

# 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 <sup>1</sup>	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 <sup>2)</sup>	
Necked-down bolt for mounting of grey cast pulley on crankshaft <sup>2)</sup> (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	

<sup>1)</sup> 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 1/2 hour with 80° C cooling water temperature. - Tighten the other bolts with thread M 8 or 10 by means of wrench.

<sup>2)</sup> 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.

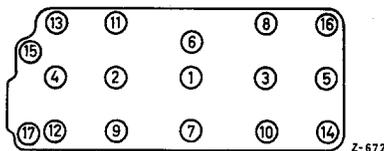


Fig. 00-1/1

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

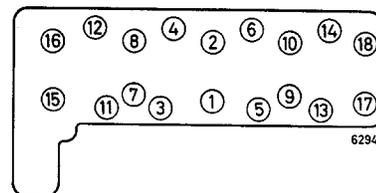


Fig. 00-1/2

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