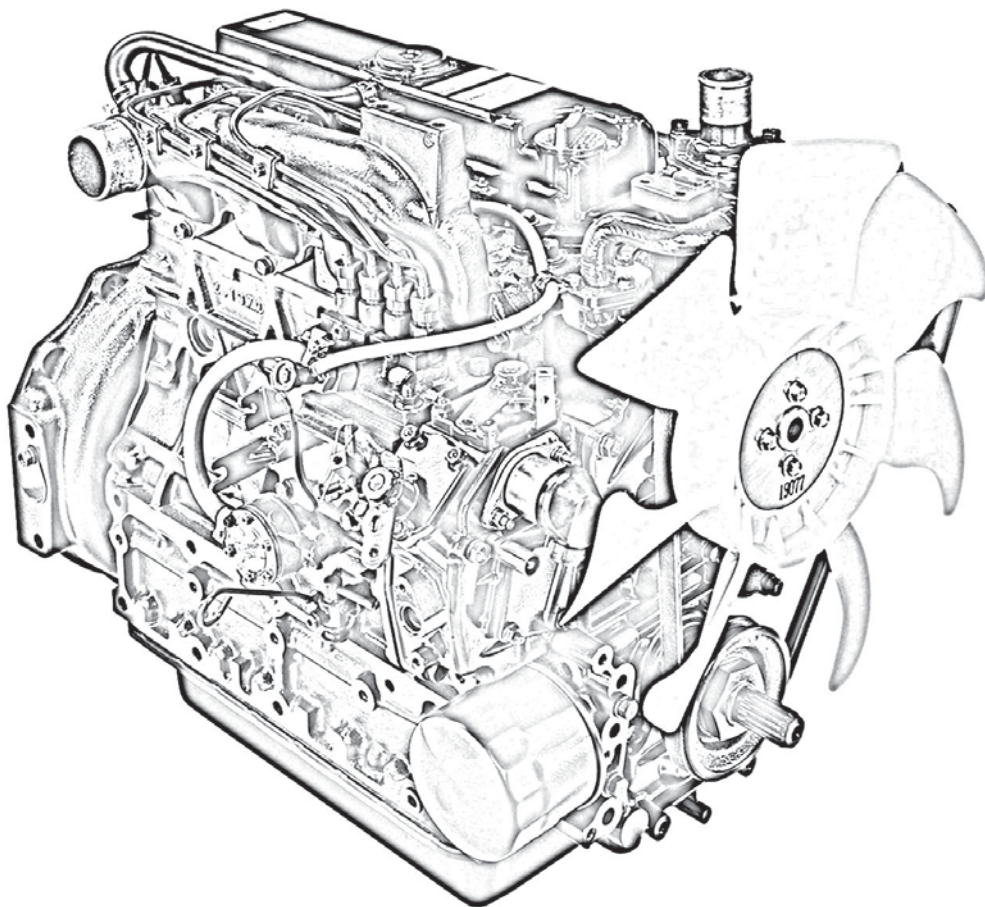


Werkstattdaten für Kubota Dieselmotoren

03-M Serie

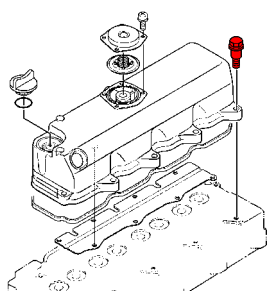


TIGHTENING TORQUES

(1) Special Tightening Torques

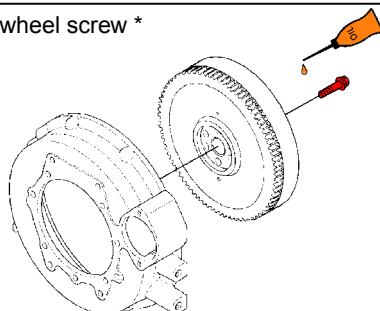
For " * " marked screws, bolts and nuts on under table, apply engine oil to their threads and seats before tightening.

