



## Repair Manual

CC 2012 ➤ , Golf 2013 ➤ ,  
Golf Variant 2014 ➤ , Passat 2011 ➤ ,  
Passat 2015 ➤ , Passat Variant 2011 ➤ ,  
Passat Variant 2015 ➤ , Sharan 2016 ➤

### Rear Final Drive

Edition 07.2015





## List of Workshop Manual Repair Groups

### Repair Group

00 - General, Technical Data

39 - Final Drive, Differential



Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.



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## 00 – General, Technical Data

### 1 Safety Precautions

(Edition 07.2015)

⇒ **"1.1 Road Test with Testing Equipment Safety Precautions", page 1**

⇒ **"1.2 Start/Stop System Safety Precautions", page 2**

#### 1.1 Road Test with Testing Equipment Safety Precautions

To Avoid Injury and Damage to the Vehicle, Observe the Following:



##### WARNING

*Vehicles with a DSG® transmission - accidentally moving the selector lever when the engine is running can cause an accident and personal injury.*

- ◆ *Move the selector lever into "P" and pull the parking brake lever before working with the engine running.*

**Poison!**

- ◆ *When engine is running, an exhaust extraction system must always be connected to exhaust system.*

If Testers and Measuring Equipment Must be Used During a Test Drive, Follow the Points Below:



##### WARNING

*Distraction and testing equipment that is not secured properly can cause accidents.*

*The passenger airbag could pose a risk if it deploys in a collision.*

- *Operating testing equipment while driving is a distraction.*
- *Testing equipment that is not secured probably increases the risk of injury.*
- ◆ *Always secure testing equipment on the rear seat using a strap and have a second person in the rear seat operate it.*

Observe the Following to Prevent Personal Injury and Damage to the Electrical/Electronic Components:

- ◆ Connect and disconnect test equipment only when the ignition is off.



#### Caution

***Risk of damaging electronic components when disconnecting the battery.***

- ◆ ***Complete the steps for disconnecting the battery.***
- ◆ ***Always turn off the ignition before disconnecting the battery.***

- Disconnect the battery. Refer to ⇒ Electrical Equipment; Rep. Gr. 27 ; Battery; Battery, Disconnecting and Connecting .

## 1.2 Start/Stop System Safety Precautions



#### WARNING

***There is a risk of injury if the engine starts automatically in vehicles with the Start/Stop-System.***

- ◆ ***For vehicles with an activated Start/Stop System (recognizable from a notification in the instrument cluster), the motor can be started automatically if needed.***
- ◆ ***For this reason make sure the Start/Stop System is disabled when working on the vehicle (turn off ignition, if needed, turn the ignition back on).***





## 2 Identification

⇒ ["2.1 Final Drive Identification", page 3](#)

### 2.1 Final Drive Identification

⇒ ["2.1.1 Final Drive Code 02D/0BS/0AY", page 3](#)

⇒ ["2.1.2 Final Drive Identification 0CQ/0CR", page 3](#)

#### 2.1.1 Final Drive Code 02D/0BS/0AY



**Note**

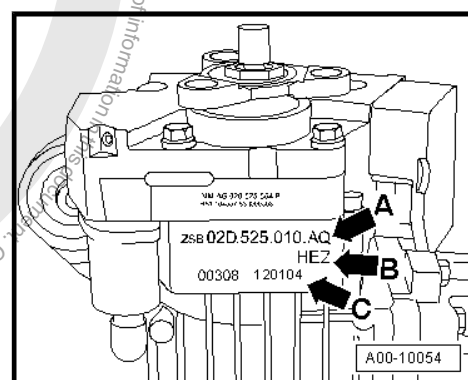
The ID on the »bottom side« of the final drive identifies which final drive is installed.

#### Example of Identification

- Arrow A- Final drive part number
- Arrow B- Final drive code letters
- Arrow C- Final drive build date

#### Example

HEZ	12	01	04
Codes	Day	Month	Production year
			-2004-



#### 2.1.2 Final Drive Identification 0CQ/0CR



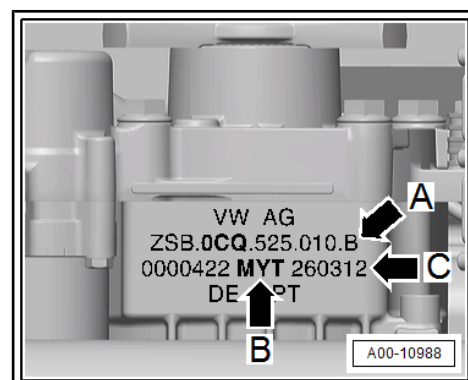
**Note**

The ID on the »bottom side« of the final drive identifies which final drive is installed.

#### Example of the Identification

- Arrow A- Final drive part number
- Arrow B- Final drive code letters
- Arrow C- Final drive build date

MYT	26	03	12
Codes	Day	Month	Production year
			-2012-





## 3 Repair Information

⇒ ["3.1 General Repair Information", page 4](#)

⇒ ["3.2 Seals, Sealing Rings", page 5](#)

⇒ ["3.3 Bolts and Nuts", page 5](#)

### 3.1 General Repair Information

⇒ ["3.1.1 Oil", page 4](#)

⇒ ["3.1.2 Fasteners", page 4](#)

⇒ ["3.1.3 Bearings", page 4](#)

⇒ ["3.1.4 Adjusting Shims", page 5](#)

Carefulness, cleanliness and the correct tools are required for transmission repairs to be successful. The usual basic safety precautions also apply when carrying out vehicle repairs.

General information that applies to various different repair procedures is listed here instead of repeating it multiple times throughout the manual. They apply to this repair manual.

- ◆ Determine the cause of the malfunction as accurately as possible using [Guided Fault Finding](#), [OBD](#) and [Test Instruments](#) before starting any repairs on the Haldex clutch. Refer to Vehicle Diagnostic Tester .

#### 3.1.1 Oil



##### Note

*The final drive and Haldex clutch have separate »oil circuits«.*

The final drive is filled with "gear oil" and the Haldex clutch with "high performance Haldex clutch oil".

Oil for the "final drive" and "Haldex clutch". Refer to the Parts Catalog.

Do not mix any »additives« in the oil.

Do not reuse drained transmission fluid.



##### Caution

***Be very careful when working with transmission fluid. Dispose of drained transmission fluid correctly.***

#### 3.1.2 Fasteners

- ◆ Do not overstretch the circlips.
- ◆ Replace damaged or stretched circlips.
- ◆ The circlips must fit completely inside the groove.

#### 3.1.3 Bearings

- ◆ Install needle bearings with lettered side (thicker metal) racing the fitting tool.
- ◆ Insert all the bearings in transmission with gear oil.





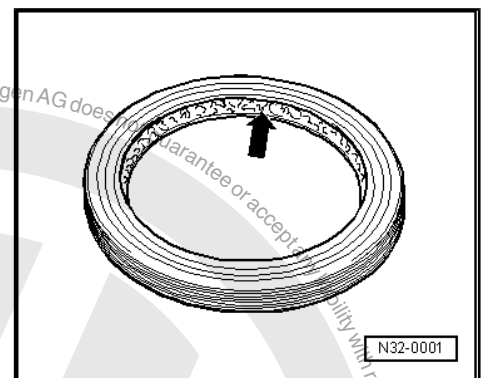
- ◆ Replace all the tapered roller bearings that are on the same shaft. Use tapered roller bearings from the same manufacturer.
- ◆ Heat the inner races to approximately 100 °C (212 °F) before installing
- ◆ Do not interchange outer and inner bearing races with those from other bearing of the same size. The bearings are paired.

### 3.1.4 Adjusting Shims

- ◆ Measure the shims at several locations with a micrometer caliper. Tolerance variations make it possible to find the exact shim thickness required.
- ◆ Check for burrs and damage.
- ◆ Only install perfect shims.

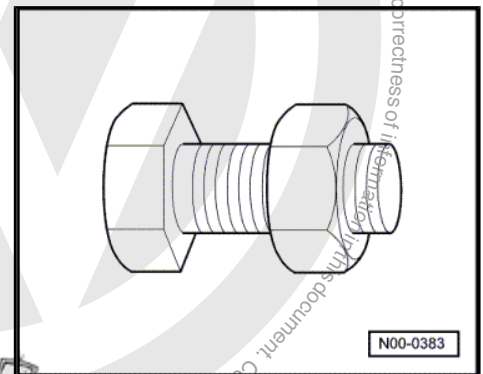
### 3.2 Seals, Sealing Rings

- ◆ After removing seal rings and seals, always inspect the contact surfaces at housing or shaft for burrs resulting from removal, or for other signs of damage.
- ◆ Before installing the seal rings, lightly oil the outer circumference and fill the space between the sealing lips -arrow- half-way with Grease - G 052 128 A1-.
- ◆ The open side of the seals point toward the fluid to be sealed in.
- ◆ Use DSG® transmission fluid only. Other lubricants cause malfunctions.
- ◆ Check the oil level in the Haldex clutch after replacing gaskets, O-rings and seals.



### 3.3 Bolts and Nuts

- ◆ Loosen or tighten bolts and nuts on the covers or housings diagonally.
- ◆ The tightening specifications stated apply to non-oiled nuts and bolts.
- ◆ Use a wire brush to clean the threads of bolts that were installed with locking compound. Install the bolts with Locking Fluid - AMV 185 101 A1-.
- ◆ Clean the threaded holes for the self-locking bolts or for the bolts coated with locking fluid. Otherwise there is a risk that the bolts will shear the next time they are removed.
- ◆ Always replace self-locking nuts and bolts.





## 4 Technical Data

⇒ "4.1 Transmission/Engine Allocation", page 6

⇒ "4.2 Capacities", page 7

### 4.1 Transmission/Engine Allocation

⇒ "4.1.1 Transmission-Engine Allocation, CC from MY 2012, Passat from MY 2011, Passat Wagon from MY 2011", page 6

⇒ "4.1.2 Transmission-Engine Allocation, Golf from MY 2013, Golf Wagon from MY 2014", page 6

⇒ "4.1.3 Transmission-Engine Allocation, Passat from MY 2015, Passat Wagon from MY 2015", page 6

#### 4.1.1 Transmission-Engine Allocation, CC from MY 2012, Passat from MY 2011, Passat Wagon from MY 2011

Rear Final Drive	0BS				
	(Haldex clutch generation IV)				
Transmission type	6-Speed DSG® Transmission 02E			Automatic transmission 09M 6-speed	6-speed manual transmission 02Q
Codes	MBD	MBD	MBD	MBD	MBD
Engine	3.6L - 220 kW FSI	2.0L - 155 kW FSI	2.0L - 125 kW TDI	3.6L - 220 kW FSI	2.0L - 103 kW TDI
Driveshaft flange diameter	100 mm				

#### 4.1.2 Transmission-Engine Allocation, Golf from MY 2013, Golf Wagon from MY 2014

Rear Final Drive	0CQ			
	(Haldex clutch generation V)			
Transmission type	6-Speed Manual Transmission 02Q		6 speed DSG® transmission 0D9	
Codes	PHF, PYP		PYP	PYP
Engine	1.6L - 77-, 81 kW TDI	2.0L - 110 kW TDI	2.0L - 135 kW TDI	1.8L - 132 kW TFSI
Driveshaft flange diameter	100 mm			

#### 4.1.3 Transmission-Engine Allocation, Passat from MY 2015, Passat Wagon from MY 2015

Rear Final Drive	0CQ
	(Haldex clutch generation V)



Rear Final Drive	0CQ			
Transmission type	6-Speed Dual-Clutch Transmission 0D9	6-Speed Manual Transmission 02Q	6-Speed Dual-Clutch Transmission 0D9	7-Speed Dual Clutch Transmission 0DL
Codes	QGP	QGP	QGP, RUU	PYP
Engine	2.0L - 135,- 140 kW TDI	1.4L - 110 kW TSI	2.0L - 206 kW TSI	2.0L - 162 kW TSI
Driveshaft Flange Diameter	100 mm			

Rear Final Drive	0CR	
	(Haldex clutch generation V)	
Transmission type	7-speed DSG® transmission 0DL	6 speed DSG® transmission 0D9
Codes	PMF, QZY, QUA	QUA
Engine	2.0L - 176 kW TDI	2.0L - 135,- 140 kW TDI
Driveshaft flange diameter	100 mm	

#### 4.1.4 Transmission/Engine Allocation, Sharan from MY 2016

Rear Final Drive	0AY	
	(Haldex clutch generation V)	
Transmission type	6-speed manual transmission 0A6	
Codes	QLY	
Engine	2.0L - 110 kW TDI	
Driveshaft Flange Diameter	100 mm	

## 4.2 Capacities

⇒ ["4.2.1 Final Drive 0BS Capacity", page 7](#)

⇒ ["4.2.2 Final Drive 0AY, Capacity", page 8](#)

⇒ ["4.2.3 Capacities, Final Drive 0CQ", page 8](#)

⇒ ["4.2.4 Capacities, Final Drive 0CR", page 8](#)

### 4.2.1 Final Drive 0BS Capacity

Rear Final Drive	0BS
	(Haldex clutch generation IV)
Final drive capacity	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03
Haldex clutch capacity	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03



Rear Final Drive	0BS
Replacement capacity in Haldex clutch • Change interval. Refer to the ⇒ Maintenance Intervals; Rep. Gr. 03	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03

#### 4.2.2 Final Drive 0AY, Capacity

Rear Final Drive	0AY
	(Haldex clutch generation V)
Final drive capacity	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03
Haldex clutch capacity	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03
Replacement capacity in Haldex clutch • Change intervals. Refer to the ⇒ Maintenance Tables .⇒	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03

#### 4.2.3 Capacities, Final Drive 0CQ

Rear Final Drive	0CQ
	(Haldex clutch generation V)
Final drive capacity	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03
Haldex clutch capacity	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03
Replacement capacity in Haldex clutch • Change interval. Refer to the ⇒ Maintenance Intervals; Rep. Gr. 03	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03

#### 4.2.4 Capacities, Final Drive 0CR

Rear Final Drive	0CR
	(Haldex clutch generation V)
Final drive capacity	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03
Haldex clutch capacity	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03



Rear Final Drive	OCR
Replacement capacity in Haldex clutch • Change interval. Refer to the ⇒ Maintenance Intervals; Rep. Gr. 03	Refer to ⇒ Fluid Capacity Tables; Rep. Gr. 03





## 5 Electrical Components

⇒ [“5.1 Component Location Overview - Electrical Components”, page 10](#)

### 5.1 Component Location Overview - Electrical Components

⇒ [“5.1.1 Electrical Component Locations Overview, Rear Final Drive 0BS with Haldex Clutch Generation IV”, page 10](#)

⇒ [“5.1.2 Electrical Component Locations Overview, Rear Final Drive 0CQ/0CR/0AY with Haldex Clutch Generation V”, page 11](#)

#### 5.1.1 Electrical Component Locations Overview, Rear Final Drive “0BS” with Haldex Clutch Generation IV

##### 1 - All Wheel Drive Control Module - J492-

- ❑ Important signals are transmitted from the Engine Control Module (ECM) and ABS Control Module - J104- via the Data bus to the All Wheel Drive Control Module - J492- .
- ❑ Removing and installing. Refer to  
⇒ [“6.5.1 All Wheel Drive Control Module J492, Removing and Installing, Generation IV”, page 86](#) .

##### 2 - Haldex Clutch Control Valve - N373-

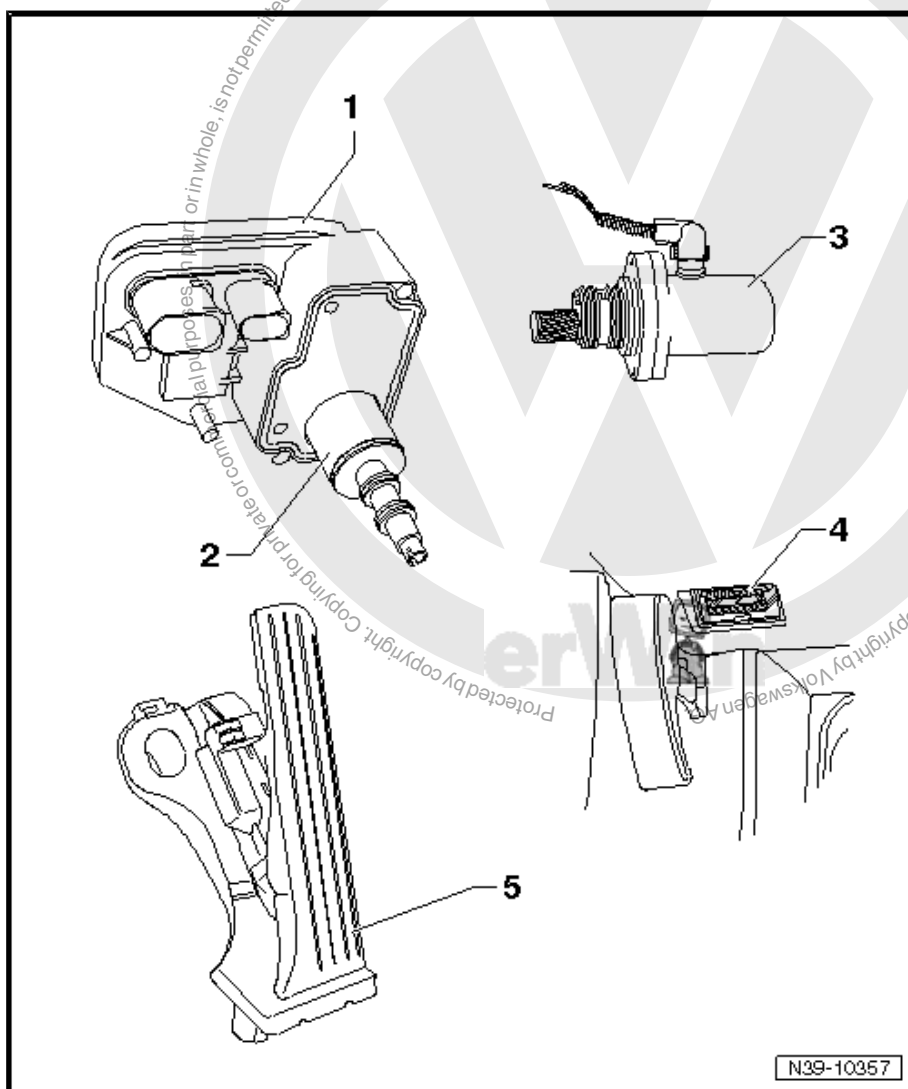
##### 3 - Haldex Clutch Pump - V181-

- ❑ Can be checked in “Guided Fault Finding” using the Vehicle Diagnostic Tester .
- ❑ Removing and installing. Refer to  
⇒ [“6.3.1 Haldex Clutch Pump V181, Removing and Installing, Generation IV”, page 74](#) .

##### 4 - Data Link Connector (DLC)

- ❑ Installed location: inside the left front footwell

##### 5 - Accelerator Pedal Position Sensor - G79-





## 5.1.2 Electrical Component Locations Overview, Rear Final Drive "0CQ/0CR/0AY" with Haldex Clutch Generation V

### 1 - All Wheel Drive Control Module - J492-

- ❑ Important signals are transmitted from the Engine Control Module (ECM) and ABS Control Module - J104- via the Data bus to the All Wheel Drive Control Module - J492- .
- ❑ Removing and installing. Refer to  
⇒ ["6.5.2 AWD Control Module J492 , Removing and Installing, Generation V", page 89](#) .

### 2 - Haldex Clutch Pump - V181-

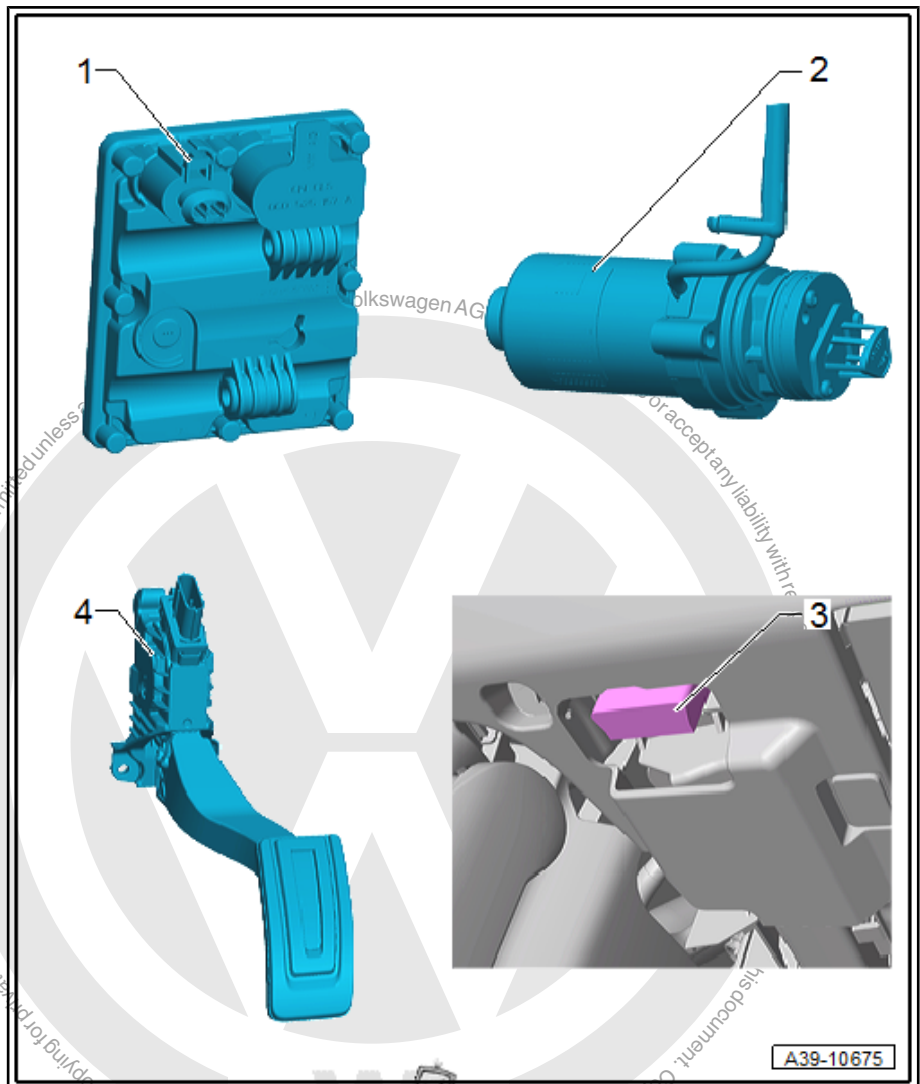
- ❑ Can be checked in "Guided Fault Finding" using the Vehicle Diagnostic Tester .
- ❑ Removing and installing. Refer to  
⇒ ["6.3.2 Haldex Clutch Pump V181 , Removing and Installing, Generation V", page 76](#) .

### 3 - Data Link Connector (DLC)

- ❑ Installed location: inside the left front footwell

### 4 - Accelerator Pedal Position Sensor - G79- and Accelerator Pedal Position Sensor 2 - G185-

- ❑ Removing and installing. Refer to ⇒ Fuel Supply System; Rep. Gr. 20 ; Accelerator Mechanism; Overview - Accelerator Pedal Mechanism .







## 39 – Final Drive, Differential

### 1 Final Drive

⇒ [“1.1 Overview - Final Drive”, page 12](#)

⇒ [“1.2 Final Drive, Removing and Installing”, page 13](#)

#### 1.1 Overview - Final Drive

##### 1 - Bolt

- ☐ 60 Nm +180° turn
- ☐ Replace after removing

##### 2 - Buffer

##### 3 - Washer

- ☐ Installed position: the chamfer (smaller diameter) faces the subframe

##### 4 - Bolts

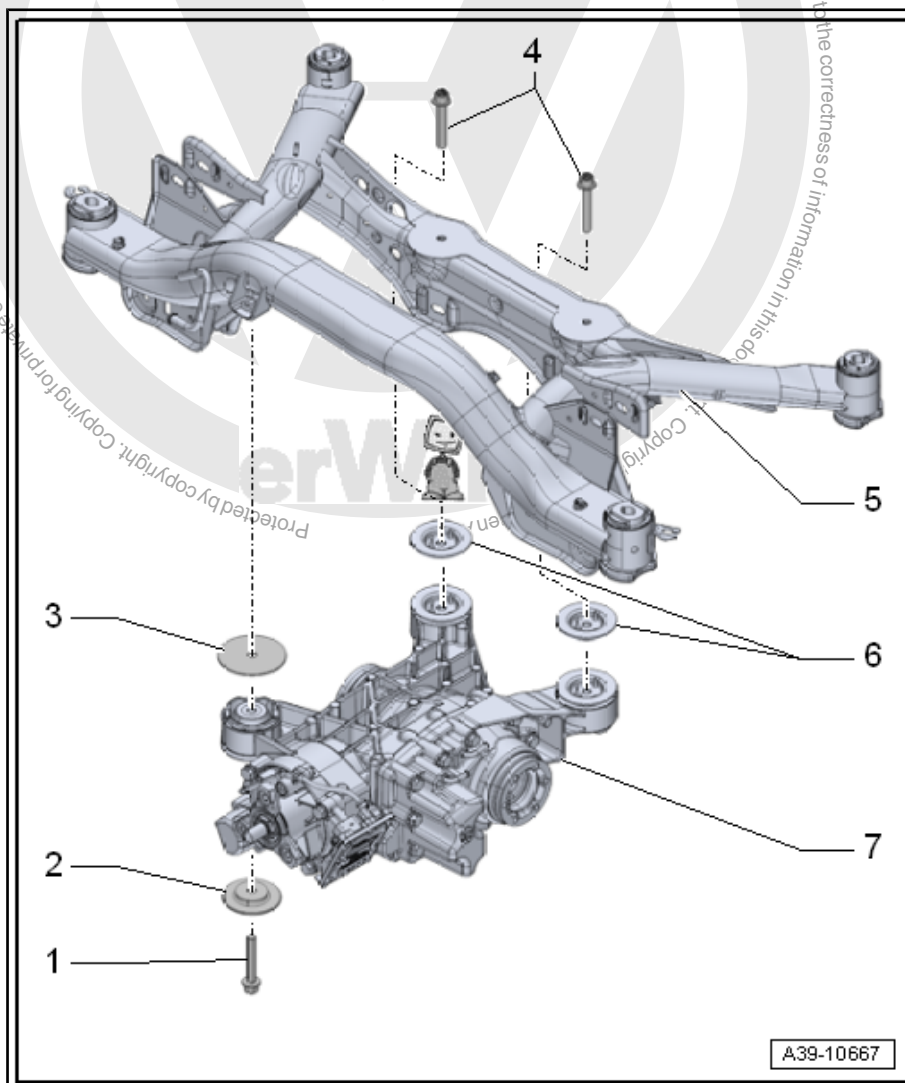
- ☐ 60 Nm +180° turn
- ☐ Replace after removing

##### 5 - Rear Subframe

##### 6 - Stop Washers

##### 7 - Rear Final Drive

- ☐ Removing and installing. Refer to [⇒ “1.2 Final Drive, Removing and Installing”, page 13](#).
- ☐ Bonded rubber bushing, removing and installing, refer to [⇒ “2.2 Bonded Rubber Bushing, Removing and Installing”, page 49](#)







## 1.2 Final Drive, Removing and Installing

⇒ ["1.2.1 Final Drive, Removing and Installing, CC from 2012, Passat from 2011, Passat Wagon from 2011", page 13](#)

⇒ ["1.2.2 Final Drive, Removing and Installing, Golf from MY 2013", page 20](#)

⇒ ["1.2.3 Final Drive, Removing and Installing, Golf Wagon from MY 2014", page 27](#)

⇒ ["1.2.4 Final Drive, Removing and Installing, Passat from 2015, Passat Wagon from 2015", page 35](#)

### 1.2.1 Final Drive, Removing and Installing, CC from 2012, Passat from 2011, Pas- sat Wagon from 2011

#### Brief Description

Before raising the vehicle, two holes must be made in the luggage compartment. The »factory« has marked the locations where the holes must be drilled.

Then the corrosion protection must be replicated using the materials supplied by the manufacturer. Refer to Paint Repair Manual.

The rear stabilizer bar is removed and the drive axles are disconnected from the final drive. Electrical connections and ventilation lines are disconnect at final drive.

Remove the »rear section« of the exhaust system and disconnect the driveshaft from the final drive.

The final drive is lowered with the transmission jack »downward« and diagonally in the direction of travel.

#### Special tools and workshop equipment required

- ◆ Engine and Gearbox Jack - VAS6931-
- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Tensioning Strap - T10038-
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Torque Wrench 1332 40-200Nm - VAG1332-

#### Removing

- Raise floor covering in luggage compartment.

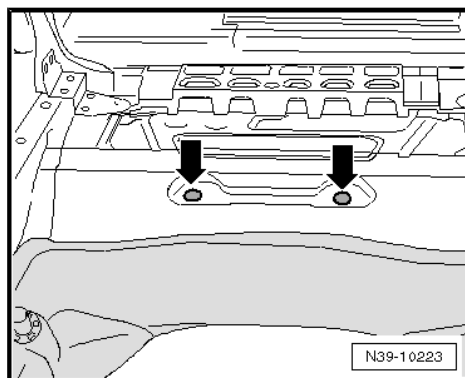
#### If Equipped

- Remove the spare wheel.
- Remove the bracket and the carrier for the rail system. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Luggage Compartment Trim Panels; Overview - Luggage Compartment Floor .



## For All Vehicles

There are 2 markings -arrows- on the luggage compartment floor panel.

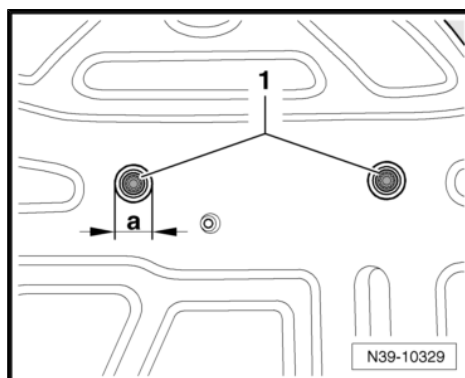


- Drill a hole at each marking -1-. Remove drill shavings while drilling, if possible.

**Dimension -a- = 26 mm**

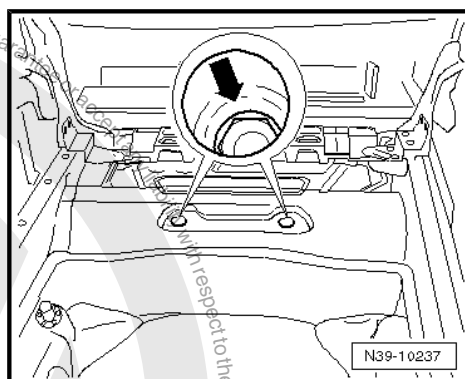
- Deburr holes and remove shavings carefully.

Reestablish corrosion protection with the materials specified by the manufacturer.



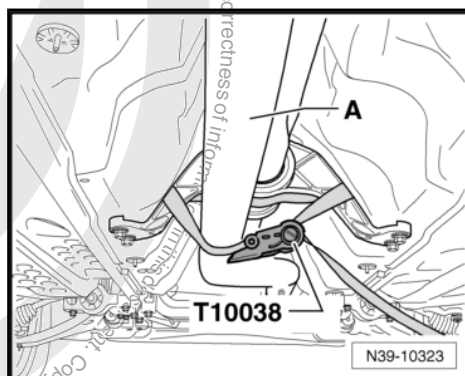
- Remove the bolts through the holes -arrow-.

These bolts will be replaced later.



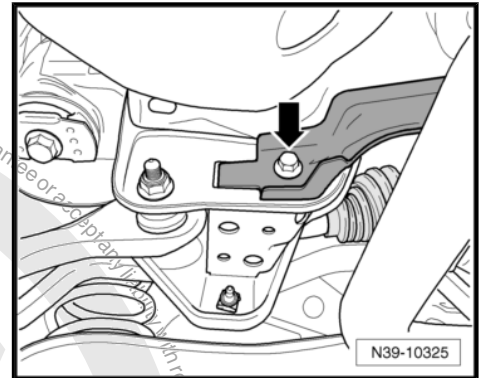
- Remove the center tunnel heat shield under the intermediate bearing. Refer to ➤ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .

