

## Differential, removing and installing

### Notes:

- ◆ Refer to general repair instructions ⇒ [Page 00-14](#).
- ◆ Mounting final drive to repair stand ⇒ [Page 39-110](#).
- ◆ Adjustments are required when replacing components marked with 1) ⇒ List of adjustments, ⇒ [Page 39-149](#).

### 1 - Breather sleeve

- ◆ With rubber valve
- ◆ Installation position ⇒ [Fig. 3](#)

### 2 - Final drive housing1)

- ◆ With pinion shaft
- ◆ Removing and installing drive pinion ⇒ [Page 39-134](#)

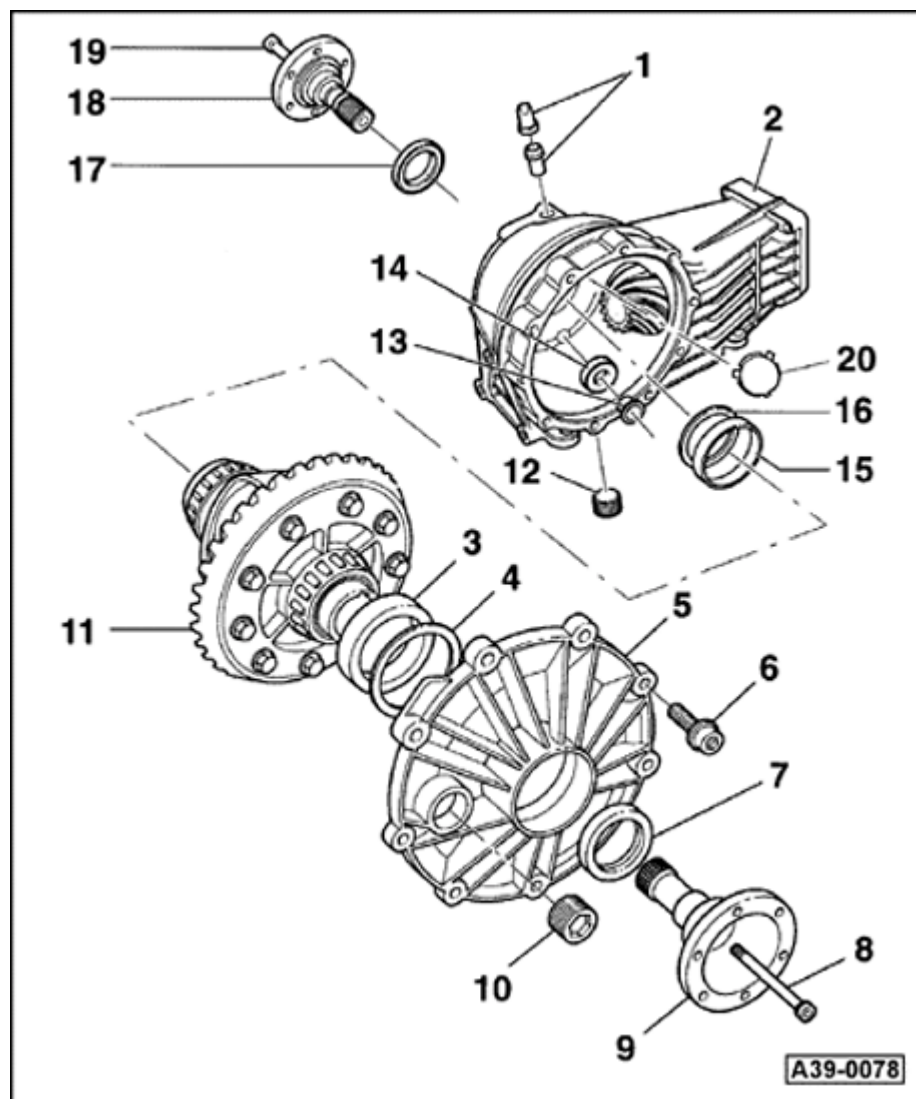
### 3 - Large tapered roller bearing outer race1)

- ◆ Removing ⇒ [Page 39-129, Fig. 7](#)
- ◆ Pressing in ⇒ [Page 39-130, Fig. 8](#)

### 4 - Shim S1

- ◆ Note thickness

◆ List of adjustments ⇒ [Page 39-149](#)

**5 - Final drive cover1)**

- ◆ Always replace O-ring
- ◆ With O-ring
- ◆ Lubricate O-ring with oil when installing

**6 - Torx® bolt**

- ◆ 25 Nm (18 ft lb)

