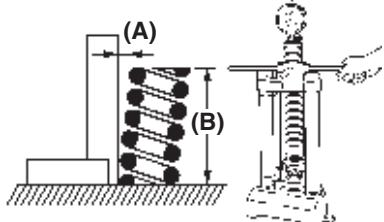
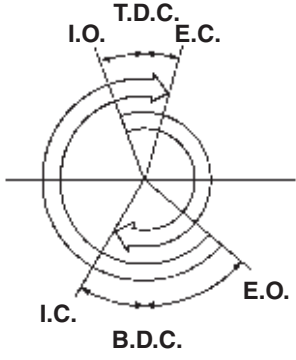
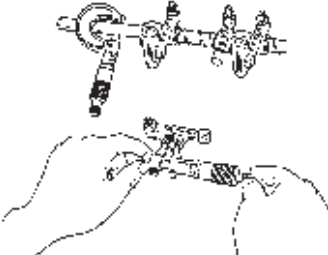
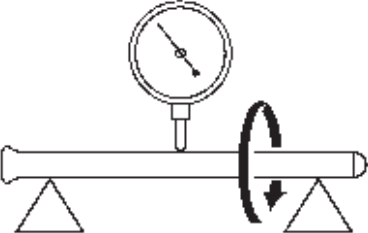
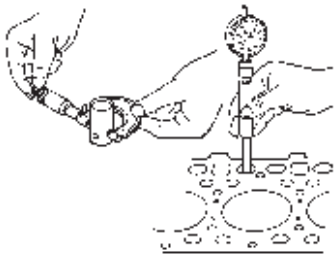


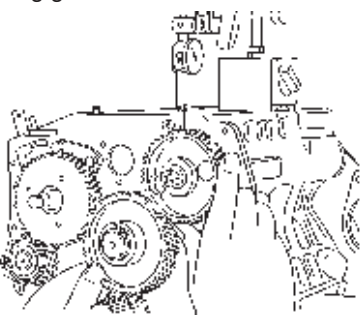
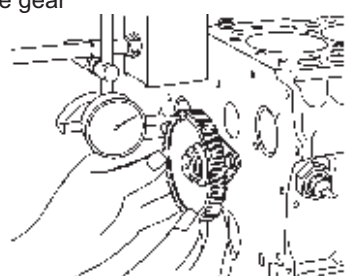


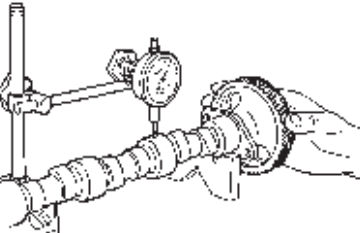
SERVICING SPECIFICATIONS

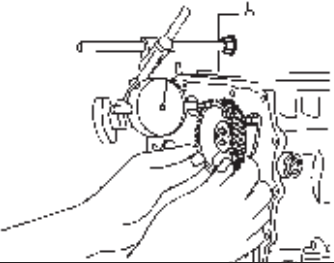
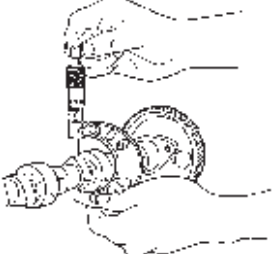

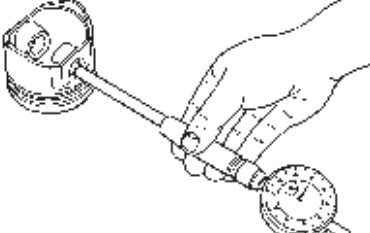
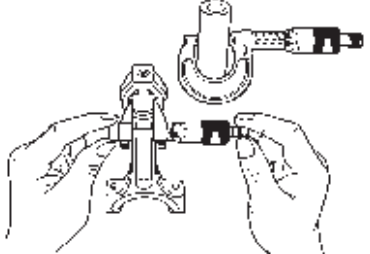
(1) ENGINE BODY

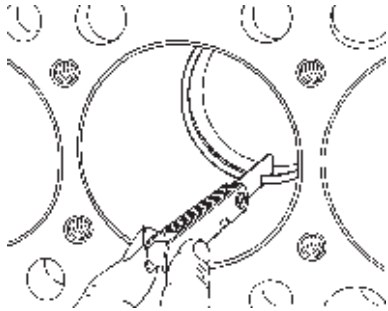
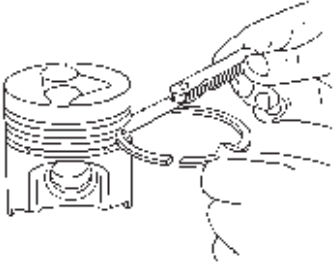
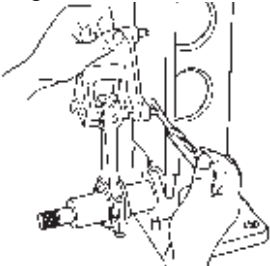
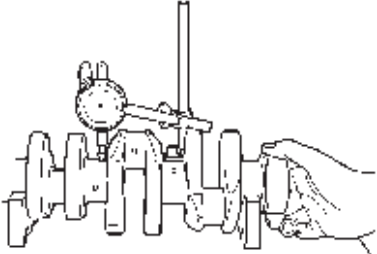
Item		Factory Specification	Allowable Limit
Lubricating oil capacity 	Oil pan depth 110 mm (4.33 in.) D1305-E4B	5.7 L 1.5 U.S.gals	—
	Oil pan depth 125 mm (4.92 in.) D1005-E4B D1105-E4B	5.1 L 1.3 U.S.gals	—
	Oil pan depth 130 mm (5.12 in.) V1505-E4B	6.7 L 1.8 U.S.gals	—
Cylinder head surface 	Flatness All models	—	0.05 mm 0.002 in.
Compression pressure 	D1005-E4B D1105-E4B D1305-E4B V1505-E4B	3.73 to 4.11 MPa 38.0 to 42.0 kgf/cm ² 541 to 597 psi	2.26 MPa 23.0 kgf/cm ² 327 psi
Top clearance 	D1005-E4B D1105-E4B V1505-E4B	0.55 to 0.70 mm 0.022 to 0.027 in.	—
	D1305-E4B	0.80 to 1.0 mm 0.032 to 0.039 in.	—

