

Differential, removing and installing

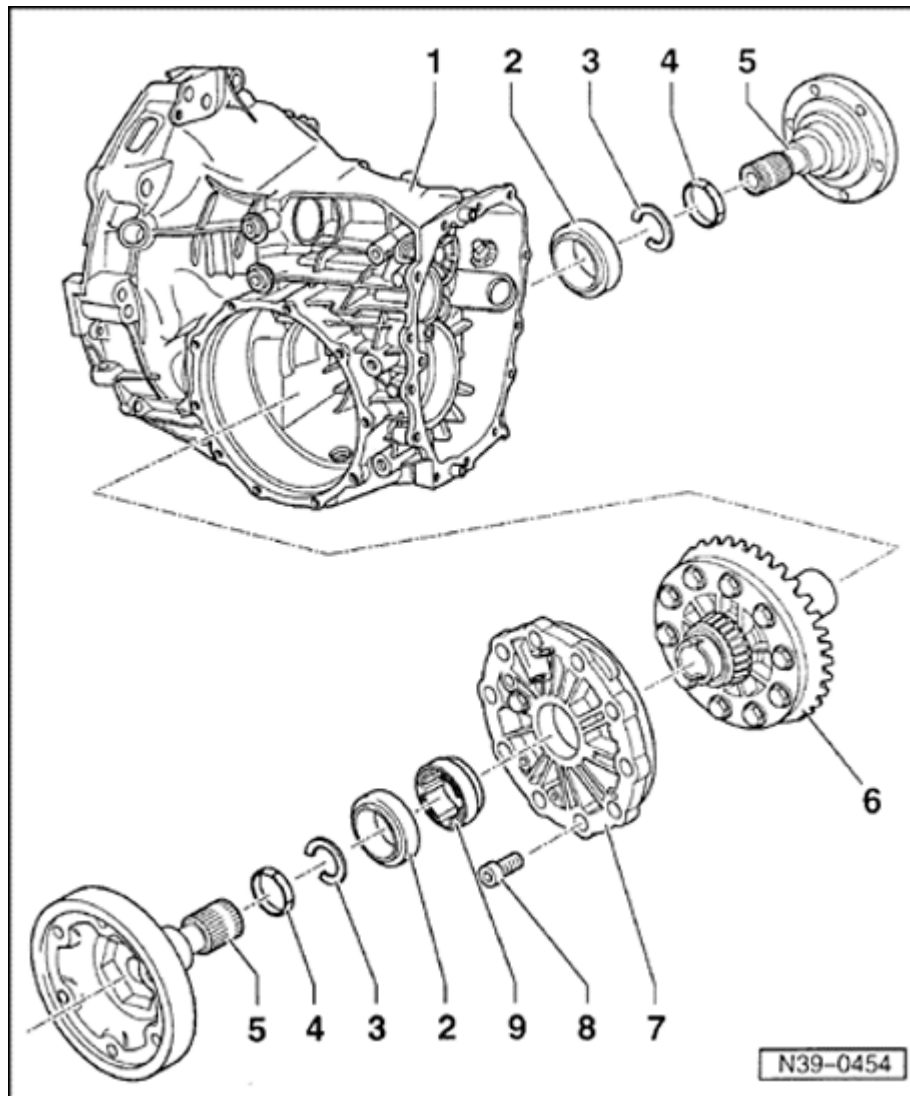
Special tools and equipment

- ◆ VW771 slide hammer-complete set
- ◆ 3257 plug insert 27 mm
- ◆ 21/3 Kukko extractor

Notes:

- ◆ *Removing and installing the differential is possible with the transmission installed.*
- ◆ *The differential can be removed and installed without disassembly of the shift mechanism, drive axle, pinion shaft, and cover. Disassembly of the above mentioned parts is necessary, if the differential needs to be adjusted.*
- ◆ *Transmission code CXF: drive flanges are installed without polygon bearings.*
- ◆ *Polygon bearing can be replaced only with the drive flange.*

- ◆ *Check for visible damage to polygon bearing.*
- ◆ *The rough surface of the polygon bearing (with drive flange not installed) is not an indication that the bearing is defective. An acoustic test is possible only when installed.*
- ◆ *For drive flanges with a spline diameter of 30 mm (1.181 in) a spacer ring is installed between polygon bearing and tapered bearing ⇒ [Page 39-20](#) , ⇒ [Fig. 4](#) , item -5-.*
- ◆ *When replacing the parts identified with 1), adjustment work is required ⇒ List of adjustments, ⇒ [Page 39-39](#) .*

