SCHAEFFLER REP XPERT

Schaeffler E-Axle RepSystem-G

Part No. 761 0001 10
Repair Solution for E-Axles
Disassembly/Assembly

VW, 0MD gearbox, transmission code RYG

Schaeffler in the Automotive Aftermarket – more innovation, more quality and more service.

Schaeffler in the Automotive Aftermarket – always the first choice for vehicle repair.
Whenever a vehicle needs to go to the garage, our products and repair solutions are first choice to fix them. With our system competence in transmission, engine, and chassis, we are a reliable partner around the world. Whether passenger cars, light and heavy commercial vehicles, or tractors – our optimally tuned components allow fast and professional parts replacement.

Our products are based on a comprehensive systems approach. Innovation, technical expertise, and the highest material and manufacturing quality make us not only one of the leading development partners for vehicle manufacturers, but also a pioneering provider of value-retaining spare parts and complete repair solutions for clutches and clutch release systems, engine and transmission applications, and chassis applications in original-equipment quality – right up to the appropriate special tools.

Schaeffler REPXPERT – the service brand for garage professionals.

SCHAEFFLER REPXPERT

With REPXPERT, we offer a comprehensive service package for our products and repair solutions. Looking for specific information about damage diagnosis?
Are you in need of particular tools to help make your everyday garage routine easier? Whether online portal, service hotline, installation instructions and videos, training seminars, or events – you get all technical services from a single source.

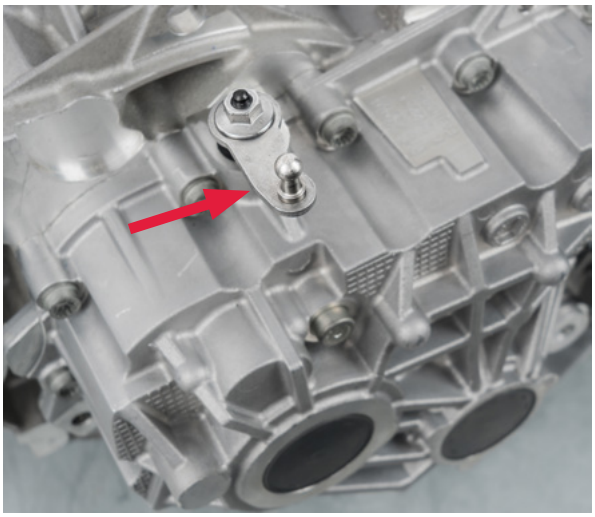
Register now for free, in just a few clicks, at:
www.repxpert.com

Disassembly and assembly VW, 0MD gearbox, transmission code RYG

- When removing and installing the drive unit, the specifications and safety instructions of the vehicle manufacturer must be observed
- Work on electric vehicles may only be carried out in compliance with the country-specific legal regulations
- Repairs may only be carried out by qualified personnel and with suitable workshop equipment
- The bearing seats and the seats of the oil seals must be cleaned
- The bearing races and rolling elements must not be interchanged
- Cleanliness must be ensured throughout the repair work

- Drain the transmission oil
- Tighten the oil drain plug to 45 Nm
- Remove the drive unit according to the vehicle manufactures specifications

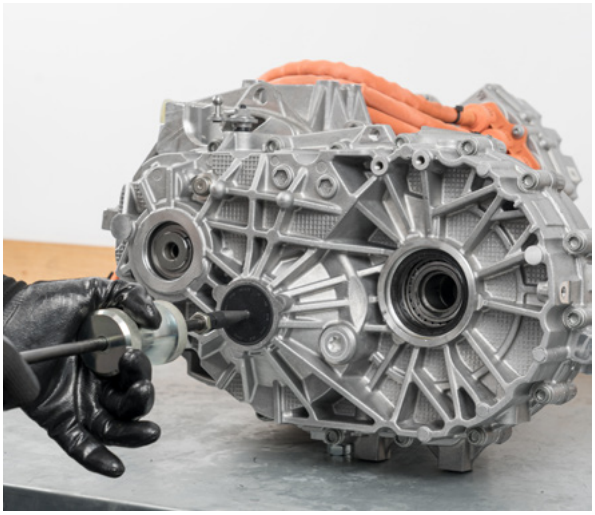
- Engage the parking lock by actuating the lever in the direction of the arrow



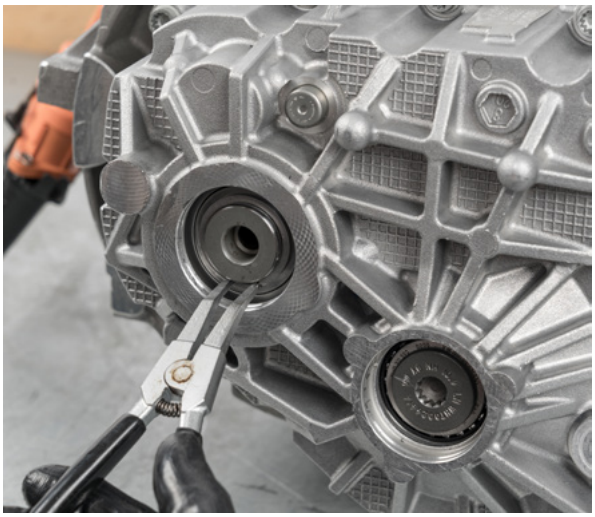
- Remove both drive shaft flanges

- Remove the oil seal on the motor side for the drive shaft flange

- Remove both sealing caps using a suitable tool, e.g. Gedore Automotive KL-0369-59