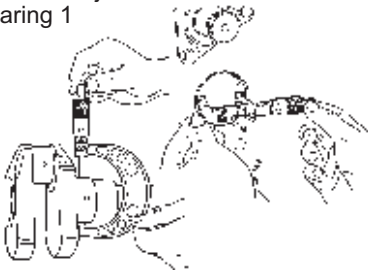
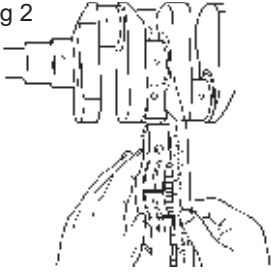
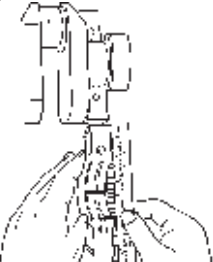
Item		Factory Specification	Allowable Limit
Valve clearance (When cold) 		All models 0.145 to 0.185 mm 0.00571 to 0.00728 in.	—
Valve & valve seat 	Face angle (A) (Intake)	All models 1.0 rad 60°	—
	Face angle (A) (Exhaust)	All models 0.79 rad 45°	—
	Seat angle (B) (Intake)	All models 1.0 rad 60°	—
	Seat angle (B) (Exhaust)	All models 0.79rad 45°	—
	Seat width (C) (Intake)	All models 2.12 mm 0.0835 in.	—
	Seat width (C) (Exhaust)	All models 2.12 mm 0.0835 in.	—
Valve stem to valve guide 	Clearance	All models 0.035 to 0.065 mm 0.0014 to 0.0025 in.	0.10 mm 0.0039 in.
	Valve stem O.D.	All models 6.960 to 6.975 mm 0.2741 to 0.2746 in.	—
	Valve guide I.D.	All models 7.010 to 7.025 mm 0.2760 to 0.2765 in.	—
Valve recessing 		All models 0.050 mm (Protrusion) to 0.25 mm (Recessing) 0.0020 in. (Protrusion) to 0.0098 in. (Recessing)	0.40 mm (Recessing) 0.016 in. (Recessing)
Valve spring 	Tilt (A)	All models —	1.0 mm 0.039 in.
	Free length (B)	All models 37.0 to 37.5 mm 1.46 to 1.47 in.	36.5 mm 1.44 in.
	Setting load / Setting length	All models 117.4 N / 31.0 mm 11.97 kgf / 31.0 mm 26.39 lbf / 1.22 in.	100.0 N / 31.0 mm 10.20 kgf / 31.0 mm 22.48 lbf / 1.22 in.

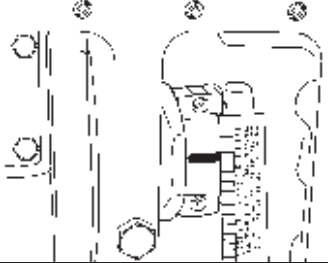
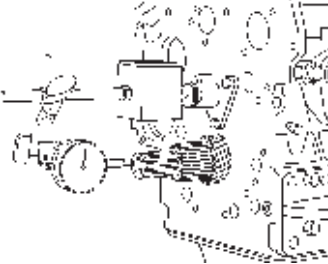
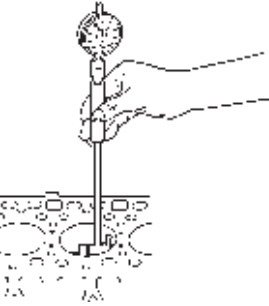
Item			Factory Specification	Allowable Limit
Valve timing 	Open (Intake valve)	All models	0.24 rad before T.D.C. 14° before T.D.C.	—
	Close (Intake valve)	All models	0.52 rad after B.D.C. 30° after B.D.C.	—
	Open (Exhaust valve)	D1005-E4B V1505-E4B	0.82 rad before B.D.C. 47° before B.D.C.	—
		D1105-E4B D1305-E4B	0.96 rad before B.D.C. 55° before B.D.C.	—
	Close (Exhaust valve)	D1005-E4B	0.24 rad after T.D.C. 14° after T.D.C.	—
		D1105-E4B D1305-E4B V1505-E4B	0.1 rad after T.D.C. 6° after T.D.C.	—
Rocker arm shaft to rocker arm 	Clearance	All models	0.016 to 0.045 mm 0.00063 to 0.0017 in.	0.10 mm 0.0039 in.
	Rocker arm shaft O.D.	All models	11.973 to 11.984 mm 0.47138 to 0.47181 in.	—
	Rocker arm I.D.	All models	12.000 to 12.018 mm 0.47244 to 0.47314 in.	—
Push rod 	Alignment	All models	—	0.25 mm 0.0098 in.
Tappet to tappet guide 	Clearance	All models	0.020 to 0.062 mm 0.00079 to 0.0024 in.	0.07 mm 0.003 in.
	Tappet O.D.	All models	19.959 to 19.980 mm 0.78579 to 0.78661 in.	—
	Tappet guide I.D.	All models	20.000 to 20.021 mm 0.78740 to 0.78822 in.	—