- Attach the front exhaust pipe -A- to the driveshaft intermediate bearing with Tensioning Strap - T10038- .





- Remove the exhaust pipe bracket from the subframe.



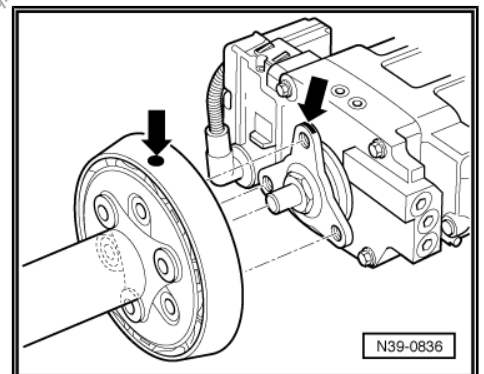
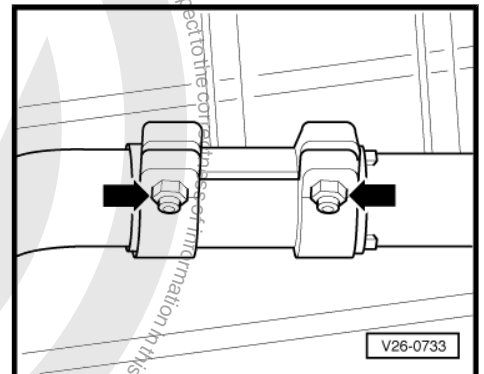
- Separate the exhaust system at the clamping sleeve -arrows- and remove the rear section of the exhaust system. Refer to ➤ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers .



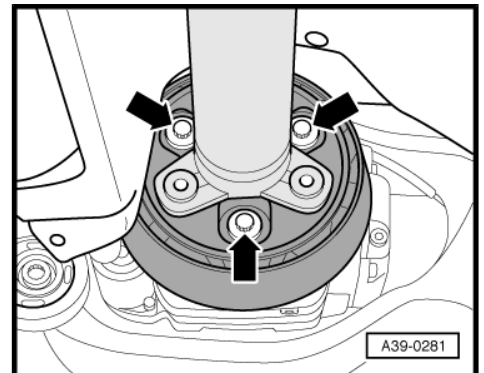
#### Note

*Do not bend the exhaust system decoupling element more than 10° or it could be damaged.*

- Remove the rear stabilizer bar. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Stabilizer Bar; Stabilizer Bar, Removing and Installing .
- Remove the left and right drive axles from the rear final drive and lower them carefully.
- Before removing, see if there is a marking (color dot) on the flexible disc and on the flange/final drive as well as on the flange/driveshaft -arrows-. If the dot is not there, mark the installed position of the flexible disc -arrows-.

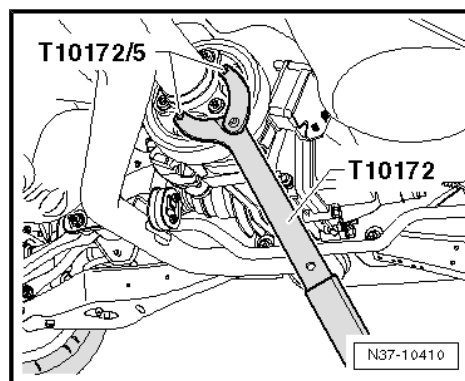


- Remove the flexible disc with the vibration damper from the rear final drive -arrows-.

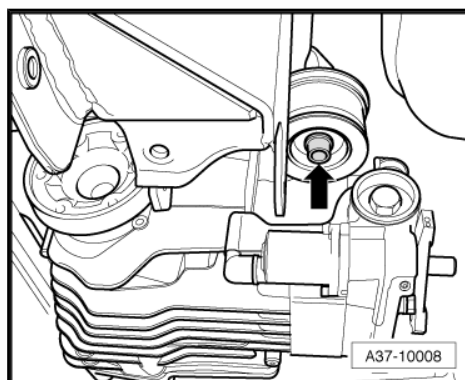




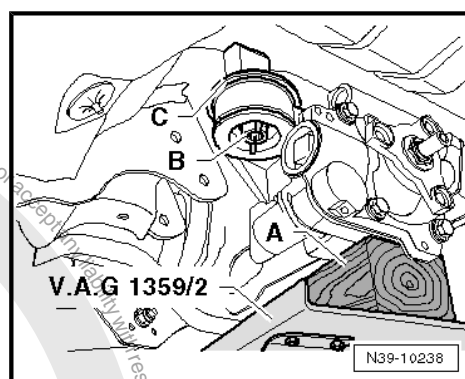
- Counterhold using Counterhold - Kit - Multiple Use - T10172- when loosening and tightening the bolts.
- Support the rear final drive using the Engine and Gearbox Jack - VAS6931- .



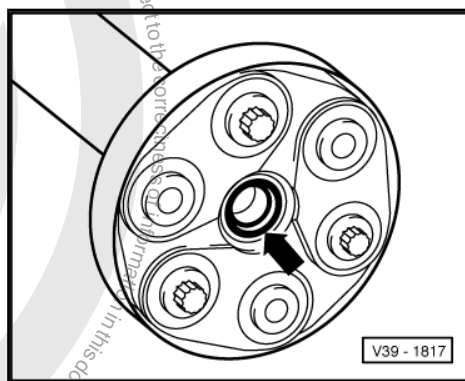
- Remove the bolt -arrow- on the front mounting bracket.  
This bolt must be replaced later.



- Remove the top washer -C- from the bracket.
- Push the final drive as far as possible to the rear.
- Remove the driveshaft from the final drive and lay it on the tunnel brace; place a cloth on the tunnel brace to protect the shaft.

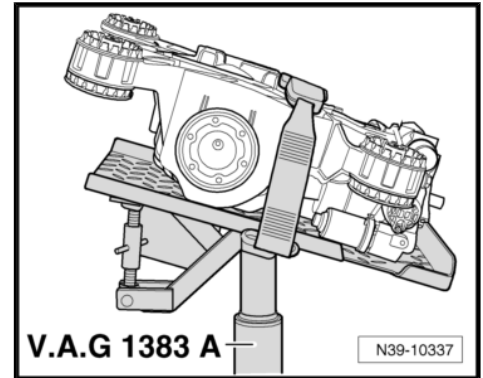


- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.

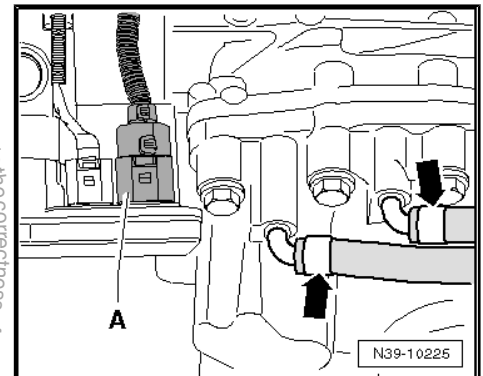




- Position the final drive in the vehicle on an angle as shown in the illustration while lowering it at the same time.

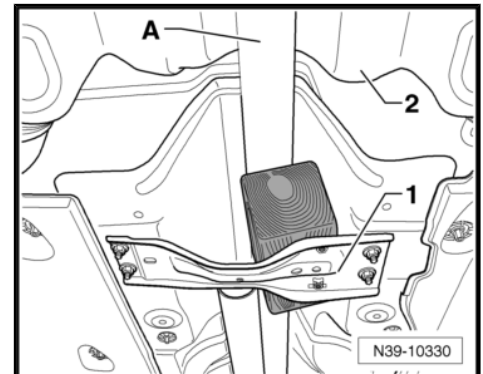


- Disconnect the harness connector -A- to the All Wheel Drive Control Module - J492- .
- Remove the ventilation lines -arrows- from the final drive.
- Guide the driveshaft upward and support it in this position with a suitable piece of wood on the tunnel brace -1-.
- Secure final drive against falling down onto the universal support using the strap.
- To remove, lower the final drive more and pull »forward«, while ensuring that there is sufficient »clearance« with respect to other components.

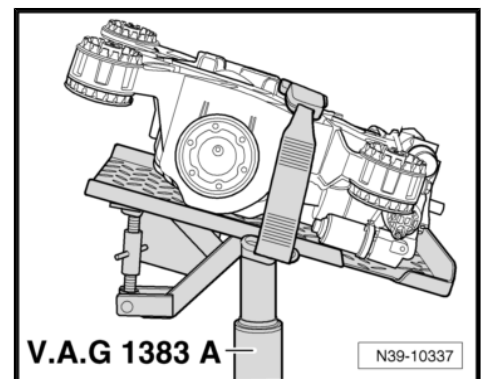


#### Installing

- Secure final drive against falling down with universal support strap.

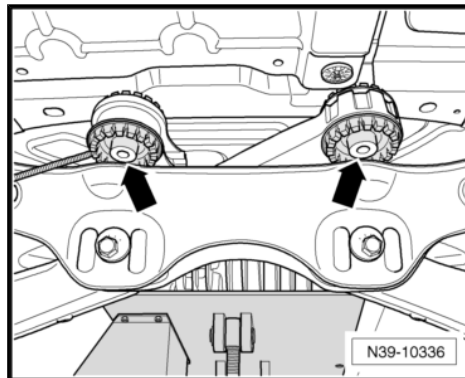


- Move the final drive to the illustrated position.

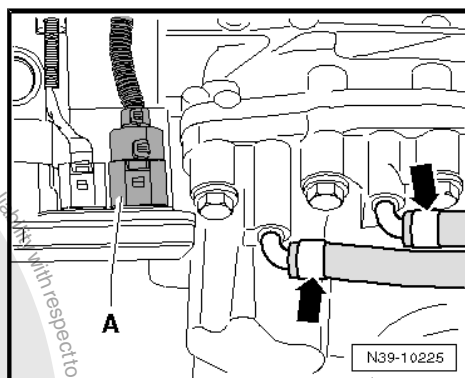




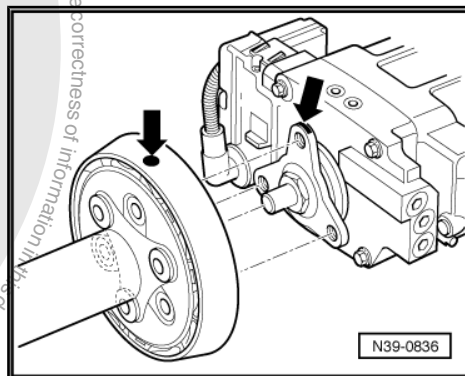
- Lift the final drive, and move the rear bearings -arrows- above the subframe while ensuring sufficient clearance with respect to the other components.



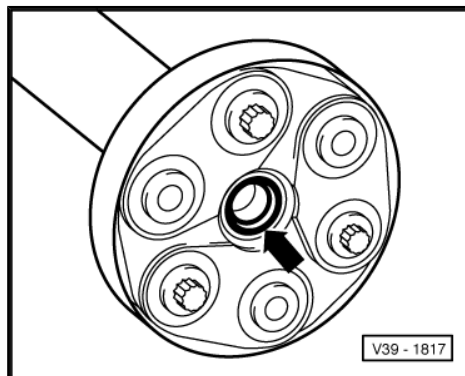
- Connect the connector -A- to the All Wheel Drive Control Module - J492- .
- Connect the vent lines -arrows- to the final drive vent pipes.
- Lift the final drive using the transmission jack into the installation position.
- Place a cloth on the tunnel brace and lay the driveshaft on it.
- Push the final drive as far as possible to the rear.



Attach the driveshaft to the flange/driveshaft on the rear final drive so that the markings -arrows- line up. Install the bolts hand-tight at first.

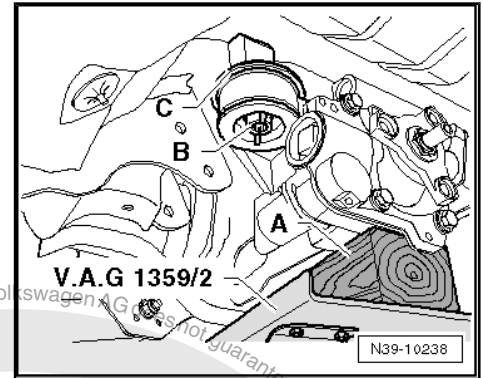


- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.

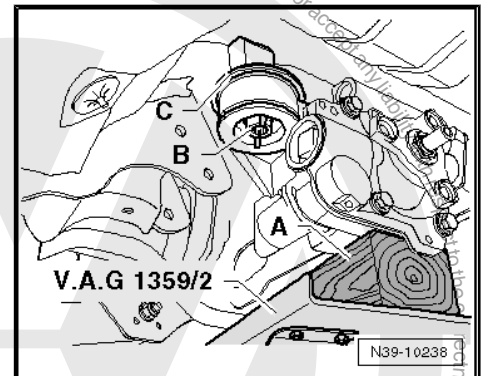




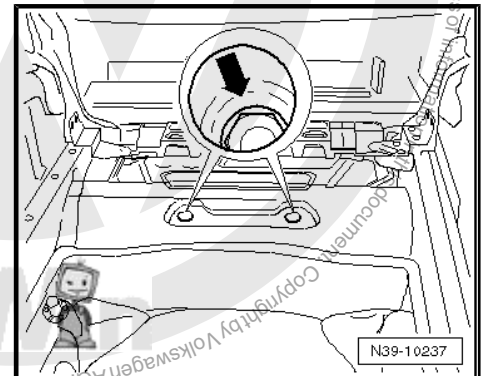
- Place the washer -C- on the front mounting bracket.



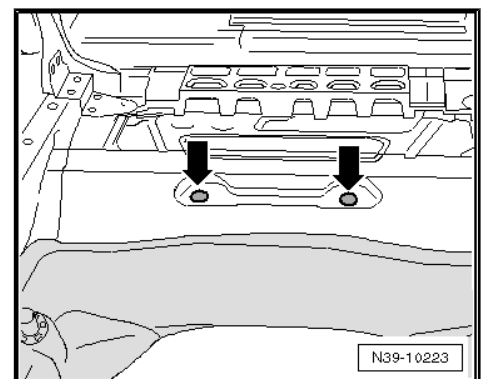
- Secure the final drive from »underneath« but do not tighten the bolt -B-.
- Install both drive axles.



- Insert two »new« bolts -arrow- through the holes in the luggage compartment floor and tighten. Tightening Specification. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Subframe; Overview - Subframe .
- If it has not already been done, replicate the corrosion protection on the applicable holes in the luggage compartment using the materials supplied by the manufacturer. Refer to Paint Repair Manual.

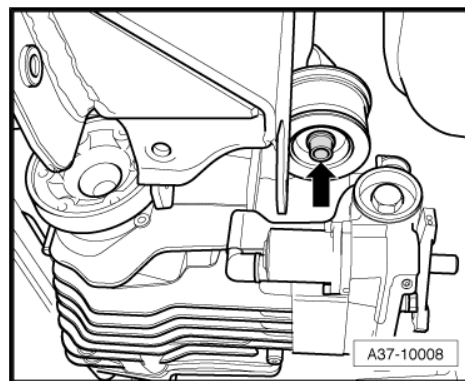


- Seal the holes with Cap - N 908 572 01- or Cap - N 908 572 02- .
- Install the trim panel and carpet. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Luggage Compartment Trim Panels; Overview - Luggage Compartment Floor .





- Tighten the final drive from »underneath« -arrow-. Tightening specification. Refer to  
⇒ ["1.1 Overview - Final Drive", page 12](#) .
- Tighten the driveshaft. Tightening specification. Refer to  
⇒ ["7.1 Overview - Driveshaft", page 91](#) .
- Tighten drive axles. Tightening specification. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .
- Install the center tunnel heat shield under the center bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Install the rear section of the exhaust system. Refer to ⇒ Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Install the rear stabilizer bar. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Stabilizer Bar; Stabilizer Bar, Removing and Installing .



If final drive is replaced:

- Check fluid level in Haldex clutch. Refer to  
⇒ ["4 High-Performance Haldex Clutch Oil", page 55](#) .
- Check the final drive oil level. Refer to  
⇒ ["3 Gear Oil", page 54](#) .

## 1.2.2 Final Drive, Removing and Installing, Golf from MY 2013

### Short Description

The rear axle is lowered at the rear mounting points.

The stabilizer bar and the rear spring are removed, the drive axle is removed from the final drive. Electrical connections and ventilation lines are disconnect at final drive.

Remove the »rear section« of the exhaust system with the heat shield and disconnect the driveshaft from the final drive.

The final drive is lowered with the transmission jack »downward« and diagonally in the direction of travel.

### Special tools and workshop equipment required

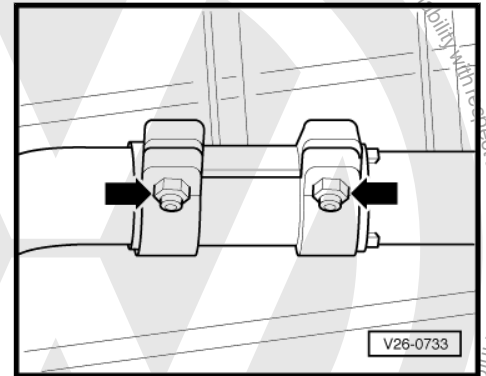
- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-
- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Multipoint Socket - T10035- and if necessary Bits for VAG1331/13 - T10099-
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Torque Wrench 1332 40-200Nm - VAG1332-





## Removing

- Separate the exhaust system at the clamping sleeve -arrows- and remove the rear section of the exhaust system. Refer to ⇒ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers .



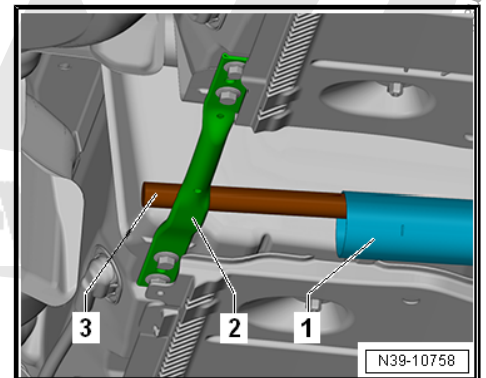
- Place a pipe or pry bar -3- in the front exhaust pipe -1- and lay it on the tunnel brace -2-.



### Note

*Do not bend the exhaust system decoupling element more than 10° or it could be damaged.*

- Remove the rear stabilizer bar. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Stabilizer Bar; Stabilizer Bar, Removing and Installing .
- Remove left and right drive axles from rear final drive.



### Note

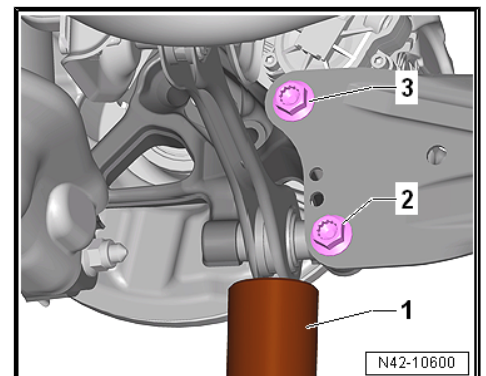
*For the next steps it is important that the multi-link axle springs are removed. This applies to the right and left side.*



### Note

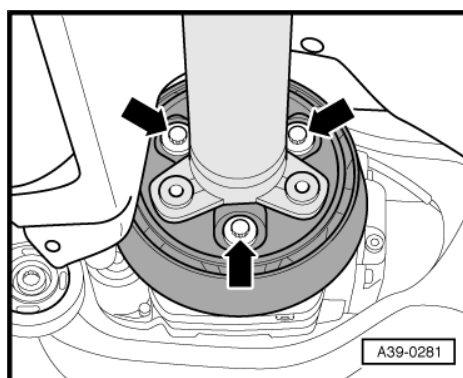
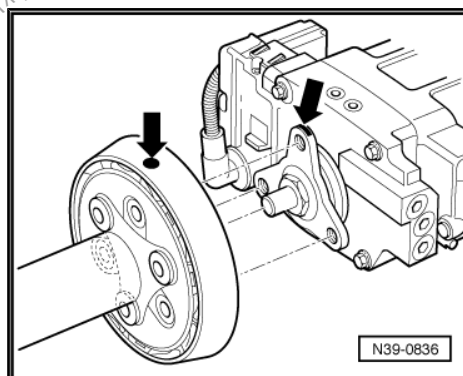
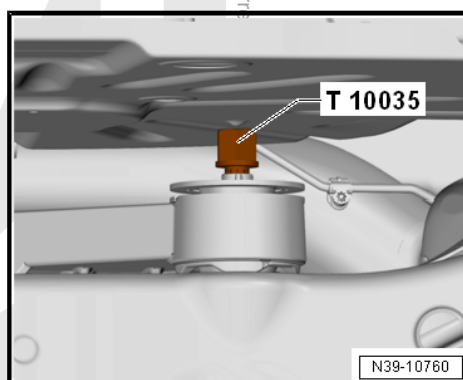
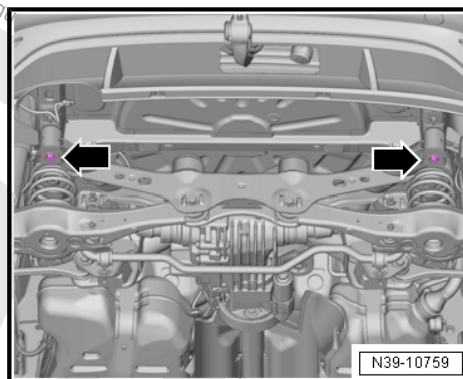
*Ignore items -2 and 3-.*

- Position the Engine and Gearbox Jack - VAS6931- -1- under the tie rod, and push upward until the driveshaft can be removed from the final drive flange.
- Guild the drive axle carefully down.



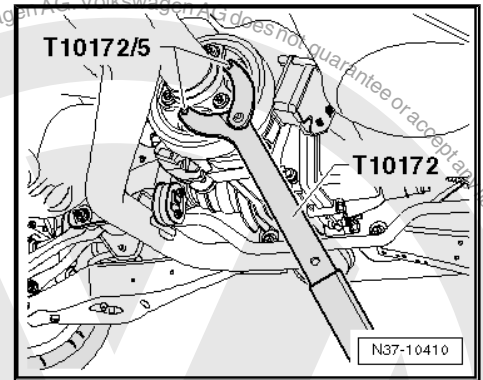


- Loosen the rear axle from the rear mounting points -arrows- and lower approximately 40 mm. Refer to ➔ Suspension, Wheels, Steering; Rep. Gr. 42 ; Rear Axle; Rear Axle, Lowering .
- Remove the rear final drive bolts from the rear axle using the Multipoint Socket - T10035- . To remove the bolts the Bits for VAG1331/13 - T10099/1- can also be used.
- Before removing, see if there is a marking (color dot) on the flexible disc and on the flange/final drive as well as on the flange/driveshaft -arrows-. If the dot is not there, mark the installed position of the flexible disc.
- Remove the flexible disc with the vibration damper from the rear final drive -arrows-.

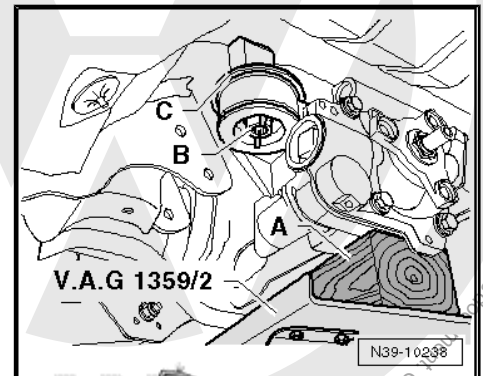




- Counterhold using Counterhold - Kit - Multiple Use - T10172- when loosening and tightening the bolts.

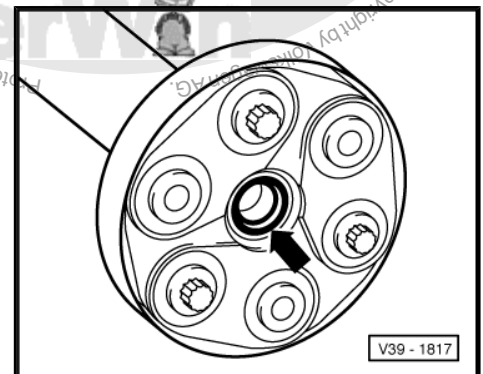


- Place the wood block -A- on the Engine and Gearbox Jack - VAS6931- and support the rear final drive.
  - Remove the bolt -B- and the top washer -C- from the bracket.
- Always replace the bolts.

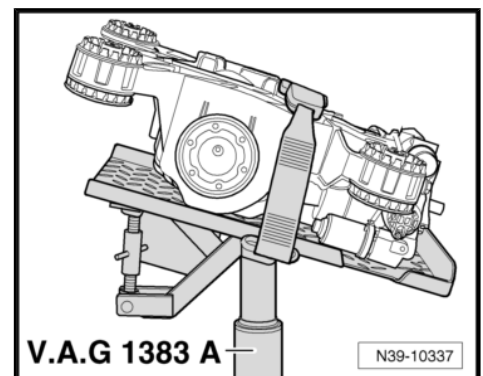


- Push the final drive as far as possible to the rear.
- Remove the driveshaft from the final drive and lay it on the tunnel brace; place a cloth on the tunnel brace to protect the shaft.

- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.



- Position the final drive in the vehicle on an angle as shown in the illustration while lowering it at the same time.
- Secure final drive against falling down onto the universal support using the strap.



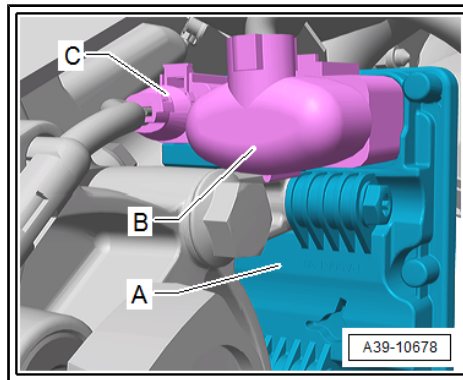


- Remove the connector -B- from the All Wheel Drive Control Module - J492- -A-. Ignore item -C-.



**Note**

Ignore item -A-.



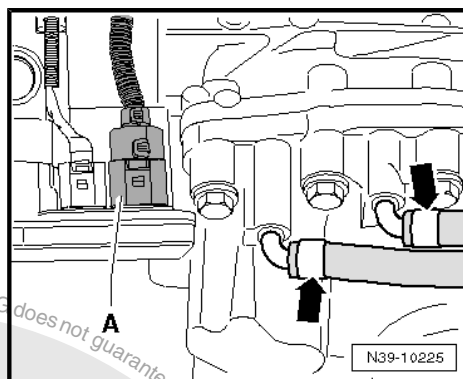
- Remove the ventilation lines -arrows- from the final drive.



**Note**

Ignore item -2-.

- Guide the driveshaft -A- upward and support it in this position with a suitable piece of wood on the tunnel brace -1-.

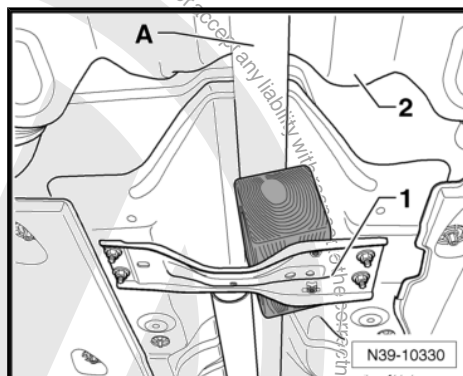


- Pull the final drive »forward« when lowering, while doing so pay attention to make »clearance« to other components.

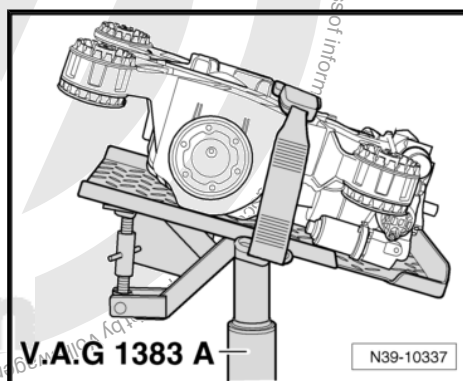
**Installing**

Install in reverse order of removal:

- Secure final drive against falling down with universal support strap.

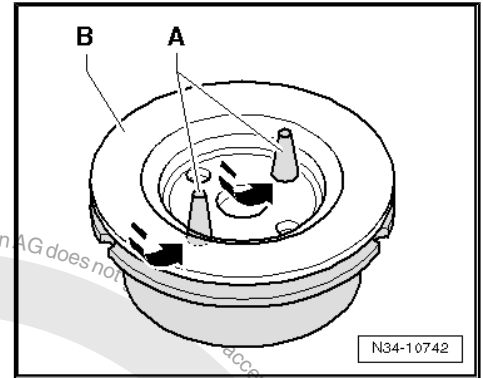


- Move the rear final drive to the illustrated position.

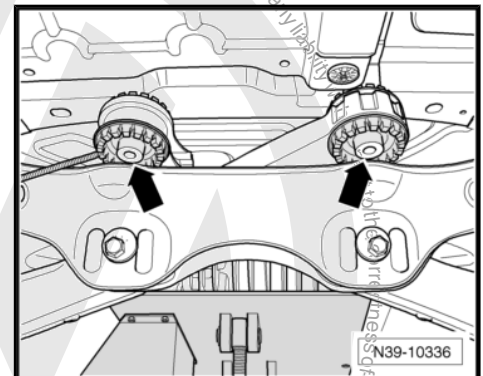




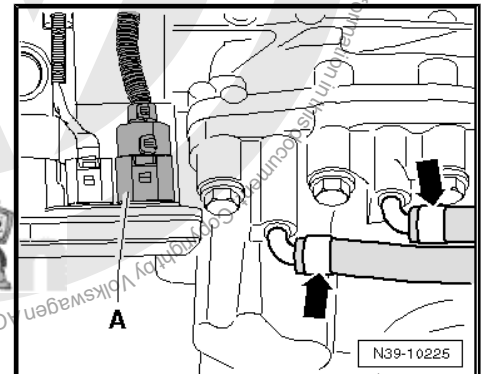
- Pay attention that the stop washers -B- are positioned on the rear bearing from above as shown. Correct placement prevents the gummy nipples -A- from falling or sliding out of the washer when installing.



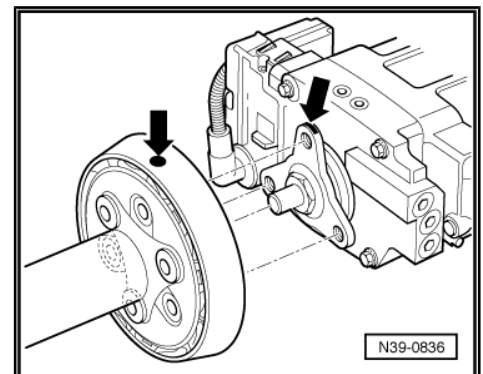
- Before installing the final drive, place the two new bolts in the rear bearing from above -arrows-.
- Lift the final drive and guide it over the rear axle. While lifting guide the drive axle to the flange shaft.



- Connect the vent lines -arrows- to the final drive vent pipes.
- Lift the final drive using the transmission jack into the installation position.
- Place a cloth on the tunnel brace and lay the driveshaft on it.
- Push the final drive as far as possible to the rear.

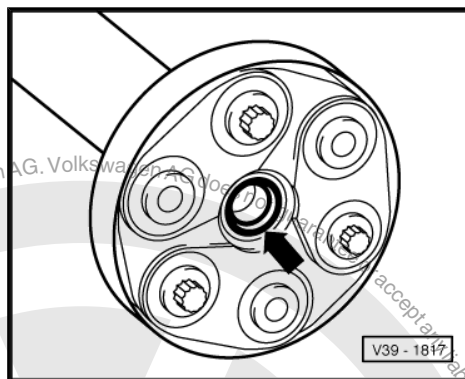


- Attach the driveshaft to the flange/driveshaft on the rear final drive so that the markings -arrows- line up. Install the bolts hand-tight at first.

