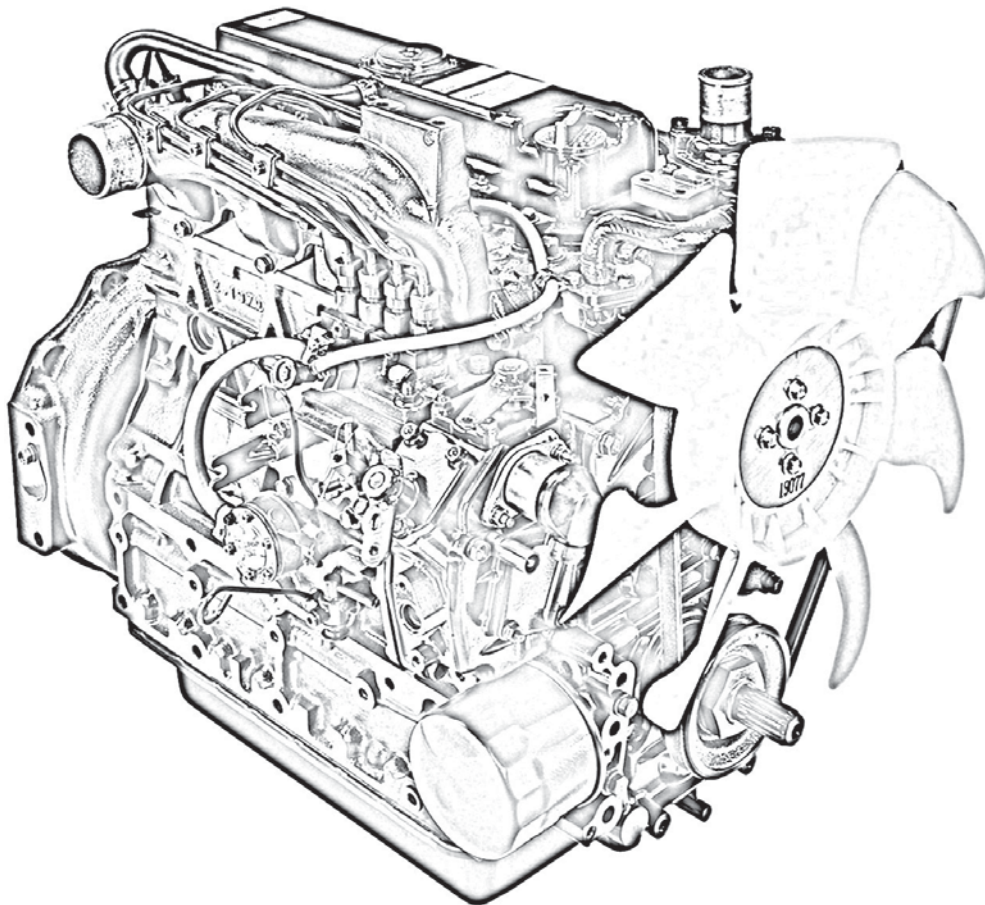


**Werkstattdaten
für
Kubota Dieselmotoren**

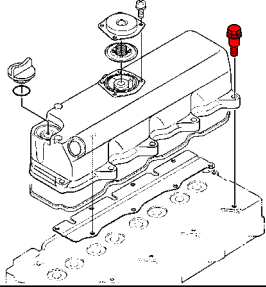
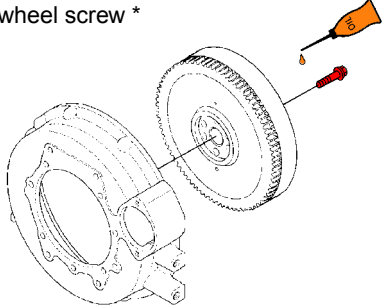
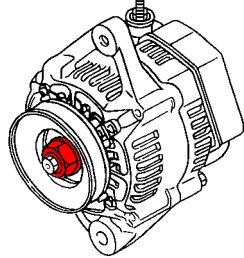
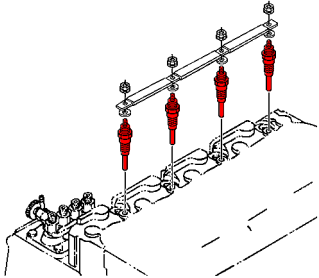
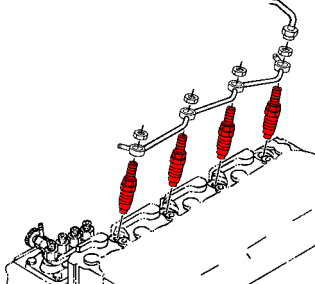
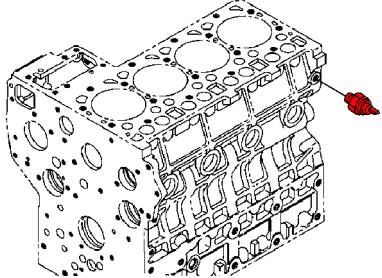
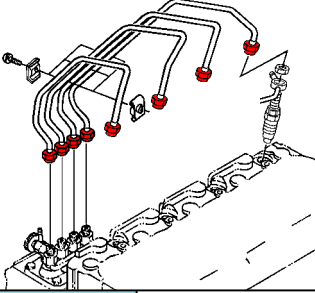
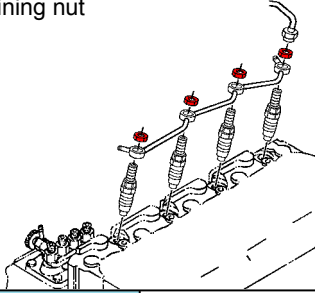
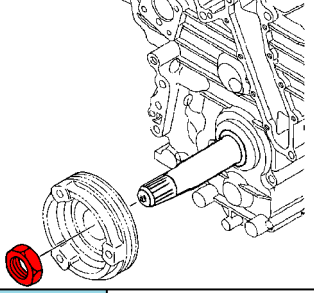
03-M Serie



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.

Cylinder head cover screw 		Flywheel screw * 		Alternator pulley nut 	
D1503-M-EB		D1503-M-EB		D1503-M-EB	
D1703-M-EB	6.9 to 11.3 N·m	D1703-M-EB	98.0 to 107.8 N·m	D1703-M-EB	58.3 to 78.9 N·m
D1803-M-EB	0.70 to 1.15 kgf·m	D1803-M-EB	10.0 to 11.0 kgf·m	D1803-M-EB	5.95 to 8.05 kgf·m
V2203-M-EB	5.1 to 8.3 ft-lbs	V2203-M-EB	72.3 to 79.5 ft-lbs	V2203-M-EB	43.0 to 58.2 ft-lbs