Item		Factory Specification	Allowable Limit
 <p>Timing gear</p>	Backlash (Crank gear to idle gear 1)	All models 0.0320 to 0.115 mm 0.00126 to 0.00452 in.	0.15 mm 0.0059 in.
	Backlash (Idle gear 1 to cam gear)	All models 0.0360 to 0.114 mm 0.00142 to 0.00448 in.	0.15 mm 0.0059 in.
	Backlash (Idle gear 1 to injection pump)	All models 0.0340 to 0.116 mm 0.00134 to 0.00456 in.	0.15 mm 0.0059 in.
	Backlash (Injection pump gear to governor gear)	All models 0.0300 to 0.117 mm 0.00119 to 0.00460 in.	0.15 mm 0.0059 in.
	Backlash (Idle gear 1 to idle gear 2)	Equipped with idle gear 2 0.0330 to 0.117 mm 0.00130 to 0.00460 in.	0.15 mm 0.0059 in.
	Backlash (Idle gear 2 to governor gear)	Equipped with idle gear 2 0.0300 to 0.117 mm 0.00119 to 0.00460 in.	0.15 mm 0.0059 in.
 <p>Idle gear</p>	Side clearance (Idle gear 1)	All models 0.20 to 0.51 mm 0.0079 to 0.020 in.	0.80 mm 0.031 in.
	Side clearance (Idle gear 2)	Equipped with idle gear 2 0.20 to 0.51 mm 0.0079 to 0.020 in.	0.80 mm 0.031 in.
 <p>Idle gear shaft 1 to idle gear bushing</p>	Clearance	All models 0.020 to 0.054 mm 0.00079 to 0.0021 in.	0.10 mm 0.0039 in.
	Idle gear shaft 1 O.D.	All models 25.967 to 25.980 mm 1.0224 to 1.0228 in.	—
	Idle gear bushing I.D.	All models 26.000 to 26.021 mm 1.0237 to 1.0244 in.	—
 <p>Idle gear shaft 2 to idle gear bushing</p>	Clearance	All models 0.020 to 0.054 mm 0.00079 to 0.0021 in.	0.10 mm 0.0039 in.
	Idle gear shaft 2 O.D.	All models 25.967 to 25.980 mm 1.0223 to 1.0228 in.	—
	Idle gear bushing I.D.	All models 26.000 to 26.021 mm 1.0237 to 1.0244 in.	—
 <p>Camshaft</p>	Alignment	All models —	0.01 mm 0.0004 in.

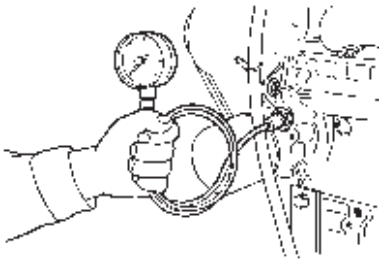
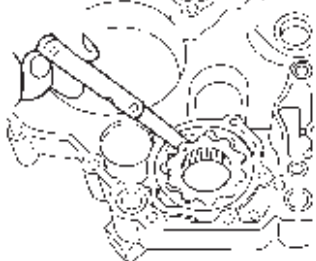
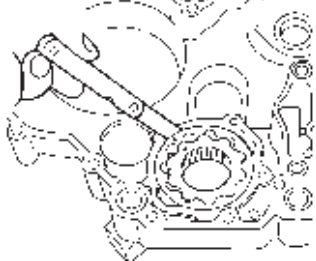
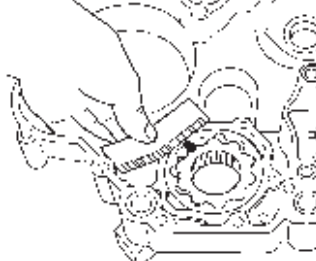
Item		Factory Specification	Allowable Limit
Camshaft 	Side clearance	All models 0.070 to 0.22 mm 0.0028 to 0.0086 in.	0.30 mm 0.012 in.
	Cam		
Cam 	Height (Intake)	All models 28.80 mm 1.134 in.	28.75 mm 1.132 in.
	Height (Exhaust)	All models 29.00 mm 1.142 in.	28.95 mm 1.140 in.
	Camshaft journal to cylinder block bore 	Oil clearance	All models 0.050 to 0.091 mm 0.0020 to 0.0035 in.
	Camshaft journal O.D.	All models 35.934 to 35.950 mm 1.4148 to 1.4153 in.	—
	Cylinder block bore I.D.	All models 36.000 to 36.025 mm 1.4174 to 1.4183 in.	—
Piston pin bore 	Piston pin bore I.D.	All models 22.000 to 22.013 mm 0.86615 to 0.86665 in.	22.03 mm 0.8673 in.
Piston pin to small end bushing 	Clearance	All models 0.014 to 0.038 mm 0.00056 to 0.0014 in.	0.15 mm 0.0059 in.
	Piston pin O.D.	All models 22.002 to 22.011 mm 0.86622 to 0.86657 in.	—
	Small end bushing I.D.	All models 22.025 to 22.040 mm 0.86713 to 0.86771 in.	—

Item		Factory Specification	Allowable Limit	
Piston ring 	Ring gap (Top ring)	D1005-E4B	0.30 to 0.45 mm 0.012 to 0.017 in.	1.25 mm 0.0492 in.
		D1105-E4B D1305-E4B V1505-E4B	0.15 to 0.25 mm 0.0059 to 0.0098 in.	1.20 mm 0.0472 in.
	Ring gap (Second ring)	D1005-E4B D1305-E4B	0.30 to 0.45 mm 0.012 to 0.017 in.	1.25 mm 0.0492 in.
		D1105-E4B V1505-E4B	0.40 to 0.55 mm 0.016 to 0.021 in.	1.20 mm 0.0472 in.
	Ring gap (Oil ring)	All models	0.25 to 0.45 mm 0.0099 to 0.017 in.	1.25 mm 0.0492 in.
Piston ring groove to piston ring 	Clearance (Second ring)	All models	0.0850 to 0.122 mm 0.00335 to 0.00480 in.	0.2 mm 0.008 in.
	Clearance (Oil ring)	All models	0.02 to 0.06 mm 0.0008 to 0.002 in.	0.15 mm 0.0059 in.
Connecting rod 	Alignment	All models	—	0.05 mm 0.002 in.
Crankshaft 	Alignment	All models	—	0.02 mm 0.0008 in.