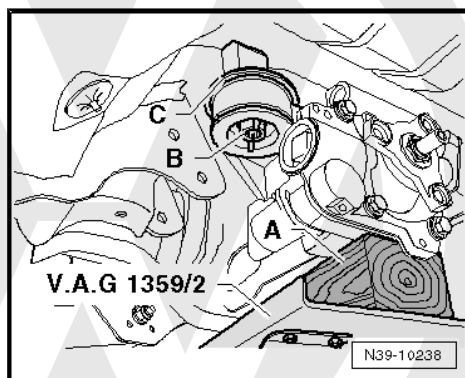




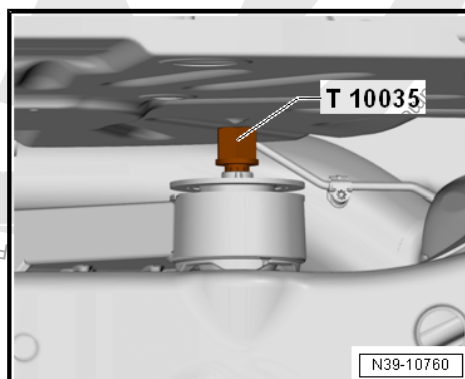
- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.



- Place washer -C- on the front drive axle and faster hand tight with a new bolt -B-. Do not tighten the bolt yet.

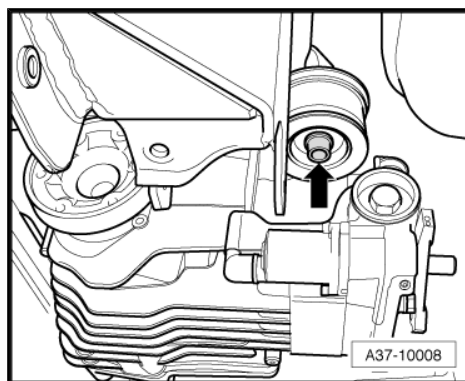


- Bolt the rear bolt for the final drive on the rear axle using the Multipoint Socket - T10035-. Tightening Specification. Refer to ⇒ ["1.1 Overview - Final Drive", page 12](#).



- Bolt the rear axle on the body. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Rear Axle; Rear Axle, Removing and Installing .

- Tighten the final drive from »underneath« -arrow-. Tightening Specification. Refer to ⇒ ["1.1 Overview - Final Drive", page 12](#) .



- Tighten the driveshaft. Tightening Specification. Refer to ⇒ ["7.1 Overview - Driveshaft", page 91](#) .

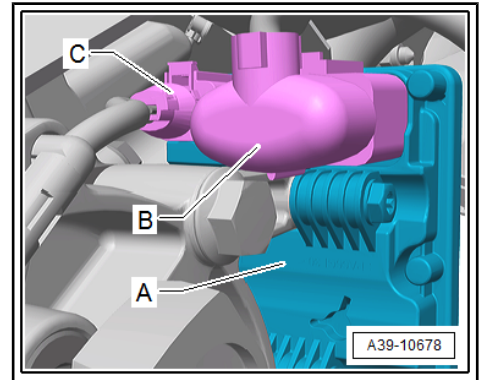




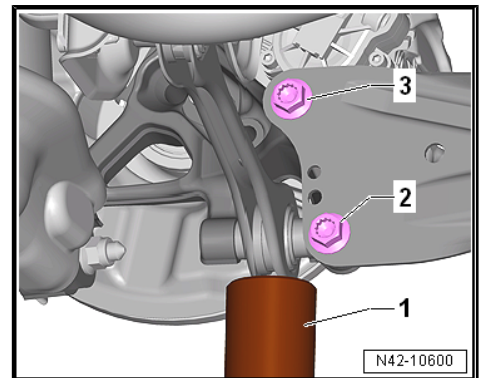
- Connect the connector -B- to the All Wheel Drive Control Module - J492- -A-. Ignore item -C-.

**i Note**

- ◆ *For the next steps it is important that the multi-link axle springs are removed. This applies to the right and left side.*
- ◆ *Ignore items -2 and 3-.*



- Position the Engine and Gearbox Jack - VAS6931- -1- under the tie rod, and push upward until the drive axle can be inserted in the final drive flange.
- Tighten drive axles. Tightening Specification. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .
- Install the rear stabilizer bar. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Stabilizer Bar; Stabilizer Bar, Removing and Installing .
- Install the rear section of the exhaust system. Refer to ⇒ Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .



If final drive is replaced:

- Check fluid level in Haldex clutch. Refer to ⇒ [“4 High-Performance Haldex Clutch Oil”, page 55](#) .
- Check the final drive oil level. Refer to ⇒ [“3 Gear Oil”, page 54](#) .

### 1.2.3 Final Drive, Removing and Installing, Golf Wagon from MY 2014

#### Brief Description

Before raising the vehicle, two holes must be made in the luggage compartment. The »factory« has marked the locations where the holes must be drilled.

Then the corrosion protection must be replicated using the materials supplied by the manufacturer. Refer to Paint Repair Manual.

The stabilizer bar and the rear spring are removed, the drive axle is removed from the final drive. Electrical connections and ventilation lines are disconnect at final drive.

Remove the »rear section« of the exhaust system and disconnect the driveshaft from the final drive.

The final drive is lowered with the transmission jack »downward« and diagonally in the direction of travel.

#### Special tools and workshop equipment required

- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-
- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Torque Wrench 1332 40-200Nm - VAG1332-
- ◆ »Hand drill«
- ◆ »Stepped drill« or »cone drill«



- ◆ Protective eyewear

### Removing

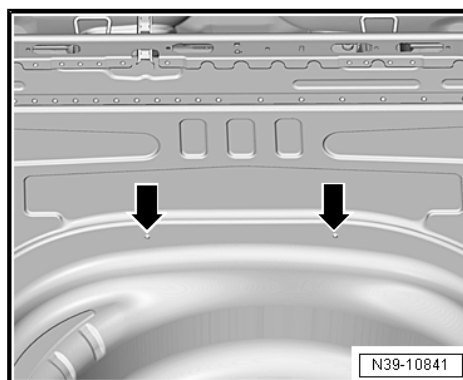
- Remove the luggage compartment floor covering.

### If Equipped

- Remove the spare wheel.
- Remove the bracket and the carrier for the rail system. Remove the floor covering from the spare wheel well. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Luggage Compartment Trim Panels; Overview - Luggage Compartment Floor .

### For All Vehicles

There are 2 markings -arrows- on the luggage compartment floor panel.

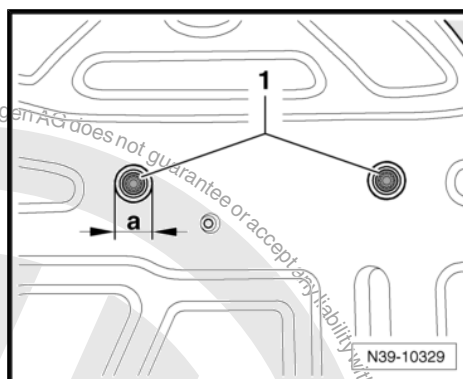


- Drill a hole at each marking -1-. Remove drill shavings while drilling, if possible.

### Dimension -a- = 26 mm

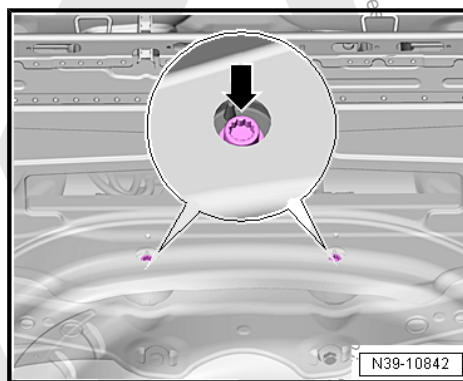
- Deburr holes and remove shavings carefully.

Reestablish corrosion protection with the materials specified by the manufacturer.



- Remove the bolts through the holes -arrow-.

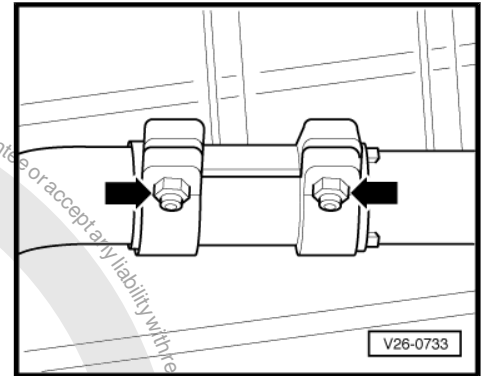
These bolts will be replaced later.







- Separate the exhaust system at the clamping sleeve -arrows- and remove the rear section of the exhaust system. Refer to ➤ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers .



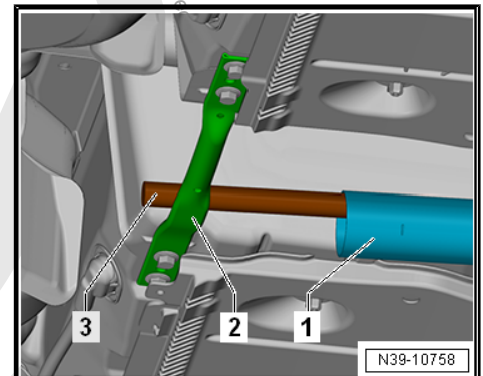
- Place a pipe or pry bar -3- in the front exhaust pipe -1- and lay it on the tunnel brace -2-.



#### Note

*Do not bend the exhaust system decoupling element more than 10° or it could be damaged.*

- Remove the rear stabilizer bar. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Stabilizer Bar; Stabilizer Bar, Removing and Installing .
- Remove left and right drive axles from rear final drive.



#### Note

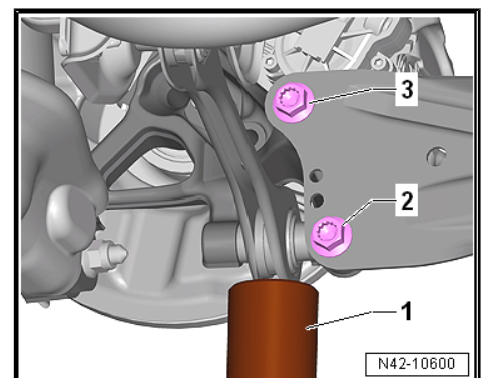
*For the next steps it is important that the multi-link axle springs are removed. This applies to the right and left side.*



#### Note

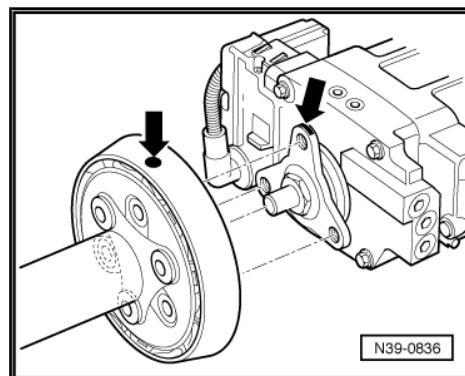
*Ignore items -2 and 3-.*

- Position the Engine and Gearbox Jack - VAS6931- -1- under the tie rod, and push upward until the driveshaft can be removed from the final drive flange.
- Guild the driveshaft carefully down.

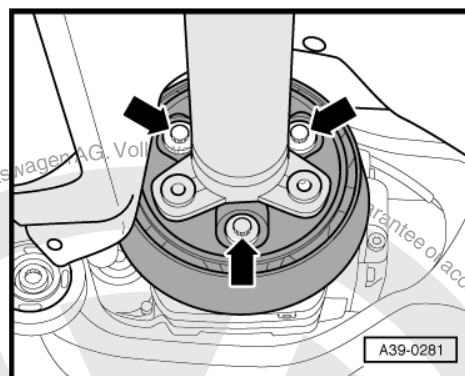




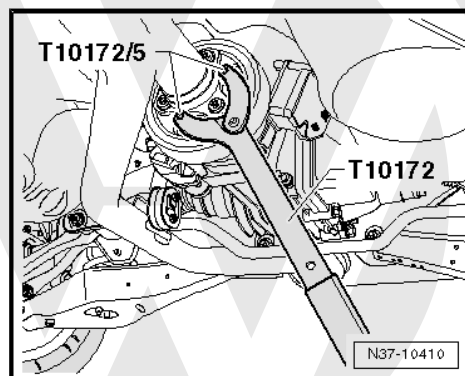
- Before removing the driveshaft from the final drive, check if a marking (colored dot) is on the driveshaft and on the flange/ final drive -arrows-. If the dot is not there, mark the installed position of the flexible disc.



- Disconnect the driveshaft from the rear final drive -arrows-.



- Counterhold using Counterhold - Kit - Multiple Use - T10172- when loosening and tightening the bolts.



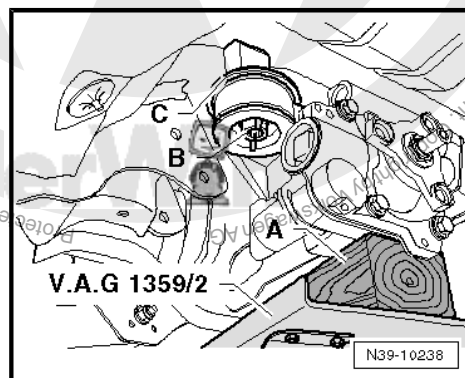
- Place the wood block -A- on the Engine and Gearbox Jack - VAS6931- and support the rear final drive.

- Remove the bolt -B- and the top washer -C- from the bracket.

Always replace the bolts.

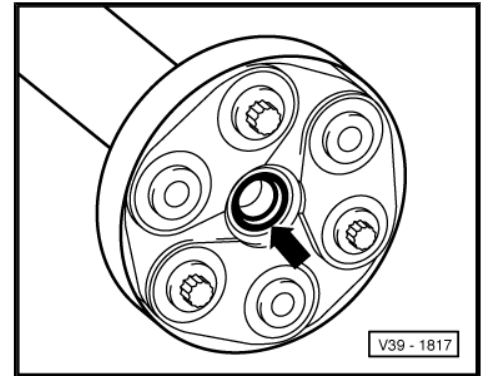
- Push the final drive as far as possible to the rear.

- Remove the driveshaft from the final drive and lay it on the tunnel brace; place a cloth on the tunnel brace to protect the shaft.

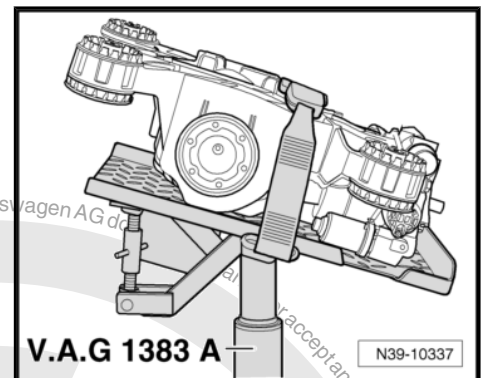




- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.



- Position the final drive in the vehicle on an angle as shown in the illustration while lowering it at the same time.
- Secure final drive against falling down onto the universal support using the strap.

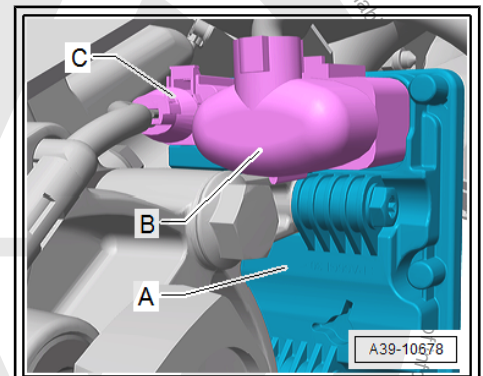


- Remove the connector -B- from the All Wheel Drive Control Module - J492- -A-. Ignore item -C-.



**Note**

Ignore item -A-.



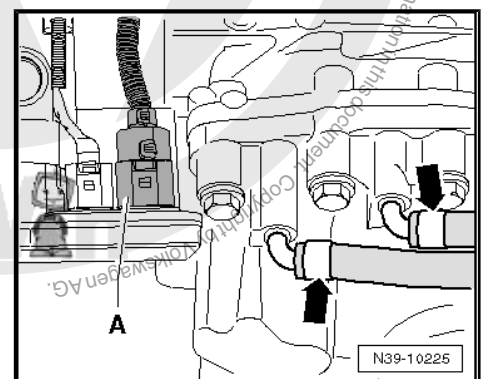
- Remove the bleed lines -arrows- if equipped from the final drive.



**Note**

Ignore item -2-.

- Guide the driveshaft -A- upward and support it in this position with a suitable piece of wood on the tunnel brace -1-.



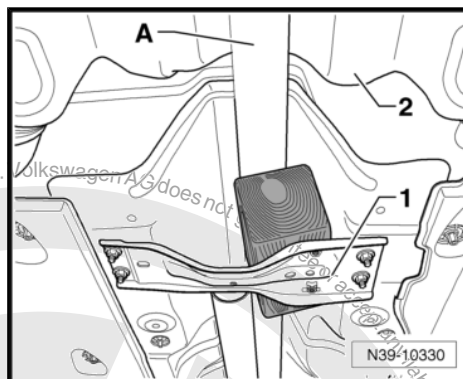


- Pull the final drive »forward« when lowering, while doing so pay attention to make »clearance« to other components.

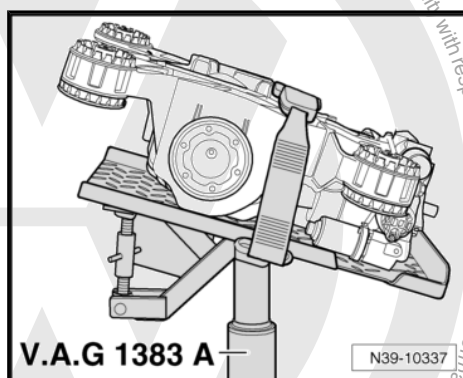
### Installing

Install in reverse order of removal:

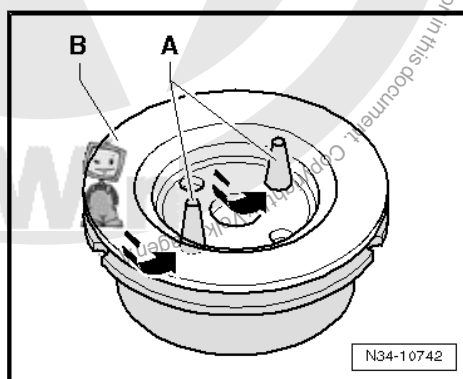
- Secure final drive against falling down with universal support strap.



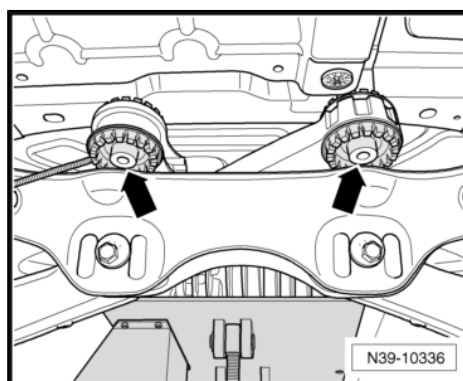
- Move the rear final drive to the illustrated position.



- Pay attention that the stop washers -B- are positioned on the rear bearing from above as shown. Correct placement prevents the gummy nipples -A- from falling or sliding out of the washer when installing.

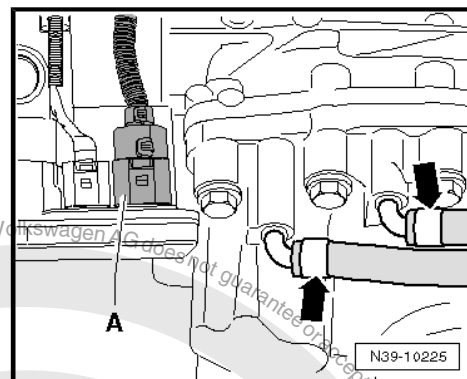


- Lift the final drive and guide it over the rear axle. While lifting guide the drive axle to the flange shaft.

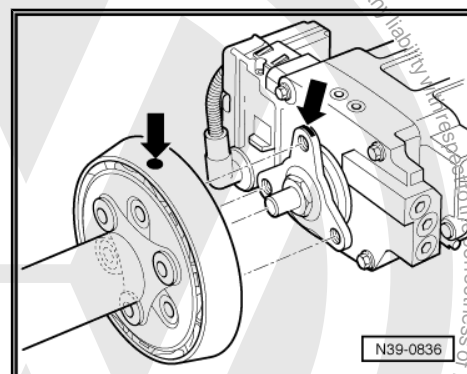




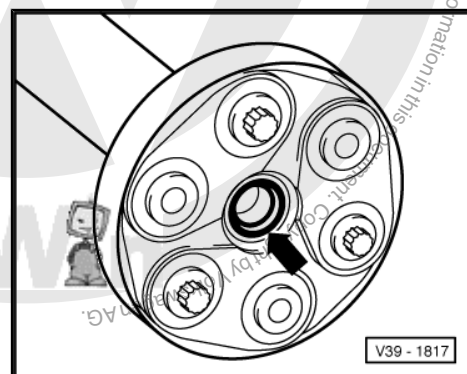
- Connect the vent lines -arrows- to the final drive vent pipes.
- Lift the final drive using the transmission jack into the installation position.
- Place a cloth on the tunnel brace and lay the driveshaft on it.
- Push the final drive as far as possible to the rear.



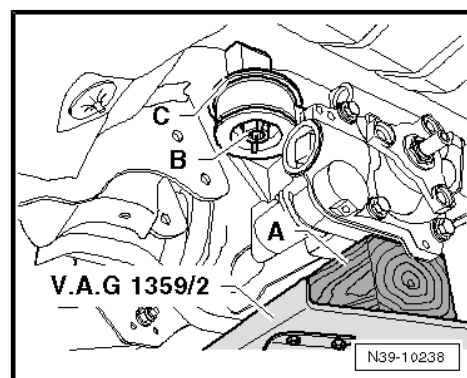
- Attach the driveshaft to the flange/driveshaft on the rear final drive so that the markings -arrows- line up. Install the bolts hand-tight at first.



- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.



- Place washer -C- on the front drive axle and faster hand tight with a new bolt -B-. Do not tighten the bolt yet.



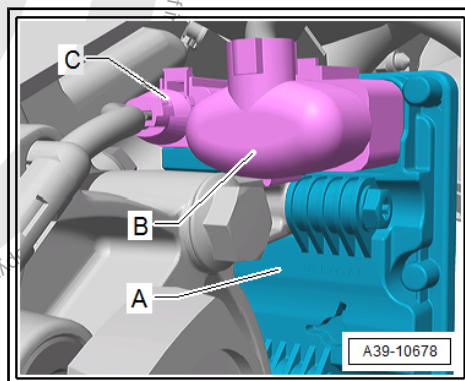
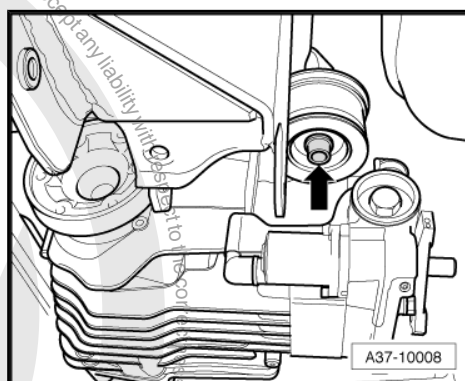
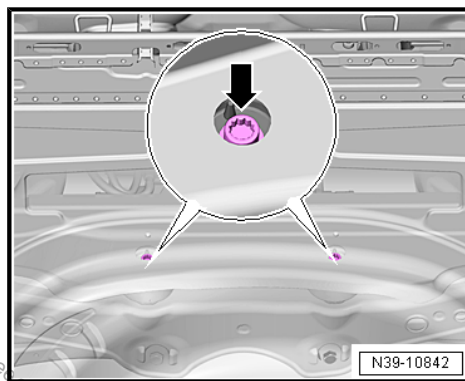


- Insert two »new« bolts -arrow- through the holes in the luggage compartment floor and tighten. Tightening specification. Refer to ➤ ["1.1 Overview - Final Drive", page 12](#) .
- If it has not already been done, replicate the corrosion protection on the applicable holes in the luggage compartment using the materials supplied by the manufacturer. Refer to Paint Repair Manual.
- Seal the holes with Cap - N 908 572 01- or Cap - N 908 572 02- .
- Install the trim panel and carpet -A-. Refer to ➤ Body Interior: Rep. Gr. 70 ; Luggage Compartment Trim Panels; Overview - Luggage Compartment Floor .
- Tighten the final drive from »underneath« -arrow-. Tightening specification. Refer to ➤ ["1.1 Overview - Final Drive", page 12](#) .
- Tighten the driveshaft. Tightening specification. Refer to ➤ ["7.1 Overview - Driveshaft", page 91](#) .
- Connect the connector -B- to the All Wheel Drive Control Module - J492- -A-. Ignore item -C-.



#### Note

For the next steps it is important that the multi-link axle springs are removed. This applies to the right and left side.





- Position the Engine and Gearbox Jack - VAS6931- -1- under the tie rod, and push upward until the driveshaft can be inserted in the final drive flange.



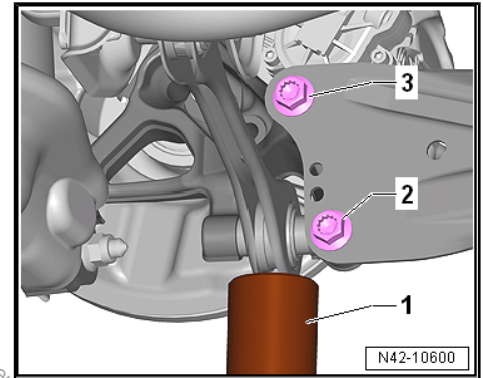
#### Note

Ignore items -2 and 3-

- Tighten drive axles. Tightening specification. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .
- Install the rear section of the exhaust system. Refer to ➤ Rep. Gr. 26 Exhaust Pipes/Mufflers; Overview - Muffler .
- Install the rear stabilizer bar. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Stabilizer Bar; Stabilizer Bar, Removing and Installing .

If final drive is replaced:

- Check fluid level in Haldex clutch. Refer to ➤ ["4 High-Performance Haldex Clutch Oil", page 55](#) .
- Check the final drive oil level. Refer to ➤ ["3 Gear Oil", page 54](#) .



## 1.2.4 Final Drive, Removing and Installing, Passat from 2015, Passat Wagon from 2015

### Brief Description

Before raising the vehicle, two holes must be made in the luggage compartment. The »factory« has marked the locations where the holes must be drilled.

Then the corrosion protection must be replicated using the materials supplied by the manufacturer. Refer to Paint Repair Manual.

The stabilizer bar and the rear spring are removed, the drive axle is removed from the final drive. Electrical connections and ventilation lines are disconnect at final drive.

Remove the »rear section« of the exhaust system and disconnect the driveshaft from the final drive.

The final drive is lowered with the transmission jack »downward« and diagonally in the direction of travel.

### Special tools and workshop equipment required

- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-
- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Torque Wrench 1332 40-200Nm - VAG1332-
- ◆ »Hand drill«
- ◆ »Stepped drill« or »cone drill«
- ◆ Protective eyewear

### Removing

- Remove the luggage compartment floor covering.





### If Equipped

- Remove the spare wheel.
- Remove the bracket and the carrier for the rail system. Remove the floor covering from the spare wheel well. Refer to ➔ Body Interior; Rep. Gr. 70 ; Luggage Compartment Trim Panels; Overview - Luggage Compartment Floor .

### For All Vehicles

There are 2 markings -arrows- on the luggage compartment floor panel.

- Drill a hole at each marking -1-. Remove drill shavings while drilling, if possible.

**Dimension -a- = 26 mm**

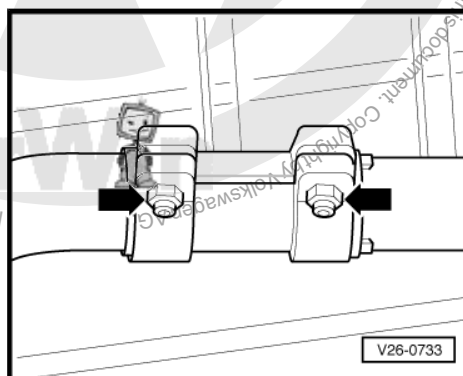
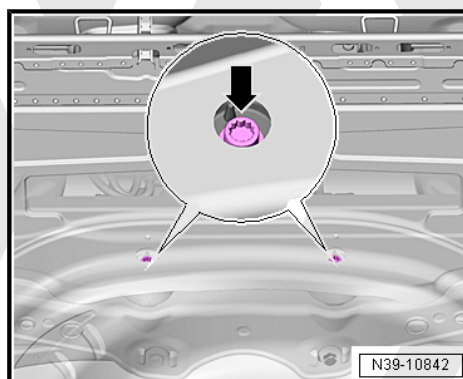
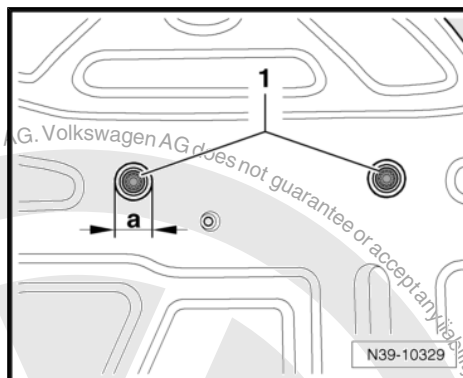
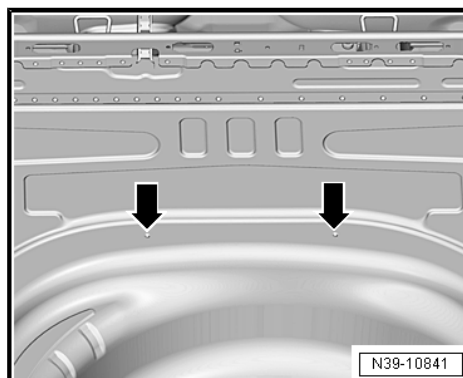
- Deburr holes and remove shavings carefully.

Reestablish corrosion protection with the materials specified by the manufacturer.

- Remove the bolts through the holes -arrow-.

These bolts will be replaced later.

- Separate the exhaust system at the clamping sleeve -arrows- and remove the rear section of the exhaust system. Refer to ➔ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers .







- Place a pipe or pry bar -3- in the front exhaust pipe -1- and lay it on the tunnel brace -2-.

**i Note**

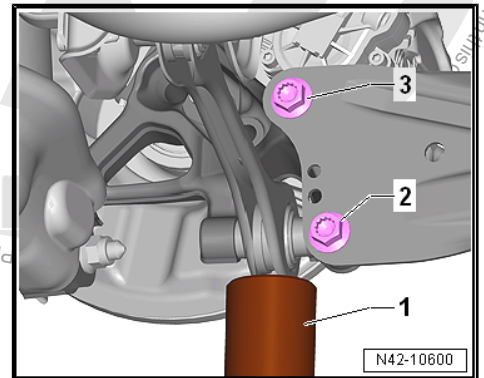
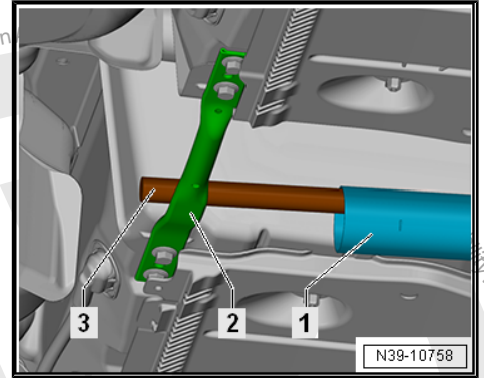
*Do not bend the exhaust system decoupling element more than 10° or it could be damaged.*

- Remove the rear stabilizer bar. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Stabilizer Bar; Stabilizer Bar, Removing and Installing .
- Remove left and right drive axles from rear final drive.

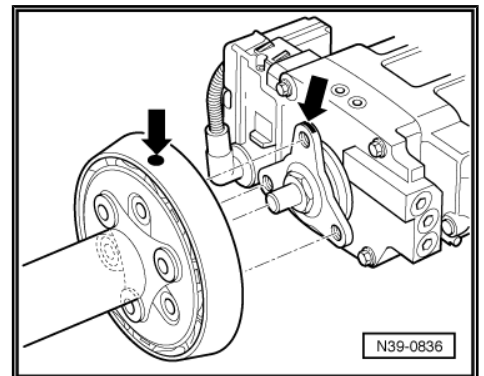
**i Note**

- ◆ *For the next steps it is important that the multi-link axle springs are removed. This applies to the right and left side.*
- ◆ *Ignore items -2 and 3-.*

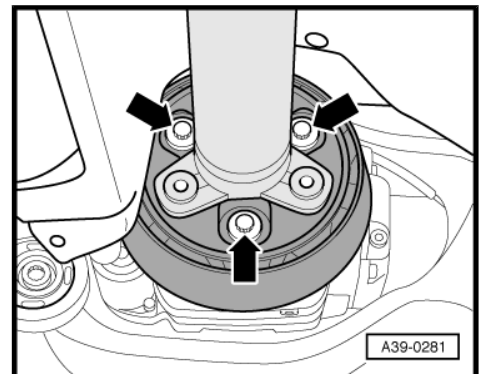
- Position the Engine and Gearbox Jack VAS6931- -1- under the tie rod, and push upward until the driveshaft can be removed from the final drive flange.
- Guild the driveshaft carefully down.