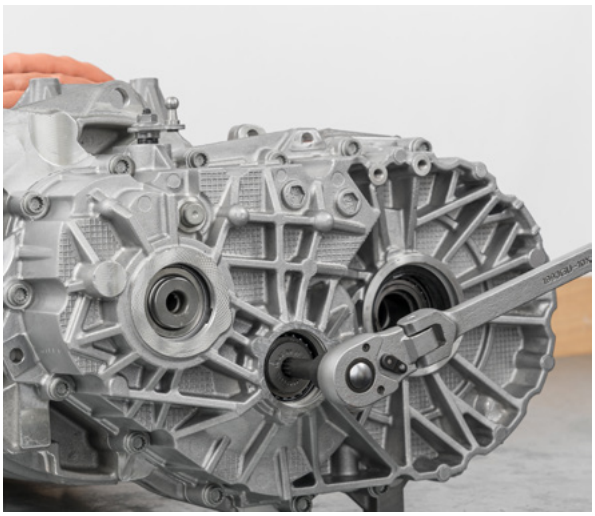


- Remove the retaining circlip for the drive shaft

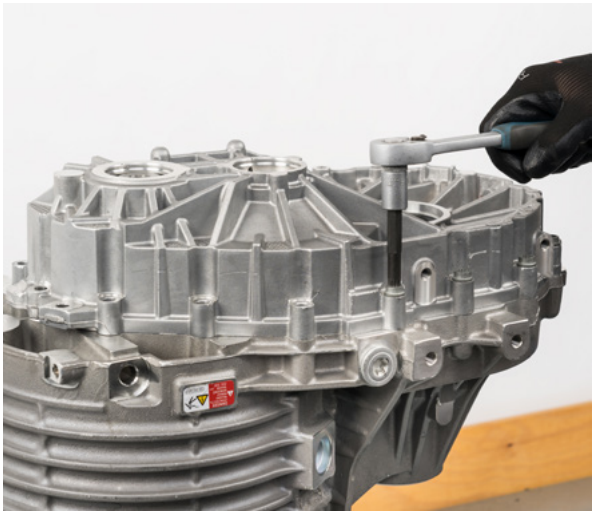


- Remove the bolt for the output shaft

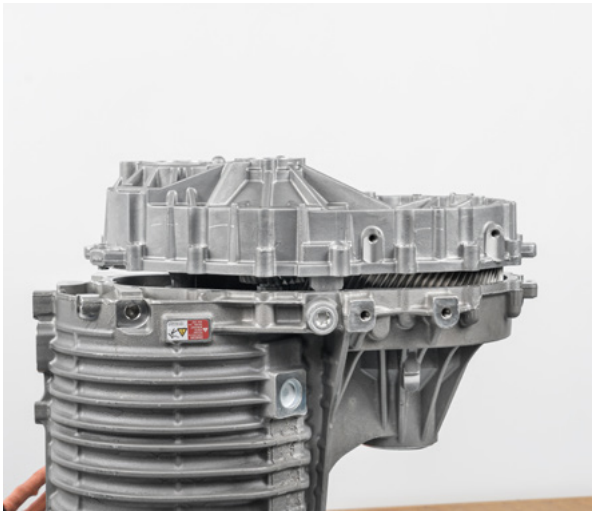
Note:
Left-hand thread



- Position the drive unit as shown in the picture.
- Remove gearbox housing bolts

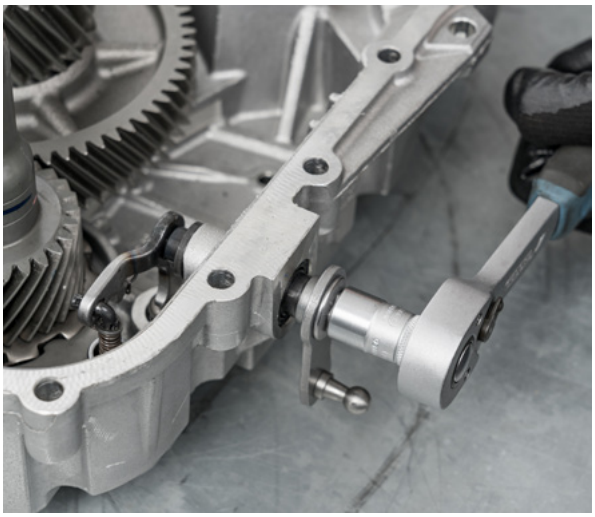


- Lift gear housing evenly upwards



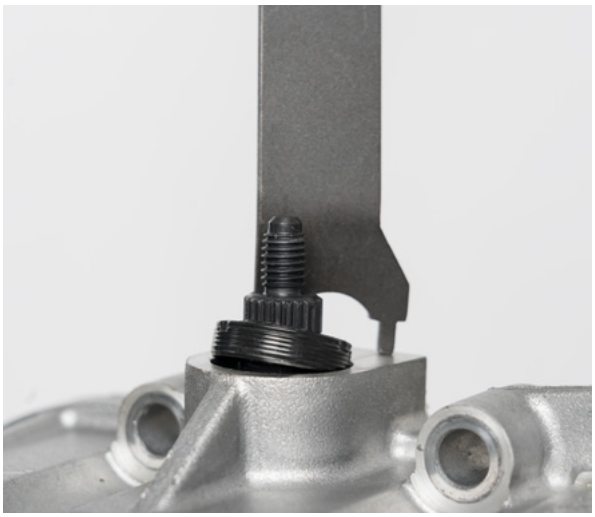
- Remove and clean magnet
- Remove oil collector
- Remove the differential gear from the housing