Cylinder head cover screw



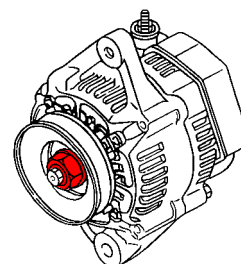
D1503-M-EB	
D1703-M-EB	6.9 to 11.3 N·m
D1803-M-EB	0.70 to 1.15 kgf·m
V2203-M-EB	5.1 to 8.3 ft-lbs
V2403-M-EB	

Flywheel screw *



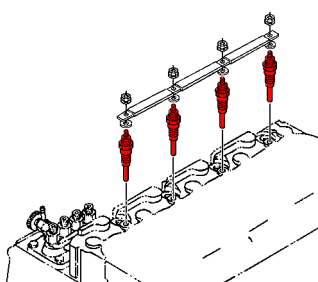
D1503-M-EB	
D1703-M-EB	98.0 to 107.8 N·m
D1803-M-EB	10.0 to 11.0 kgf·m
V2203-M-EB	72.3 to 79.5 ft-lbs
V2403-M-EB	

Alternator pulley nut



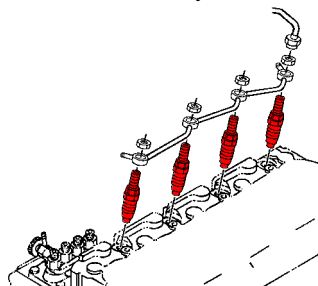
D1503-M-EB	
D1703-M-EB	58.3 to 78.9 N·m
D1803-M-EB	5.95 to 8.05 kgf·m
V2203-M-EB	43.0 to 58.2 ft-lbs
V2403-M-EB	

Glow plug



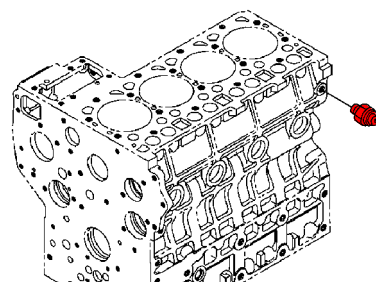
D1503-M-EB	
D1703-M-EB	19.6 to 24.5 N·m
D1803-M-EB	2.0 to 2.5 kgf·m
V2203-M-EB	14.5 to 18.1 ft-lbs
V2403-M-EB	

Nozzle holder assembly



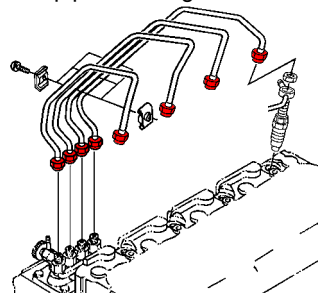
D1503-M-EB	
D1703-M-EB	49.0 to 68.6 N·m
D1803-M-EB	5.0 to 7.0 kgf·m
V2203-M-EB	36.2 to 50.6 ft-lbs
V2403-M-EB	

Oil switch taper screw



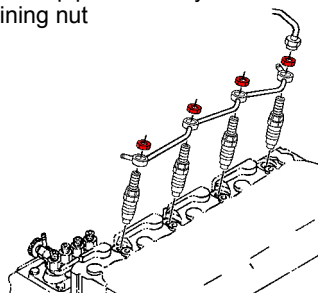
D1503-M-EB	
D1703-M-EB	14.7 to 19.6 N·m
D1803-M-EB	1.5 to 2.0 kgf·m
V2203-M-EB	10.8 to 14.5 ft-lbs
V2403-M-EB	

Injection pipe retaining nut



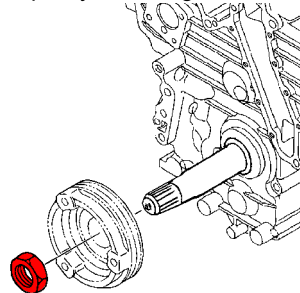
D1503-M-EB	
D1703-M-EB	24.5 to 34.3 N·m
D1803-M-EB	2.5 to 3.5 kgf·m
V2203-M-EB	18.1 to 25.3 ft-lbs
V2403-M-EB	

Overflow pipe assembly retaining nut



D1503-M-EB	
D1703-M-EB	19.6 to 24.5 N·m
D1803-M-EB	2.0 to 2.5 kgf·m
V2203-M-EB	14.5 to 18.1 ft-lbs
V2403-M-EB	

Fan drive pulley mounting nut



D1503-M-EB	
D1703-M-EB	137.3 to 156.9 N·m
D1803-M-EB	14.0 to 16.0 kgf·m
V2203-M-EB	101.3 to 115.7 ft-lbs
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.