- Before removing the driveshaft from the final drive, check if a marking (colored dot) is on the driveshaft and on the flange/ final drive -arrows-. If the dot is not there, mark the installed position of the flexible disc.

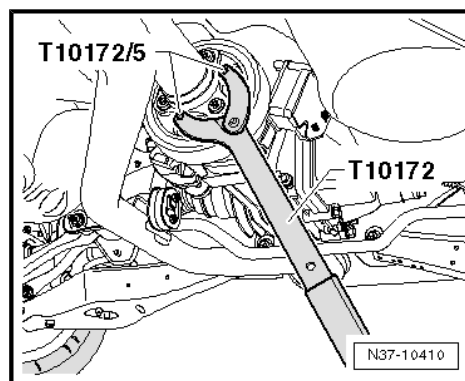


- Disconnect the driveshaft from the rear final drive -arrows-.





- Counterhold using Counterhold - Kit - Multiple Use - T10172- when loosening and tightening the bolts.

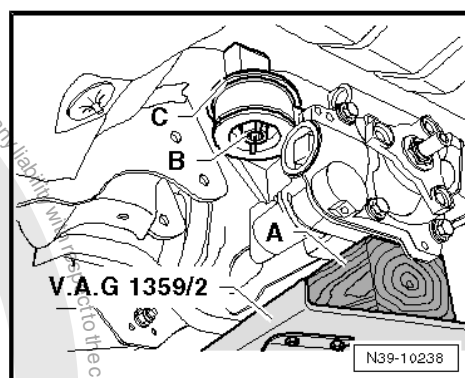


- Place the wood block -A- on the Engine and Gearbox Jack - VAS6931- and support the rear final drive.

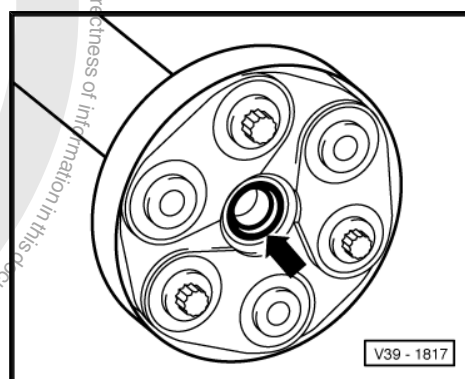
- Remove the bolt -B- and the top washer -C- from the bracket.

Always replace the bolts.

- Push the final drive as far as possible to the rear.
- Remove the driveshaft from the final drive and lay it on the tunnel brace; place a cloth on the tunnel brace to protect the shaft.

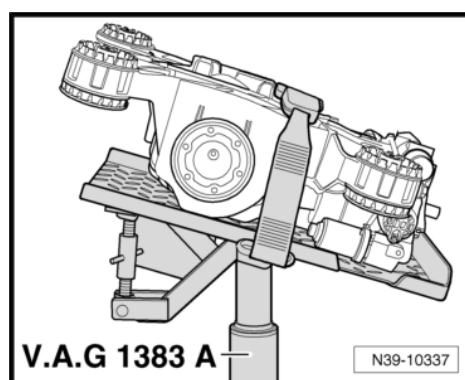


- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.



- Position the final drive in the vehicle on an angle as shown in the illustration while lowering it at the same time.

- Secure final drive against falling down onto the universal support using the strap.



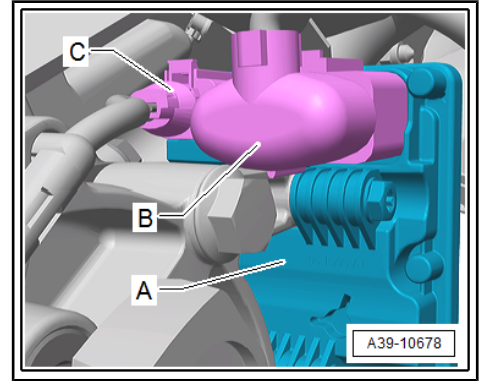


- Remove the connector -B- from the All Wheel Drive Control Module - J492- -A-. Ignore item -C-.



**Note**

*Ignore item -A-.*

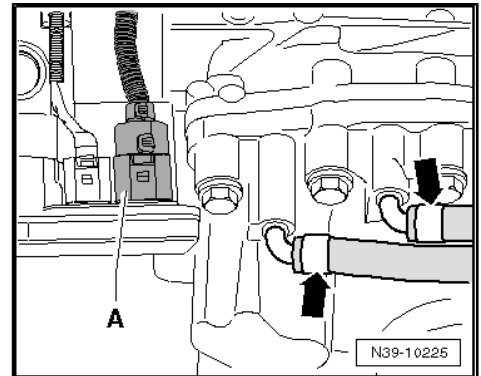


- Remove the bleed lines -arrows- if equipped from the final drive.



**Note**

*Ignore item -2-.*



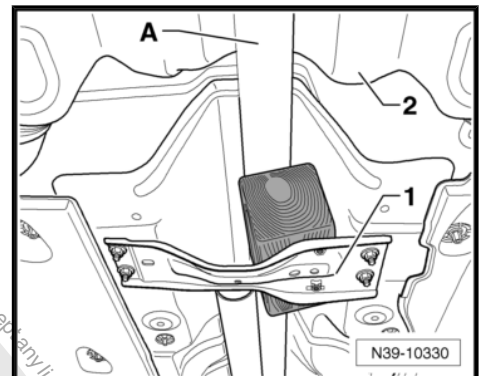
- Guide the driveshaft -A- upward and support it in this position with a suitable piece of wood on the tunnel brace -1-.

- Pull the final drive »forward« when lowering, while doing so pay attention to make »clearance« to other components.

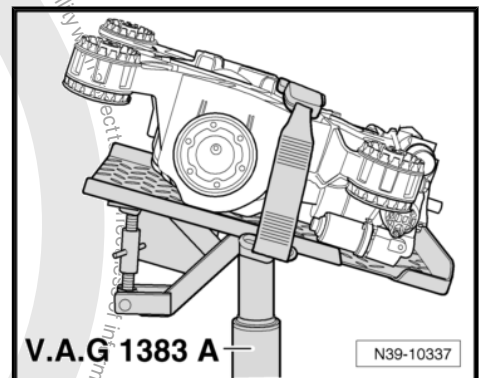
### Installing

Install in reverse order of removal:

- Secure final drive against falling down with universal support strap.

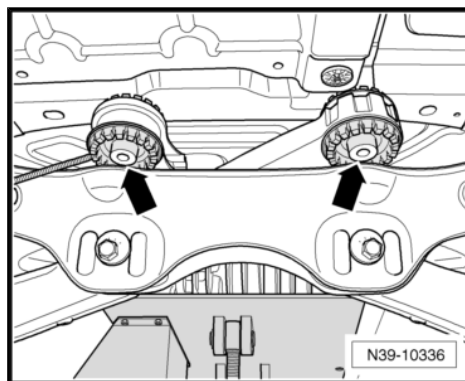


- Move the rear final drive to the illustrated position.

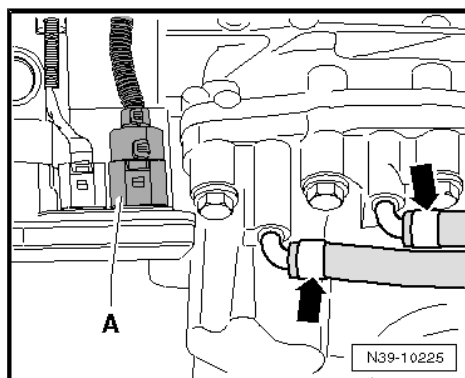




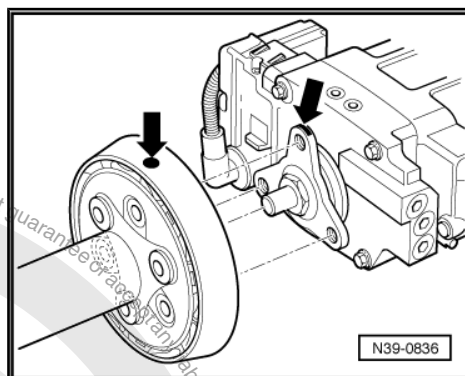
- Lift the final drive and guide it over the rear axle. While lifting guide the drive axle to the flange shaft.



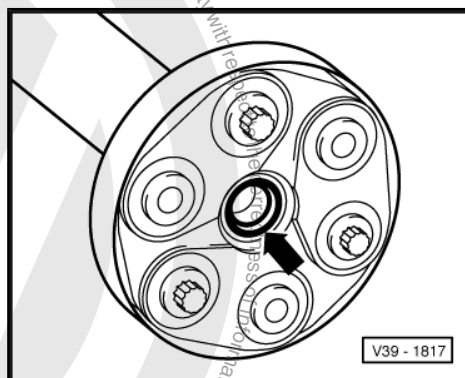
- Connect the vent lines -arrows- to the final drive vent pipes.
- Lift the final drive using the transmission jack into the installation position.
- Place a cloth on the tunnel brace and lay the driveshaft on it.
- Push the final drive as far as possible to the rear.



- Attach the driveshaft to the flange/driveshaft on the rear final drive so that the markings -arrows- line up. Install the bolts hand-tight at first.

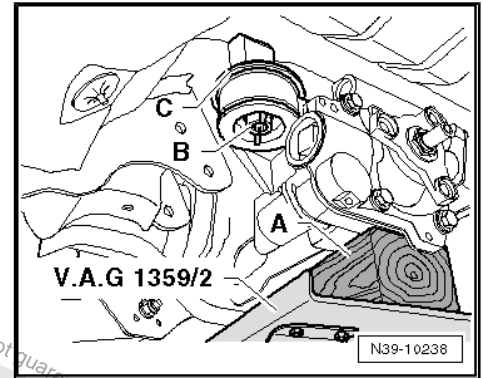


- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.

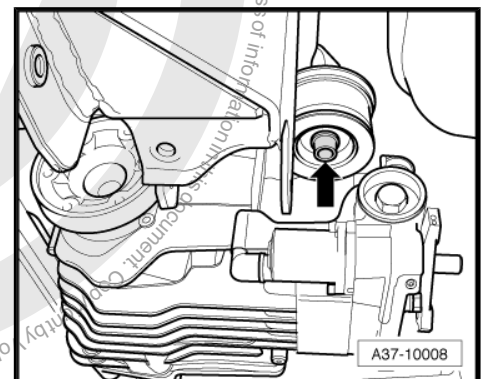
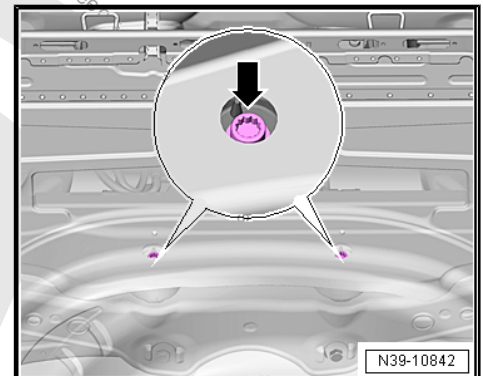




- Place washer -C- on the front drive axle and faster hand tight with a new bolt -B-. Do not tighten the bolt yet.



- Insert two »new« bolts -arrow- through the holes in the luggage compartment floor and tighten. Tightening specification. Refer to ⇒ ["1.1 Overview - Final Drive", page 12](#) .
- If it has not already been done, replicate the corrosion protection on the applicable holes in the luggage compartment using the materials supplied by the manufacturer. Refer to Paint Repair Manual.
- Seal the holes with Cap - N 908 572 01- or Cap - N 908 572 02- .
- Install the trim panel and carpet -A-. Refer to ⇒ Body Interior; Rep. Gr. 70; Luggage Compartment Trim Panels; Overview - Luggage Compartment Floor .
- Tighten the final drive from »underneath« -arrow-. Tightening specification. Refer to ⇒ ["1.1 Overview - Final Drive", page 12](#) .
- Tighten the driveshaft. Tightening specification. Refer to ⇒ ["7.1 Overview - Driveshaft", page 91](#) .



- Connect the connector -B- to the All Wheel Drive Control Module - J492- -A-. Ignore item -C-.



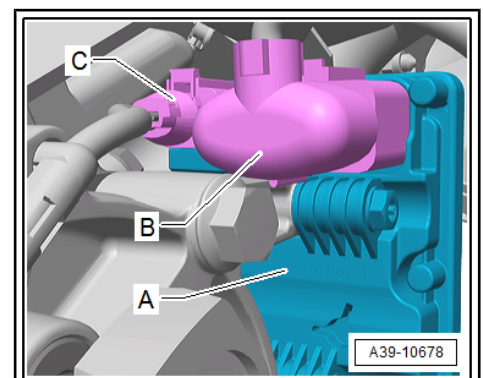
#### Note

*For the next steps it is important that the multi-link axle springs are removed. This applies to the right and left side.*



#### Note

*Ignore items -2 and 3-.*





- Position the Engine and Gearbox Jack - VAS6931- -1- under the tie rod, and push upward until the driveshaft can be inserted in the final drive flange.
- Tighten driveshaft. Tightening specification. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .
- Install the rear section of the exhaust system. Refer to ➤ Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Install the rear stabilizer bar. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Stabilizer Bar; Stabilizer Bar, Removing and Installing .

If final drive is replaced:

- Check fluid level in Haldex clutch. Refer to ➤ ["4 High-Performance Haldex Clutch Oil", page 55](#) .
- Check the final drive oil level. Refer to ➤ ["3 Gear Oil", page 54](#) .

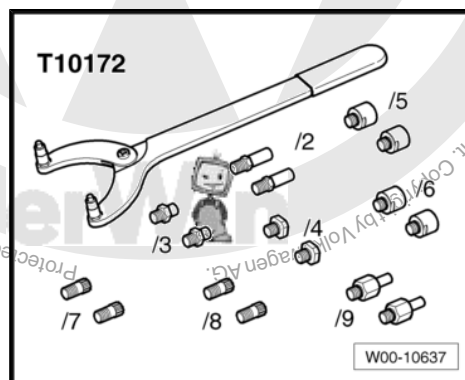
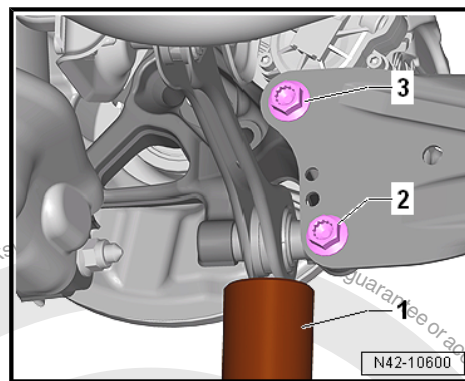
## 1.2.5 Rear Final Drive, Removing and Installing, Sharan from MY 2016

### Brief description:

On the Sharan, first remove the rear final drive together with the rear axle and then separate it.

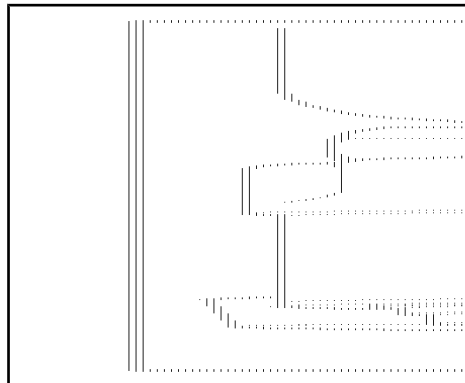
### Special tools and workshop equipment required

- ◆ Counterhold - Kit - Multiple Use - T10172-



### Removing:

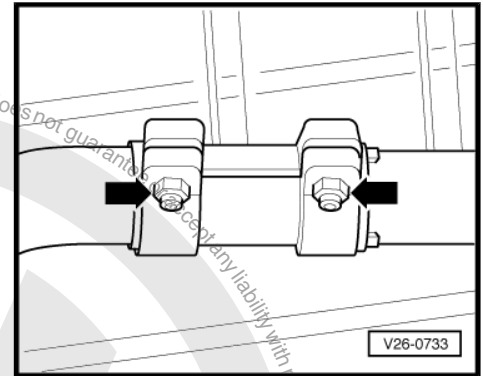
- Disconnect the connectors -1- and -2- from the AWD Control Module - J492- .



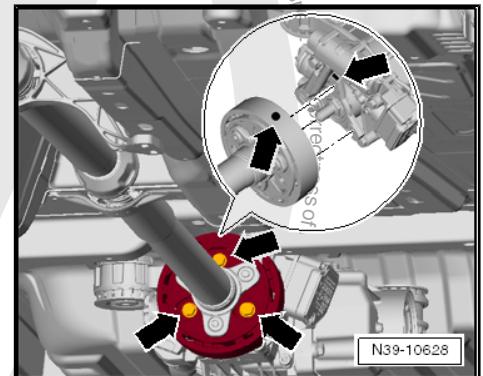




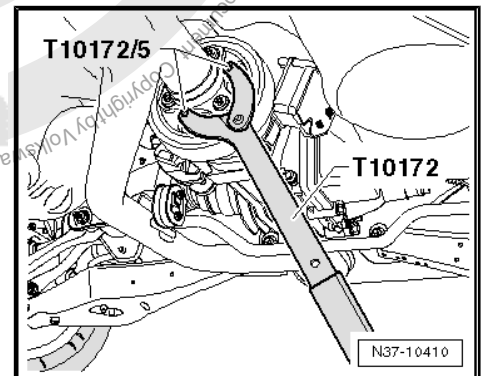
- Separate the exhaust system at the clamping sleeve -arrows- and remove the rear section of the exhaust system. Refer to ➤ Rep. Gr. 26 ; Exhaust Pipes and Mufflers; Overview - Muffler .



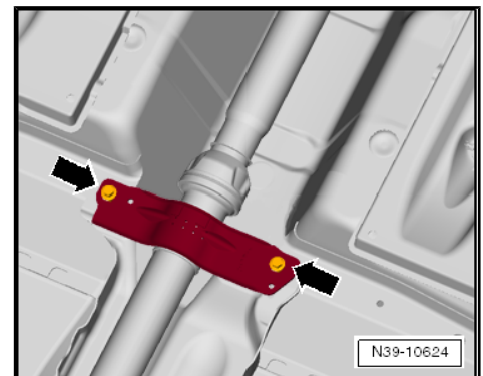
- Remove propshaft with flexible disc from final drive -arrows-.
- If no markings -arrows- are present, mark the position of the propshaft with respect to the flange on the final drive.



- Counterhold the rear final drive to loosen and tighten the propshaft.
- Remove the center tunnel heat shield under the intermediate bearing. Refer to ➤ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Trim Panels .

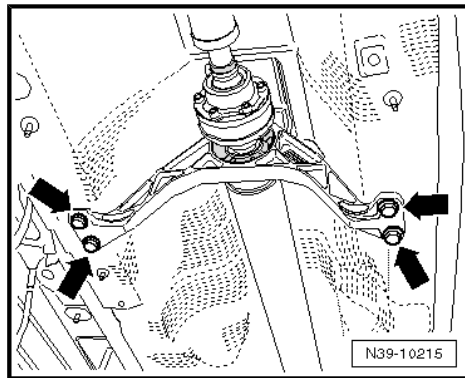


- Remove the rear intermediate bearing -arrows-.





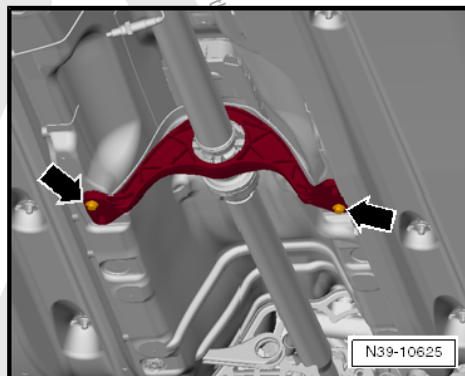
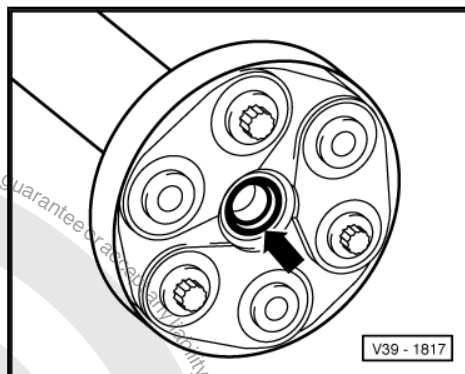
- Remove the bolts -arrows- from the front intermediate bearing.



#### Note

*Do not cant the propshaft when removing. Pull off of the centering pin in a horizontal position. The sealing ring in the centering bushing -arrow- must not be damaged.*

- Remove the propshaft together with the flexible disc from the final drive and place it on the fuel tank.
- Secure the front intermediate bearing to the body with two bolts to avoid placing a load on the front flexible disc unnecessarily.







- Loosen the bolt -arrow- on the front mounting bracket. This makes it easier to separate the final drive from the rear axle.
- Remove the rear axle. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Rear Axle, Removing and Installing .
- Remove the driveshaft from the rear final drive. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Driveshaft, Removing and Installing .
- Remove the rear final drive from the rear axle.

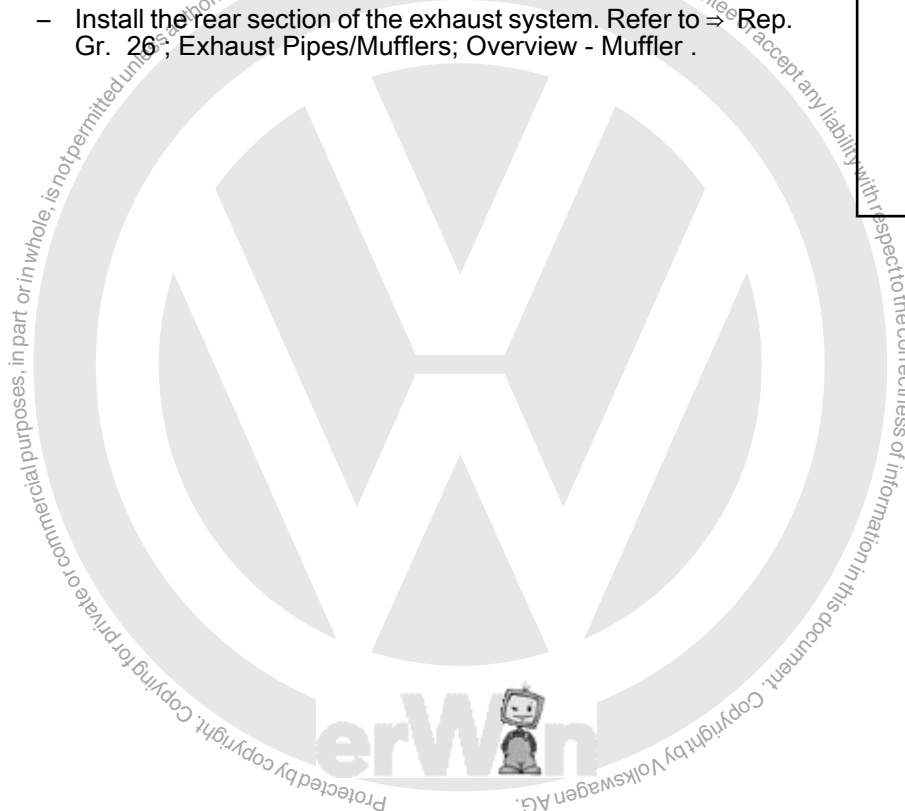
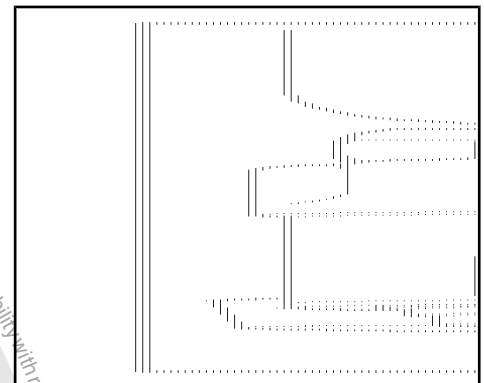
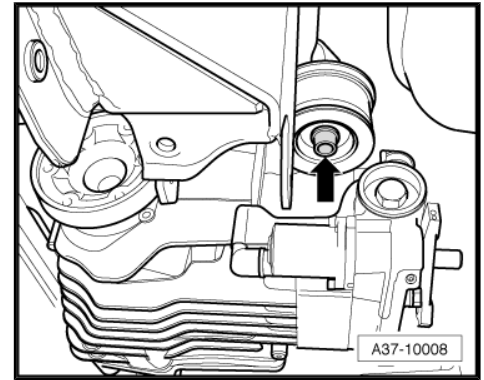
### Installing

Install in reverse order of removal while. Note the following:

- Install all parts marked to each other in their original positions.

Attach the rear final drive to the rear axle using new bolts. Tightening specification. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Overview - Subframe and Final Drive .

- Install the rear axle. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Rear Axle, Removing and Installing .
- Attach the driveshaft to the rear final drive. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Driveshaft, Removing and Installing .
- Install the propshaft. Tightening specifications. Refer to ⇒ [page 91](#) .
- Connect the connectors -1- and -2- from the AWD Control Module - J492- .
- Install the center tunnel heat shield under the intermediate bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Trim Panels .
- Install the rear section of the exhaust system. Refer to ⇒ Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .





## 2 Subframe Mount

⇒ ["2.1 Overview - Subframe Mount", page 46](#)

⇒ ["2.2 Bonded Rubber Bushing, Removing and Installing", page 49](#)

### 2.1 Overview - Subframe Mount

⇒ ["2.1.1 Overview - Subframe Mount. Final Drive 0BS, 0CR, 0AY", page 46](#)

⇒ ["2.1.2 Overview - Subframe Mount. Final Drive 0CQ", page 47](#)

#### 2.1.1 Overview - Subframe Mount. Final Drive 0BS, 0CR, 0AY

Overview - Bonded Rubber Bushing In Rear Final Drive



#### Note

Replace the bonded rubber bushings in »pairs« (upper and lower bushings).

##### 1 - "Upper Rear" Bonded Rubber Bushing

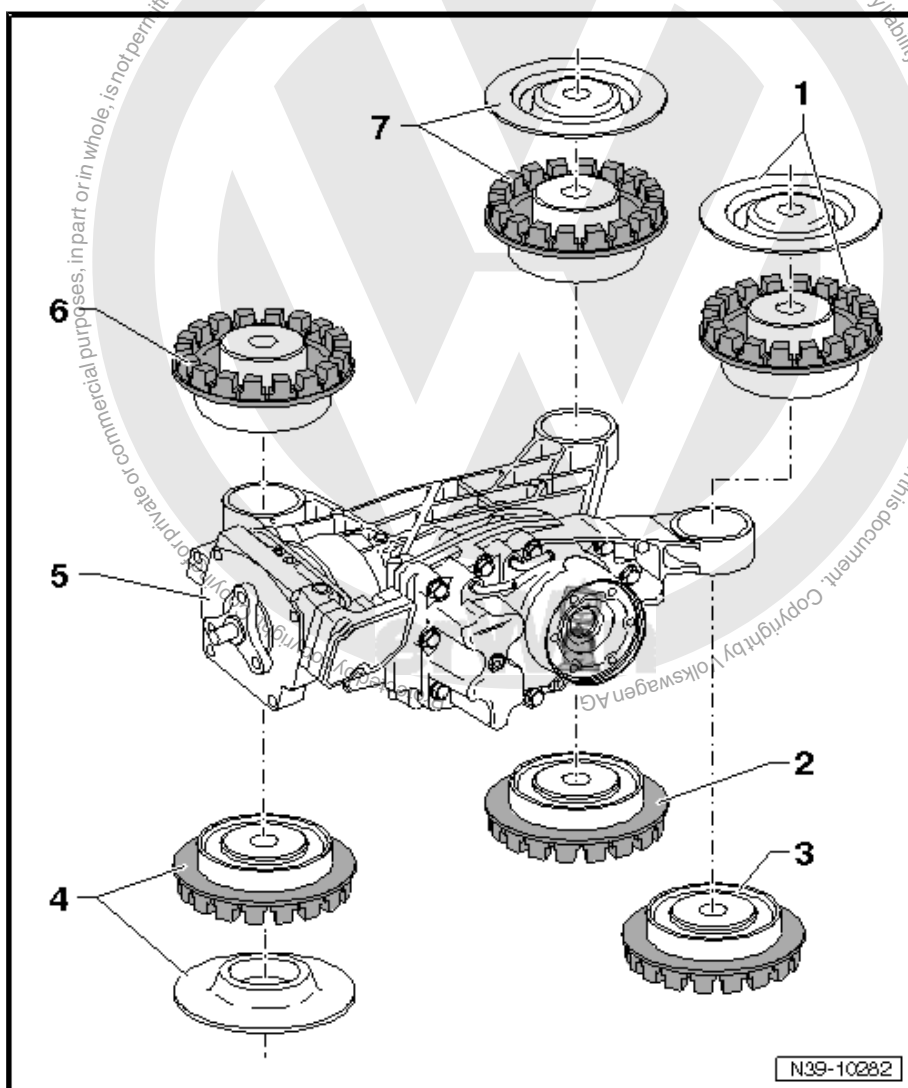
- ☐ With buffer
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ Remove the buffer for removal and installation
- ☐ Removing and installing. Refer to  
⇒ ["2.2.1 Bonded Rubber Bushing, Removing and Installing, Final Drive 0BS, 0CR, 0AY", page 49](#).

##### 2 - "Lower Rear" Bonded Rubber Bushing

- ☐ Without buffer
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ Removing and installing. Refer to  
⇒ ["2.2.1 Bonded Rubber Bushing, Removing and Installing, Final Drive 0BS, 0CR, 0AY", page 49](#).

##### 3 - "Lower Rear" Bonded Rubber Bushing

- ☐ Without buffer
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ Removing and installing. Refer to  
⇒ ["2.2.1 Bonded Rubber Bushing, Removing and](#)





Installing, Final Drive  
0BS, 0CR, 0AY", page 49 .

#### 4 - "Lower Front" Bonded Rubber Bushing

- ☐ With buffer
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ Remove the buffer for removal and installation
- ☐ Removing and installing. Refer to  
⇒ "2.2.1 Bonded Rubber Bushing, Removing and Installing, Final Drive 0BS, 0CR, 0AY", page 49 .

#### 5 - Rear Final Drive

- ☐ Remove to replace the bonded rubber bushing. Refer to  
⇒ "1.2 Final Drive, Removing and Installing", page 13

#### 6 - "Upper Front" Bonded Rubber Bushing

- ☐ Without buffer
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ Removing and installing. Refer to  
⇒ "2.2.1 Bonded Rubber Bushing, Removing and Installing, Final Drive 0BS, 0CR, 0AY", page 49 .

#### 7 - "Upper Rear" Bonded Rubber Bushing

- ☐ With buffer
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ Remove the buffer for removal and installation
- ☐ Removing and installing. Refer to  
⇒ "2.2.1 Bonded Rubber Bushing, Removing and Installing, Final Drive 0BS, 0CR, 0AY", page 49 .