V2403-M-EB		V2403-M-EB		V2403-M-EB	
Glow plug 		Nozzle holder assembly 		Oil switch taper screw 	
D1503-M-EB		D1503-M-EB		D1503-M-EB	
D1703-M-EB	19.6 to 24.5 N·m	D1703-M-EB	49.0 to 68.6 N·m	D1703-M-EB	14.7 to 19.6 N·m
D1803-M-EB	2.0 to 2.5 kgf·m	D1803-M-EB	5.0 to 7.0 kgf·m	D1803-M-EB	1.5 to 2.0 kgf·m
V2203-M-EB	14.5 to 18.1 ft-lbs	V2203-M-EB	36.2 to 50.6 ft-lbs	V2203-M-EB	10.8 to 14.5 ft-lbs
V2403-M-EB		V2403-M-EB		V2403-M-EB	
Injection pipe retaining nut 		Overflow pipe assembly retaining nut 		Fan drive pulley mounting nut 	
D1503-M-EB		D1503-M-EB		D1503-M-EB	
D1703-M-EB	24.5 to 34.3 N·m	D1703-M-EB	19.6 to 24.5 N·m	D1703-M-EB	137.3 to 156.9 N·m
D1803-M-EB	2.5 to 3.5 kgf·m	D1803-M-EB	2.0 to 2.5 kgf·m	D1803-M-EB	14.0 to 16.0 kgf·m
V2203-M-EB	18.1 to 25.3 ft-lbs	V2203-M-EB	14.5 to 18.1 ft-lbs	V2203-M-EB	101.3 to 115.7 ft-lbs
V2403-M-EB		V2403-M-EB		V2403-M-EB	

