

11.9) Tightening torques

In general all screw connections have to be tightened by the use of a torque wrench.
If not specified otherwise for a component tighten screw-connections to following torque:

M4	↔	4 Nm (35 in.lb)
M5	↔	6 Nm (53 in.lb)
M6	↔	10 Nm (90 in.lb)
M8	↔	24 Nm (212 in.lb)
M10	↔	35 Nm (310 in.lb)

◆ NOTE: Adhere to the tightening torques specified. See also indications in Spare Parts List.

Hex. nut	.....	free wheel housing	.....	M 34x1,5	.....	120 Nm (1060 in.lb)
Stud	.....	cylinder and cylinder head	.....	M 8	.....	3 Nm (70 in.lb)
Hex. collar cap nut	.....	cylinder head	.....	M 8	.....	22 Nm (195 in.lb)
Hex. nut	.....	cylinder head	.....	M 8	.....	22 Nm (195 in.lb)
Temperature sensor	.....	cylinder head	.....	M 10	.....	10 Nm (90 in.lb)
Spark plugs	.....	on cold engine	.....	M 12x1,25	.....	20 Nm (180 in.lb)
Impeller	.....	water pump	.....	M 8	.....	15 Nm (130 in.lb)
Allen screw	.....	electronic module	.....	M 5	.....	2,5 Nm (22 in.lb)
Hex. hd. screw	.....	flywheel	.....	M 16x1,5	.....	120 Nm (1060 in.lb)
Hex. hd. screw	.....	gearbox bearing fixation	.....	M 7	.....	15 Nm (130 in.lb)
Hex. nut	.....	drive gear on crankshaft	.....	M 30x1,5 LH	.....	200 Nm (1770 in.lb)
Box nut	.....	fuel line	.....	M10x1	.....	10 Nm (90 in.lb)
Plug screw	.....	oil drain in crankcase	.....	M 16x1,5	.....	35 Nm (310 in.lb)
Banjo bolt	.....	oil drain on crankcase	.....	M 16x1,5	.....	35 Nm (310 in.lb)
Banjo bolt	.....	oil/fuel line	.....	M 10x1	.....	17 Nm (150 in.lb)
Banjo bolt	.....	oil line	.....	M 8x1	.....	10 Nm (90 in.lb)
Socket	.....	oil pump inlet	.....	M 18/14	.....	22 Nm (195 in.lb)
Plug screw	.....	excess pres. valve, oil pump	.....	M 12x1	.....	25 Nm (220 in.lb)
Magnetic drain plug	.....	crankcase	.....	M 12x1,5	.....	25 Nm (220 in.lb)
Hex. hd. screw	.....	oil tank	.....	M 12	.....	25 Nm (220 in.lb)
Bent socket assy.,	.....	oil line	.....	M 22x1,5	.....	25 Nm (220 in.lb)
Oil filter nipple	.....	oil pump	.....	M 18x1,5	.....	60 Nm (530 in.lb)
Oil pressure sensor	.....	oil pump	.....	1/8-27 NPTF	...	15 Nm (265 in.lb)
Valve housing	.....	oil line, turbo charger	.....	M 12x1,5	.....	25 Nm (220 in.lb)