**1 - Transmission housing1)****2 - Seal**

- ◆ Always replace ⇒ [Page 39-1](#)

3 - Circlip

- ◆ Always replace
- ◆ Removing and installing ⇒ [Fig. 1](#)

4 - Spacer ring

- ◆ Only installed on drive axles with polygon seals and spline diameter of 30 mm (1.181 in)
- ◆ Removing ⇒ [Fig. 2](#)
- ◆ Installing ⇒ [Fig. 3](#)

5 - Drive flange

- ◆ Removing and installing ⇒ [Page 39-1](#)
- ◆ Assembly ⇒ [Fig. 4](#)

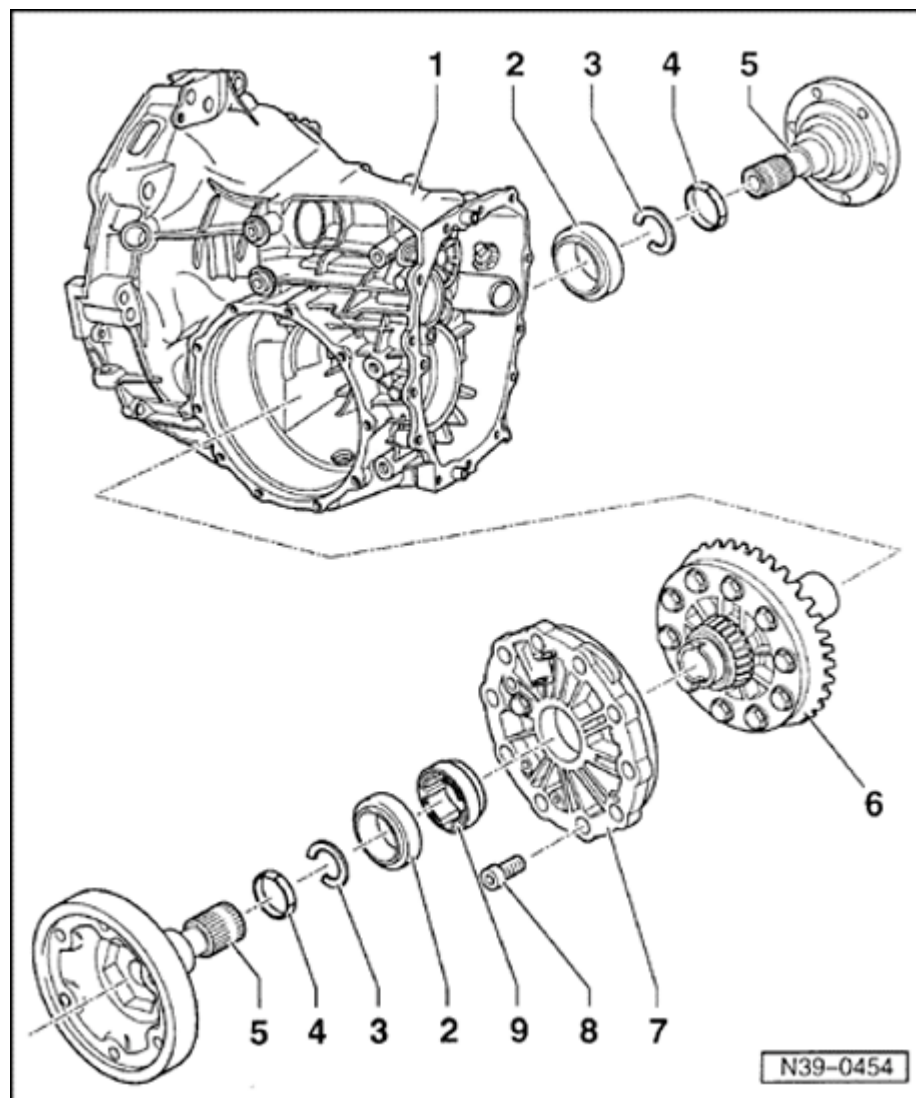
6 - Differential with ring gear1)

- ◆ Disassembling and assembling ⇒ [Page 39-21](#)

7 - Cover for final drive1)**8 - Torx® bolt**

- ◆ 25 Nm (18 ft lb)

