

Tightening Torques

Job No.

00-1

Change: x

Model			OM 636	OM 621
Crankshaft bearing bolts			8 mkg	9 mkg
Big end bolts		elongation	0.1 mm	
		in mkg	3.75 mkg	
Cylinder head bolts ¹	light metal head grey casting head	with cold engine	7 mkg 8 mkg	8 mkg
	light metal head grey casting head	with warm engine	8 mkg 8 mkg	8 mkg
Rocker arm nuts and necked-down bolts for rocker arm bracket mounting			2 mkg	3.75 mkg
Glow plugs			5 mkg	
Threaded ring for prechamber mounting in cylinder head			x 15 mkg	
Union nut for mounting nozzle in nozzle holder			7-8 mkg	
Nozzle holder in cylinder head			7-8 mkg	
Nut for adapter on the nozzle holder (counter-hold nozzle holder when tightening)			7 mkg	
Pipe connections for injection lines on the injection pump (pressure valve carrier)			x 4.5 + 0.5 mkg	
x Bolt of clamping jaw locks for pipe connections of injection pump			0.9 mkg	
Union nut for injection lines			2.5 mkg	
Bolts or nuts, resp., for flywheel mounting			5 mkg	5.5-6.0 mkg ²⁾
Necked-down bolt for mounting of grey cast pulley on crankshaft ²⁾ (see Fig. 03-1/3, 03-1/4 and 03-2/1).			18 mkg	
Normal bolt for mounting of light metal pulley on crankshaft (see Fig. 03-1/2)			12 mkg	-
x Bolts for mounting of sheet metal oil pan bottom			-	0.8 mkg
x Connecting bolt or air nozzle with auxiliary venturi tube in valve socket			-	1.2-1.5 mkg

¹⁾ Be sure to observe the sequence and gradual tightening of the cylinder head bolts in order to avoid distortion of the head (see Fig. 00-1/1 and Fig. 00-1/2). - The check torque of 8 mkg should be applied after an operation of ½ hour with 80° C cooling water temperature. - Tighten the other bolts with thread M 8 or 10 by means of wrench.

²⁾ The tightening torque for necked-down bolt 12 K 621 032 00 71 is 5.5 to 6.0 mkg and for necked-down bolt 10 K 121 031 06 71 it is 4.5 to 5 mkg.

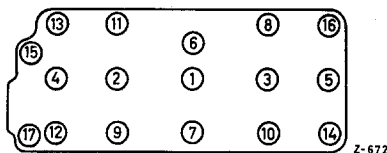


Fig. 00-1/1

Tightening of cylinder head bolts
of Model OM 636

1st torque 4 mkg
2nd torque 6 mkg
3rd torque 8 mkg
4th check torque with warm engine 8 mkg

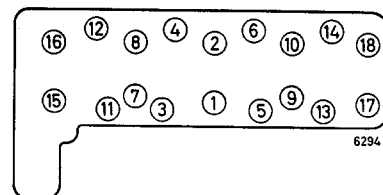


Fig. 00-1/2

Tightening of cylinder head bolts
of Model OM 621

1st torque 3 mkg
2nd torque 6 mkg
3rd torque 8 mkg
4th torque (check torque) 8 mkg
5th torque (engine run warm) 8 mkg