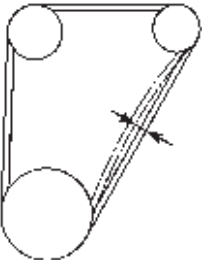
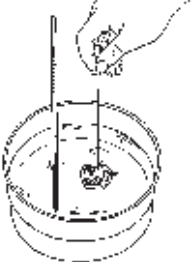
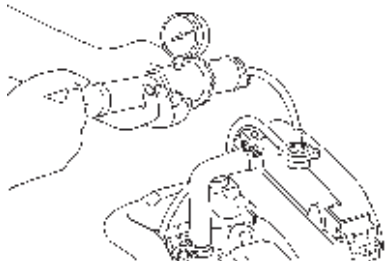
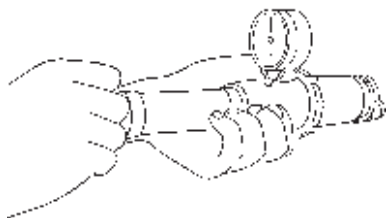
Item		Factory Specification	Allowable Limit	
Crankshaft journal to crankshaft bearing 1 	Oil clearance	0.0340 to 0.114 mm 0.00134 to 0.00448 in.	0.20 mm 0.0079 in.	
	Crankshaft journal O.D.	D1005-E4B D1105-E4B V1505-E4B	47.934 to 47.950 mm 1.8872 to 1.8877 in.	—
	Crankshaft bearing 1 I.D.		47.984 to 48.048 mm 1.8892 to 1.8916 in.	—
	Oil clearance	D1305-E4B	0.0340 to 0.119 mm 0.00134 to 0.00468 in.	0.20 mm 0.0079 in.
	Crankshaft journal O.D.		51.921 to 51.940 mm 2.0442 to 2.0448 in.	—
	Crankshaft bearing 1 I.D.		51.974 to 52.040 mm 2.0463 to 2.0488 in.	—
Crankshaft journal to crankshaft bearing 2 	Oil clearance	0.034 to 0.095 mm 0.0014 to 0.0037 in.	0.20 mm 0.0079 in.	
	Crankshaft journal O.D.	D1005-E4B D1105-E4B V1505-E4B	47.934 to 47.950 mm 1.8872 to 1.8878 in.	—
	Crankshaft bearing 2 I.D.		47.984 to 48.029 mm 1.8892 to 1.8908 in.	—
	Oil clearance	D1305-E4B	0.0340 to 0.103 mm 0.00134 to 0.00405 in.	0.20 mm 0.0079 in.
	Crankshaft journal O.D.		51.921 to 51.940 mm 2.0442 to 2.0448 in.	—
	Crankshaft bearing 1 I.D.		51.974 to 52.024 mm 2.0463 to 2.0481 in.	—
Crankshaft journal to crankshaft bearing 3 	Oil clearance	0.0340 to 0.103 mm 0.00134 to 0.00405 in.	0.20 mm 0.0079 in.	
	Crankshaft journal O.D.	All models	51.921 to 51.940 mm 2.0442 to 2.0448 in.	—
	Crankshaft bearing 1 I.D.		51.974 to 52.024 mm 2.0463 to 2.0481 in.	—

Item			Factory Specification	Allowable Limit
Crankpin to crankpin bearing 	Oil clearance	All models	0.029 to 0.091 mm 0.0012 to 0.0035 in.	0.20 mm 0.0079 in.
	Crankpin O.D.	All models	39.959 to 39.975 mm 1.5732 to 1.5738 in.	—
	Crankpin bearing I.D.	All models	40.040 to 40.050 mm 1.5764 to 1.5767 in.	—
Crankshaft 	Side clearance	All models	0.15 to 0.31 mm 0.0059 to 0.012 in.	0.50 mm 0.020 in.
Cylinder 	Bore I.D. (Standard size)	D1005-E4B	76.000 to 76.019 mm 2.9922 to 2.9928 in.	76.15 mm 2.998 in.
		D1105-E4B D1305-E4B V1505-E4B	78.000 to 78.019 mm 3.0709 to 3.0716 in.	78.15 mm 3.077 in.
	Bore I.D. (Oversize)	D1005-E4B	76.500 to 76.519 mm 3.0119 to 3.0125 in.	76.65 mm 3.018 in.
		D1105-E4B D1305-E4B V1505-E4B	78.500 to 78.519 mm 3.0906 to 3.0912 in.	78.65 mm 3.096 in.

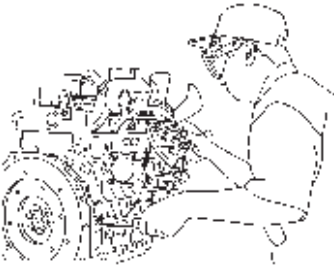


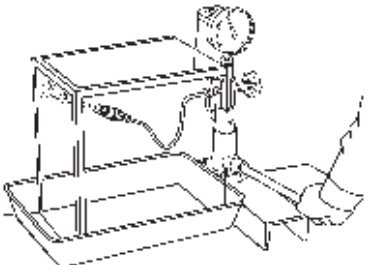
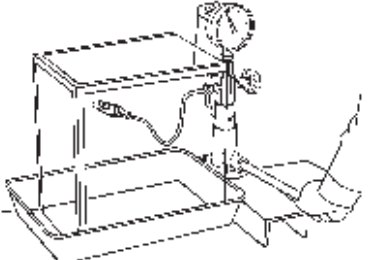
(2) LUBRICATING SYSTEM

Item		Factory Specification	Allowable Limit
Engine oil pressure 	Engine oil pressure (At idle speed)	All models 68 kPa 0.69 kgf/cm ² 9.9 psi	—
	Engine oil pressure (At rated speed)	All models 294 to 441 kPa 3.00 to 4.49 kgf/cm ² 42.7 to 63.9 psi	147 kPa 1.50 kgf/cm ² 21.3 psi
Inner rotor to outer rotor (Oil pump) 	Clearance	All models 0.060 to 0.18 mm 0.0024 to 0.0071 in.	—
Outer rotor to pump body (Oil pump) 	Clearance	All models 0.100 to 0.180 mm 0.00394 to 0.00708 in.	—
Inner rotor to cover (Oil pump) 	Clearance	All models 0.025 to 0.075 mm 0.00099 to 0.0029 in.	—