- Remove the parking lock lever



- Remove the oil seal from the selector shaft using a suitable tool

Note:
Observe the installation depth of the oil seal

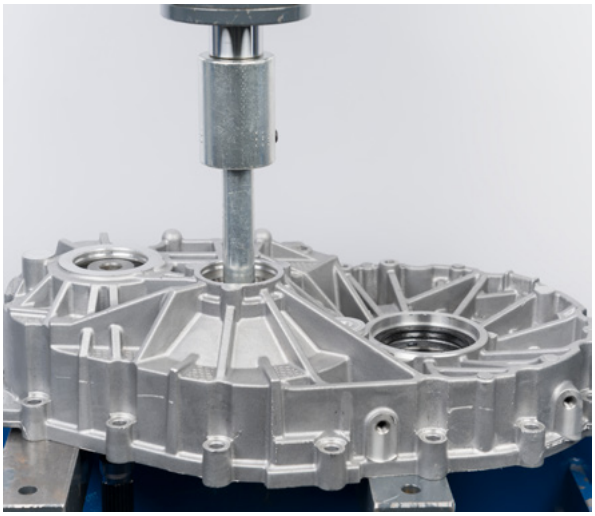


- Mount new oil seal with suitable sleeve to previous installation depth

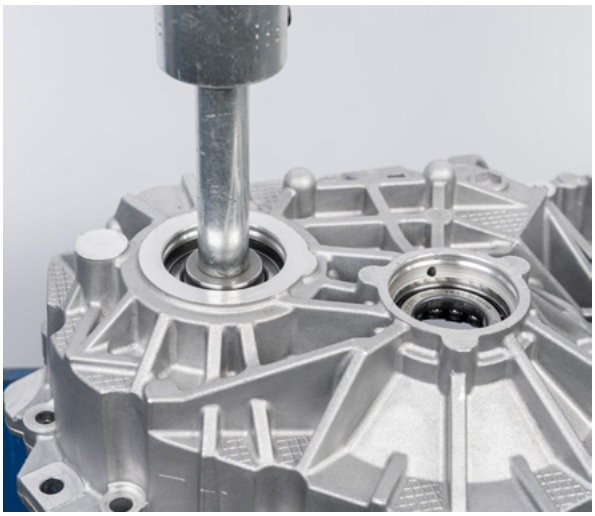
- Install parking lock lever
- Hold the lever in place while tightening
- Tighten nut to 20 Nm

Note:
The vehicle manufacturer recommends the use of a new nut, the corresponding part number can be found in the appendix

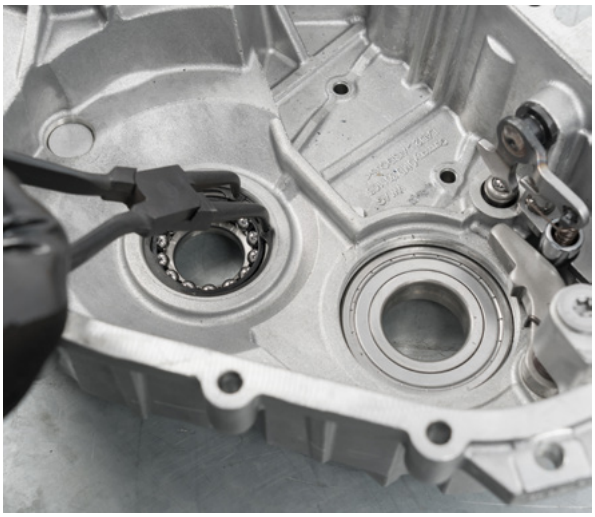
- Press out the drive shaft from gearbox housing



- Press out the drive shaft from gearbox housing



- Remove the retaining circlip for the drive and output shaft bearings



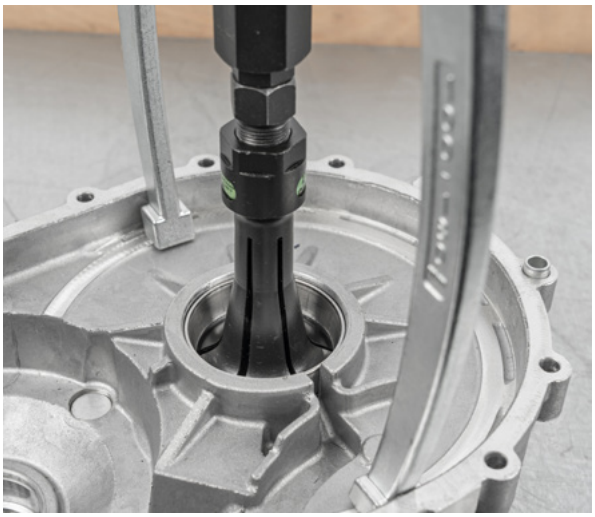
- Press the output shaft angular contact ball bearing out of the gearbox housing

- Press out the drive shaft ball bearing from the gearbox housing

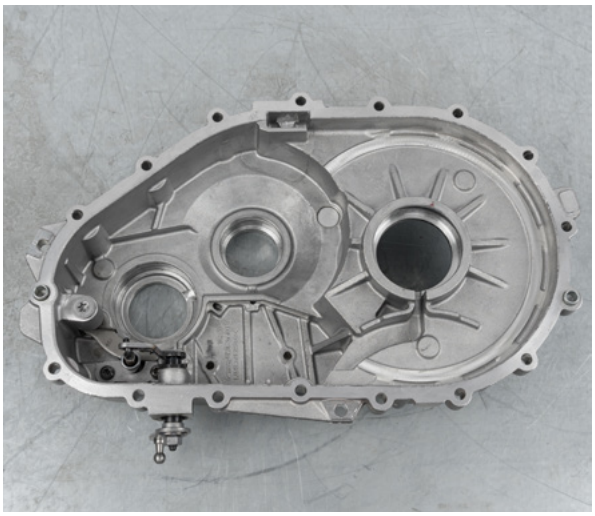
- Remove the drive flange oil seal from the gearbox side

- Remove the bearing outer race from the gearbox side using a suitable internal extractor

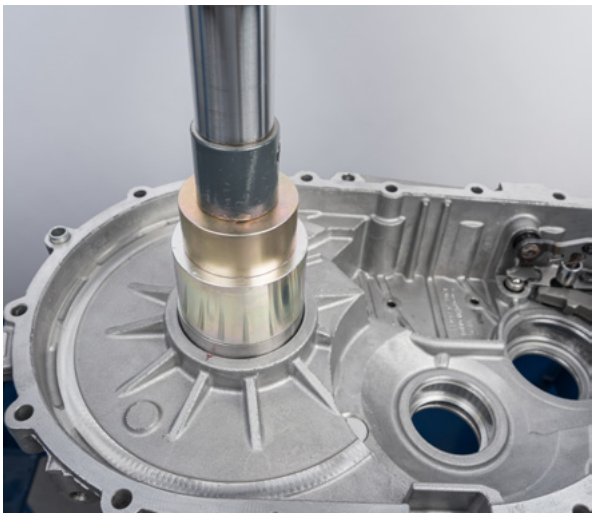
Note:
There is an adjusting shim under the bearing outer ring.



