

TIGHTENING TORQUES

PART	TORQUE	
	Nm	kgm
Flanged screw, cylinder head		
Phase 1: pretightening	60 ± 5	6 ± 0.5
Phase 2: pretightening	60 ± 5	6 ± 0.5
Phase 3: angle	$180^\circ \pm 10^\circ$	
Flanged screw, lower to upper cylinder block		
Preliminary torque	50 ± 5	5 ± 0.5
Angle	$90^\circ \pm 5^\circ$	
Connecting rod caps fastening screw		
Preliminary torque	50 ± 5	5 ± 0.5
Angle	$63^\circ \pm 2^\circ$	
Flywheel attachment bolts		
Preliminary torque	$30 + 3$	$3 + 0.3$
Angle	$90^\circ \pm 2^\circ$	
Self-locking nut for fastening the electromagnetic joint to the water pump		
Preliminary torque	40	4
Angle	$110^\circ \pm 10^\circ$	
Blanking plug, engine oil main pipe M18	40	4
Oil pan/engine block fastening screw	18	1.8
Accessory equipments support oil duct sealing plug	25	2.5
Flanged screw, auxiliary units mounting M12	60	6
Accessory equipments support fastening screw M8	25	2.5
Accessory equipments support front cover fastening screw	23	2.3
Accessory equipments support rear cover fastening screw	18	1.8
Hexagon socket-head screw, crankshaft oil seal rear cover (Rotostat)	25	2.5
Hexagon socket-head screw, crankshaft oil seal front cover (Rotostat)	7.5	0.75
Camshaft front cover fastening nut	7.5	0.75
Water pump pipe/inlet manifold fastening nut	25	2.5
Cylinder heads rear cover fastening screws and nut	25	2.5
Nut, engine lifting brackets	18	1.8
Inlet and outlet manifold fastening nut	25	2.5
Inlet manifold/crank fastening screw	18	1.8
Crankshaft driving pulley fastening screw	200	20
Camshaft caps fastening nut	18	1.8
Camshaft driving gear fastening screw	25	2.5
Injection pump driving gear fastening screw	100	10
EGR valve/inlet and outlet manifolds fastening nut	18	1.8
Nut fixing toothed bushing to the high-pressure pump	79	7.9
Coupling fixing heat exchanger and for oil filter cartridge *	80	8
Oil filter fixing	25	2.5
Screw fixing oil suction strainer	25	2.5
Oil pressure valve spring cap	65	6.5
Union for piston cooling nozzle	40	4
Flanged screw fixing water pump casing to crankcase	50	5
Oil level sensor fixing on crankcase	25	2.5

* The thread must first be spread with IVECO I905683 sealant