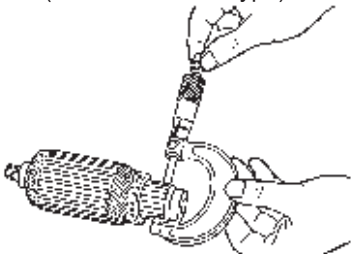
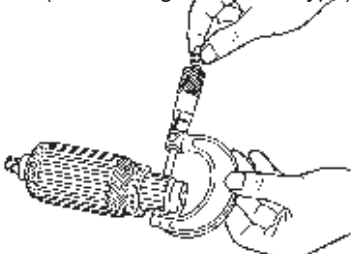
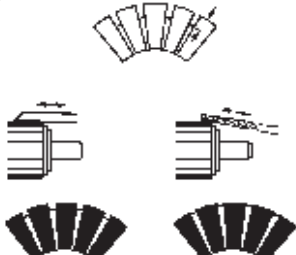
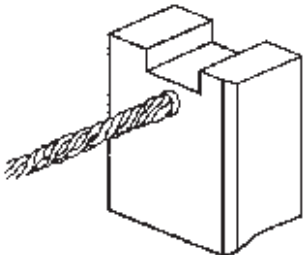
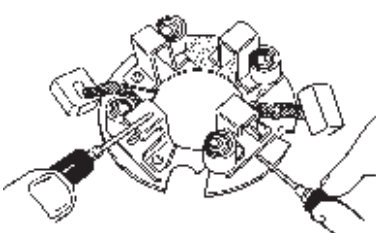
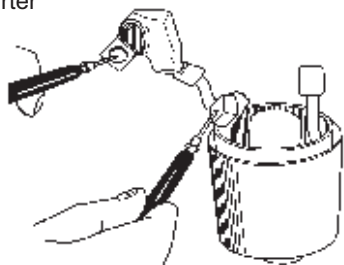
(3) COOLING SYSTEM



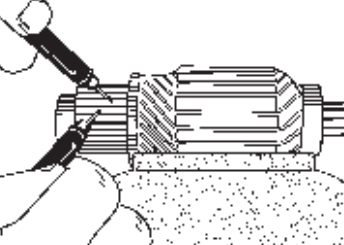
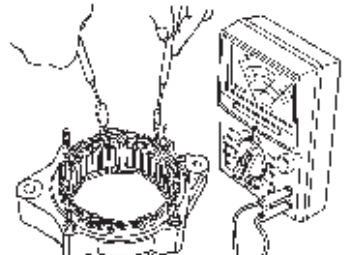
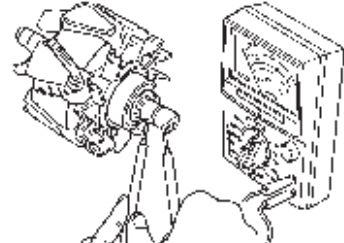
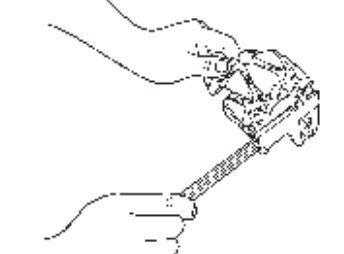
Item			Factory Specification	Allowable Limit
Fan belt 	Tension	All models	7.0 to 9.0 mm (0.28 to 0.35 in.) deflection at 98 N (10 kgf, 22 lbf) of force	—
Thermostat 	Valve opening temperature (At beginning)	All models	69.5 to 72.5 °C 157.1 to 162.5 °F	—
	Valve opening temperature (Opened completely)	All models	85 °C 185 °F	—
Radiator 	Water tightness	All models	No leak at specified pressure	—
Radiator cap 	Pressure falling time	All models	10 seconds or more for pressure falling 88 → 59 kPa (0.90 → 0.60 kgf/cm ² , 13 → 8.5 psi)	—

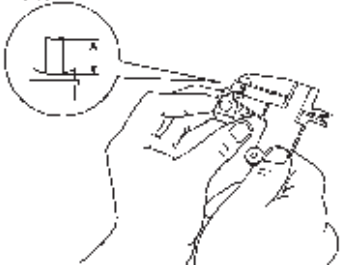
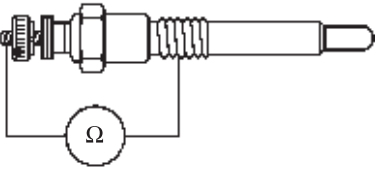
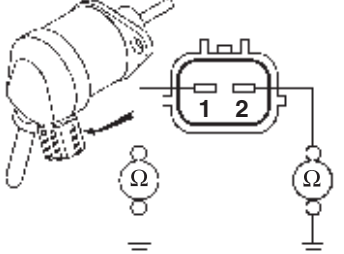
(4) FUEL SYSTEM

Item		Factory Specification	Allowable Limit
Injection pump 	Injection timing 3200 min ⁻¹ (rpm)	D1005-E4B 0.3360 to 0.3621 rad (19.25 to 20.75°) before T.D.C.	—
	Injection timing 3000 min ⁻¹ (rpm)	D1105-E4B 0.3011 to 0.3272 rad (17.25 to 18.75°) before T.D.C.	—
	Injection timing 2600 min ⁻¹ (rpm)	D1305-E4B 0.2662 to 0.2923 rad (15.25 to 16.75°) before T.D.C.	—
	Injection timing 2300 min ⁻¹ (rpm)	V1505-E4B 0.2313 to 0.2574 rad (13.25 to 14.75°) before T.D.C.	—
Pump element 	Fuel Tightness	All models	— 13.73 MPa 140.0 kgf/cm ² 1991 psi
Delivery valve 	Fuel Tightness	All models	10 seconds 13.73 → 12.75 MPa 140.0 → 130.0 kgf/cm ² 1991 → 1849 psi 5 seconds 13.73 → 12.75 MPa 140.0 → 130.0 kgf/cm ² 1991 → 1849 psi
Injection nozzle 	Injection pressure	All models	13.73 to 14.70 MPa 140.0 to 150.0 kgf/cm ² 1992 to 2133 psi
Injection nozzle 	Valve seat tightness	All models	When the pressure is 12.75 MPa (130.0 kgf/cm ² 1849 psi), the valve seat must be fuel tightness.