### 2.1.2 Overview - Subframe Mount. Final Drive 0CQ

#### Overview - Bonded Rubber Bushing In Rear Final Drive

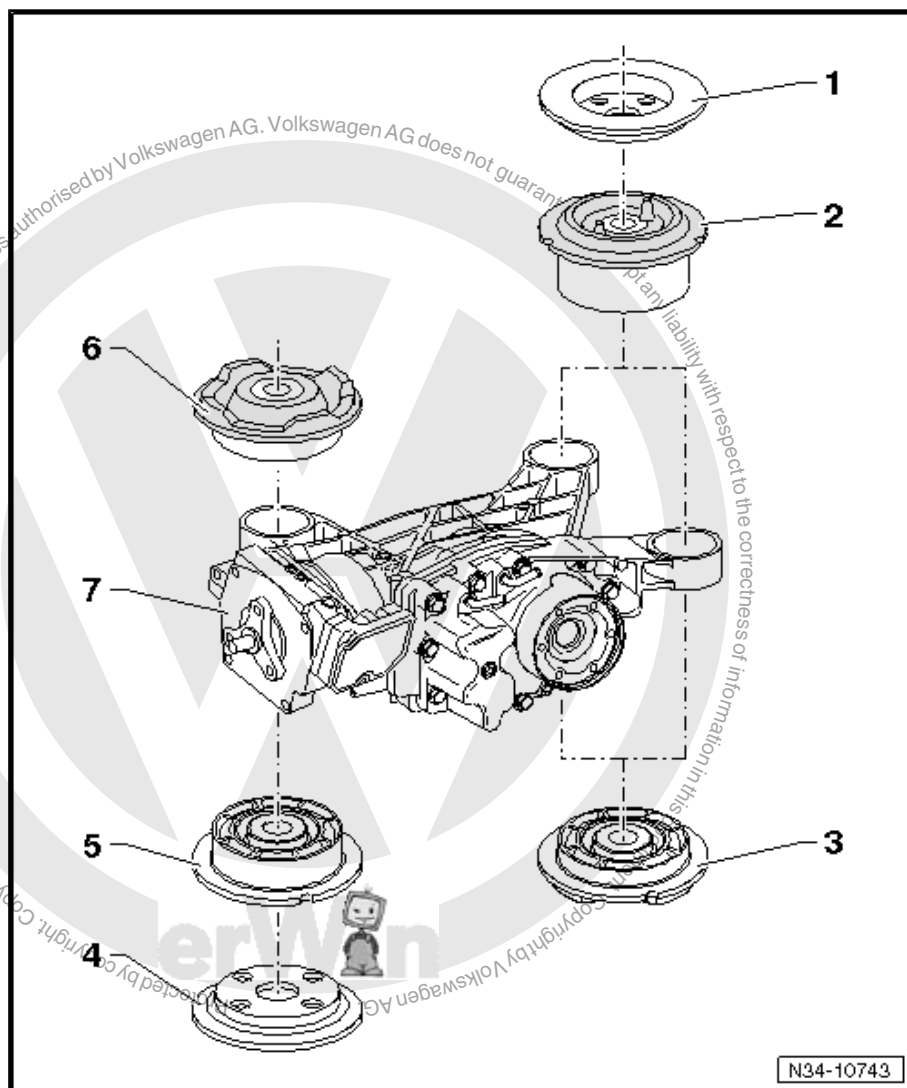


### 1 - Buffer

- ❑ Remove before removing the bonded rubber bushing -item 2-  
⇒ [Item 2 \(page 48\)](#) .
- ❑ Place. Refer to  
⇒ [“2.2.2 Bonded Rubber Bushing, Removing and Installing, Final Drive 0CQ”, page 51](#) on the bonded rubber bushing -item 2-  
⇒ [Item 2 \(page 48\)](#)

### 2 - “Upper Rear” Bonded Rubber Bushing

- ❑ Removing and installing. Refer to  
⇒ [“2.2.2 Bonded Rubber Bushing, Removing and Installing, Final Drive 0CQ”, page 51](#) .
- ❑ Differentiation of the “upper rear” and “lower front” bonded rubber bushings. Refer to  
⇒ [Fig. ““Differentiation of the Upper Rear and Lower Front Bonded Rubber Bushings””, page 53](#) .
- ❑ Installed position. Refer to  
⇒ [Fig. ““Installed Location of the Upper Rear and Lower Front Bonded Rubber Bushing when Installing the Impact Washer -B-””, page 53](#) .



### 3 - “Lower Rear” Bonded Rubber Bushing

- ❑ Removing and installing. Refer to  
⇒ [“2.2.2 Bonded Rubber Bushing, Removing and Installing, Final Drive 0CQ”, page 51](#) .

### 4 - Buffer

- ❑ Remove before removing the bonded rubber bushing -item 5- ⇒ [Item 5 \(page 48\)](#)
- ❑ Place ⇒ [“2.2.2 Bonded Rubber Bushing, Removing and Installing, Final Drive 0CQ”, page 51](#) on the bonded rubber bushing -item 5- ⇒ [Item 5 \(page 48\)](#)

### 5 - “Lower Front” Bonded Rubber Bushing

- ❑ Removing and installing. Refer to  
⇒ [“2.2.2 Bonded Rubber Bushing, Removing and Installing, Final Drive 0CQ”, page 51](#) .
- ❑ Differentiation of the “upper rear” and “lower front” bonded rubber bushings. Refer to  
⇒ [Fig. ““Differentiation of the Upper Rear and Lower Front Bonded Rubber Bushings””, page 53](#) .
- ❑ Installed position. Refer to  
⇒ [Fig. ““Installed Location of the Upper Rear and Lower Front Bonded Rubber Bushing when Installing the Impact Washer -B-””, page 53](#) .

### 6 - “Upper Front” Bonded Rubber Bushing

- ❑ Removing and installing. Refer to  
⇒ [“2.2.2 Bonded Rubber Bushing, Removing and Installing, Final Drive 0CQ”, page 51](#) .

### 7 - Rear Final Drive

- ❑ Removing and installing. Refer to ⇒ [“1.2 Final Drive, Removing and Installing”, page 13](#) .



## 2.2 Bonded Rubber Bushing, Removing and Installing

⇒ [“2.2.1 Bonded Rubber Bushing, Removing and Installing, Final Drive 0BS, 0CR, 0AY”, page 49](#)

⇒ [“2.2.2 Bonded Rubber Bushing, Removing and Installing, Final Drive 0CQ”, page 51](#)

### 2.2.1 Bonded Rubber Bushing, Removing and Installing, Final Drive 0BS, 0CR, 0AY

#### Special tools and workshop equipment required

- ◆ Bushing Tool Set - Thrust Piece - 3291/1- from the Bushing Tool Set - 3291-
- ◆ Spindle from the Bushing Tool Set - 3292-
- ◆ Thrust pieces 3348 and 3348/1 from the Bearing Installer - Multiple Use - 3348-
- ◆ -1- Puller - Kukko Internal - 46-56mm - 21/7-
- ◆ -4- Puller - Kukko Counterstay - 22/2-

#### Removing

Removing »Upper« Bearing.

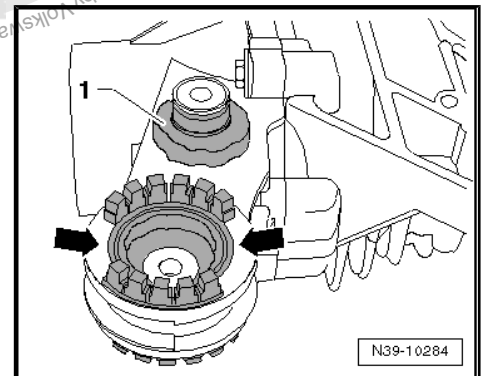


#### WARNING

*Wear safety gloves.*

To position the Support :

- Break 2 pieces -arrows- out of the bearing collar.
- Remove the metal core -1-.



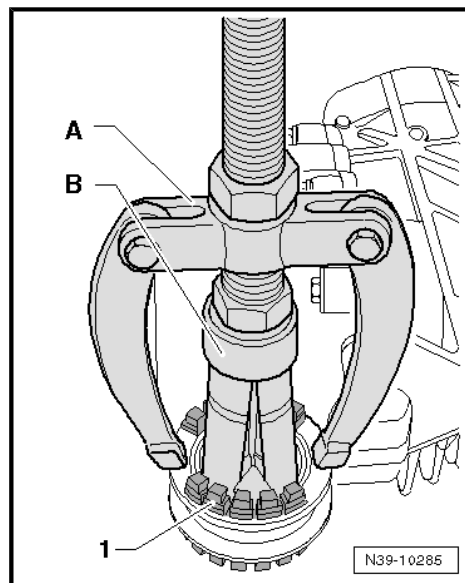


- Remove the bonded rubber bushing -1-.

A - Puller - Kukko Counterstay - 22-2-

B - Puller - Kukko Internal - 46-56mm - 21-7-

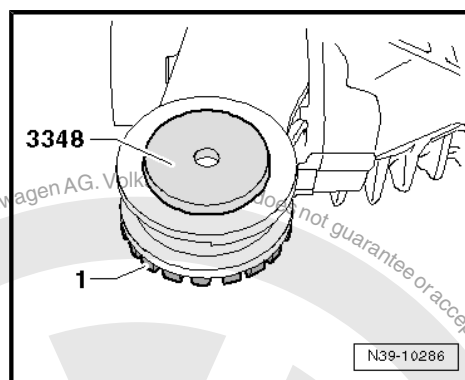
#### Driving Out the "Lower" Bonded Rubber Bushing.



- Remove the bonded rubber bushing -1- with a Bearing Installer - Multiple Use - 3348- and plastic mallet.

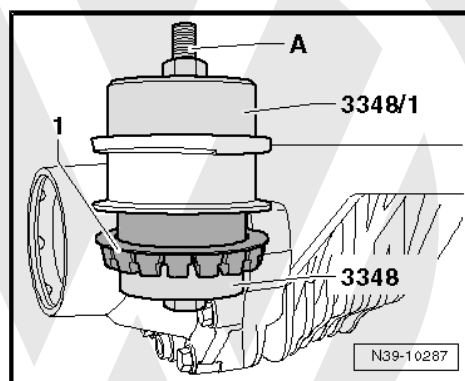
#### Installing

#### Pulling In the "Lower" Bonded Rubber Bushing.



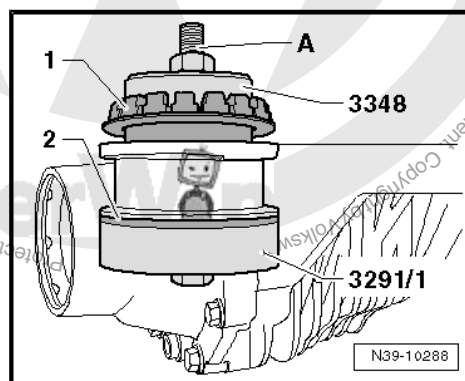
- Pull the bushing in until the collar makes contact with the final drive all the way around.

#### Pulling In the "Upper" Bonded Rubber Bushing.



- Pull the bushing in until the collar makes contact with the final drive all the way around.

- Install the plates, location. Refer to  
⇒ ["2.1.1 Overview - Subframe Mount. Final Drive OBS, OCR, 0AY", page 46](#) .







## 2.2.2 Bonded Rubber Bushing, Removing and Installing, Final Drive 0CQ

### Special tools and workshop equipment required

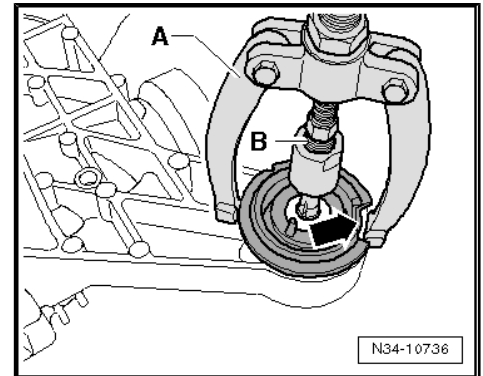
- ◆ Locking Pin Driver - 30-505-
- ◆ Bearing Installer - Clutch Housing/Gearbox Bearing - VW554-
- ◆ Bushing Installer - Rear Axle Beam - 3128-
- ◆ Rear Bushing Tool - Press Piece - T40033/1-
- ◆ Assembly Tool Kit - Traverse - T10030/5-
- ◆ Bearing Installer - Control Arm - Bolt - 3346/2-
- ◆ Bearing Installer - Control Arm - Nut - 3346/3-
- ◆ -1- Puller - Kukko Internal - 12-16mm - 21/1-
- ◆ -4- Puller - Kukko Counterstay - 22/1-

### Removing the "Upper Rear" Bonded Rubber Bushing

A - Counter Support , for example Puller - Kukko Counterstay 22/1-

B - Internal Puller 12 to 16 mm , for example Puller - Kukko Internal 12-16mm - 21/1-

- A piece must be broken out of the bonded rubber bushing collar -arrow- to attach the Support.
- Insert the Extractor in the separating gap between the upper and lower bonded rubber bushing and brace it.

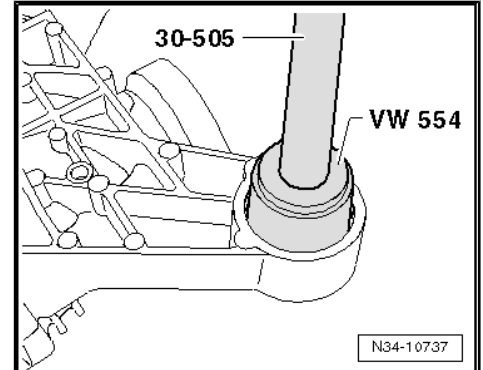


### Removing the "Lower Rear" Bonded Rubber Bushing



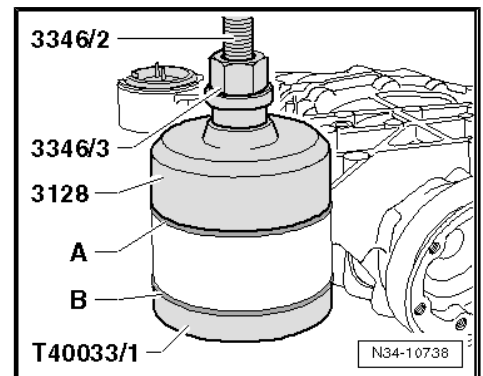
#### Note

*If the bonded rubber bushing should be replaced separately, it can be removed with the Counter Support such as the Puller - Kukko Counterstay - 22/1- and the Extractor 12 to 16 mm for example the Puller - Kukko Internal - 12-16mm - 21/1- . Refer to ⇒ Fig. "Removing the Upper Rear Bonded Rubber Bushing", page 51 .*



### Installing the "Upper Rear" -A- and "Lower Rear" -B- Bonded Rubber Bushings

- Lay a washer with an »internal diameter of 15 mm« and an »outer diameter of a minimum of 27 mm« on the Bearing Installer - Control Arm - Bolt - 3346/2- before it is installed.





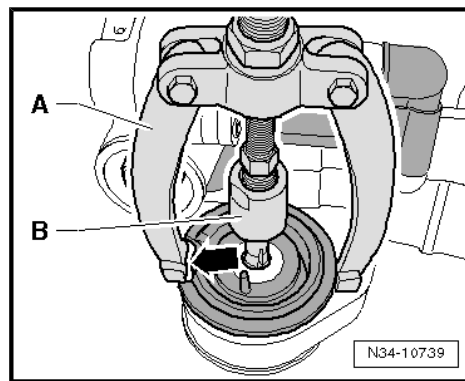
### Removing the "Lower Front" Bonded Rubber Bushing

- To prevent oil from leaking out of the final drive in the following step, seal off both vent pipes.
- Place the final drive with the top down on the workbench and remove the bonded rubber bushing:

A - Counter Support , for example Puller - Kukko Counterstay - 22/1-

B - Internal Puller 12 to 16 mm , for example Puller - Kukko Internal - 12-16mm - 21/1-

- A piece must be broken out of the bonded rubber bushing collar -arrow- to attach the Support .
- Insert the Extractor in the separating gap between the upper and lower bonded rubber bushing and brace it.

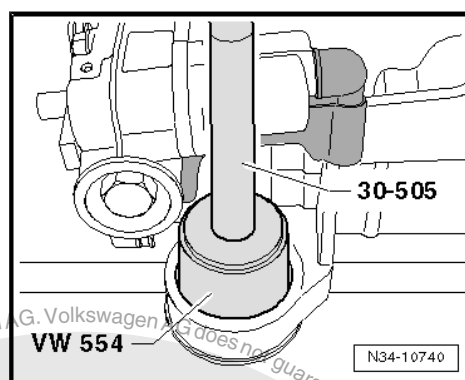


### Removing the "Upper Front" Bonded Rubber Bushing



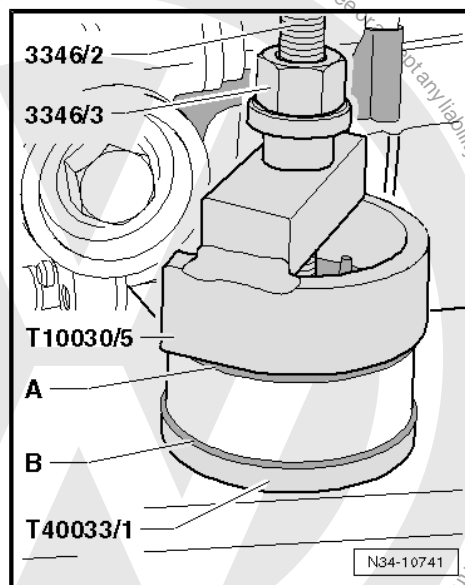
#### Note

*If the bonded rubber bushing should be replaced separately, it can be removed with the Counter Support such as the Puller - Kukko Counterstay - 22/1- and the Extractor 12 to 16 mm for example the Puller - Kukko Internal - 12-16mm - 21/1- . Refer to [Fig. "Removing the Lower Front Bonded Rubber Bushing"](#), [page 52](#) .*



### Installing the "Lower Front" -A- and "Upper Front" -B- Bonded Rubber Bushings

- Lay a washer with an »internal diameter of 15 mm« and an »outer diameter of a minimum of 27 mm« on the Bearing Installer - Control Arm - Bolt - 3346/2- before it is installed.



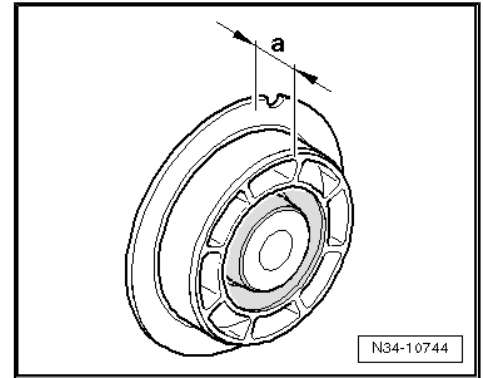




### Differentiation of the "Upper Rear" and "Lower Front" Bonded Rubber Bushings

The "upper rear" and "lower front" bonded rubber bushings can be differentiated.

Dimension "a" mm	Bonded Rubber Bushing
22	"upper rear"
17	"lower front"

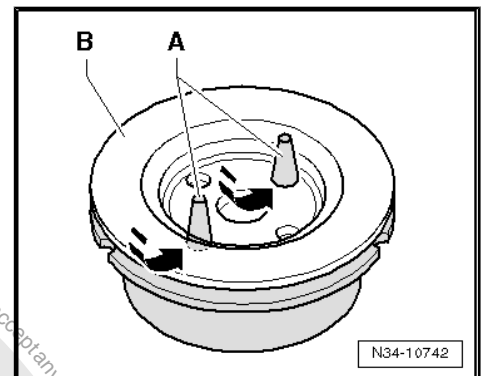


### Installed Location of the "Upper Rear" and "Lower Front" Bonded Rubber Bushing when Installing the Impact Washer -B-

- Final drive in its installed position

### Installation Location of the "Upper Rear" and "Lower Front" Bonded Rubber Bushing:

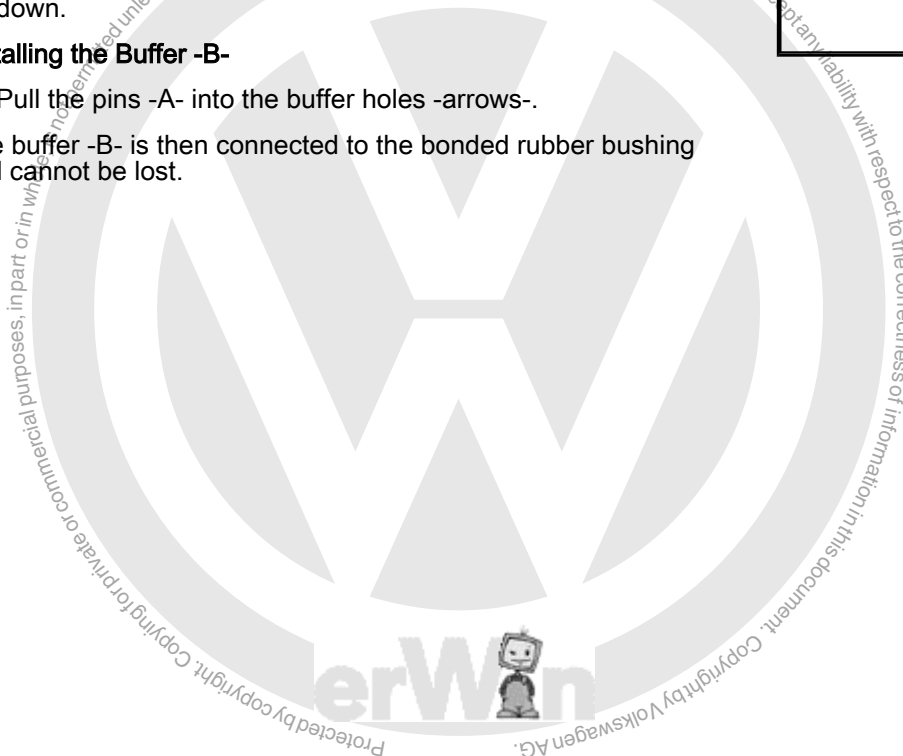
- ◆ The "upper rear" bonded rubber bushings -item 2-  
⇒ [Item 2 \(page 48\)](#) are positioned with the pins -A- facing up.
- ◆ The "lower front" bonded rubber bushings -item 5-  
⇒ [Item 5 \(page 48\)](#) are positioned with the pins -A- facing down.



### Installing the Buffer -B-

- Pull the pins -A- into the buffer holes -arrows-.

The buffer -B- is then connected to the bonded rubber bushing and cannot be lost.





## 3 Gear Oil

⇒ "3.1 Gear Oil, Checking Level", page 54

### 3.1 Gear Oil, Checking Level

#### Special tools and workshop equipment required

- ♦ Charging Device For Haldex Coupling 2 - VAS6291A-
- ♦ Charging Device For Haldex Coupling 2 - Adapter 3 - VAS6291/3-
- ♦ Torque Wrench 1331 5-50Nm - VAG1331-

#### Test Requirement

- The vehicle is level and all hoist supports are the same height.

#### Checking Oil Level

- Place the Shop Crane - Drip Tray - VAS6208- under the final drive.

The oil inspection plug is located on the rear final drive and visible on the left side in the direction of travel.

- Remove the plug -arrow-

The oil level is correct when the rear final drive is filled up to the lower edge of the filler hole.

- Install the plug -arrow- and tighten. Tightening specification 15 Nm

#### Filling Oil

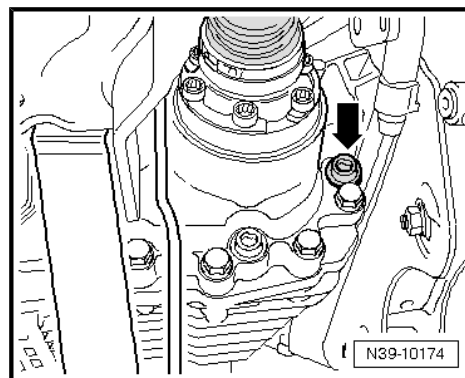
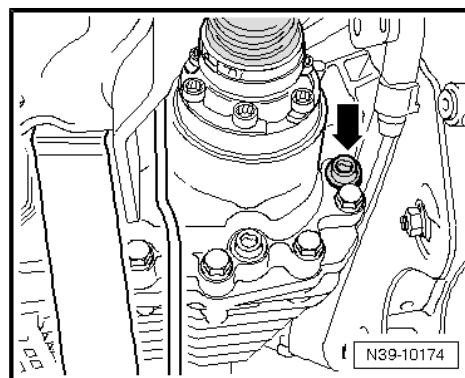
- Install the Charging Device For Haldex Coupling 2 - Adapter 3 - VAS6291/3- hand tight in the check hole.
- Add enough oil using Charging Device For Haldex Coupling 2 - VAS6291A- until it runs out between the adapter on the charging device and the transmission housing.

Refer to the Parts Catalog Gear Oil for the rear final drive.

- Remove the filler tool and adapter; a little oil left over will run out.

The oil level is correct when the rear final drive is filled up to the lower edge of the filler hole.

- Install the plug -arrow- and tighten. Tightening specification 15 Nm





## 4 High-Performance Haldex Clutch Oil

⇒ [“4.1 Haldex Clutch Oil, Checking Level”, page 55](#)

⇒ [“4.2 High-Performance Haldex Clutch Oil, Draining and Filling”, page 56](#)

### 4.1 Haldex Clutch Oil, Checking Level

High-performance fluid for the Haldex clutch . Refer to Parts Catalog.

#### Special tools and workshop equipment required

- ◆ Vehicle Diagnostic Tester
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Acid-resistant safety gloves

#### Test Requirements

- Observe the safety information.
- The oil temperature must be between 20 and 40 °C (68 and 104 °F).
- The vehicle must be on a level surface.
- Final drive must be in installation position to check oil level.
- Read the oil temperature. Refer to Vehicle Diagnostic Tester [Guided Functions](#).

#### Enter “Guided Fault Finding”:

- Switch the ignition on.
- Touch the “Guided Functions” field/button.
- Select one after another on the tester:
  - ◆ Brand
  - ◆ Type
  - ◆ Model year
  - ◆ Variant
  - ◆ Engine codes
  - ◆ Confirm the entered data.
  - ◆ 22 - AWD electronics
  - ◆ 22 - Read the measured values block
  - ◆ Oil temperature
- Read the oil temperature.
- The oil temperature must be 20 to 40 °C (68 to 104 °F).

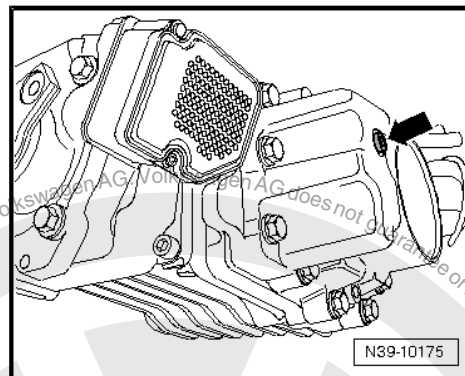


### Checking Oil Level

- Remove the oil filler plug -arrow-. (Shown with final drive removed for the sake of clarity).

The oil level is correct if the Haldex clutch is filled to the lower edge of the oil filler hole or up to 3 mm below the oil filler hole.

- Tighten the bolt -arrow- to 15 Nm.
- Add oil if the oil level is not correct. Refer to [⇒ page 56](#) .



## 4.2 High-Performance Haldex Clutch Oil, Draining and Filling

### Special tools and workshop equipment required

- ◆ Used Oil Collection and Extraction Unit - SMN372500-
- ◆ Oil Filler - VAS6262A-
- ◆ Charging Device For Haldex Coupling 2 - Adapter 2 - VAS6291/2-
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Acid-resistant safety gloves

### Draining Oil

- Observe the safety information.
- The vehicle must be on a level surface.



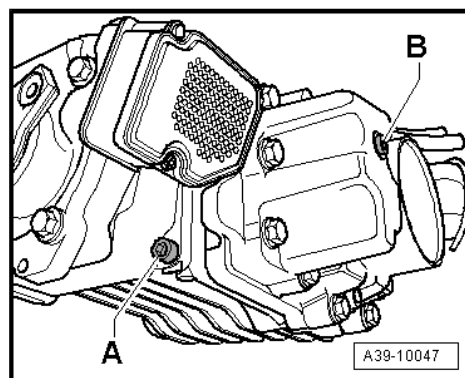
#### Caution

*There is a risk of injury.*

- ***Wear acid-resistant safety gloves.***

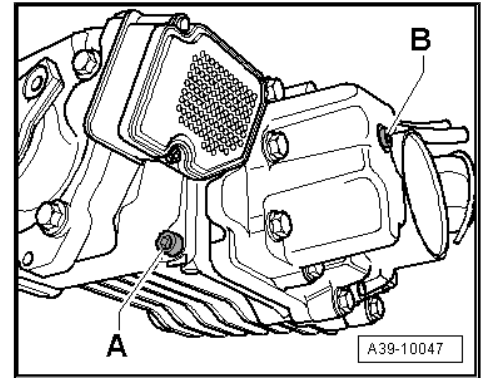
- Place the Used Oil Collection and Extraction Unit - SMN372500- under the final drive.
- Remove the drain plug -A- and drain all the High Performance Haldex Clutch Oil .
- Install the drain plug -A- with the new sealing ring and tighten to 30 Nm.

### Filling Oil



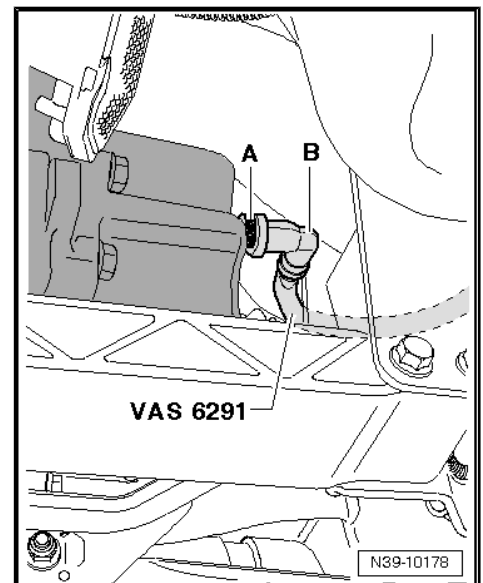


- Remove the filler plug -B-. (Shown with final drive removed for the sake of clarity).

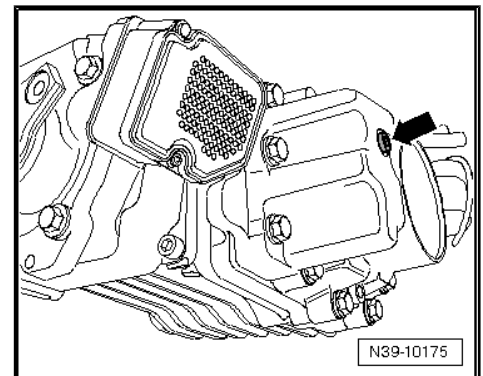


- Install the Charging Device For Haldex Coupling 2 - Adapter 2 - VAS6291/2- -A- until stop.
- Lock the elbow -B- with the adapter -A-.
- Add enough oil using Oil Filler - VAS6262A- until it runs out between the adapter on the charging device and the transmission housing.
- Remove the filler tool and adapter; a little oil left over will run out.

The oil level is correct when the Haldex clutch is filled up to the lower edge of the oil fill hole.



- Install the plug -arrow- and tighten. Tightening Specification 15 Nm



## 5 Seals

⇒ **“5.1 Component Location Overview - Seals”, page 58**

⇒ "5.2 Right Seal, Replacing", page 59

⇒ "5.3 Left Seal, Replacing", page 62

⇒ "5.4 Flange Shaft and Driveshaft Seal on Rear Final Drive, Replacing", page 65

## 5.1 Component Location Overview - Seals

1 - Nut

- ❑ Secure using Locking Compound - D1000 600-
- ❑ Tightening specification. Refer to ⇒ “6.2 Overview – Hal-dex Clutch”, page 70.

## 2 - Driveshaft Flange

- Removing and installing. Refer to ⇒ "5.4 Flange Shaft and Driveshaft Seal on Rear Final Drive, Replacing", page 65.

### 3 - Flange/Driveshaft Seal

Replacing. Refer to  
⇒ “5.4 Flange Shaft and Drive-  
shaft Seal on Rear Final Drive,  
Replacing”, page 65.

#### 4 - Right Seal

- ❑ For the right flange shaft
- ❑ Replacing. Refer to  
⇒ "5.2 Right Seal, Re-  
placing", page 59.

## 5 - Circlip

- ❑ Replace after removing flange shaft.

