

Crankshaft - exploded view



Note

Secure engine to repair stand using engine and gearbox support - VAS 6095- when dismantling/assembling engine → [Chapter](#).

1 - 65 Nm + 1/4 turn (90 °) further

2 - Bearing cap

- ❑ Bearing cap 1: Pulley end
- ❑ Bearing shell retaining lugs (cylinder block/bearing cap) must be on the same side

3 - 10 Nm + 1/4 turn (90 °) further

- ❑ Renew
- ❑ Sender wheel must be renewed if bolts are loosened → [Fig.](#)

4 - Needle bearing

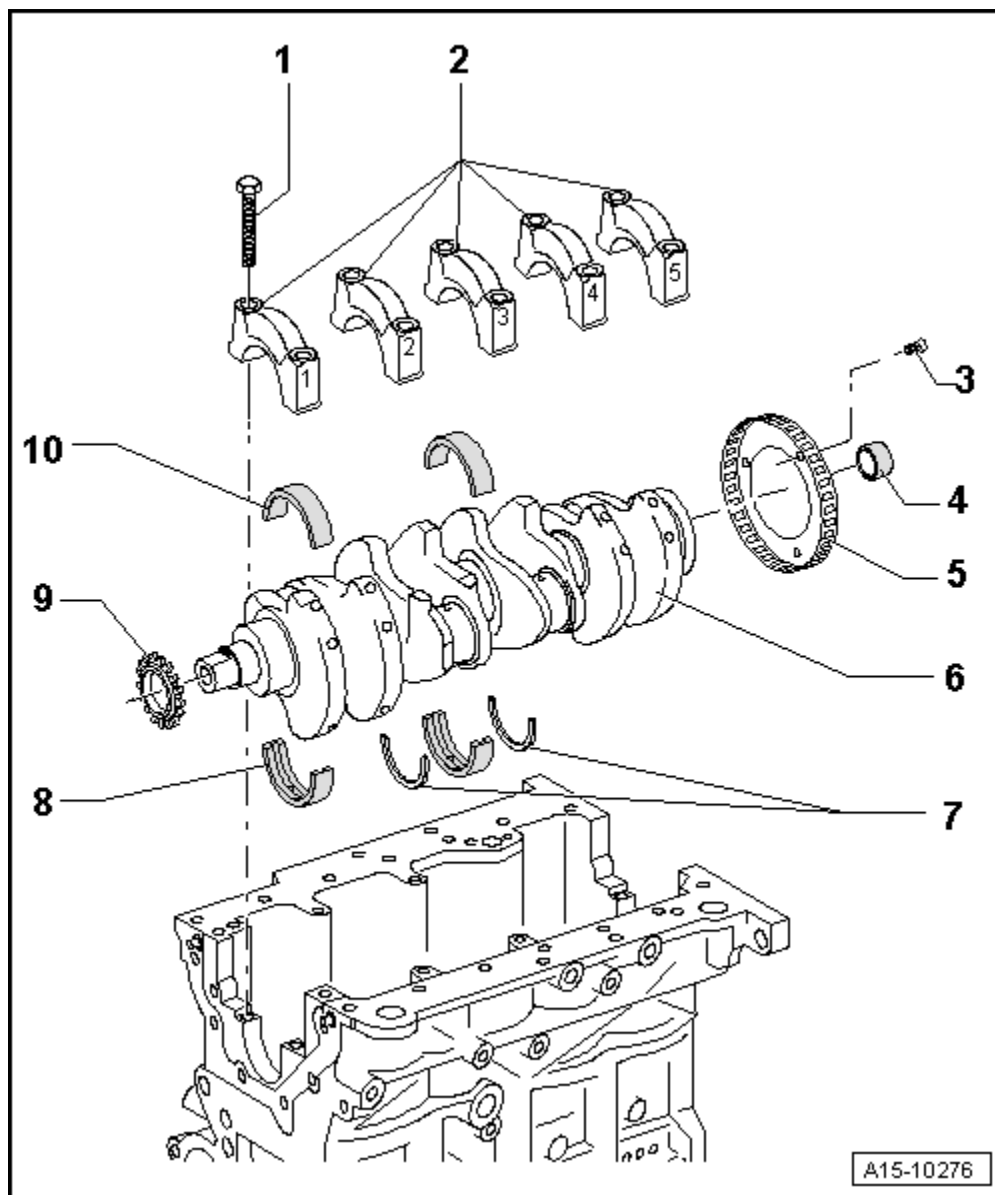
- ❑ For vehicles with manual gearbox
- ❑ Extracting and driving in → [Chapter](#)

5 - Sender wheel

- ❑ For engine speed sender -G28-
- ❑ Can only be installed in one position. Holes are off-set
- ❑ Sender wheel must be renewed if bolts are loosened
- ❑ Removing and installing → [Fig.](#)