**7 - Right seal**

- ◆ Replacing ⇒ [Page 39-100](#)

**8 - Socket-head bolt**

- ◆ 25 Nm (18 ft lb)

**9 - Drive flange, right**

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

**10 - Oil filler plug**

- ◆ 35 Nm (26 ft lb)

**11 - Differential with ring gear1)**

- ◆ Disassembling and assembling ⇒ [Page 39-121](#)

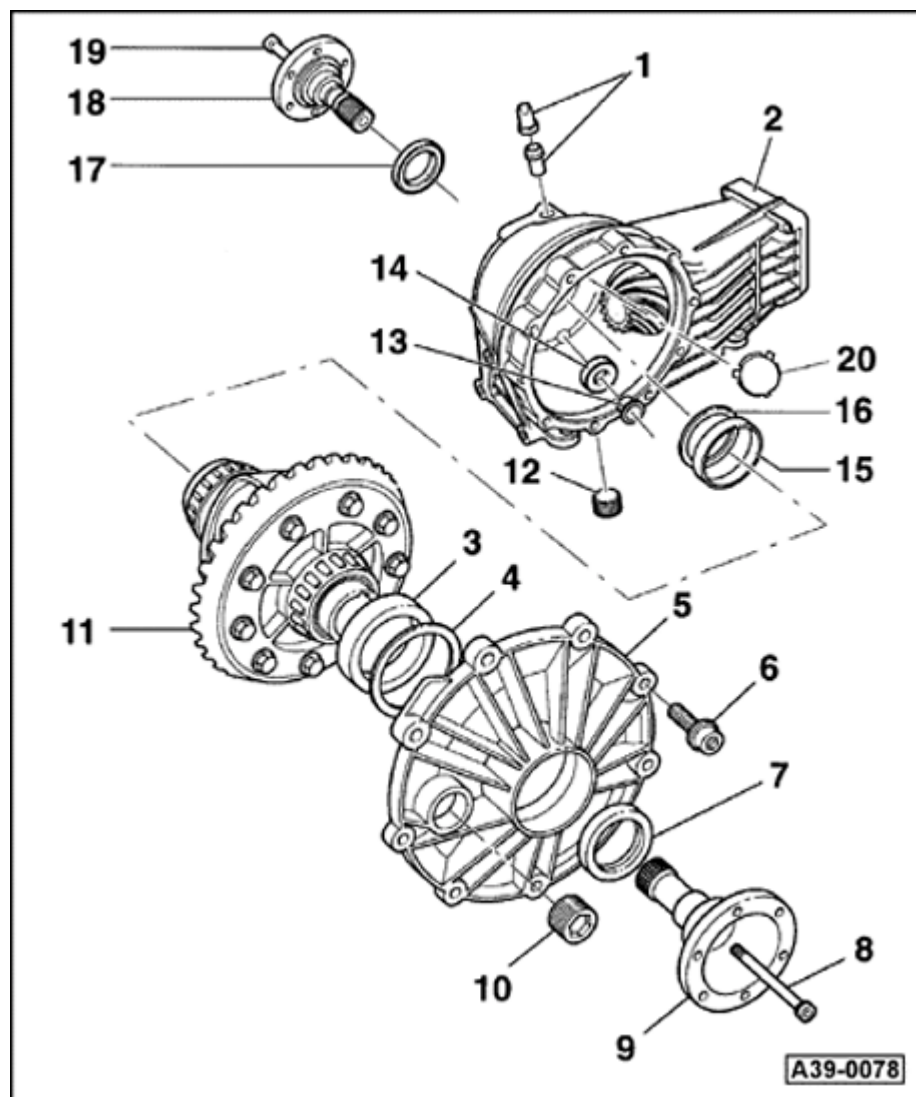
**12 - Oil drain plug**

- ◆ 35 Nm (26 ft lb)

**13 - Bushing**

- ◆ Holds magnet in position
- ◆ Drive in onto stop

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**14 - Magnet****15 - Small tapered roller bearing outer race 1)**

- ◆ Removing ⇒ [Page 39-126, Fig. 1](#)

- ◆ Installing ⇒ [Fig. 2, Page 39-126](#)

**16 - Shim S2**

- ◆ Note thickness

- ◆ List of adjustments ⇒ [Page 39-149](#)

**17 - Left seal**

- ◆ Replacing ⇒ [Page 39-100](#)