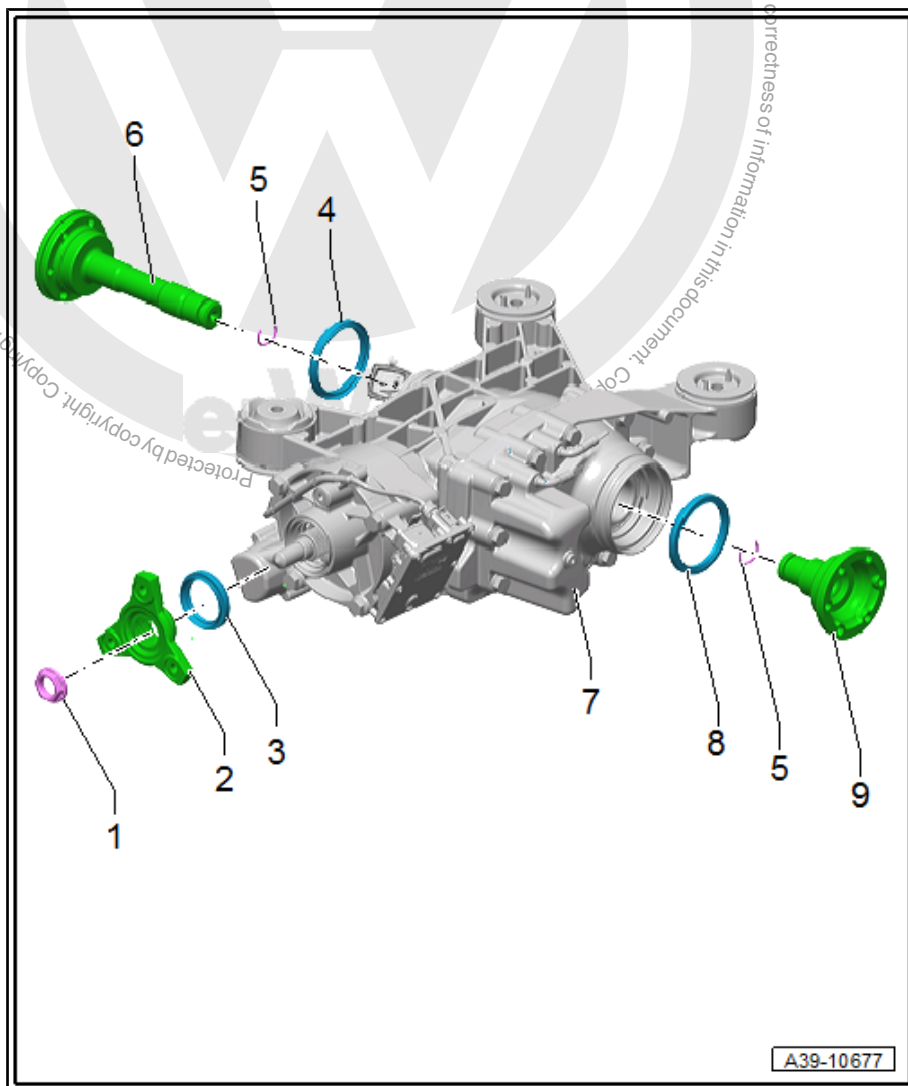
## 6 - Right Flange Shaft

## 7 - Rear Final Drive

### 8 - Left Seal

- ☐ For the left flange shaft
- ☐ Replacing. Refer to ⇒ **“5.3 Left Seal, Replacing”, page 62**.

### 9 - Left Flange Shaft





## 5.2 Right Seal, Replacing

⇒ ["5.2.1 Right Seal, Replacing, Rear Final Drive 0BS", page 59](#)

⇒ ["5.2.2 Right Seal, Replacing, Rear Final Drive 0CQ/0CR/0AY", page 60](#)

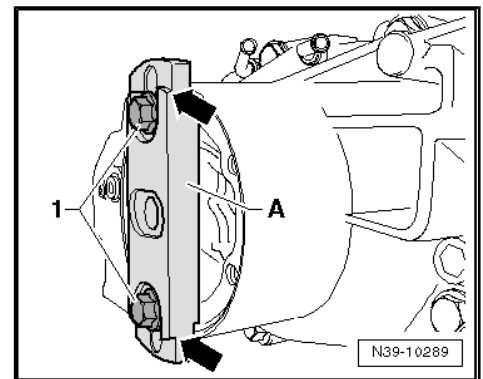
### 5.2.1 Right Seal, Replacing, Rear Final Drive 0BS

#### Special tools and workshop equipment required

- ◆ Puller - Seal Lever - VW681-
- ◆ Plate from the Puller - Flanged Shaft - T10037-
- ◆ Seal Installer - Flange Shaft - T10049-
- ◆ Shop Crane - Drip Tray - VAS6208-
- ◆ Sealing Grease - G 052 128 A1-

#### Removing

- Remove the rear final drive. Refer to ["1.2 Final Drive, Removing and Installing", page 13](#).
  - Install the plate -A- from the Puller - Flanged Shaft - T10037- on the flange and tighten the two M8 x 30 bolts -1- by hand.
- The sections -arrows- for the larger flange diameter face outward.

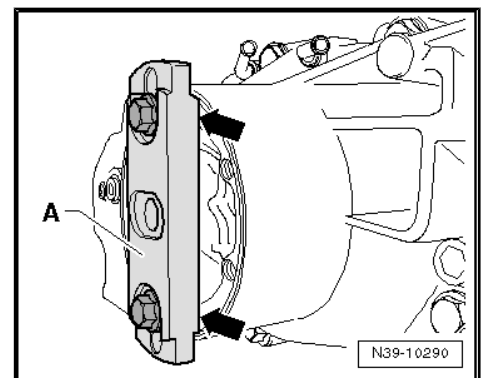


- Tighten the bolts one turn each in an alternating sequence until the flange is in contact with the plate -arrows- and then stop tightening.



#### WARNING

*Wear gloves to get a good grip on the flange.*





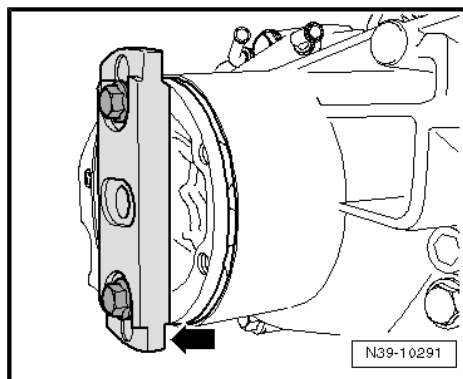


Drive the flange out of the final drive by tapping lightly on the plate -arrow-.



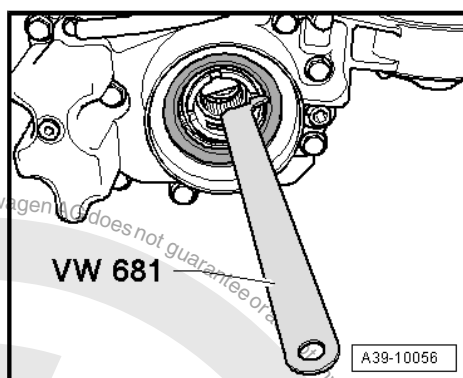
#### Caution

*Only use a plastic mallet so the final drive and tool are not damaged.*



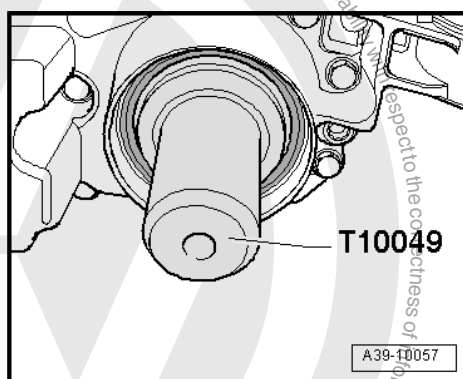
- Pry off flange shaft seal with the Puller - Seal Lever - VW681- .

#### Installing

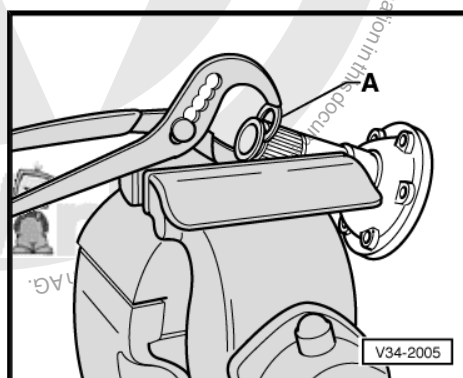


- Lightly lubricate outer diameter of new seal and install it all the way using the Seal Installer - Flange Shaft - T10049- . Be careful not to tilt it.
- Fill the space between the sealing and dust lip halfway with Sealing Grease - G 052 128 A1- .

#### Replacing Locking Ring



- Clamp the flange shaft in a vise with jaw protectors.
- Use the new circlip -A- to press the previous circlip out of the flange shaft groove.
- Install the flange shaft using a plastic hammer and a drift.
- Install the rear final drive. Refer to [⇒ "1.2 Final Drive, Removing and Installing", page 13](#) .
- Check the gear oil level in the rear final drive. Refer to [⇒ "3.1 Gear Oil, Checking Level", page 54](#) .



## 5.2.2 Right Seal, Replacing, Rear Final Drive 0CQ/0CR/0AY

### Special tools and workshop equipment required

- ♦ Puller - Seal Lever - VW681-
- ♦ Slide Hammer Set - VW771-
- ♦ Transmission Support - Bolt - 3282/34-





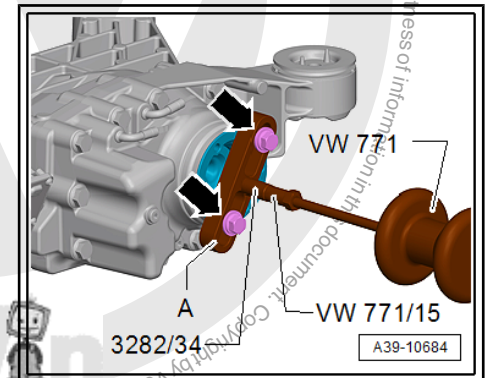
- ◆ Seal Installer - Flange Shaft - T10049
- ◆ Bridge from Puller - Kukko Puller - 50-110mm Width, 150mm Length - 18/0-
- ◆ Sealing Grease - G 052 128 A1-

### Removing

- Remove the right drive axle. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .

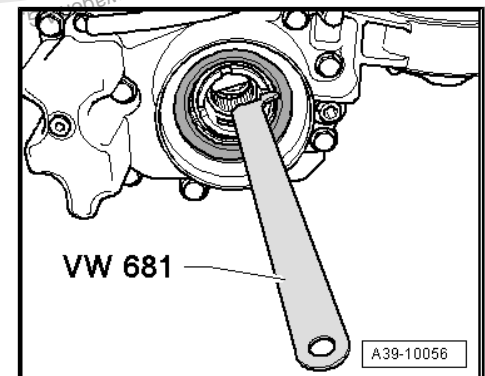
The following images show the left side of the final drive when removed. The procedure for the right is identical.

- Remove the spindles from the Puller - Kukko Puller - 50-110mm Width, 150mm Length - 18/0- bridge and install the Transmission Support - Bolt - 3282/34- in place of them.
- Attached the bridge -A- with two M8 x 30 bolts -arrows- to the flange shaft.
- Remove the flange shaft.

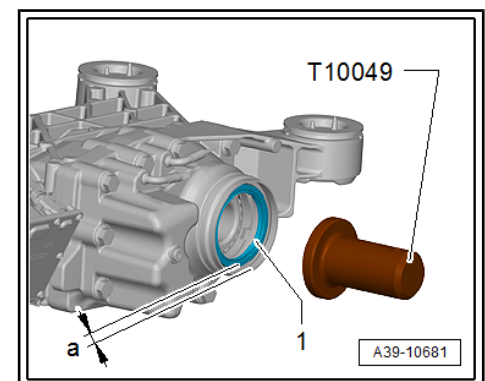


- Pry off flange shaft seal with the Puller - Seal Lever - VW681- .

### Installing



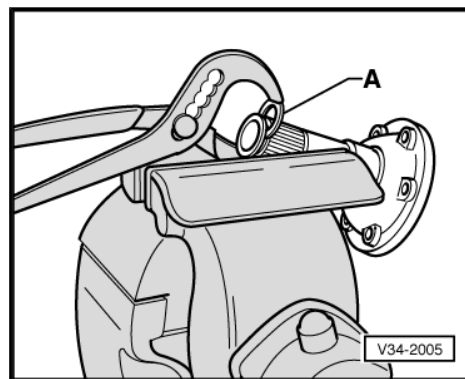
- Lightly lubricate the outer diameter of the new sealing ring -1- and using the Seal Installer - Flange Shaft - T10049- drive in to the dimension -a- while doing so do not bend the seal.
- Dimension -a- =  $4.8 \pm 0.1$  mm; Measured from the housing flat surface to seal.
- Do not drive in the seal until stop.
- Maintain a parallel of maximum 0.25 mm between the seal -1- to the housing flat surface.
- Fill the space between the sealing and dust lip halfway with Sealing Grease - G 052 128 A1- .



### Replacing Locking Ring



- Clamp the flange shaft in a vise with jaw protectors.
- Use the new circlip -A- to press the previous circlip out of the flange shaft groove.
- Install the flange shaft using a plastic hammer and a drift.
- Install the drive axle. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .
- Check the gear oil level in the rear final drive. Refer to ➤ ["3.1 Gear Oil, Checking Level", page 54](#) .



## 5.3 Left Seal, Replacing

➤ ["5.3.1 Left Seal, Replacing, Rear Final Drive 0BS", page 62](#)

➤ ["5.3.2 Left Seal, Replacing, Rear Final Drive 0CQ/0CR/0AY", page 64](#)

### 5.3.1 Left Seal, Replacing, Rear Final Drive 0BS

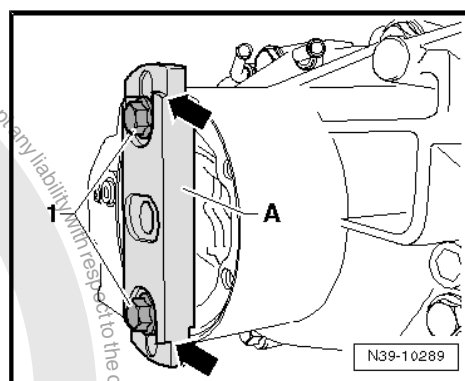
#### Special tools and workshop equipment required

- ◆ Puller - Seal Lever - VW681-
- ◆ Plate from the Puller - Flanged Shaft - T10037-
- ◆ Seal Installer - Flange Shaft - T10049-
- ◆ Shop Crane - Drip Tray - VAS6208-
- ◆ Sealing Grease - G 052 128 A1-

#### Removing

- Remove the left rear drive axle. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .
- Install the plate -A- from the Puller - Flanged Shaft - T10037- on the flange and tighten the two M8 x 30 bolts -1- by hand.

The sections -arrows- for the larger flange diameter face outward.





- Tighten the bolts one turn each in an alternating sequence until the flange is in contact with the plate -arrows- and then stop tightening.



#### WARNING

*Wear gloves to get a good grip on the flange.*

Drive the flange out of the final drive by tapping lightly on the plate -arrow-.



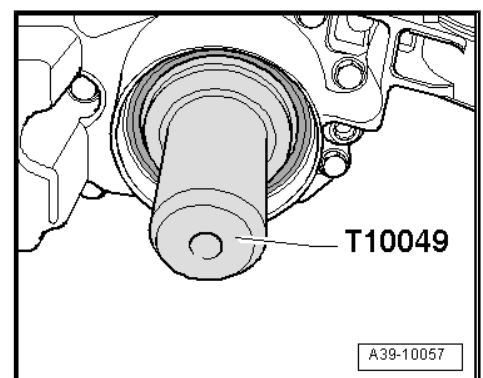
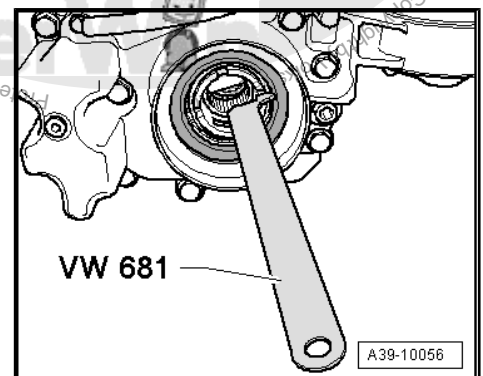
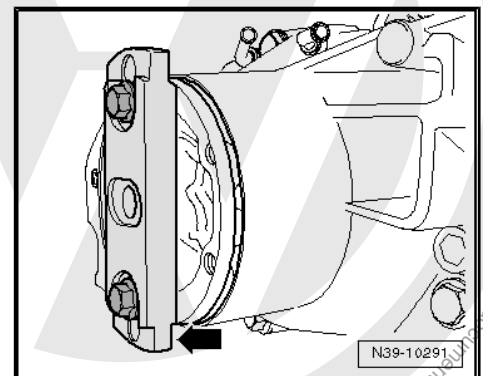
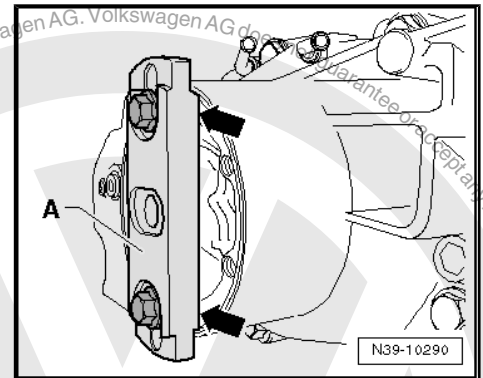
#### Caution

*Only use a plastic mallet so the final drive and tool are not damaged.*

- Pry off flange shaft seal with the Puller - Seal Lever - VW681- .
- Installing**

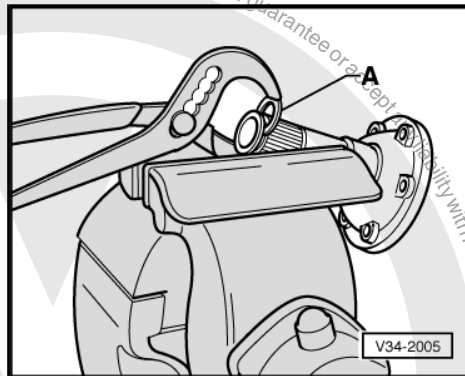
- Lightly lubricate outer diameter of new seal and install it all the way using the Seal Installer - Flange Shaft - T10049- . Be careful not to tilt it.
- Fill the space between the sealing and dust lip halfway with Sealing Grease - G 052 128 A1- .

#### Replacing Locking Ring





- Clamp the flange shaft in a vise with jaw protectors.
- Use the new circlip -A- to press the previous circlip out of the flange shaft groove.
- Install the flange shaft using a plastic hammer and a drift.
- Install the driveshaft. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .
- Check the gear oil level in the rear final drive. Refer to ➤ ["3.1 Gear Oil, Checking Level" page 54](#) .



### 5.3.2 Left Seal, Replacing, Rear Final Drive 0CQ/0CR/0AY

#### Special tools and workshop equipment required

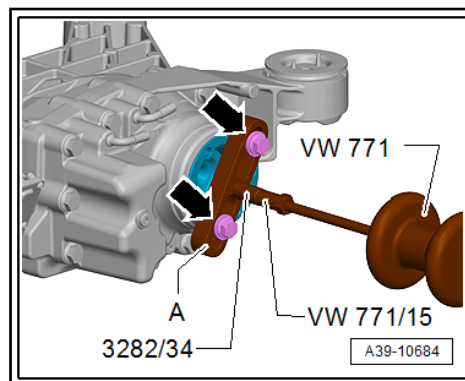
- ◆ Puller - Seal Lever - VW681-
- ◆ Slide Hammer Set - VW771-
- ◆ Transmission Support - Bolt - 3282/34-
- ◆ Seal Installer - Flange Shaft - T10049-
- ◆ -2- bridge from Puller - Kukko Puller - 50-110mm Width, 150mm Length - 18/0-
- ◆ Sealing Grease - G 052 128 A1-

#### Removing

- Remove the left drive axle. Refer to ➤ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .

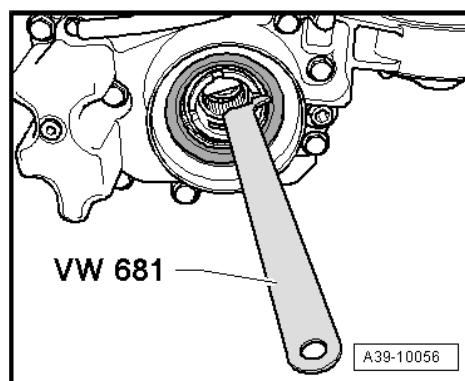
The following illustrations show the final drive removed.

- Remove the spindles from the Puller - Kukko Puller - 50-110mm Width, 150mm Length - 18/0- bridge and install the Transmission Support - Bolt - 3282/34- in place of them.
- Attached the bridge -A- with two M8 x 30 bolts -arrows- to the flange shaft.
- Remove the flange shaft.



- Pry off flange shaft seal with the Puller - Seal Lever - VW681- .

#### Installing

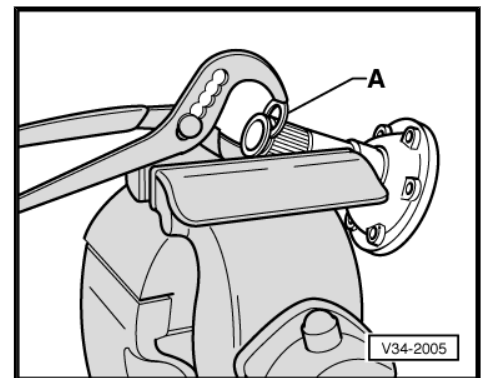
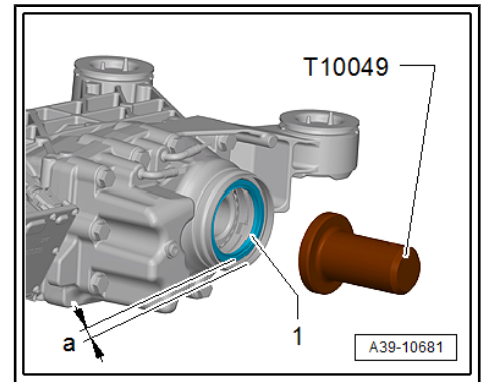




- Lightly lubricate the outer diameter of the new sealing ring -1- and using the Seal Installer - Flange Shaft - T10049- drive in to the dimension -a- while doing so do not bend the seal.
- Dimension -a- =  $4.8 \pm 0.1$  mm; Measured from the housing flat surface to seal.
- Do not drive in the seal until stop.
- Maintain a parallel of maximum 0.25 mm between the seal -1- to the housing flat surface.
- Fill the space between the sealing and dust lip halfway with Sealing Grease - G 052 128 A1- .

#### Replacing Locking Ring

- Clamp the flange shaft in a vise with jaw protectors.
- Use the new circlip -A- to press the previous circlip out of the flange shaft groove.
- Install the flange shaft using a plastic hammer and a drift.
- Install the driveshaft. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 42 ; Drive Axle; Drive Axle, Removing and Installing .
- Check the gear oil level in the rear final drive. Refer to ⇒ [“3.1 Gear Oil, Checking Level”, page 54](#) .



## 5.4 Flange Shaft and Driveshaft Seal on Rear Final Drive, Replacing

### Special tools and workshop equipment required

- ◆ Puller - Seal Lever - VW681-
- ◆ Drive Sleeve - 30-20-
- ◆ Counterhold - Crankshaft Sprocket - 3415-
- ◆ Seal Installer - Shaft Seal Ring - T10019-
- ◆ Puller - Kukko 3 Jaw - 100x100mm - 12/1-
- ◆ Torque Wrench 1601 - VAG1601-
- ◆ Tensioning Strap - T10038-
- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-
- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Locking Compound - D 000 600-
- ◆ Bolt M10 x 25
- ◆ Socket hex head screw M8 x 15

### Removing

- Remove the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .
- Support the front part of the exhaust system using the Engine and Gearbox Jack - VAS6931- .



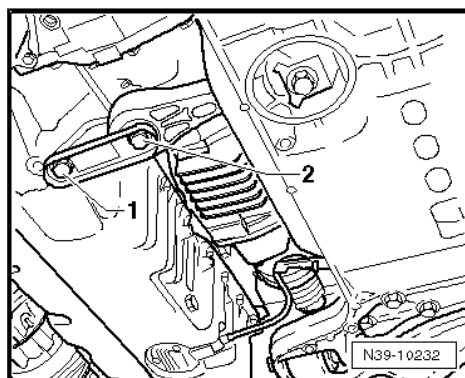
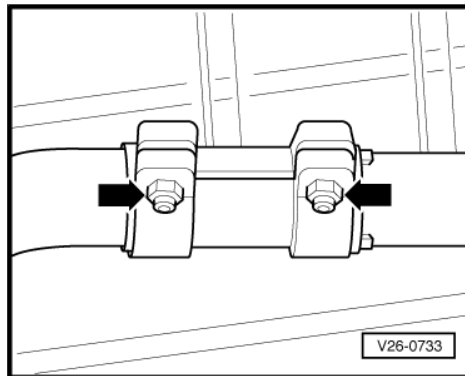
- Separate the exhaust system at the clamping sleeve -arrows- and remove the rear section of the exhaust system. Refer to ➔ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers .



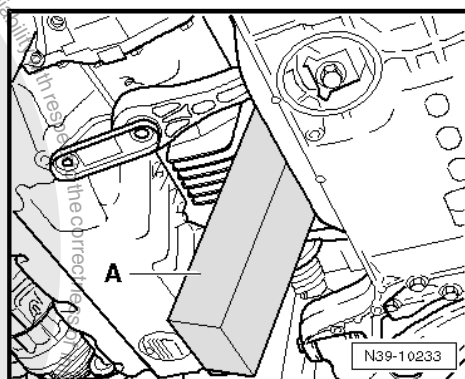
#### Note

*Do not bend the exhaust system decoupling element more than 10° or it could be damaged.*

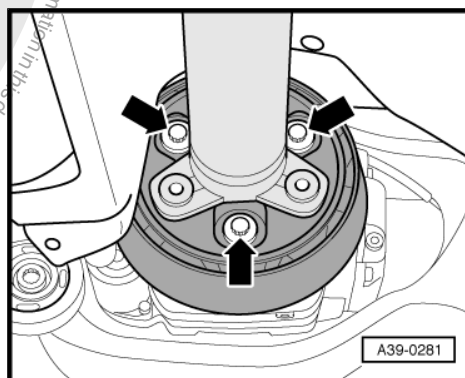
- Remove the pendulum support bolts -1 and 2-.



- Press the »engine and transmission« forward slightly and secure it with a suitable piece of wood -A-.
- Remove the center tunnel heat shield under the intermediate bearing. Refer to ➔ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .



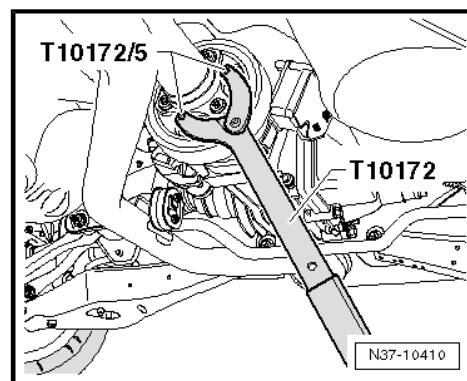
- Remove the rear driveshaft from the final drive -arrows-.



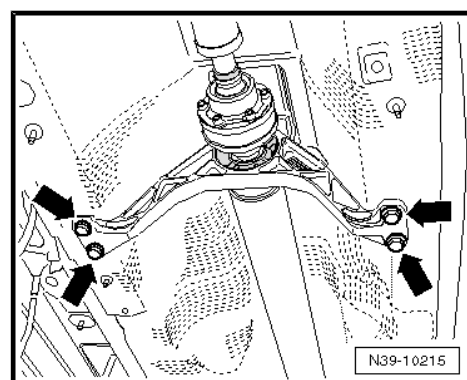




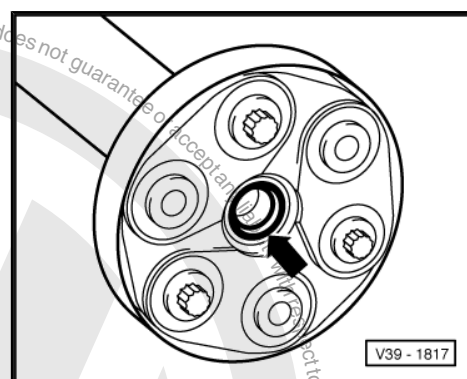
- Counterhold using Counterhold - Kit - Multiple Use - T10172- when loosening and tightening the bolts.



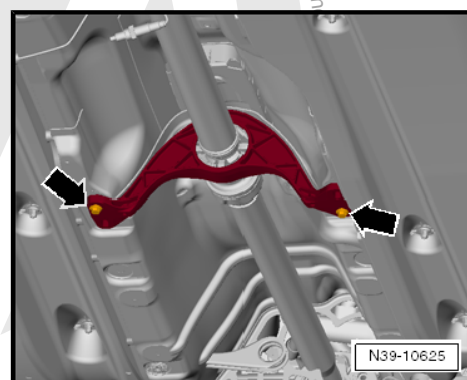
- Remove the bolts -arrows- from the front intermediate bearing.
- Remove the driveshaft from the final drive and lay it on the tunnel brace; place a cloth on the tunnel brace to protect the shaft.



- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.



- Secure the front intermediate bearing to the body with two bolts to avoid placing a load on the front flexible disc unnecessarily.



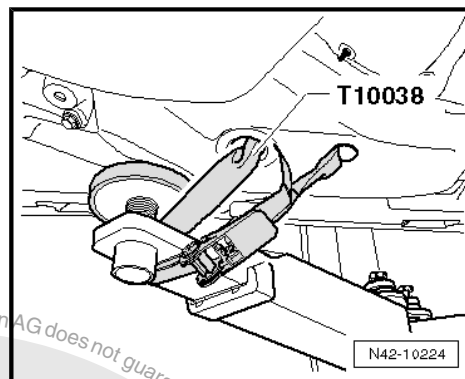


- Tie the vehicle to the hoist with Tensioning Strap - T10038- .



#### WARNING

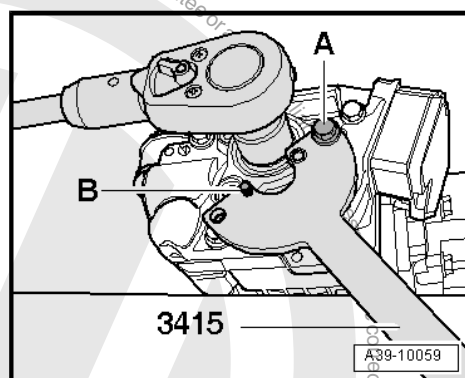
*If the vehicle is not secured, there is the risk that it could slip from the hoist.*



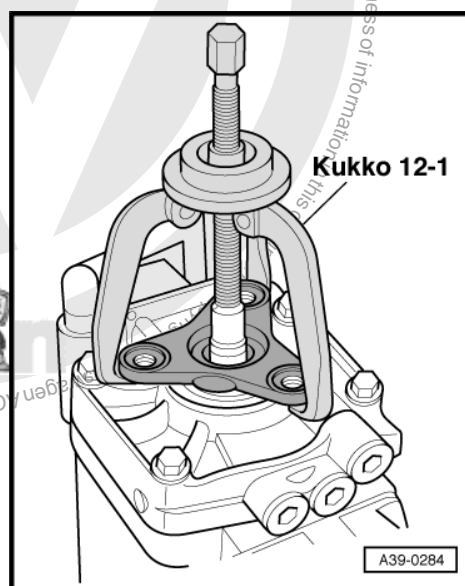
- Remove the flange/driveshaft hex nut.

A - M10 x 25 Bolts

B - M8 x 15 Bolt (installed in the Counterhold - Crankshaft Sprocket - 3415- from the rear)



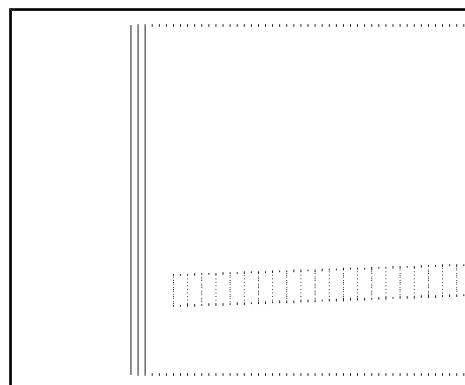
- Remove the flange/driveshaft. If difficult use the Puller - Kukko 3 Jaw - 100x100mm - 12/1- .