- Clean off all old residual sealant
- Clean gearbox housing



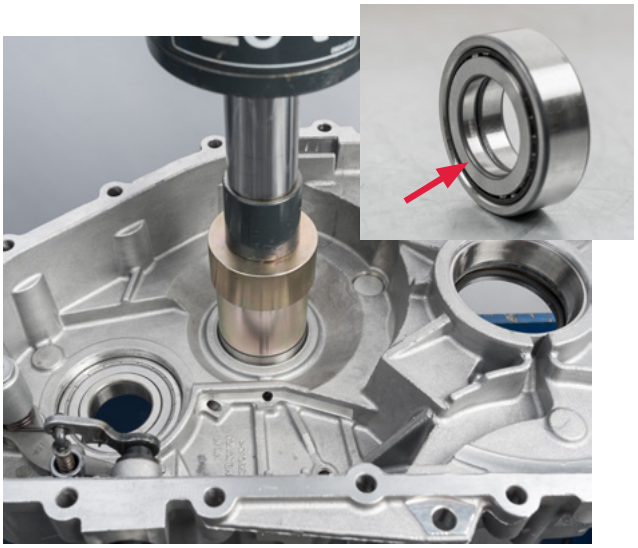
- Place the old adjusting shim in the gearbox housing
- Press new bearing outer race of the differential gear into the housing



- Press the new oil seal on the gearbox side of the differential into the gearbox housing

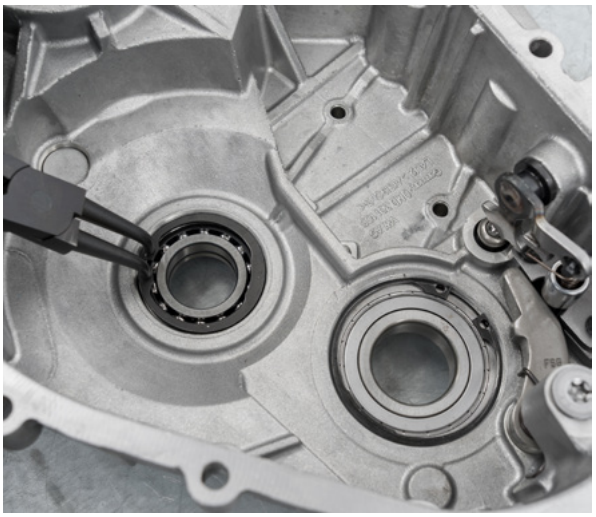
- Press new ball bearing of the drive shaft into the gearbox housing

- Press new angular contact ball bearing of the output shaft into the gearbox housing