(5) ELECTRICAL SYSTEM

Item			Factory Specification	Allowable Limit
Starter (Gear Reduction Type) 	Commutator O.D.	All models	30.0 mm 1.18 in	29.0 mm 1.14 in.
Starter (Electromagnetic Drive Type) 	Commutator O.D.	All models	28.0 mm 1.10 in	27.0 mm 1.06 in.
Starter 	Mica under cut	All models	0.50 to 0.80 mm 0.020 to 0.031 in.	0.20 mm 0.0079 in.
Starter 	Brush length	All models	16.0 mm 0.630 in.	10.5 mm 0.413 in.
Starter 	Brush holder resistance (Brush holder - Holder support)	All models	Infinity	—
Starter 	Field coil resistance (Lead - Brush)	All models	Continuity	—

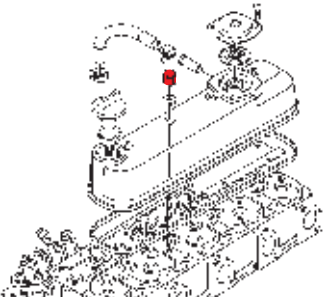
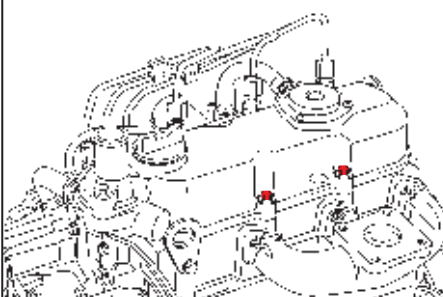
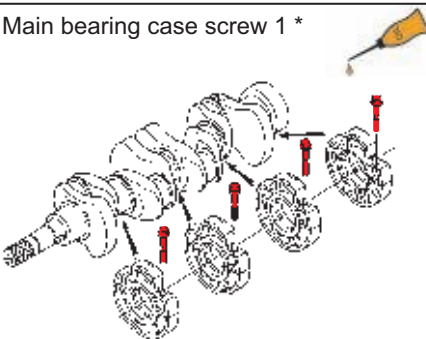
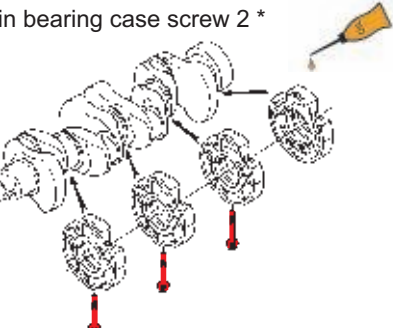
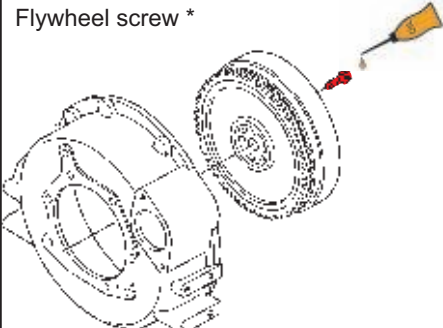
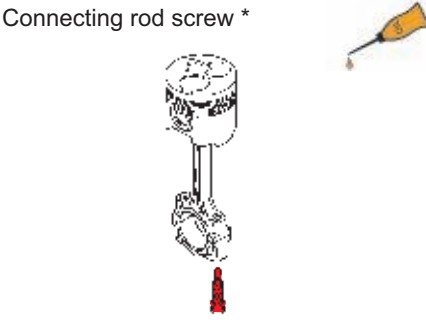
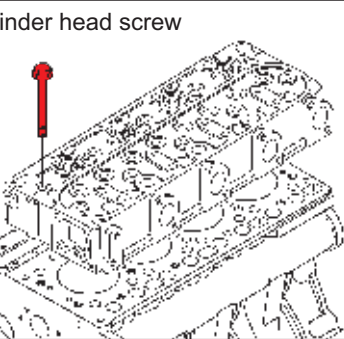
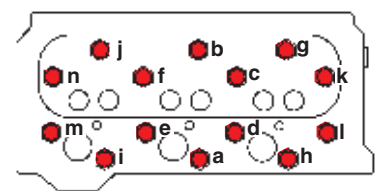
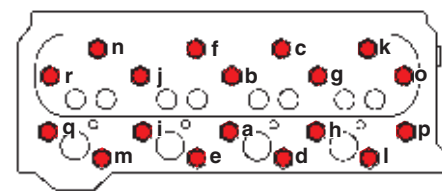
Item			Factory Specification	Allowable Limit
Starter 	Field coil resistance (Brush - Yoke)	All models	Infinity	—
Starter 	Armature coil resistance (Commutator - Armature coil core)	All models	Infinity	—
Starter 	Armature coil resistance (Segment - Segment)	All models	Continuity	—
Alternator 	Stator resistance	All models	Less than 1.0 Ω	—
Alternator 	Rotor resistance	All models	2.9 Ω	—
Alternator 	Slip ring O.D.	All models	14.4 mm 0.567 in.	14.0 mm 0.551 in.

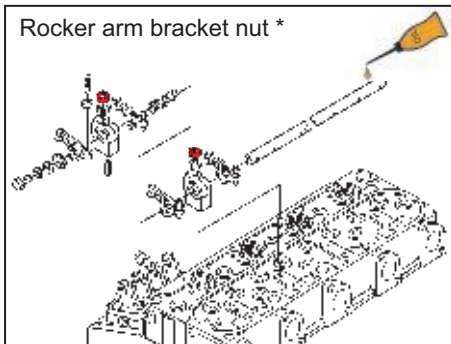
Item			Factory Specification	Allowable Limit
Alternator 	Brush length	All models	10.0 mm 0.394 in.	8.4 mm 0.33 in.
Glow plug 	Resistance	All models	Approx. 0.9 Ω	—
Stop solenoid 	Pulling Coil Resistance (Terminal 1 - body)	All models	Approx. 0.38 Ω	—
	Holding Coil Resistance (Terminal 2 - body)	All models	Approx. 16 Ω	—

TIGHTENING TORQUES

(1) Special Tightening Torques

For "*" marked screws, bolts and nuts on under table, apply engine oil to their threads and seats before tightening.