- Remove the seal using the Puller - Seal Lever - VW681- .

#### Installing

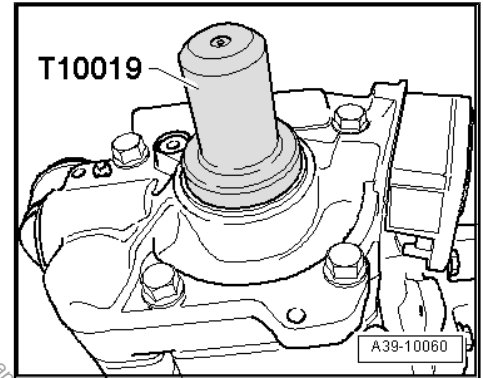
- Before installation, lightly coat the new sealing ring with the Haldex Clutch High Performance Oil on the outside circumference and between the sealing lips.







- Drive in the new sealing ring to the stop using the Seal Installer - Shaft Seal Ring - T10019- . Do not bend the seal when installing it.
- Install the flange/driveshaft using the Drive Sleeve - 30-20- .



- Install and tighten new hex nuts using Locking Compound - D 000 600- .

**Tightening specification. Refer to**  
⇒ **"6.2 Overview - Haldex Clutch", page 70** .

A M10 x 20 hex bolts

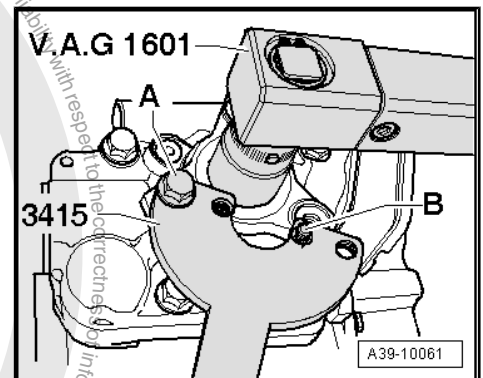
B M8 x 15 Bolt (installed in the Counterhold - Crankshaft Sprocket - 3415- from the rear)

Install in reverse order of removal. Note the following:

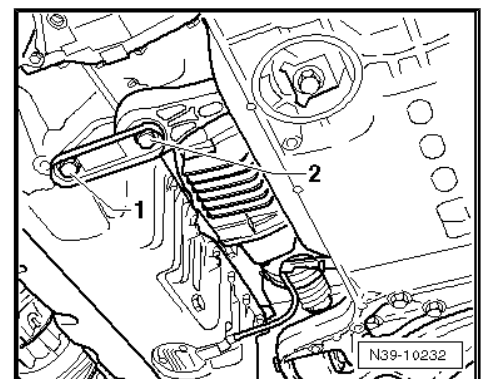
- Install all parts marked to each other in original positions.

**Install Intermediate Bearing without Tension.**

- Align the intermediate bearing in its elongated holes so the driveshaft or bearing is not under stress.
- Tighten the intermediate bearing only after the driveshaft has been attached.
- Tighten the driveshaft and intermediate bearing. Tightening specifications. Refer to  
⇒ **"7.1 Overview - Driveshaft", page 91**



- Tighten the pendulum support with »new« bolts. Tightening specifications. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 40 ; Subframe; Overview - Subframe
- Install the center tunnel heat shield under the center bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Install the rear section of the exhaust system. Refer to ⇒ Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Install the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .
- Check the oil level in the Haldex clutch. Refer to  
⇒ **"4 High-Performance Haldex Clutch Oil", page 55** .





## 6 Haldex Clutch

⇒ [“6.1 Function, Checking”, page 70](#)

⇒ [“6.2 Overview - Haldex Clutch”, page 70](#)

⇒ [“6.3 Haldex Clutch Pump V181 Removing and Installing”, page 74](#)

⇒ [“6.4 Haldex Clutch, Removing and Installing”, page 78](#)

⇒ [“6.5 All Wheel Drive Control Module J492 , Removing and Installing”, page 86](#)

### 6.1 Function, Checking



#### Note

*Check the Haldex clutch during a test drive using Vehicle Diagnostic Tester .*



#### WARNING

*To prevent possible injury when performing measuring tests or test drives. Refer to ⇒ [“1 Safety Precautions”, page 1](#) .*

- Check the function. Refer to Vehicle Diagnostic Tester [Guided Functions](#).

Enter “Guided Fault Finding”:

- Switch the ignition on.
- Touch the “Guided Functions” field/button.
- Select one after another on the tester:
  - ◆ Brand
  - ◆ Type
  - ◆ Model year
  - ◆ Variant
  - ◆ Engine codes
  - ◆ Confirm the information entered.
  - ◆ 22 - AWD electronics
  - ◆ 22 - Output Diagnostic Test Mode
- Start the output diagnostic test mode and follow the instructions on the tester.

### 6.2 Overview - Haldex Clutch

⇒ [“6.2.1 Overview - Haldex Clutch, Generation IV”, page 70](#)

⇒ [“6.2.2 Overview - Haldex Clutch, Generation V”, page 73](#)

#### 6.2.1 Overview - Haldex Clutch, Generation IV



## 1 - Seal

- ☐ Coat with High-Performance Haldex Clutch Oil and then install.
- ☐ Always replace.

## 2 - Haldex Clutch Housing

- ☐ Haldex clutch, removing and installing. Refer to [⇒ "6.4 Haldex Clutch, Removing and Installing", page 78](#).

## 3 - All Wheel Drive Control Module - J492-

- ☐ With the Haldex Clutch Control Valve - N373-
- ☐ Removing and installing. Refer to [⇒ "6.5 All Wheel Drive Control Module J492, Removing and Installing", page 86](#).

## 4 - Bolts

- ☐ 6 Nm

## 5 - Flange/Driveshaft Seal

Replacing. Refer to [⇒ "5.4 Flange Shaft and Driveshaft Seal on Rear Final Drive, Replacing", page 65](#).

## 6 - Driveshaft Flange

- ☐ Removing and installing. Refer to [⇒ "5.4 Flange Shaft and Driveshaft Seal on Rear Final Drive, Replacing", page 65](#).

## 7 - Nut

- ☐ 210 Nm
- ☐ Secure using Locking Compound - D 000 600-.

## 8 - Bolts

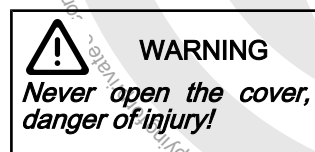
- ☐ Tightening specification 50 Nm
- ☐ Quantity: 4

## 9 - Cap

- ☐ For the oil filter housing
- ☐ A filter change is not required.

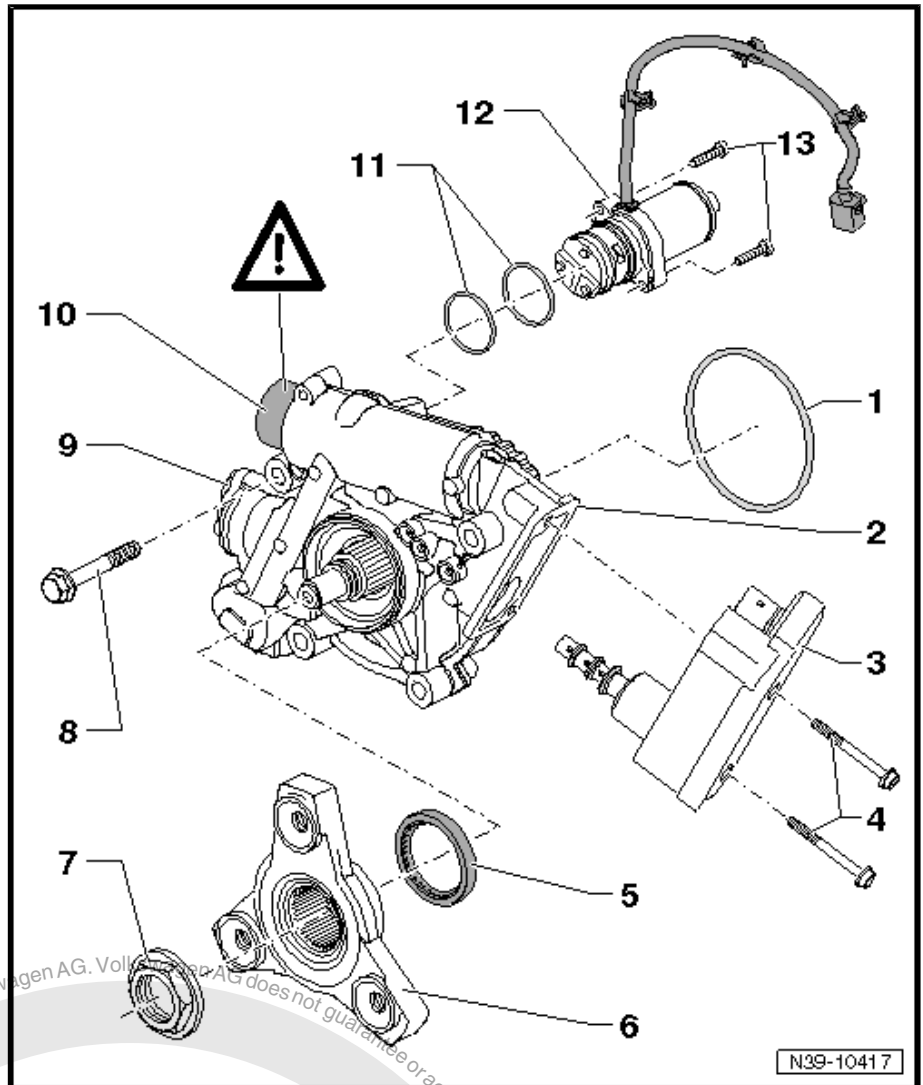
## 10 - Cap

- ☐ For the pressure reservoir



## 11 - Seal

- ☐ Quantity: 2





- ☐ Diameter 34 mm
- ☐ For Haldex Clutch Pump - V181-
- ☐ Coat with High-Performance Haldex Clutch Oil and then install.
- ☐ Always replace.

## 12 - Haldex Clutch Pump - V181-

- ☐ Removing and installing. Refer to  
⇒ ["6.3 Haldex Clutch Pump V181 Removing and Installing", page 74](#) .

## 13 - Bolts

- ☐ 6 Nm

## Overview - Control Module, Generation IV

### 1 - All Wheel Drive Control Module - J492-

- ☐ Is calibrated with Haldex Clutch Control Valve - N373-
- ☐ Always replace with the valve.
- ☐ Removing and installing. Refer to  
⇒ ["6.5 All Wheel Drive Control Module J492, Removing and Installing", page 86](#) .

### 2 - Bolt

- ☐ 6 Nm

### 3 - Cover

- ☐ With vulcanized seal
- ☐ Remains on the control module or on the Haldex clutch housing during removal
- ☐ Always replace.

### 4 - Haldex Clutch Control Valve - N373-

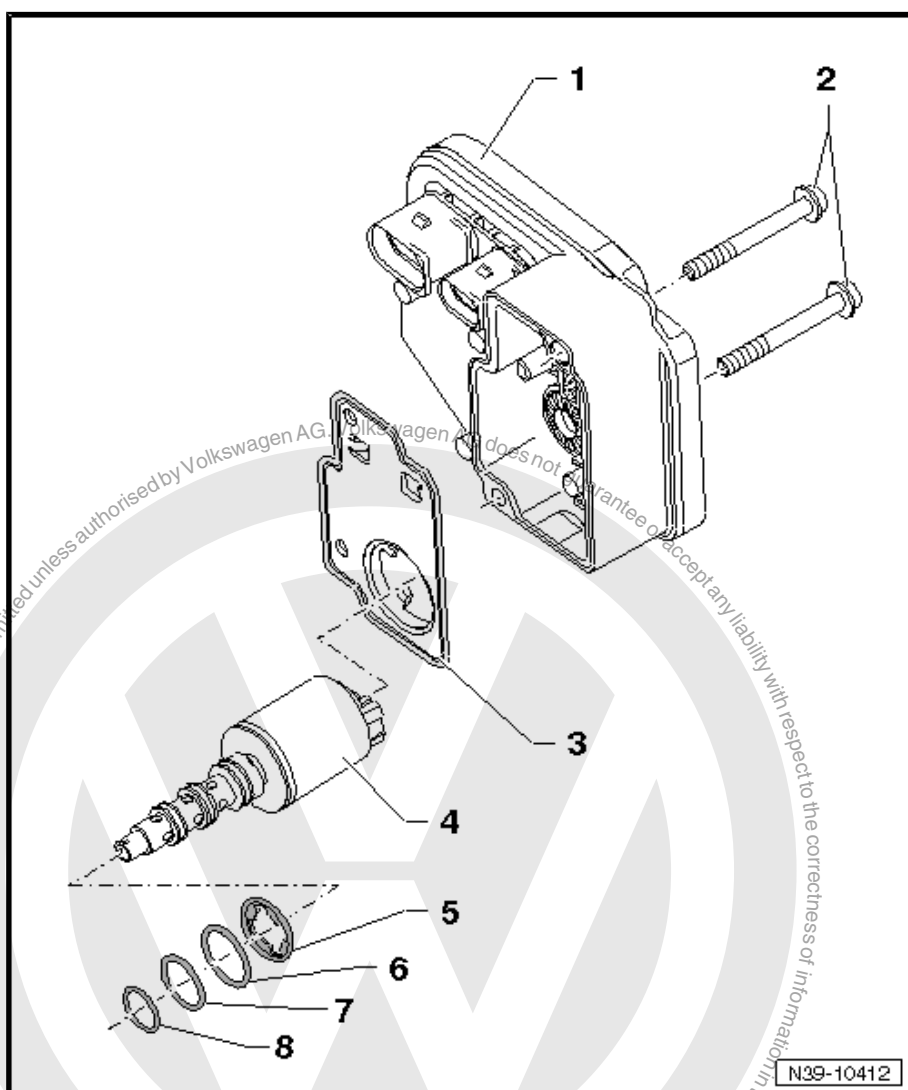
- ☐ Is calibrated with All Wheel Drive Control Module - J492-
- ☐ Always replace together with control module.
- ☐ Removing and installing. Refer to  
⇒ ["6.5 All Wheel Drive Control Module J492, Removing and Installing", page 86](#) .

### 5 - Seal

- ☐ Make sure the centering lips fit correctly in the groove.
- ☐ Coat with High-Performance Haldex Clutch Oil and then install.
- ☐ Always replace.

### 6 - Seal

- ☐ Diameter 12 mm
- ☐ Coat with High-Performance Haldex Clutch Oil and then install.





- ☐ Always replace.

#### 7 - Seal

- ☐ Diameter 11 mm
- ☐ Coat with High-Performance Haldex Clutch Oil and then install.
- ☐ Always replace.

#### 8 - Seal

- ☐ Diameter 10 mm
- ☐ Coat with High-Performance Haldex Clutch Oil and then install.
- ☐ Always replace.

### 6.2.2 Overview - Haldex Clutch, Generation V

The Haldex Clutch Can be Removed and Installed with the Rear Final Drive Still Installed.

#### 1 - O-Ring

- ☐ Coat with High Performance Haldex Clutch Oil and insert
- ☐ After removing replace the Haldex Clutch

#### 2 - All Wheel Drive Control Module - J492-

- ☐ Removing and installing. Refer to ["6.5 All Wheel Drive Control Module J492, Removing and Installing", page 86](#).

#### 3 - Bolts

- ☐  $9.5 \pm 0.5$  Nm
- ☐ Quantity: 2

#### 4 - Flange/Driveshaft Seal

Replacing. Refer to ["5.4 Flange Shaft and Driveshaft Seal on Rear Final Drive, Replacing", page 65](#).

#### 5 - Flange/Driveshaft

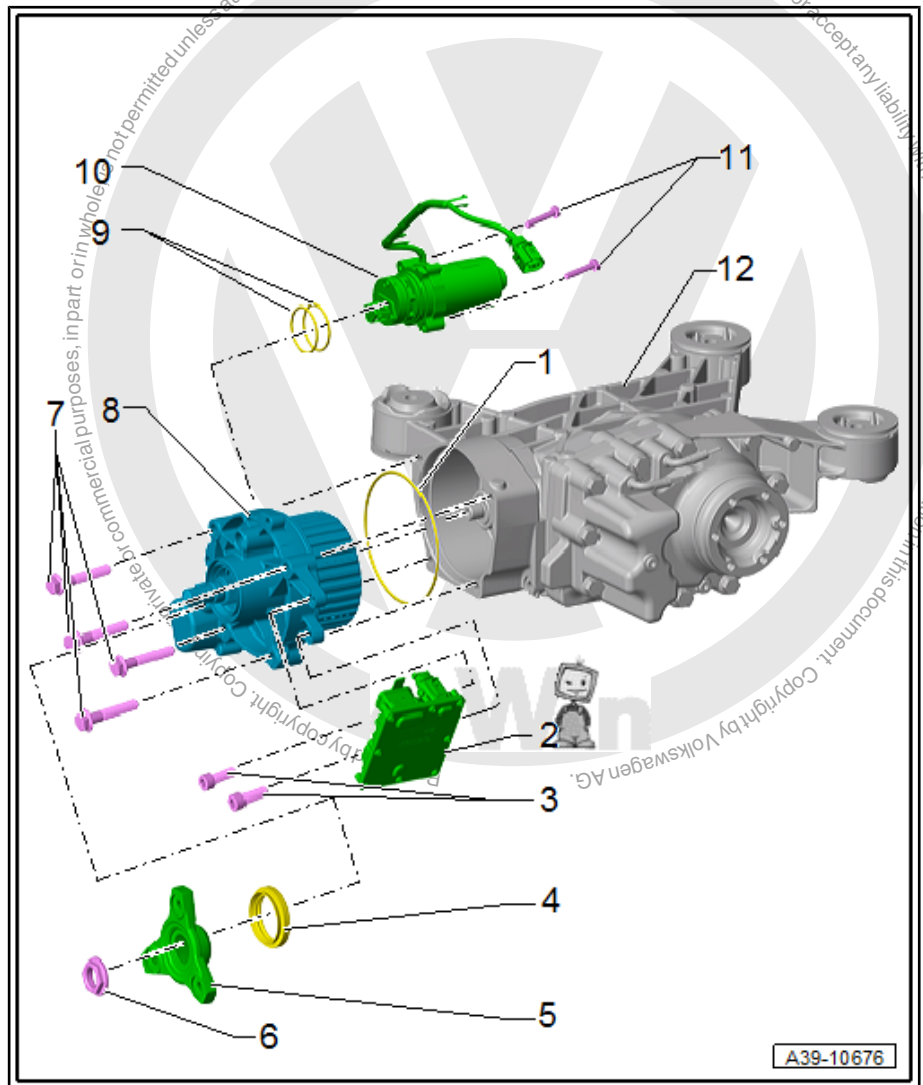
- ☐ Removing and installing. Refer to ["5.4 Flange Shaft and Driveshaft Seal on Rear Final Drive, Replacing", page 65](#).

#### 6 - Nut

- ☐ 210 Nm
- ☐ Replace after removing
- ☐ Secure using Locking Compound - D 000 600-

#### 7 - Bolts

- ☐ 50 Nm
- ☐ Quantity: 4



A39-10676



## 8 - Haldex Clutch Housing

- ❑ Haldex clutch, removing and installing. Refer to  
⇒ ["6.4 Haldex Clutch, Removing and Installing", page 78](#) .

## 9 - O-Ring

- ❑ Quantity: 2
- ❑ Diameter 43.5 mm
- ❑ For Haldex Clutch Pump - V181-
- ❑ Coat with High Performance Haldex Clutch Oil and insert
- ❑ Always replace.

## 10 - Haldex Clutch Pump - V181-

- ❑ Removing and installing. Refer to  
⇒ ["6.3 Haldex Clutch Pump V181 Removing and Installing", page 74](#) .

## 11 - Bolt

- ❑  $9.5 \pm 0.5$  Nm
- ❑ Quantity: 2

## 12 - Rear Final Drive

- ❑ Removing and installing. Refer to ⇒ ["1.2 Final Drive, Removing and Installing", page 13](#) .

## 6.3 Haldex Clutch Pump - V181- Removing and Installing

⇒ ["6.3.1 Haldex Clutch Pump V181 , Removing and Installing, Generation IV", page 74](#)

⇒ ["6.3.2 Haldex Clutch Pump V181 , Removing and Installing, Generation V", page 76](#)

### 6.3.1 Haldex Clutch Pump - V181- , Removing and Installing, Generation IV

Special tools and workshop equipment required

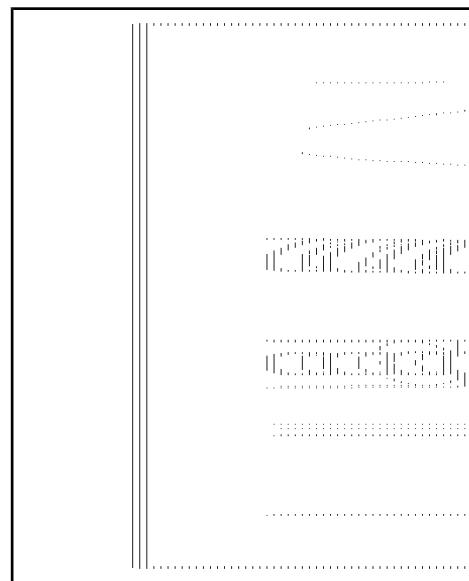
- ◆ Torque Wrench 1783 - 2-10Nm - VAG1783-

#### Removing

- Turn off the ignition.
- Drain the high-performance Haldex clutch oil. Refer to  
⇒ ["4.2 High-Performance Haldex Clutch Oil, Draining and Filling", page 56](#) .



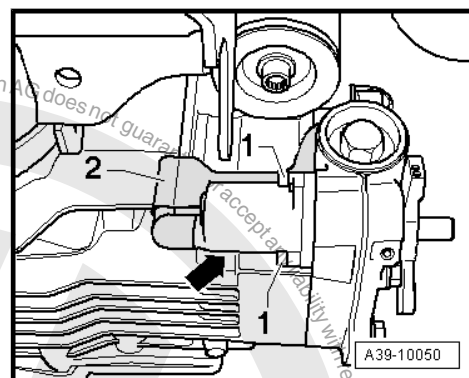
- Remove the pump connector -arrow- from the control module.
- Remove the wiring harness from the housing.
- Place drip tray under final drive.



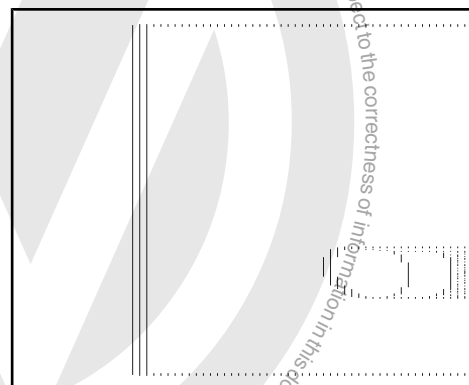
- Remove the fastening bolts -1- on the pump.
- Remove the pump -arrow- from the Haldex clutch housing.

### Installing

Install in reverse order of removal. Note the following:

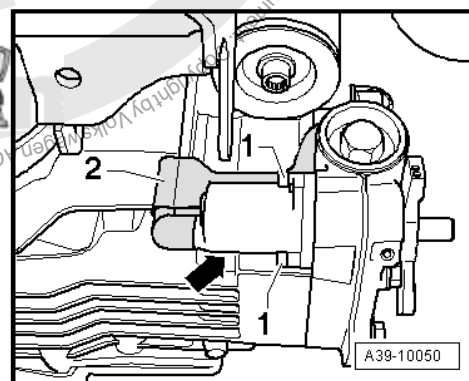


- Replace the O-rings -1 and 2-.
- Coat the O-rings -1 and 2- lightly with High-Performance Haldex Clutch Oil .
- Push the pump -arrow- all the way into the Haldex clutch housing.



- Tighten the bolts -1-.

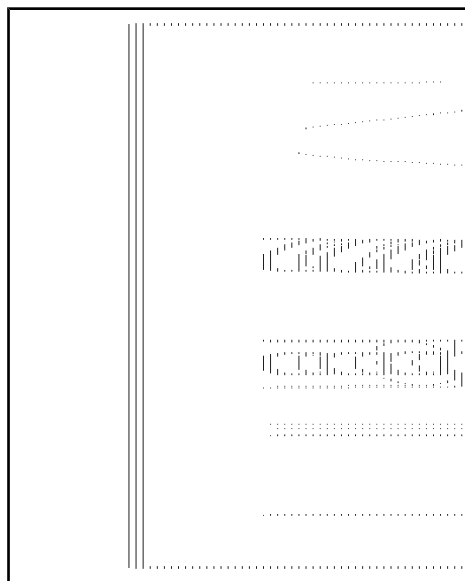
**Tightening specification: 6 Nm**







- Clip the wiring harness to the Haldex clutch securely and place the connector -arrow- on the control module.
- Fill with new High Performance Fluid for the Haldex Clutch .  
Refer to  
⇒ ["4.2 High-Performance Haldex Clutch Oil, Draining and Filling", page 56](#) .



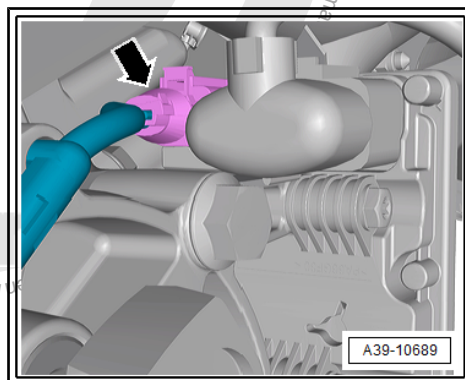
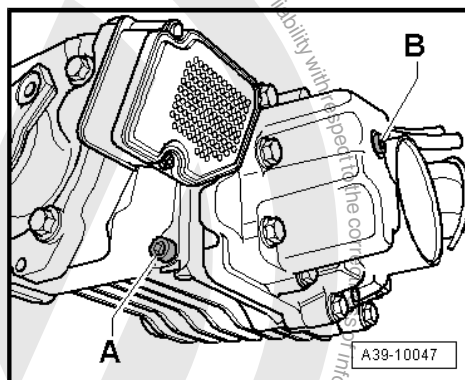
### 6.3.2 Haldex Clutch Pump - V181- , Removing and Installing, Generation V

#### Special tools and workshop equipment required

- ◆ Used Oil Collection and Extraction Unit - SMN372500-

#### Removing

- Turn off the ignition.
- Place the Used Oil Collection and Extraction Unit - SMN372500- under rear the final drive.
- Remove the drain plug -A- and completely drain the High Performance Haldex Clutch Oil .
- Install the drain plug -A- with the new sealing ring and tighten to 30 Nm.
- Remove the connector -arrow- for the Haldex Clutch Pump - V181- from the All Wheel Drive Control Module .





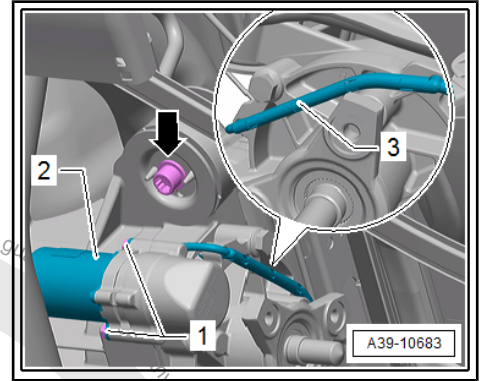
- Unclip and free up the wiring harness -3- for the Haldex Clutch Pump - V181- from the housing.



#### Note

Ignore the bolt -arrow-.

- Place the Used Oil Collection and Extraction Unit - SMN372500- under rear the final drive.
- Remove the bolt -1- from the Haldex Clutch Pump - V181- .
- Remove the Haldex Clutch Pump - V181- -2- from the Haldex Clutch housing.



#### Installing

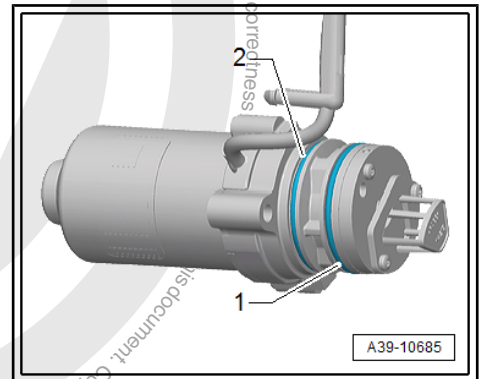
Install in reverse order of removal. Note the following:

- If the removed Haldex Clutch Pump - V181- is being installed again, replace the O-rings -1 and 2-.
- Lightly coat the O-rings -1 and 2- with High Performance Haldex Clutch Oil .

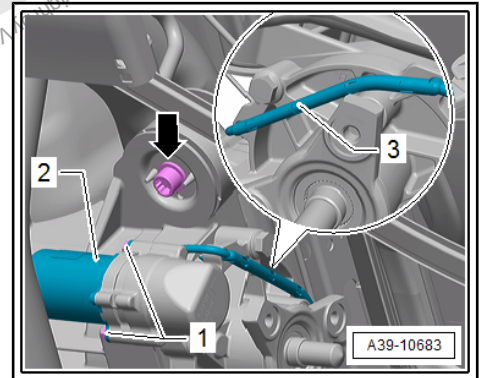


#### Note

Ignore the bolt -arrow-.



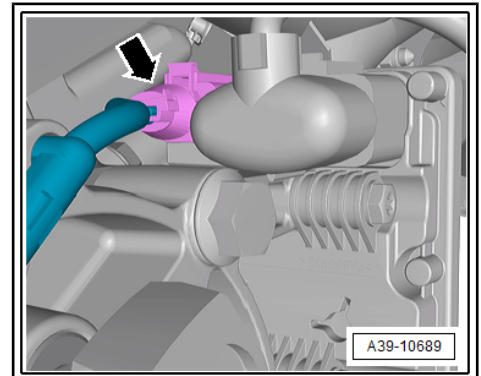
- Press the Haldex Clutch Pump - V181- -2- until stop in the Haldex clutch housing. Make sure the wiring harness -3- is routed correctly.
- Tighten the bolts -1-.



- Connect the connector -arrow- for the Haldex Clutch Pump - V181- to the All Wheel Drive Control Module .
- Add High Performance Haldex Clutch Oil and check the oil level in the Haldex clutch. Refer to [⇒ "4 High-Performance Haldex Clutch Oil", page 55](#) .

#### Tightening Specifications

- ◆ Haldex Clutch Pump - V181- to Haldex clutch -item 11- [⇒ Item 11 \(page 74\)](#) .
- ◆ Refer to [⇒ "4 High-Performance Haldex Clutch Oil", page 55](#) .





## 6.4 Haldex Clutch, Removing and Installing

⇒ [“6.4.1 Haldex Clutch, Removing and Installing, Generation IV”, page 78](#)

⇒ [“6.4.2 Haldex Clutch, Removing and Installing, Generation V”, page 83](#)

### 6.4.1 Haldex Clutch, Removing and Installing, Generation IV

#### Special tools and workshop equipment required

- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-
- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Torque Wrench 1332 40-200Nm - VAG1332-

#### Removing

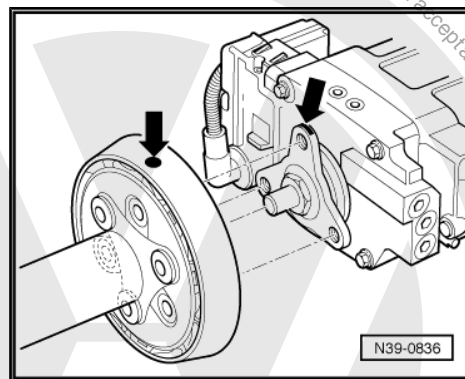


#### Note

- ◆ *A twin-pillar lifting platform should be used when working on the driveshaft.*
  - ◆ *Mark the position of all the parts to each other before removing them. Install in the same position otherwise the imbalance will be excessive and the bearings could get damaged causing rumbling noises.*
  - ◆ *Do not bend the driveshaft, only store and move when fully extended.*
- Drain the high-performance Haldex clutch oil. Refer to  
⇒ [“4.2 High-Performance Haldex Clutch Oil, Draining and Filling”, page 56](#) .