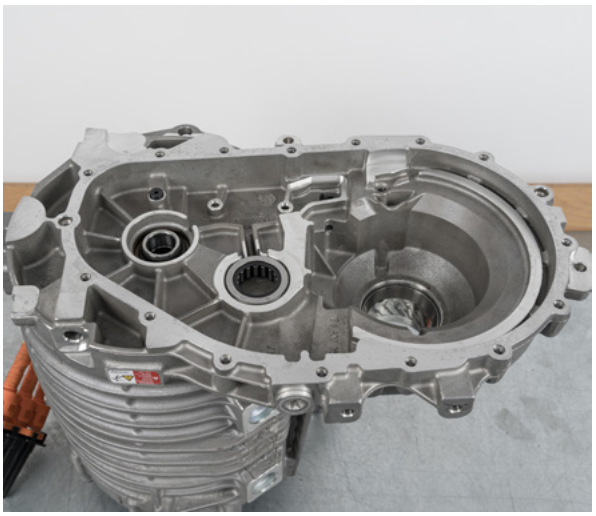


Note:
Press in the bearing with the narrower inner race facing downwards

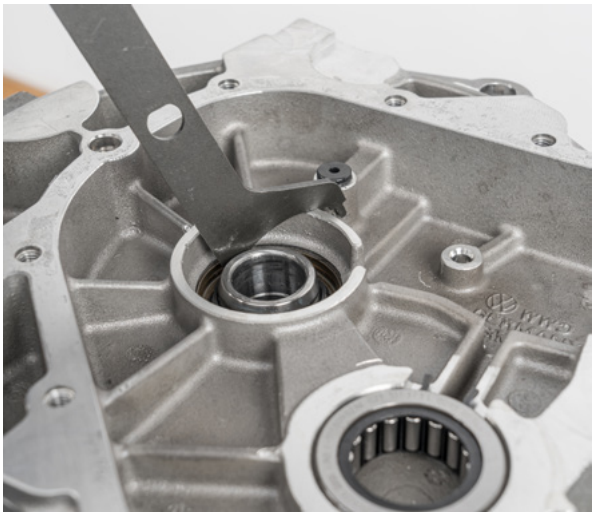
- Mount both retaining circlips



- Remove the old sealer residue
- Clean motor side housing

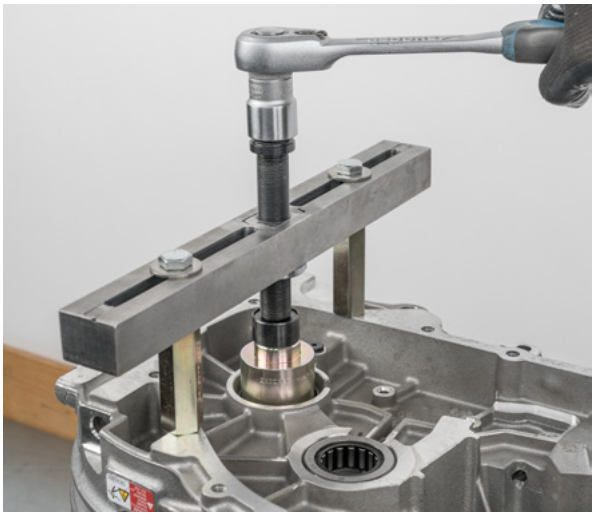


- Remove the shaft oil seal of the rotor shaft



Note:
Observe the installation depth of the shaft oil seal

- Press in new shaft oil seal for the rotor shaft to previous installation depth

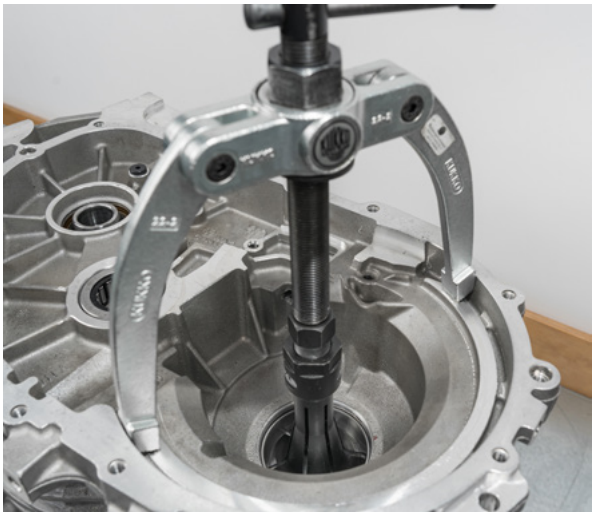


- Remove the motor side bearing of output shaft with suitable internal extractor

Note:
Note retaining ring

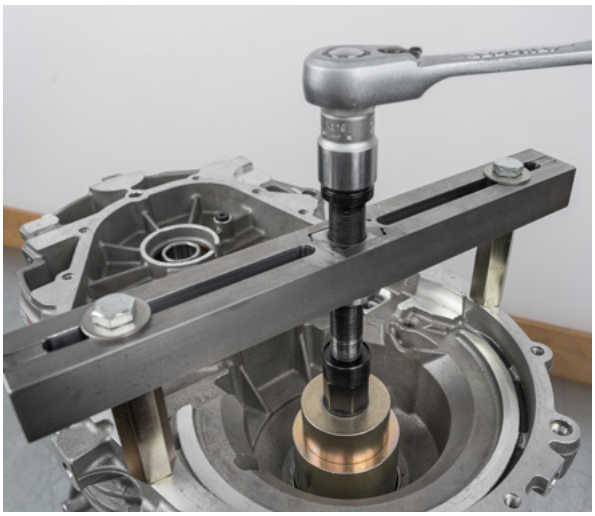
- Press in new motor-side bearing of the output shaft

- Remove the outer bearing race of the differential gear on the motor side using a suitable internal extractor.
- Remove the adjusting shim



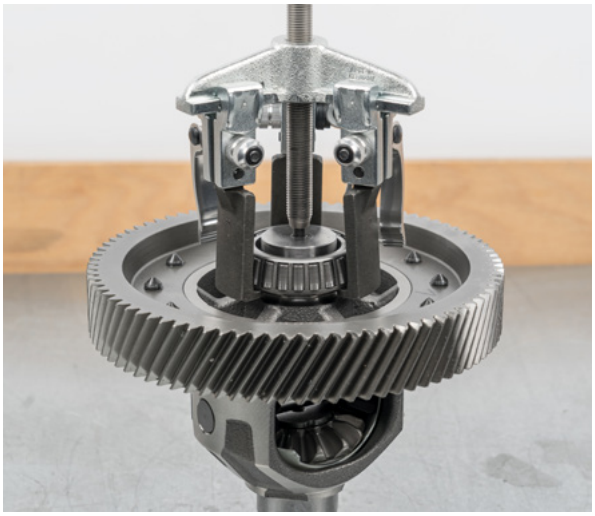
- Press in new motor-side bearing outer race of the differential gear **without** the adjusting shim

Important:
The correct adjusting shim will only be determined in a later work step and then mounted



- Remove the tapered roller bearing of the differential gear on the motor side

- Remove the tapered roller bearing of the differential gear on the gearbox side



- Press a new tapered roller bearing on the gearbox side of the differential

- Press new motor-side tapered roller bearing onto the differential

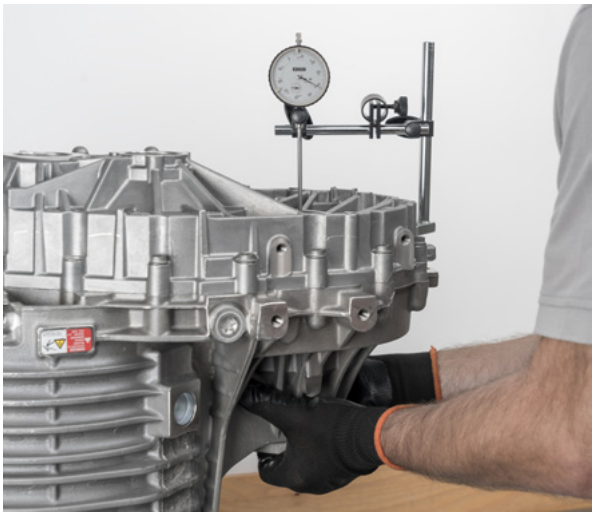
- Insert the differential gear into the housing

- Place the prepared gearbox housing in position without the input shaft and output shaft
- Tighten the bolts around the differential gear with 15 Nm tighten

- Mount the dial gauge as shown and ensure that the measuring tip is pretensioned

Note:
Place the measuring tip on the differential bearing inner race

- Press the differential gear on the opposite side upward by hand until it stops and read off the measured value



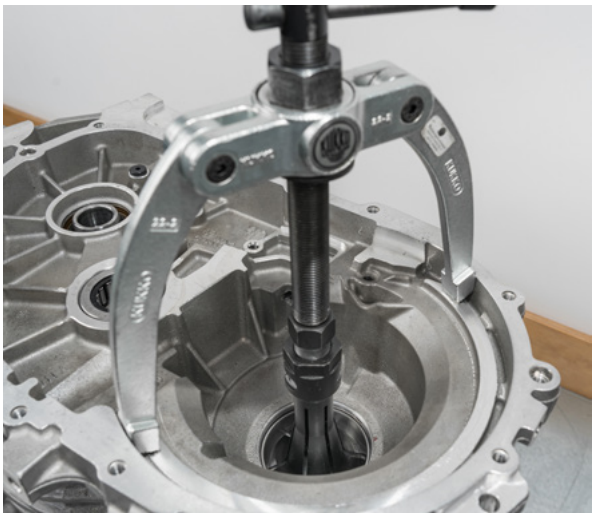
- The required bearing preload is 0.25 to 0.30 mm
- To determine the setting shim;
  Measured value in mm + 0.25 to 0.30 mm
  preload = thickness of adjusting washer in mm