6 - Crankshaft

- ❑ Axial clearance when new: 0.07...00.23 mm; wear limit: 0.30 mm



- ❑ Check radial clearance with Plastigage: New: 0.017...00.037 mm; wear limit: 0.15 mm
- ❑ Do not rotate the crankshaft when checking the radial clearance
- ❑ Crankshaft dimensions → Chapter

7 - Thrust washers

- ❑ For bearing No. 3

8 - Bearing shell for cylinder block

- ❑ With oil groove
- ❑ Do not interchange used bearing shells (mark positions)
- ❑ Classification for replacement parts → Chapter

9 - Chain sprocket

- ❑ For oil pump chain
- ❑ Renewing → Chapter

10 - Bearing shell

- ❑ Without oil groove
- ❑ Do not interchange used bearing shells (mark positions)
- ❑ The crankshaft bearing shells in the bearing caps are only supplied as spare parts with „yellow“ colour-coding.

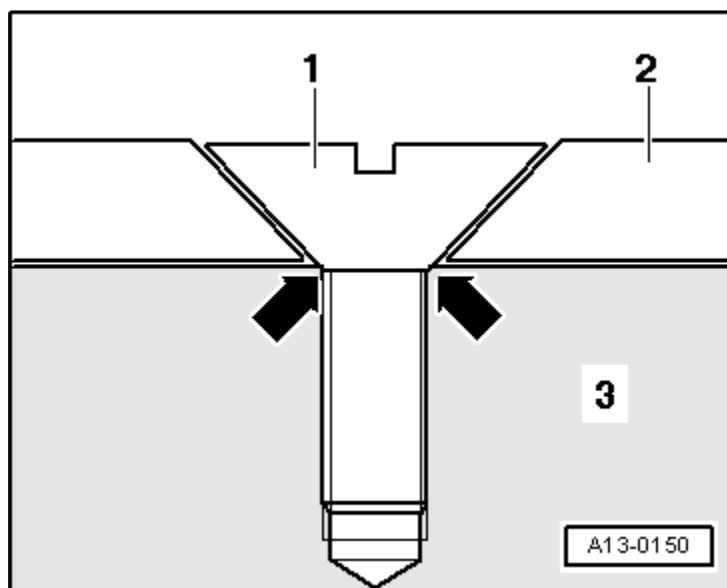
Removing and installing sender wheel

- Sender wheel -2- must always be renewed after slackening off bolts -1-.



Note

- ♦ *If the countersunk bolts are tightened a second time, the seats for the bolt heads in the sender wheel will be deformed to such an extent that the bolt heads make contact with the crankshaft -3--arrows- and the sender wheel beneath the bolts will be loose.*
- ♦ *Sender wheel can only be fitted in one position because holes are offset.*
- Tightening torque → Chapter



Identification of top crankshaft bearings

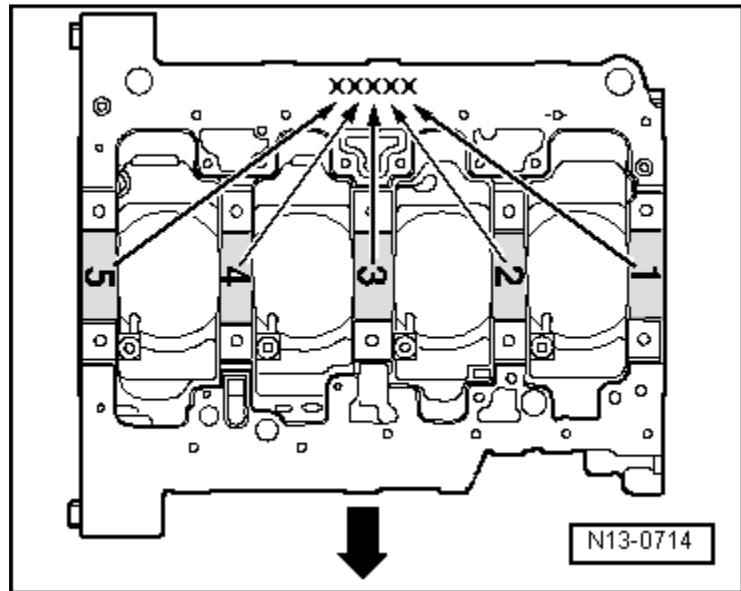


Note

Arrow points in direction of travel.

Top bearing shells of the correct thickness are allocated to the cylinder block at the factory. Coloured dots are used to identify the thickness of the bearing shells.

Letter codes on the lower sealing surface of the cylinder block indicate the thickness of the bearing shell to be fitted at each location.



G	=	Yellow
B	=	Blue
W	=	White



Note

- ◆ Use blue bearing shells if the identification is no longer visible.
- ◆ The bottom crankshaft bearing shells are only supplied as replacement parts with „yellow“ marking.