07.1. Tightening torques for screws and nuts V2

Note!
See section 07.3 for hydraulically tightened connections!

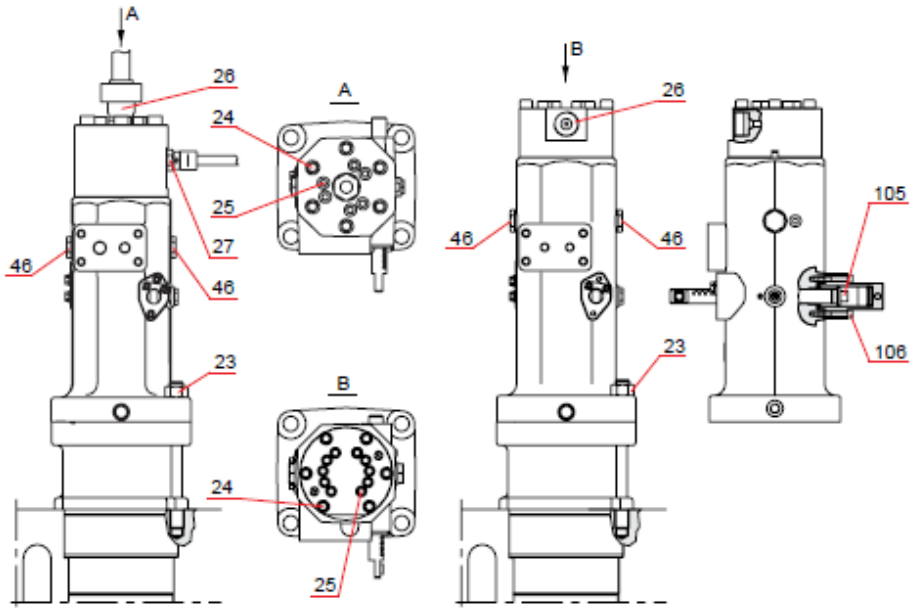
The position numbers in the tables below refer to the corresponding figures A to M, which are located in the engine according to Fig 07-1. Note that the position numbers of components in this chapter are not necessarily the same as those to be found in the assembly instructions in chapters 10-23. This is to be taken in consideration when looking for torque values. Always tighten to stated torque shown in the tables. A loosen screw connection might cause serious damages/human injury. Threads and contact faces of nuts and screw heads should be oiled with lubricating oil unless otherwise stated. Note that locking fluids are used in certain cases.

Note!
Molykote or similar low friction lubricants must not be used for any screws or nuts unless explicitly specified. Great risk of overtensioning of screws.

1 Nm = 0.102 kpm

07.1.6. H: Injection pump, tappet, and valve V2

Injection pump



PFO-G009/PFO-G013 /PFO-G018/PFO-G019

PFO-G010/PFO-G015 /PFO-G016

Fig 07-13 V1

Pos.	Screw connection	Torque Nm			
		PFO-G009 PFO-G013	PFO-G010 PFO-G015	PFO-G018 PFO-G019	PFO-G016
23.	Injection pump fastening nuts (M24)	460±20	460±20	460±20	460±20
24.	Injection pump cover fastening screws	200±5	150±5	200±5	150±5
25.	Injection pump element fastening screws (M12)	200±5	125±5	200±5	125±5
26.	Main injection pipe fastening nut Use Molykote G-n plus lubricant on threads and the sealing cone.	200±5	200±5	200±5	310±5
27.	Pilot injection pipe fastening nut (Optional)	50±5	-	50±5	-
46.	Erosion plug, see instructions for locking in section 16.1.6.	350±5	350±5	350±5	350±5
105.	Stop washer mounting screw	100	100	80	100
106.	Pneumatic cylinder fastening screw	30	30	30	30

07.1.14. Tightening torques for other screws and nuts V2

The use of torque measuring tools is recommended also when tightening other screws and nuts. The following torque values apply to screws treated with lubricating oil or Loctite.

Note!
These tightening values cannot be used if the rod diameter of the screw has been reduced, or if the thread ends in final pass.

Screw dimension	Width across flats of hexagon screws (mm)	Key width of hexagon socket head screws (mm)	Torque	
			(Nm)	(kpm)
Strength class 8.8				
M6	10	5	10	1.0
M8	13	6	25	2.5
M10	17	8	50	5.0
M12	19	10	85	8.5
M16	24	14	190	19.0
M20	30	17	370	37.5
M24	36	19	640	65.0