<p>Cylinder head cover nut</p> 		<p>Cylinder head cover screw</p> 		<p>Main bearing case screw 1 *</p> 	
D1005-E4B		D1305-E4B		D1005-E4B	
D1105-E4B	7 to 8 N·m 0.7 to 0.9 kgf·m 5 to 6 lbf·ft	D1105-E4B	9.81 to 11.2 N·m 1.00 to 1.15 kgf·m 7.24 to 8.31 lbf·ft	D1105-E4B	30 to 34 N·m 3.0 to 3.5 kgf·m 22 to 25 lbf·ft
V1505-E4B		V1505-E4B		D1305-E4B	
				V1505-E4B	
<p>Main bearing case screw 2 *</p> 		<p>Flywheel screw *</p> 		<p>Connecting rod screw *</p> 	
D1005-E4B		D1005-E4B		D1005-E4B	
D1105-E4B	49 to 53 N·m 5.0 to 5.5 kgf·m 37 to 39 lbf·ft	D1105-E4B	54 to 58 N·m 5.5 to 6.0 kgf·m 40 to 43 lbf·ft	D1105-E4B	42 to 46 N·m 4.2 to 4.7 kgf·m 31 to 33 lbf·ft
D1305-E4B		D1305-E4B		D1305-E4B	
V1505-E4B		V1505-E4B		V1505-E4B	
<p>Cylinder head screw</p> 		<p>Cylinder head tightening order</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>(A) 3 cylinder model</p>  </div> <div style="text-align: center;"> <p>(B) 4 cylinder model</p>  </div> </div>			
D1005-E4B		D1005-E4B	<p>(A) 3 cylinder model a → n</p> <p>(B) 4 cylinder model a → r</p>		
D1105-E4B	64 to 68 N·m 6.5 to 7.0 kgf·m 47 to 50 lbf·ft				
D1305-E4B					
V1505-E4B					



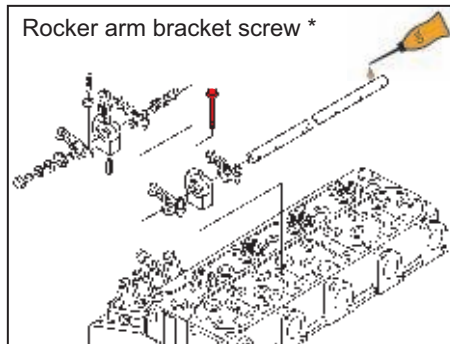
Rocker arm bracket nut *

D1005-E4B

D1105-E4B

V1505-E4B

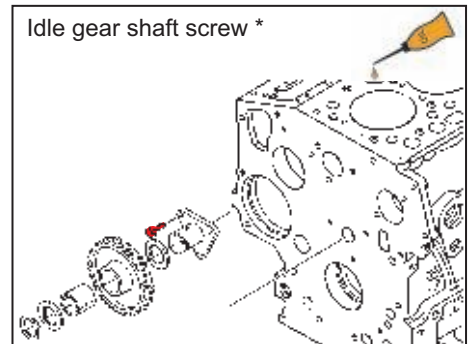
22 to 26 N·m
2.2 to 2.7 kgf·m
16 to 19 lbf·ft