(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.

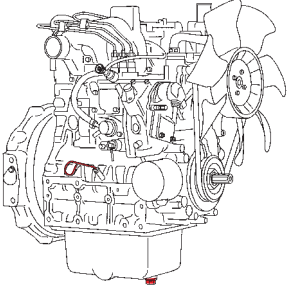
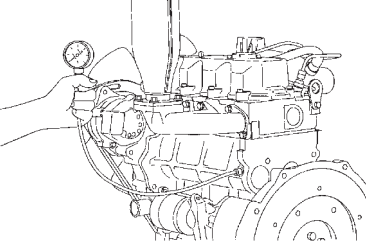
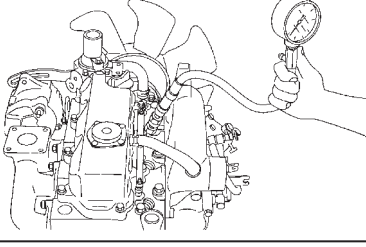
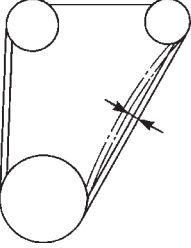
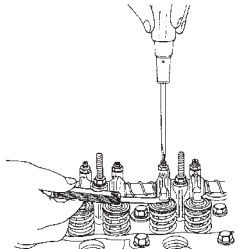
None or 4 : Standard grade

7 : Special grade

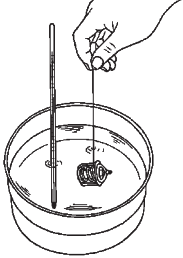
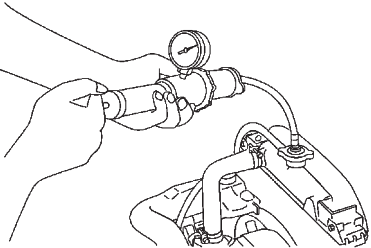
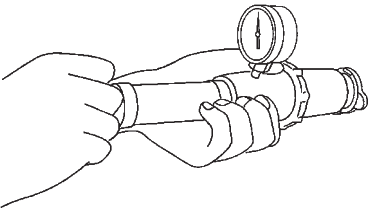
Nominal Diameter	Standard Grade	Special Grade
M6	7.9 to 9.3 N·m 0.80 to 0.95 kgf·m 5.8 to 6.9 ft-lbs	9.8 to 11.3 N·m 1.00 to 1.15 kgf·m 7.23 to 8.32 ft-lbs
M8	17.7 to 20.6 N·m 1.8 to 2.1 kgf·m 13.0 to 15.2 ft-lbs	23.5 to 27.5 N·m 2.4 to 2.8 kgf·m 17.4 to 20.3 ft-lbs
M10	39.2 to 45.1 N·m 4.0 to 4.6 kgf·m 28.9 to 33.3 ft-lbs	48.1 to 55.9 N·m 4.9 to 5.7 kgf·m 35.4 to 41.2 ft-lbs
M12	62.8 to 72.6 N·m 6.4 to 7.4 kgf·m 46.3 to 53.5 ft-lbs	77.5 to 90.2 N·m 7.9 to 9.2 kgf·m 57.1 to 66.5 ft-lbs