39-18

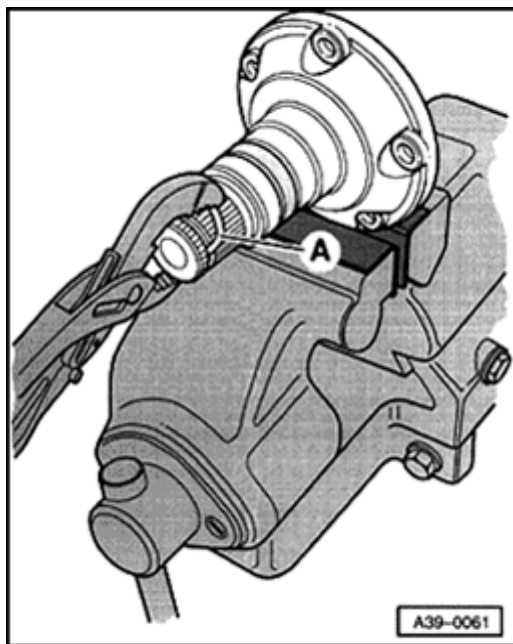


9 - Speedometer drive gear

◆ Removing and installing ⇒ [Page 39-14](#)

CAUTION!

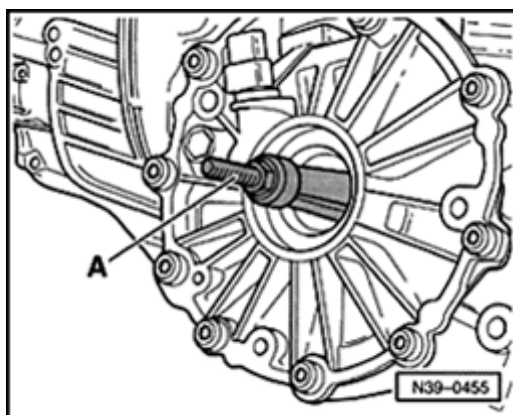
Install the drive gear carefully onto the differential without canting. Do not use force, the drive gear can break easily.



A

Fig. 1 Removing and installing circlip

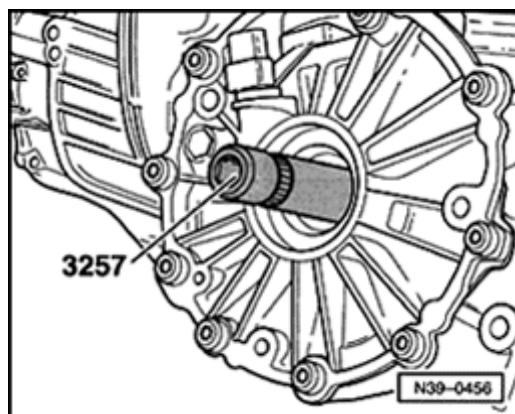
- Clamp drive flange in vise using protective jaws and remove circlip by pressing new circlip -A- into groove.



A

Fig. 2 Removing spacer ring

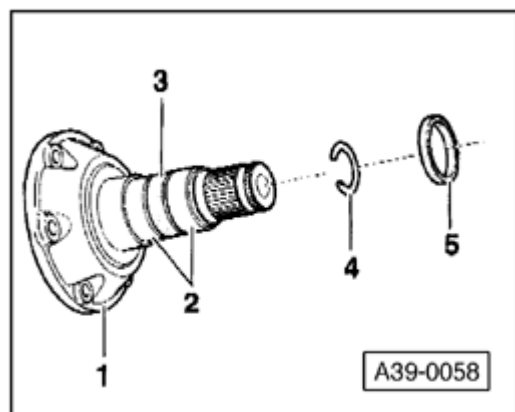
- A - Internal puller 18.5-23.5 mm, e.g. 21/3 Kukko extractor
- If spacer ring is tight, pull out using multi-purpose tool VW771 slide hammer-complete set.



A

Fig. 3 Installing spacer ring

- Drive in spacer ring up to stop, without canting.



A

Fig. 4 Drive flange assembly

- 1 - Drive flange
- 2 - Needle bearing (polygon bearing)
- 3 - Spacer ring
- 4 - Spacer ring

Installed on shafts with 30 mm (1.181 in.) spline diameter

- 5 - Circlip

Note:

The needle bearings (polygon bearings) do not turn easily when the drive flanges are removed. This does not indicate that the bearings are defective.