

Revision: Engine 617.950 added.

Engines 616 617

Test value

Engine 616, 617	Begin of delivery	24°±1° BTDC ¹⁾
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¹⁾ **Attention!** On injection pump with mechanical governor, pull regulating lever of injection pump to full load stop while measuring and pull-off vacuum hose on vacuum box.

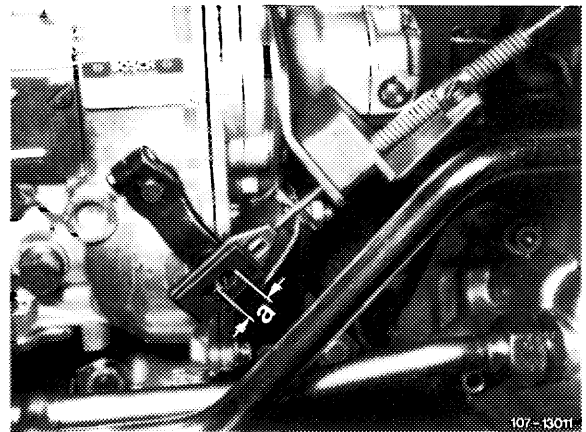
Tightening torque	Model	Engine	Nm	(kpm)
Pipe connection	115	616	35	(3.5)
	123 115, 116, 123	616.912 617	40	(4)

Special tools

Torque wrench		000 589 27 21 00
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Overflow pipe		636 589 02 23 00
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- On injection pump with pneumatic governor move preheating starter switch into driving position. Remove cotter pin and disc. Check "distance a" on slotted eye, it should be 2 mm.



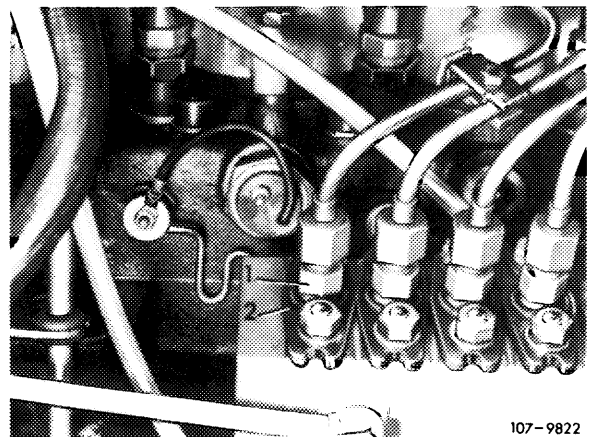
- On injection pump with mechanical governor pull-off vacuum hose on vacuum box.

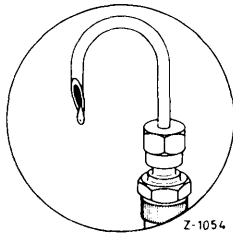
- Unscrew pipe connection (1) of 1st injection pump element, remove compression spring and pressure valve.

Attention! On injection pump with mechanical governor. Do not loosen element connection (2).

- Screw-on overflow pipe.

- On injection pump with mechanical governor, **pull** regulating lever of injection pump **to full load stop while measuring.**



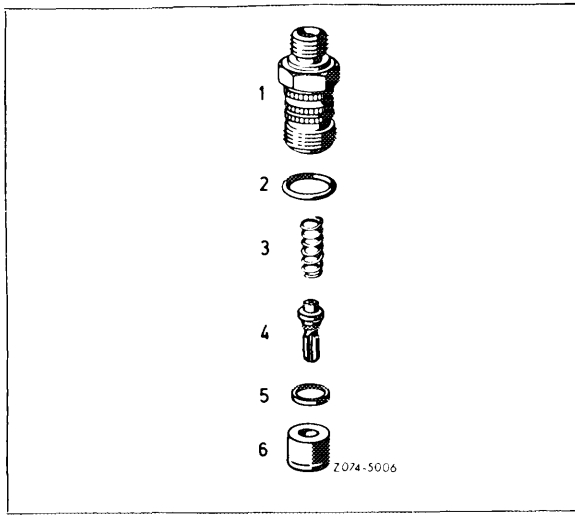


- Turn crankshaft in direction of rotation until fuel just stops dripping.

Delivery begins in this position.

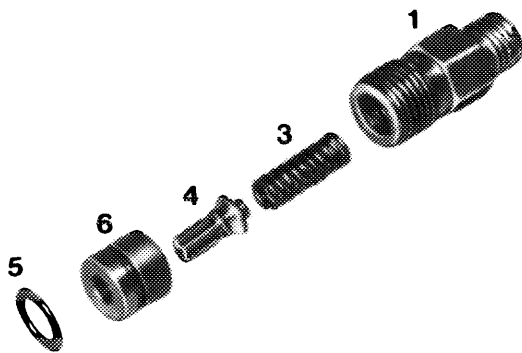
If begin of delivery must be adjusted, refer to adjusting instructions.

- Remove overflow pipe and unscrew pipe connection.



Injection pump with pneumatic governor

- On injection pumps with pneumatic governor: Insert new copper sealing ring, mount pressure valve compression spring and pipe connection. Tighten pipe connection to a torque of 30 Nm (3 kpm), loosen, tighten again to 30 Nm (3 kpm), loosen and once again tighten to 35 Nm (3.5 kpm).



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Injection pump with mechanical governor

- On injection pumps with mechanical governor: Mount pressure valve, compression spring and pipe connection.

Tighten pipe connection in one sequence to 40 – 50 Nm (4 – 5 kpm).

- Run engine and watch out for leaks. If a pipe connections leaks, install new copper ring on injection pumps with pneumatic governor and on injection pumps with mechanical governor a new pipe fitting. When installing a new pipe fitting, replace copper seal ring below the pressure valve holder.