SERVICING SPECIFICATIONS

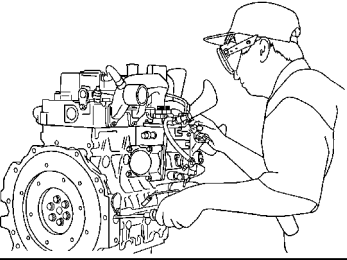
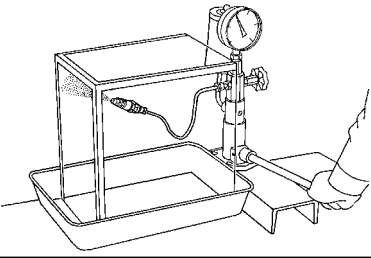
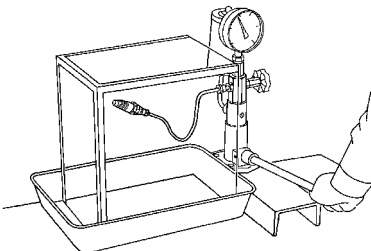
(1) ENGINE BODY

Item		Factory Specification	Allowable Limit	
Lubricating oil capacity 	Oil pan depth 124 mm (4.88 in.)	D1503-M-E2B D1703-M-E2B D1803-M-E2B	7.0 L 1.85 U.S.gals. 1.54 Imp.gals.	—
		V2003-M-E2B V2003-M-T-E2B V2203-M-E2B V2403-M-E2B	9.5 L 2.51 U.S.gals. 2.09 Imp.gals.	—
	Oil pan depth 90 mm (3.54 in.)	D1503-M-E2B D1703-M-E2B D1803-M-E2B	5.6 L 1.48 U.S.gals. 1.23 Imp.gals.	—
		V2003-M-E2B V2003-M-T-E2B V2203-M-E2B V2403-M-E2B	7.6 L 2.01 U.S.gals. 1.67 Imp.gals.	—
Engine oil pressure 	Engine oil pressure (At idle speed)	All models	—	49 kPa 0.5 kgf/cm ² 7 psi
	Engine oil pressure (At rated speed)	All models	294.2 to 441.0 kPa 3.0 to 4.5 kgf/cm ² 42.7 to 64.0 psi	245 kPa 2.5 kgf/cm ² 36 psi
Compression pressure 	All models	3.53 to 4.02 MPa / 290 min ⁻¹ (rpm) 36 to 41 kgf/cm ² / 290 min ⁻¹ (rpm) 512 to 583 psi / 290 min ⁻¹ (rpm)	2.55 MPa / 290 min ⁻¹ (rpm) 26 kgf/cm ² / 290 min ⁻¹ (rpm) 370 psi / 290 min ⁻¹ (rpm)	
Fan belt 	Tension	All models	7.0 to 9.0 mm (0.28 to 0.35 in.) deflection at 98 N (10 kgf, 22 lbs) of force	—
Valve clearance (When cold) 	All models	0.18 to 0.22 mm 0.0071 to 0.0087 in.	—	

(3) COOLING SYSTEM

Item		Factory Specification	Allowable Limit
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 water leak at 137 kPa 1.4 kgf/cm ² 20 psi	—
Radiator cap 	Pressure falling time	All models 10 seconds or more for pressure falling from 88 to 59 kPa (from 0.9 to 0.6 kgf/cm ² , from 13 to 9 psi)	—

(4) FUEL SYSTEM

Item		Factory Specification	Allowable Limit
Injection pump 	Injection timing	All models 0.297 to 0.331 rad. before T.D.C. 17 to 19° before T.D.C.	—
Injection nozzle 	Injection pressure	All models 13.7 to 14.7 MPa 140 to 150 kgf/cm ² 1991 to 2133 psi	—
Injection nozzle 	Valve seat tightness	All models No fuel leak at 12.75 MPa 130 kgf/cm ² 1849 psi	—