Rocker arm bracket screw *

D1305-E4B

22 to 26 N·m
2.2 to 2.7 kgf·m
16 to 19 lbf·ft



Idle gear shaft screw *

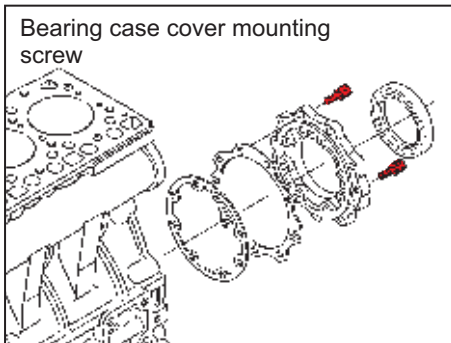
D1005-E4B

D1105-E4B

D1305-E4B

V1505-E4B

9.81 to 11.2 N·m
1.00 to 1.15 kgf·m
7.24 to 8.31 lbf·ft



Bearing case cover mounting screw

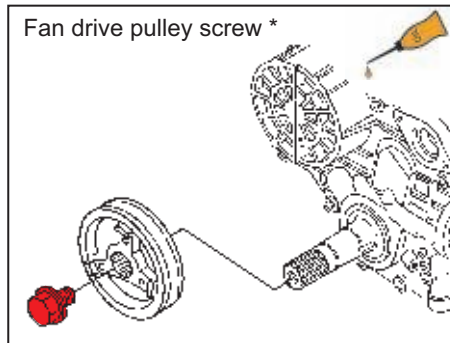
D1005-E4B

D1105-E4B

D1305-E4B

V1505-E4B

10.8 to 12.2 N·m
1.10 to 1.25 kgf·m
7.96 to 9.04 lbf·ft



Fan drive pulley screw *

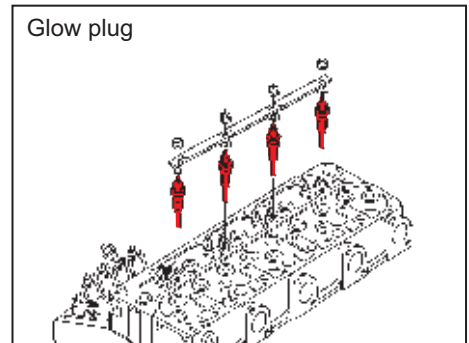
D1005-E4B

D1105-E4B

D1305-E4B

V1505-E4B

236 to 245 N·m
24.0 to 25.0 kgf·m
174 to 180 lbf·ft



Glow plug

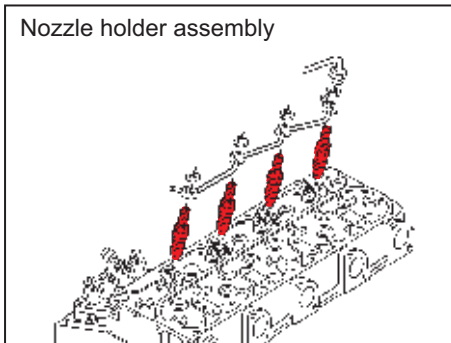
D1005-E4B

D1105-E4B

D1305-E4B

V1505-E4B

7.9 to 14 N·m
0.80 to 1.5 kgf·m
5.8 to 10 lbf·ft



Nozzle holder assembly

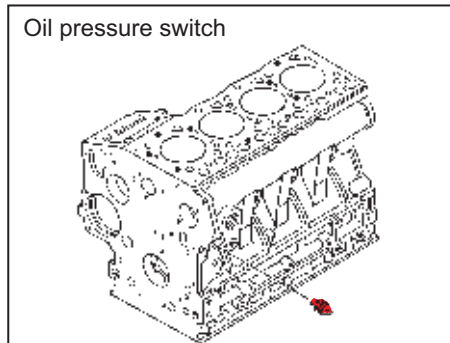
D1005-E4B

D1105-E4B

D1305-E4B

V1505-E4B

49 to 68 N·m
5.0 to 7.0 kgf·m
37 to 50 lbf·ft



Oil pressure switch

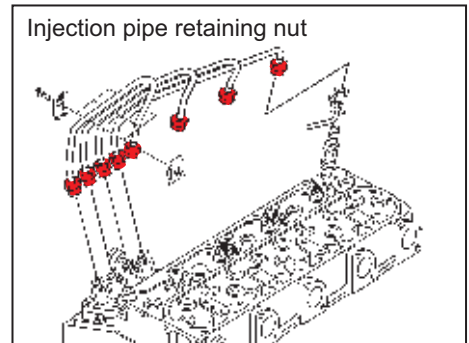
D1005-E4B

D1105-E4B

D1305-E4B

V1505-E4B

15 to 19 N·m
1.5 to 2.0 kgf·m
11 to 14 lbf·ft



Injection pipe retaining nut

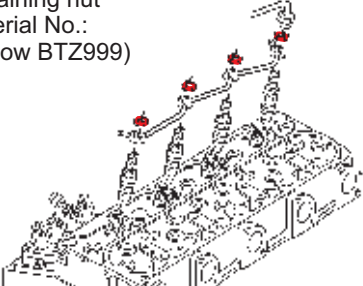
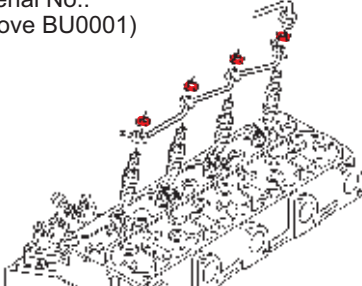
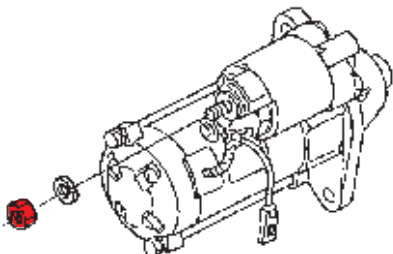
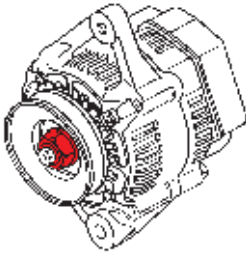
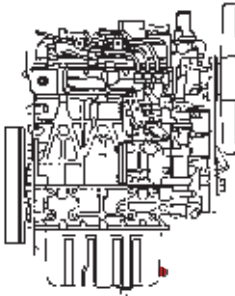
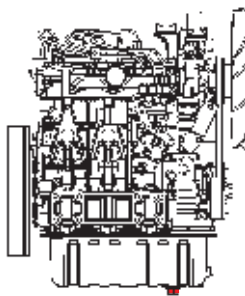
D1005-E4B

D1105-E4B

D1305-E4B

V1505-E4B

25 to 34 N·m
2.5 to 3.5 kgf·m
18 to 25 lbf·ft

Overflow pipe assembly retaining nut (Serial No.: below BTZ999) 		Overflow pipe retaining nut (Serial No.: above BU0001) 		Starter (B terminal nut) 	
D1005-E4B		D1005-E4B		D1005-E4B	
D1105-E4B	20 to 24 N·m	D1105-E4B	35 to 39 N·m	D1105-E4B	5.88 to 11.8 N·m
D1305-E4B	2.0 to 2.5 kgf·m	D1305-E4B	3.5 to 4.0 kgf·m	D1305-E4B	0.600 to 1.20 kgf·m
V1505-E4B	15 to 18 lbf·ft	V1505-E4B	26 to 28 lbf·ft	V1505-E4B	4.34 to 8.70 lbf·ft
Alternator pulley nut 		Drain plug with copper gasket 		Drain plug with rubber coated gasket 	
D1005-E4B		D1005-E4B		D1005-E4B	
D1105-E4B	58.4 to 78.9 N·m	D1105-E4B	33 to 37 N·m	D1105-E4B	45 to 53 N·m
D1305-E4B	5.95 to 8.05 kgf·m	D1305-E4B	3.3 to 3.8 kgf·m	D1305-E4B	4.5 to 5.5 kgf·m
V1505-E4B	43.1 to 58.2 lbf·ft	V1505-E4B	24 to 27 lbf·ft	V1505-E4B	33 to 39 lbf·ft

(2) General Tightening Torques

Screw and bolt material grades are shown by numbers punched on the screw and bolt heads.

Prior to tightening, be sure to check out the numbers as shown below.

None or 4 : Standard grade

7 : Special grade

Nominal Diameter	Standard Grade	Special Grade
M6	7.9 to 9.3 N·m 0.80 to 0.95 kgf·m 5.8 to 6.8 lbf·ft	9.81 to 11.2 N·m 1.00 to 1.15 kgf·m 7.24 to 8.31 lbf·ft
M8	18 to 20 N·m 1.8 to 2.1 kgf·m 13 to 15 lbf·ft	24 to 27 N·m 2.4 to 2.8 kgf·m 18 to 20 lbf·ft
M10	40 to 45 N·m 4.0 to 4.6 kgf·m 29 to 33 lbf·ft	48 to 55 N·m 4.9 to 5.7 kgf·m 36 to 41 lbf·ft
M12	63 to 72 N·m 6.4 to 7.4 kgf·m 47 to 53 lbf·ft	78 to 90 N·m 7.9 to 9.2 kgf·m 58 to 66 lbf·ft