Example: 0.53 mm + 0.27 mm = 0.80 mm

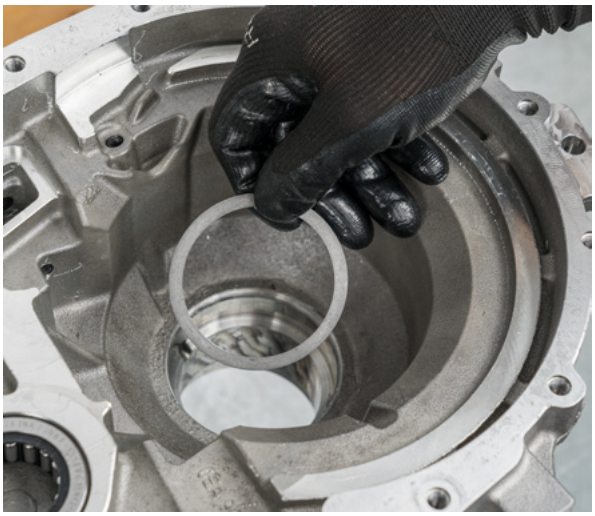
- Record value

- Remove the gearbox housing cover
- Remove the differential gear from the motor housing

- Remove the outer bearing race on the motor side of the differential gear again

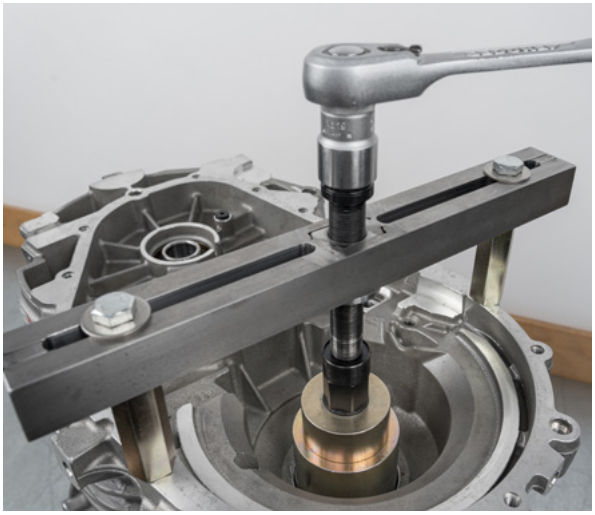


- Insert the previously determined adjusting shim (e.g. 0.80 mm) into the bearing seat

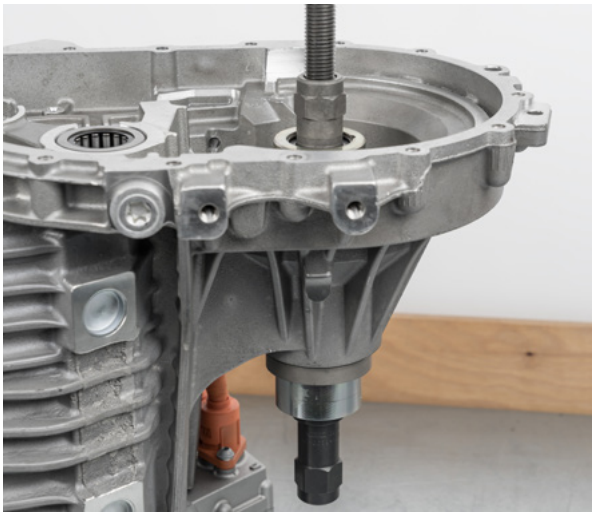


Note:
The shim setting table with the part numbers can be found in the appendix

- Press in the new bearing outer race of the differential gear on the motor side



- Press in new shaft oil seal of the differential gear on the motor side

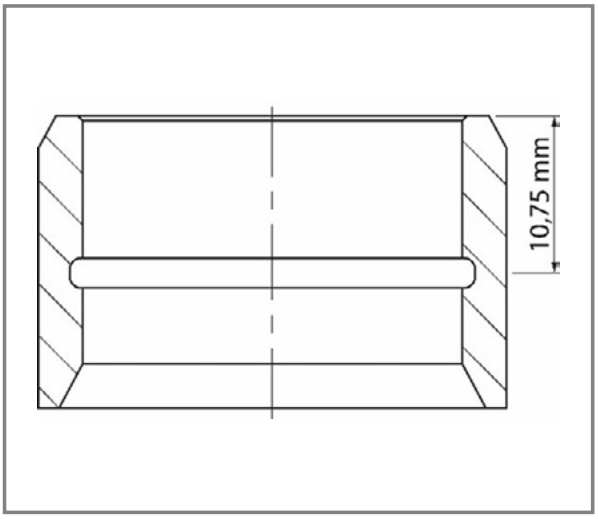


- Remove the bearing inner race on the gearbox side of the output shaft using a suitable inner race puller

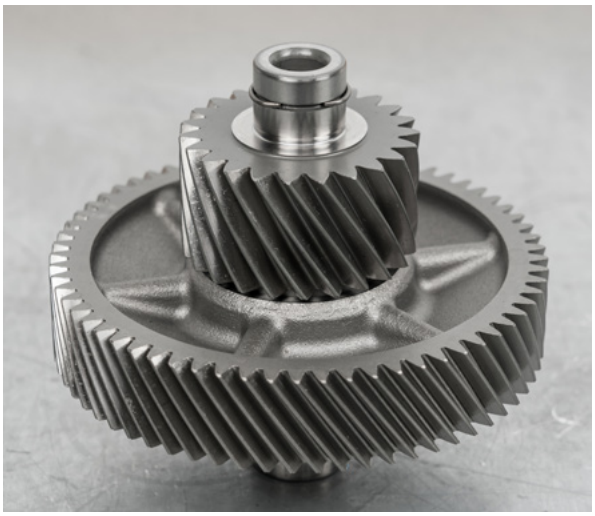
- Remove the motor-side bearing inner ring on the output shaft as described in the next step