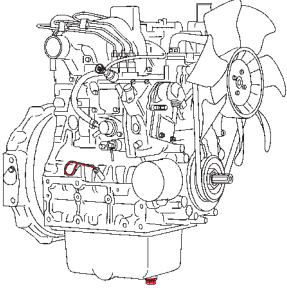
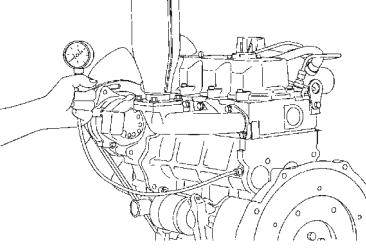
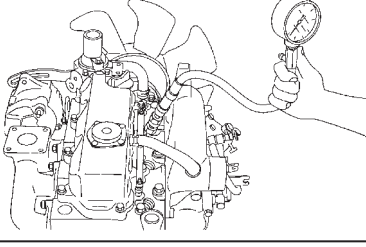
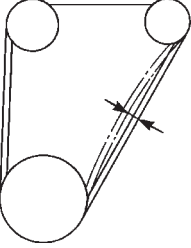
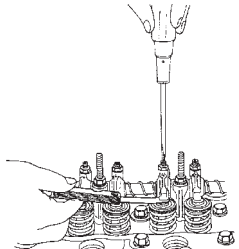
None or 4 : Standard grade

7 : Special grade

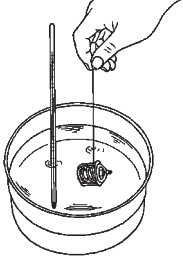
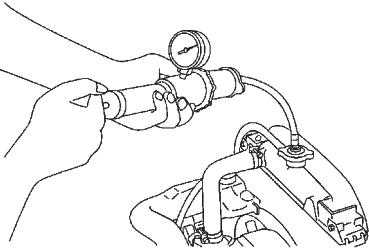
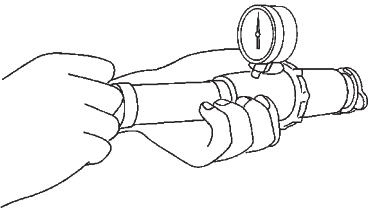
Nominal Diameter	Standard Grade	Special Grade
M6	7.9 to 9.3 N·m 0.80 to 0.95 kgf·m 5.8 to 6.9 ft-lbs	9.8 to 11.3 N·m 1.00 to 1.15 kgf·m 7.23 to 8.32 ft-lbs
M8	17.7 to 20.6 N·m 1.8 to 2.1 kgf·m 13.0 to 15.2 ft-lbs	23.5 to 27.5 N·m 2.4 to 2.8 kgf·m 17.4 to 20.3 ft-lbs
M10	39.2 to 45.1 N·m 4.0 to 4.6 kgf·m 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

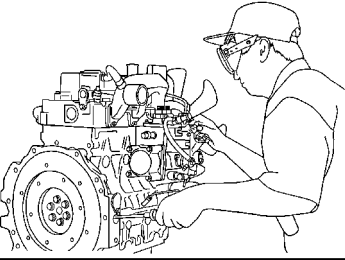
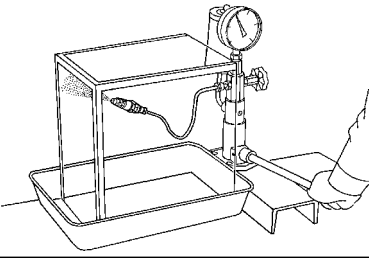
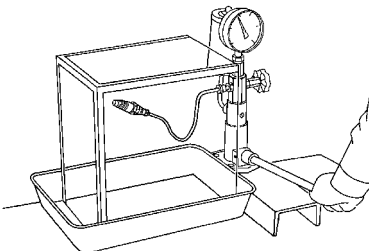
(1) ENGINE BODY

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	—