**18 - Drive flange, left**

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

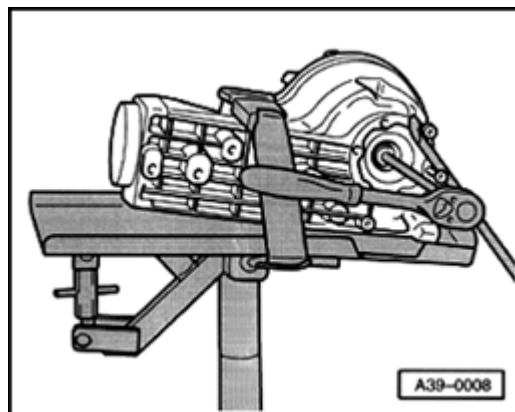
**19 - Socket-head bolt**

- ◆ 25 Nm (18 ft lb)

**20 - Cover**

- ◆ Installing ⇒ [Fig. 2](#)

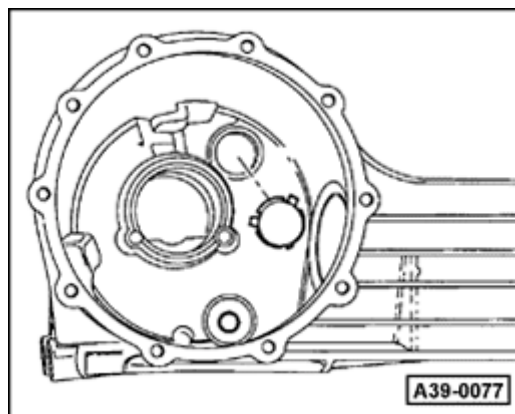
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**Fig. 1 Removing and installing drive flange**

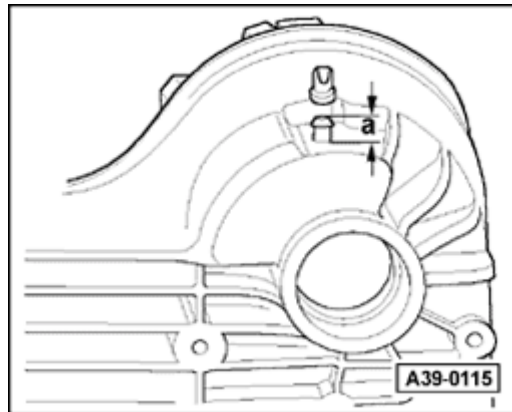
- To loosen mounting bolt, screw in 2 bolts in drive flange and counter-hold using pry bar.
- Pull out drive flange using screwed in bolts.



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**Fig. 2 Press in cover onto stop**

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**Fig. 3 Position of breather sleeve**

The breather sleeve should project 13 mm (0.512 in.) dimension -a- out of final drive housing after pressing in.

The slot in the rubber valve should be in line with the direction of travel.

## Removing

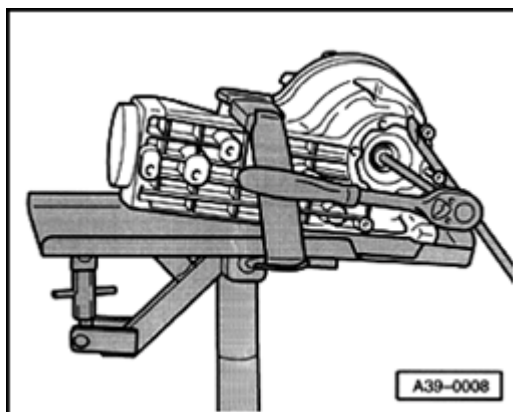
- Final drive removed

## Special tools and equipment

VAG1306 drip tray

Secure complete final drive to repair stand using VW540 bracket ⇒ [Page 39-110](#) .

Place drip tray under final drive and drain gear oil.



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- Remove left and right drive flanges:
- To loosen mounting bolt, screw two bolts into drive flange and counter-hold with pry bar.
- Mark drive flanges (left and right).
- Pull out drive flange using screwed in bolts.
- Remove mounting bolts from final drive cover.
- Remove final drive cover from final drive housing and remove differential.



## Installing

Install in reverse order of removal, note the following:

- Install differential.
- Replace O-ring for final drive cover and lubricate before installing.
- Install final drive cover on final drive housing and tighten in diagonal sequence to 25 Nm (18 ft lb).
- Replace seals for drive flange ⇒ [Page 39-100](#) .
- Fill space between sealing lip and dust lip with gear oil
- Install drive flanges and tighten 25 Nm (18 ft lb).
- Top off gear oil in final drive and check oil level ⇒ [Page 39-84](#) .