Note:
The bearing inner ring is fixed with an internal retaining ring and cannot be pulled off

- Cut open the bearing inner ring at the level of the internal groove using a suitable tool and remove the individual parts from the output shaft



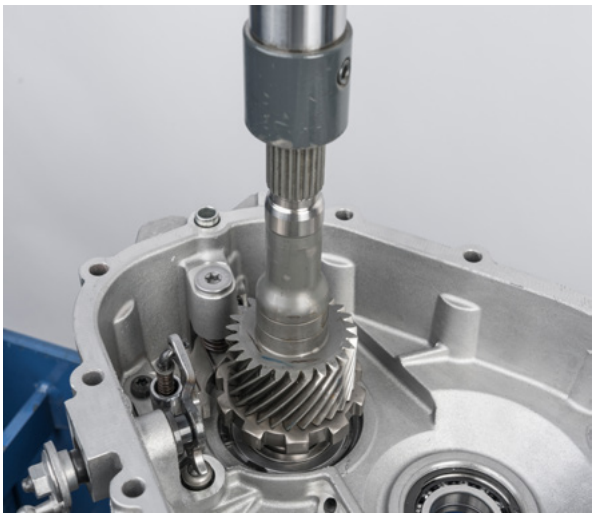
- Mount new internal retaining ring



- Press the inner race onto the output shaft with the inner chamfer facing downwards until the retaining ring engages in the groove

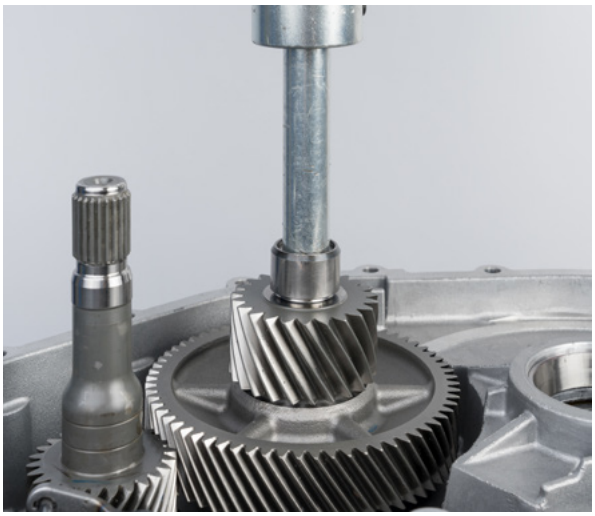
- Set the selector pawl to unlocked position
- Press the output shaft into the gearbox housing

Note:
Support the bearing inner race from below with suitable sleeve



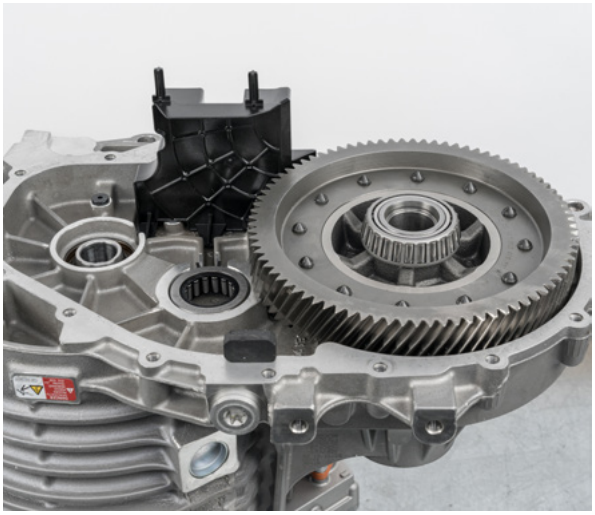
Press the drive shaft into the gearbox housing

Note:
Support the bearing inner race from below with suitable sleeve



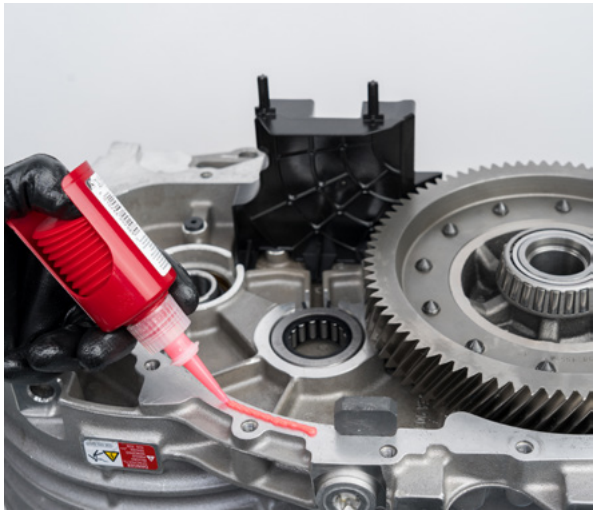
- Insert the differential gear into the motor housing

- Clean the oil catch pan and make sure that the oil ways are clear
- Insert the oil collector into the motor housing
- Insert the magnet



- Clean sealing surfaces with a suitable cleaner, e.g. Loctite SF 7063
- Apply suitable sealant, e.g. Loctite 510, to the motor housing
- Mount gearbox housing

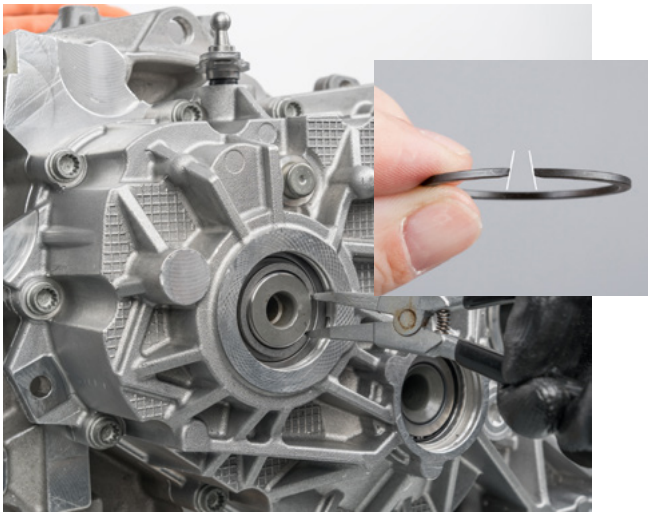
Note:
Make sure that the guide dowels are correctly positioned in the housing



- Insert bolts and tighten to 25 Nm

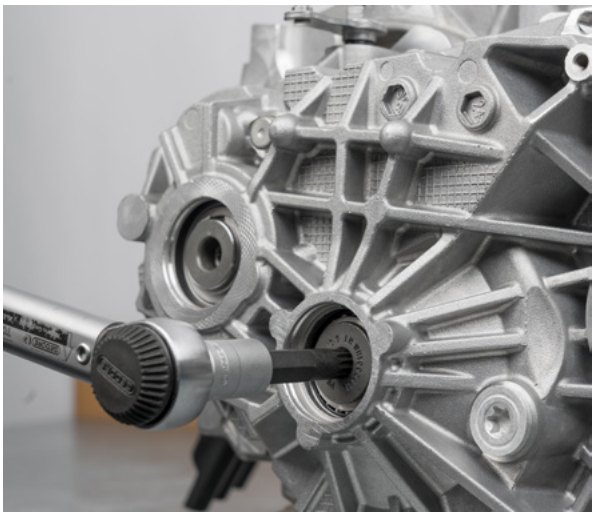
- Install drive shaft retaining ring

Note:
The side of the retaining ring where the opening is smaller faces outward

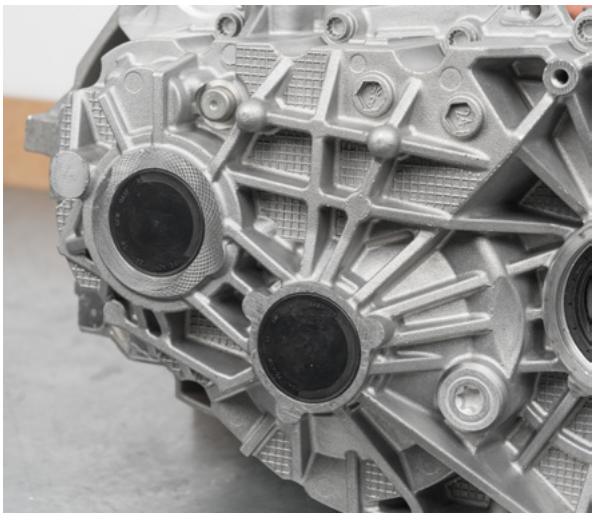


- Engage parking lock
- Insert the new bolt for the output shaft and tighten to 70 Nm + 90°

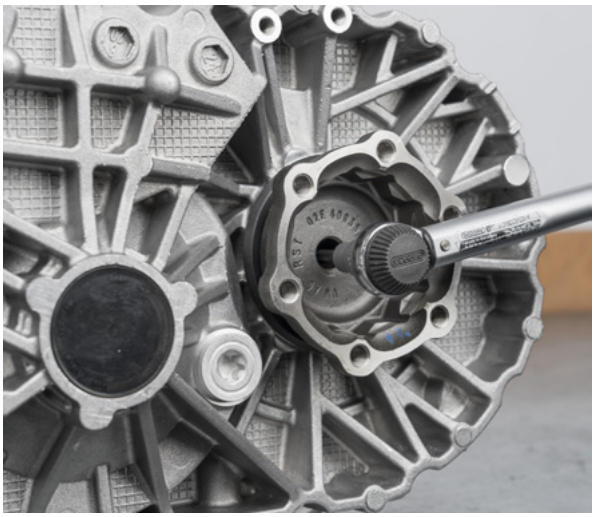
Note:
The vehicle manufacturer recommends the use of a new bolt, the corresponding part number can be found in the attachment



- Install new sealing caps flush with the surface



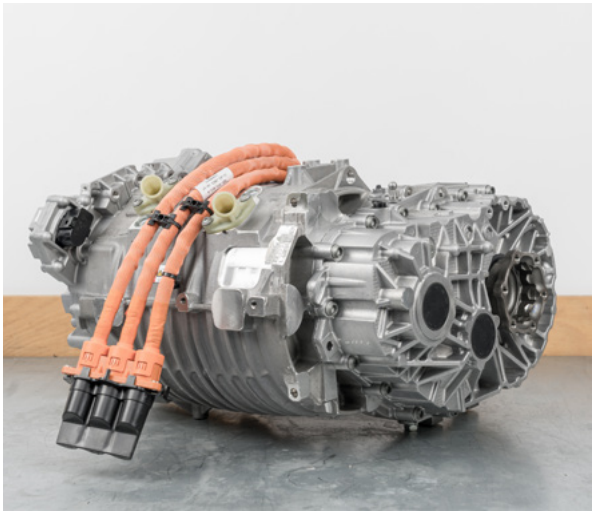
- Install both drive shaft flanges and tighten bolts to 30 Nm



- Replace the seal for the gearbox breather

- Reinstall drive unit according to vehicle manufacturer's specifications

Gear oil quantity: 0.8 liters
Oil specification: VW G 052 527 A2
Tightening torque of oil check screw: 45 Nm



Attachment

The following spare parts can be obtained from the VW spare parts trade

1. Adjusting shims for the differential bearings

VW- Article number	Thickness in mm
02B 409 210	0,65
02B 409 210 A	0,70
02B 409 210 B	0,75
02B 409 210 C	0,80
02B 409 210 D	0,85
02B 409 210 E	0,90
02B 409 210 F	0,95
02B 409 210 G	1,00
02B 409 210 H	1,05
02B 409 210 J	1,10
02B 409 210 K	1,15
02B 409 210 L	1,20
02B 409 210 M	1,25

If required, 2 adjusting shims can be combined

2. Output shaft bolt

Expansion screw, left-hand thread, VW article number WHT 002 661 A

3. Parking selector nut

Self-locking nut, M8, VW article number N 907 611 03