The following applies only to installing the removed parts.

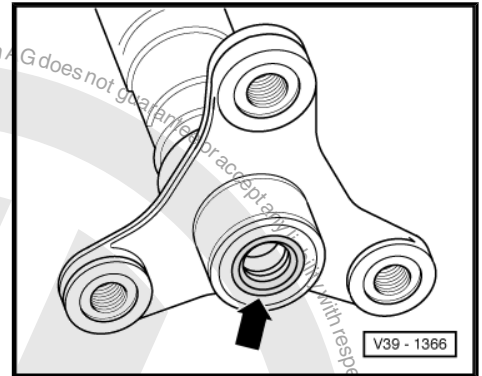
- Before removing, see if there is a marking (color dot) on the flexible disc and on the flange/final drive as well as on the flange/driveshaft -arrows-. If the dot is not there, mark the installed position of the flexible disc -arrows-.





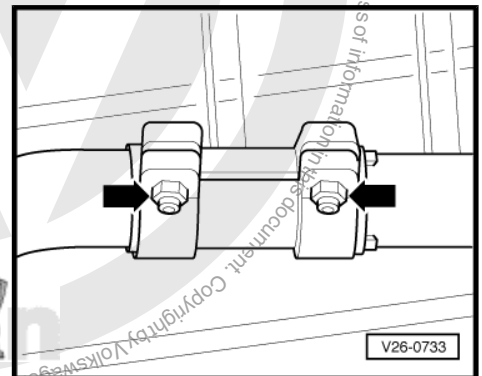
## Note

- ◆ *Sealing rings in driveshaft flanges -arrow- must not be damaged when removing and installing.*
- ◆ *Replace the driveshaft if it is damaged.*
- ◆ *Do not tip rear driveshaft tube, push horizontally onto centering pins.*
- ◆ *Install all driveshaft parts marked in relation to each other in same position when reinstalling.*
- Remove the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .
- Support the front part of the exhaust system using the Engine and Gearbox Jack - VAS6931- .
- Separate the exhaust system at the clamping sleeve -arrows- and remove the rear section of the exhaust system. Refer to ⇒ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers .

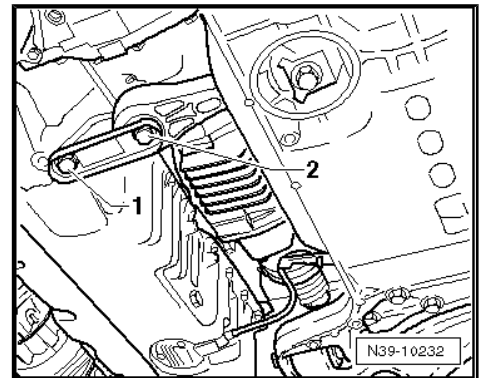


## Note

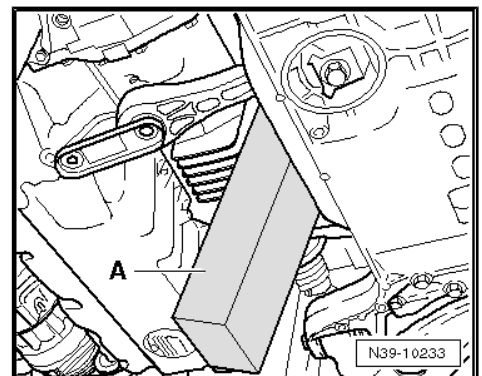
*Do not bend the exhaust system decoupling element more than 10° or it could be damaged.*



- Remove the pendulum support bolts -1 and 2-.

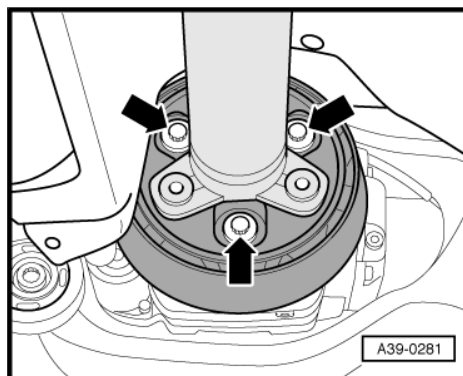


- Press the »engine and transmission« forward slightly and secure it with a suitable piece of wood -A-.
- Remove the center tunnel heat shield under the intermediate bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .

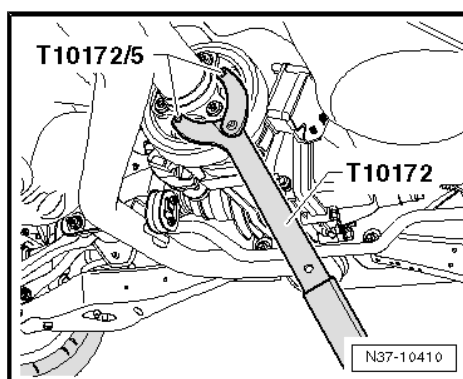




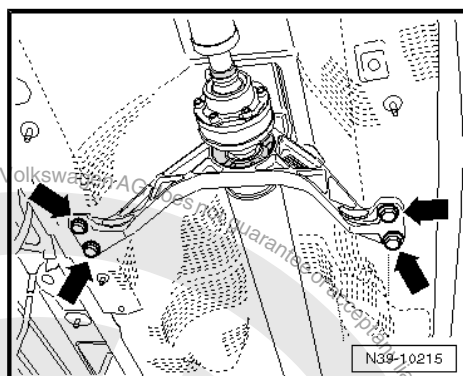
- Remove the flexible disc with the vibration damper from the rear final drive -arrows-.



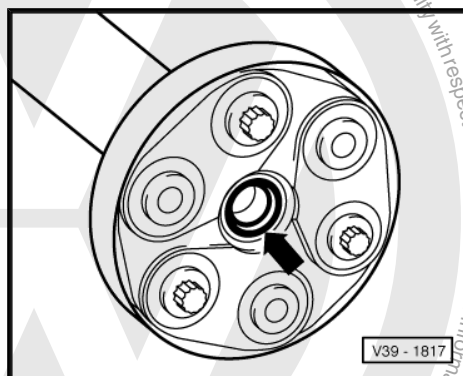
- Counterhold using Counterhold - Kit - Multiple Use - T10172- when loosening and tightening the bolts.



- Remove the bolts -arrows- from the intermediate bearing.
- Remove the driveshaft from the final drive and lay it on the tunnel brace; place a cloth on the tunnel brace to protect the shaft.

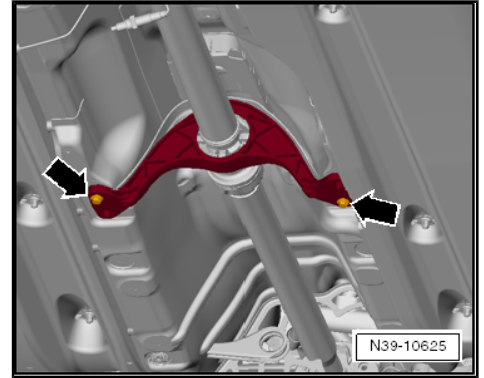


- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.

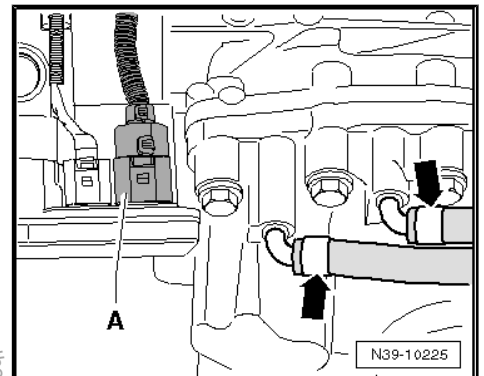




- Secure the intermediate bearing to the body with 2 bolts -arrows- after removing the driveshaft from the rear final drive. This way the front flexible disc will not be unnecessarily loaded.



- Disconnect the harness connector -A- to the All Wheel Drive Control Module - J492- .

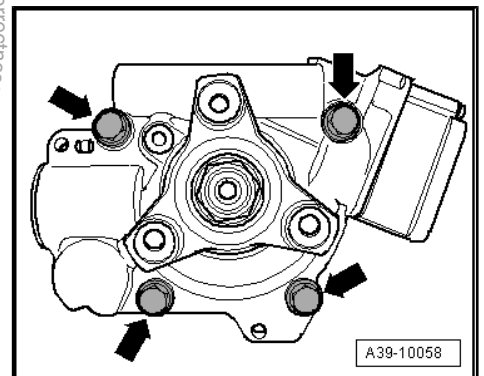


- Remove the fastening bolts -arrows- and remove the Haldex clutch from the rear final drive.

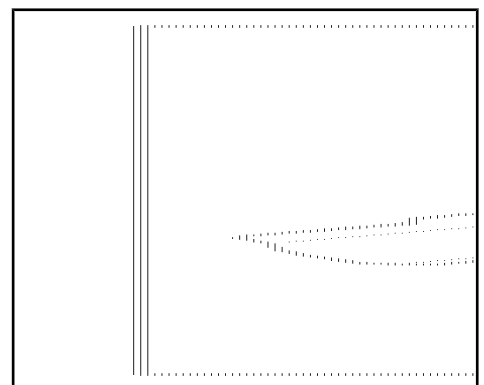
#### Installing

Install in reverse order of removal. Note the following:

- Install all parts marked to each other in original positions.



- Insert the new O-ring -arrow- and lightly lubricate with High Performance Haldex Clutch Oil .

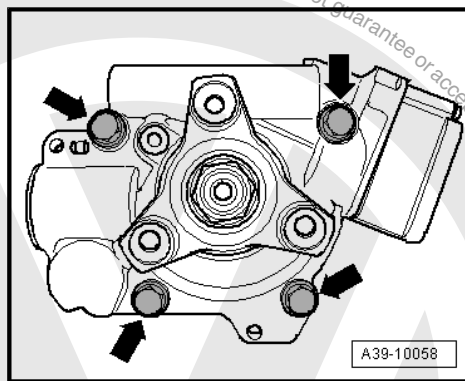






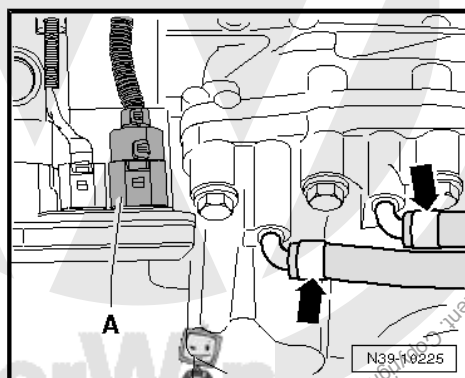
- Insert the Haldex clutch in the rear final drive.
- Tighten the bolts -arrows-.

Tightening Specification -item 7- ⇒ [Item 7 \(page 73\)](#)

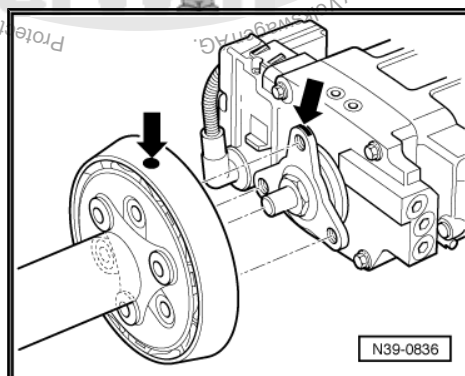


- Connect the connector -A- to the All Wheel Drive Control Module - J492- .

The following applies only to installing the removed parts.



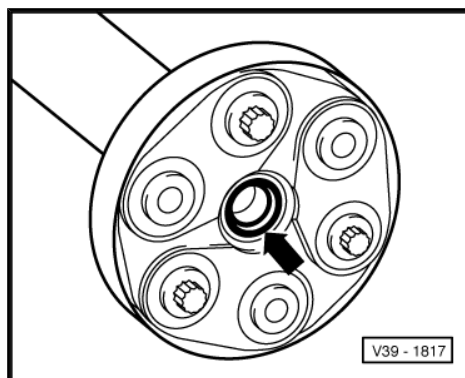
- Attach the driveshaft to the flange/driveshaft on the rear final drive so that the markings -arrows- line up.



- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.

#### Install the Intermediate Bearing without Tension.

- Align the intermediate bearing in its elongated holes so the driveshaft or bearing is not under stress.
- Tighten the intermediate bearing only after the driveshaft has been attached.
- Tighten the driveshaft and intermediate bearing. Tightening specifications. Refer to [⇒ "7.1 Overview - Driveshaft", page 91](#) .
- Install in reverse order of removal.
- Fill with new High Performance Fluid for the Haldex Clutch . Refer to [⇒ "4.2 High-Performance Haldex Clutch Oil, Draining and Filling", page 56](#) .







## 6.4.2 Haldex Clutch, Removing and Installing, Generation V

### Special tools and workshop equipment required

- ◆ Guide Pins - T10093-
- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Used Oil Collection and Extraction Unit - SMN372500-
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Torque Wrench 1332 40-200Nm - VAG1332-

### Removing

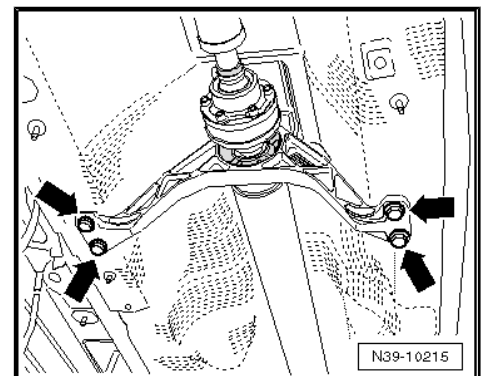
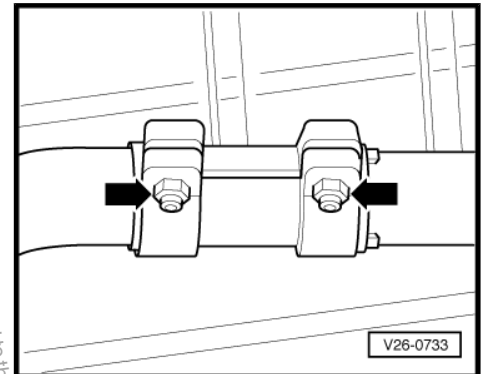


#### Caution

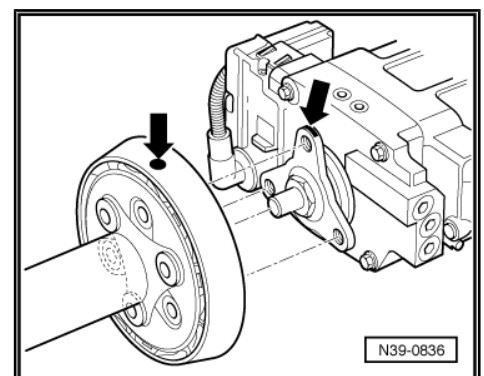
*There is a danger of causing damage to the decoupling element.*

- ◆ *Do not bend the decoupling element more than 10°.*
- ◆ *Do not load the decoupling element.*
- ◆ *Do not damage the wire mesh on the decoupling element.*

- Loosen the nuts for the clamping sleeve -arrows- and slide it toward the rear.
- Tie the front exhaust pipe to the underbody.
- Remove the rear section of the exhaust system. Refer to ➔ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Loosen, but do not remove, the driveshaft center bearing bolts -arrows-.

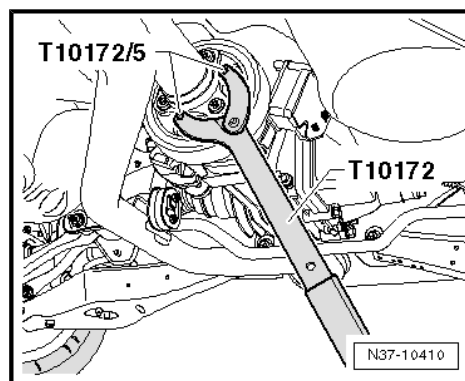


- Make sure there is a marking (a color dot) on the flexible disc/ the driveshaft flange on the rear final drive -arrows-.
- If the marking is not there, then mark the position of the flexible disc/driveshaft to the driveshaft flange on the rear final drive.

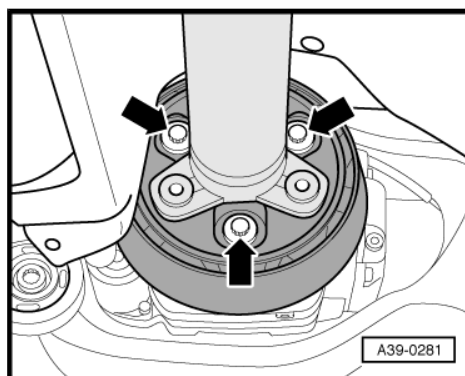




- To loosen the driveshaft bolts, counterhold with the Counterhold - Multiple Use - T10172A- and the Counterhold - Kit - Adapter 5 - T10172/5- on the rear final drive.



- Remove the driveshaft bolts -arrows- on the rear final drive.



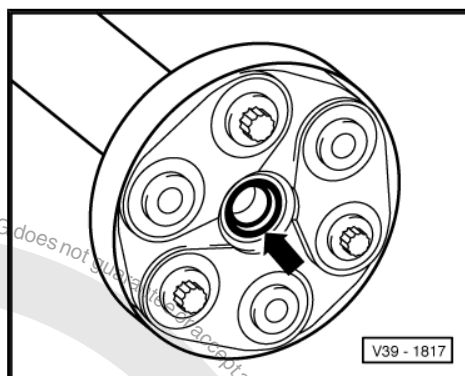
- Remove the driveshaft from the centering pins at the rear final drive. Press the driveshaft slightly forward when doing this. Therefore remove the bolts from the center bearing/driveshaft if necessary.



#### Caution

**Risk of damaging the sealing ring -arrow- in driveshaft flange.**

- ◆ **Remove the driveshaft horizontally from the centering pins.**

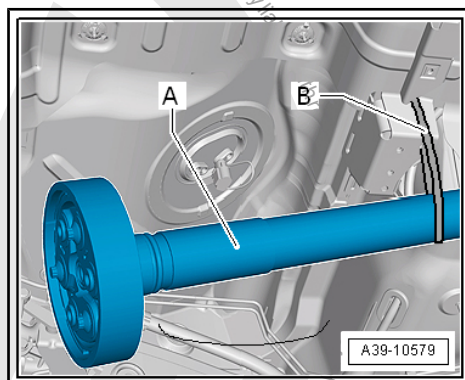


- Then tie up the rear area of the driveshaft -A- with for example a wire -B- to the side of the body.



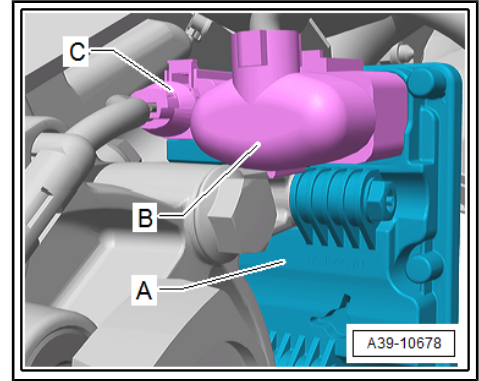
#### Note

**Do not disconnect the connector -C-.**

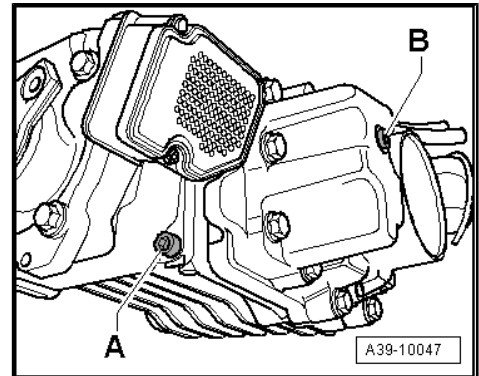




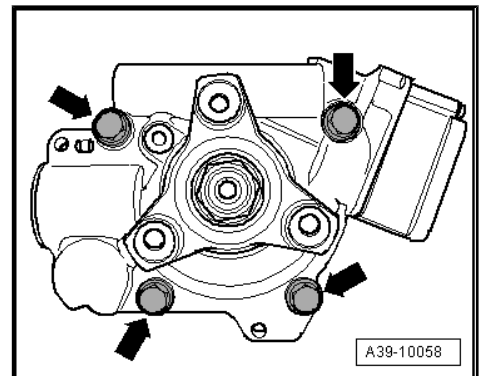
- Disconnect the connector -B- from the All Wheel Drive Control Module - J492- -A-.
- Place the Used Oil Collection and Extraction Unit - SMN372500- under rear the final drive.



- Remove the drain plug -A- and completely drain the High Performance Haldex Clutch Oil .
- Install the drain plug -A- with the new sealing ring and tighten to 30 Nm.



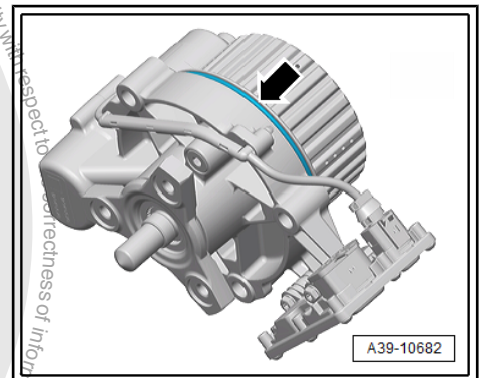
- Remove the fastening bolts -arrows- and remove the Haldex clutch from the rear final drive.



### Installing

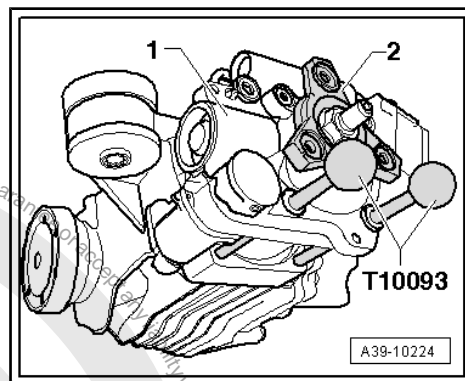
Install in reverse order of removal. Note the following:

- Remove the old O-ring -arrow- from the Haldex clutch.
- Insert the new O-ring -arrow- and lightly lubricate with High Performance Haldex Clutch Oil .

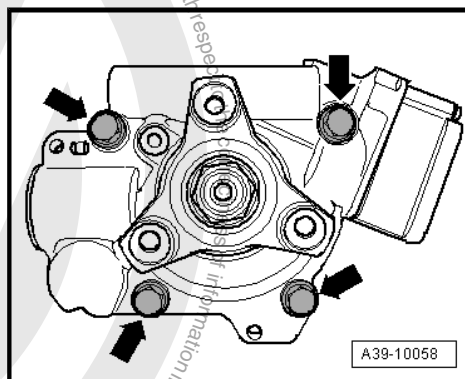




- Insert the Haldex clutch -1- in the rear final drive. Install Guide Pins - T10093- for exact guidance.
- Rotate at flange/driveshaft -2- and insert Haldex clutch all the way in.



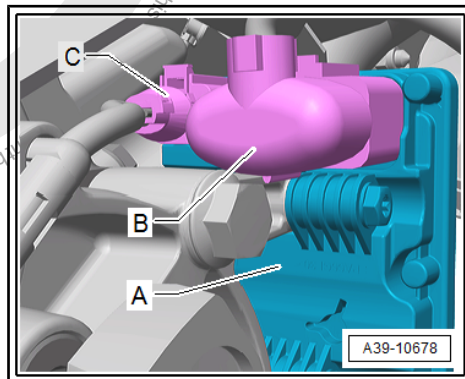
- Tighten the bolts -arrows- to the tightening specification.



- Connect the connector -B- from the All Wheel Drive Control Module - J492- -A-.

The connector -C- must be removed.

- Attach the driveshaft to the rear final drive. Refer to ⇒ [“7.2 Driveshaft, Removing and Installing”, page 94](#).
- Install the center tunnel heat shield under the intermediate bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Trim Panels .
- Reconnect exhaust system making sure it is not under stress. Refer to ⇒ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Add High Performance Haldex Clutch Oil and check the oil level in the Haldex clutch. Refer to ⇒ [“4 High-Performance Haldex Clutch Oil”, page 55](#) .



#### Tightening Specifications

- ◆ Refer to ⇒ [“3 Gear Oil”, page 54](#) .
- ◆ Haldex clutch to final drive -item 7- ⇒ [Item 7 \(page 73\)](#) .

## 6.5 All Wheel Drive Control Module - J492- , Removing and Installing

⇒ [“6.5.1 All Wheel Drive Control Module J492 , Removing and Installing, Generation IV”, page 86](#)

⇒ [“6.5.2 AWD Control Module J492 , Removing and Installing, Generation V”, page 89](#)

### 6.5.1 All Wheel Drive Control Module - J492- , Removing and Installing, Generation IV

Special tools and workshop equipment required

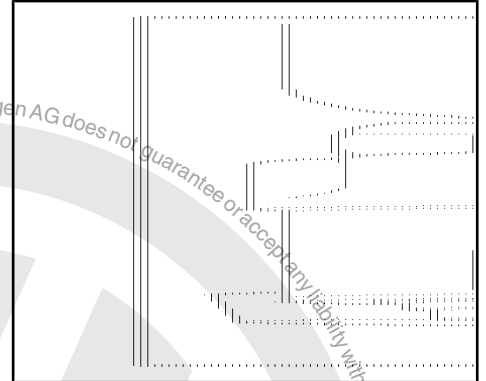
- ◆ 4 mm Allen wrench



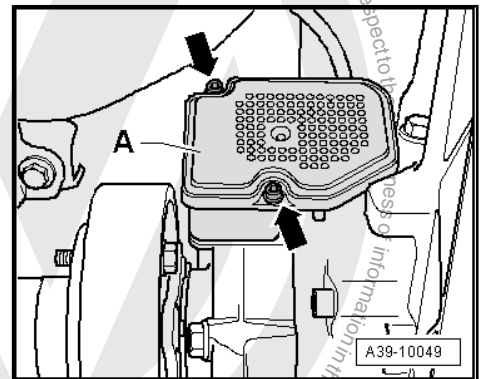
- ◆ Torque Wrench 1783 - 2-10Nm - VAG1783-
- ◆ Shop Crane - Drip Tray - VAS6208-

### Removing

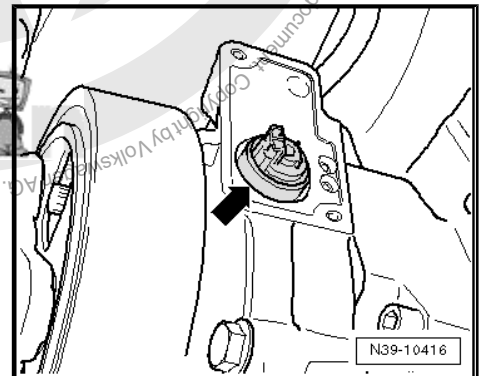
- Turn off the ignition.
- Disconnect the harness connectors -1 and 2- at the upper control module.
- Place drip tray under final drive.



- Remove the bolts -arrows-.
- Carefully remove the control module -A-.



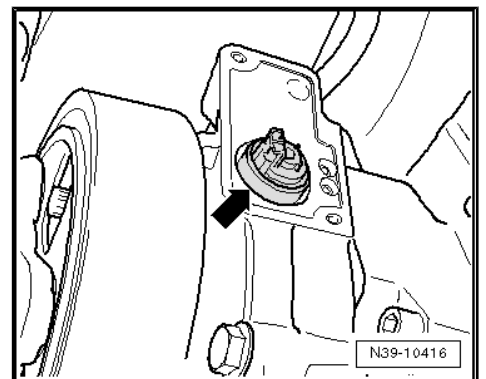
- Remove the cover -item 3- ➔ [Item 3 \(page 72\)](#) from the Haldex clutch housing if necessary. Continue holding the valve -arrow-.



- Cover the Haldex Clutch Control Valve - N373- -arrow- with a cloth, grab the valve body with pliers and remove it.

### Installing

Install in reverse order of removal. Note the following:





#### Note

*The valve sealing rings have different internal diameters.*

- ◆ -1- internal - diameter 10 mm
- ◆ -2- internal - diameter 11 mm
- ◆ -3- internal - diameter 12 mm
- ◆ -4- valve body seal

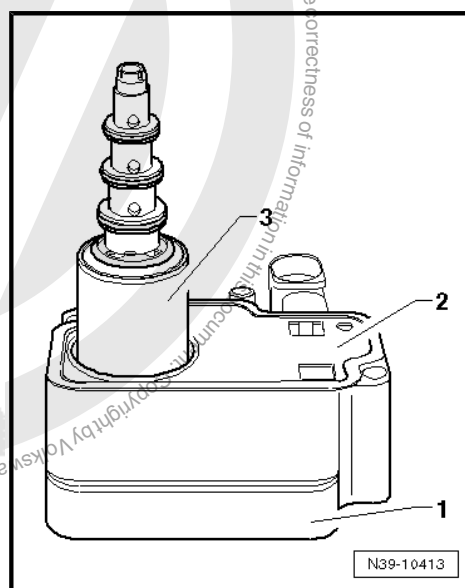
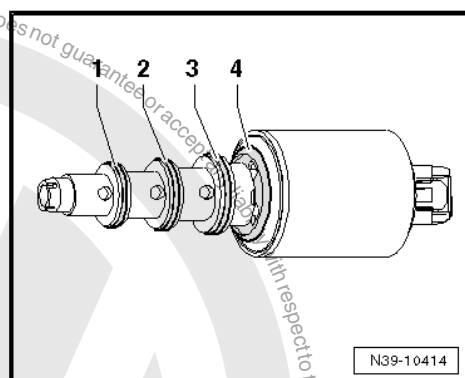
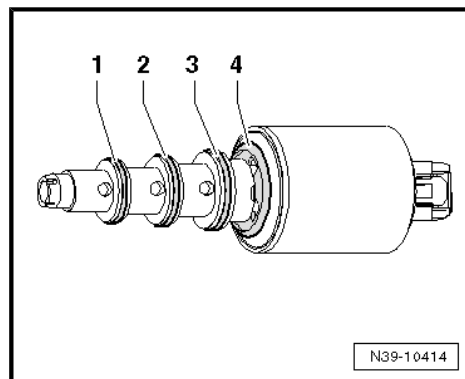
- First coat the sealing ring -1- with Haldex oil and mount it on the Haldex Clutch Control Valve - N373- .
- Then sealing ring -2, 3 and 4-
- Press the centering lips (quantity 4) of the sealing ring -4- into the groove.

- Place the new cover -2- on the control module -1-.



#### Note

*The cover fits in one position only.*



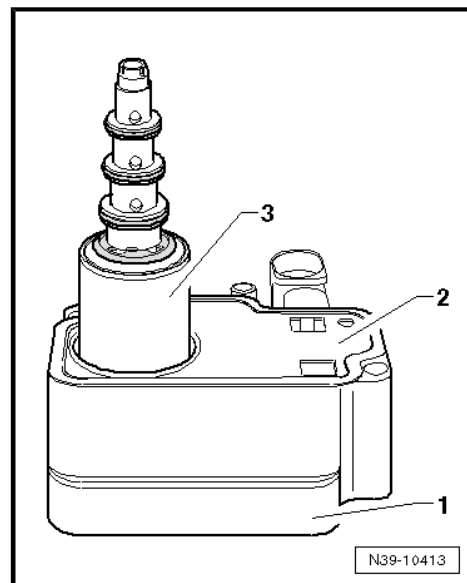


- Insert the Haldex Clutch Control Valve - N373- -3- into the control module -1-.

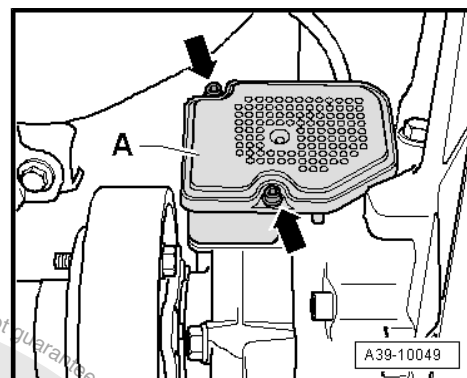


#### Note

*The valve only fits in one position.*



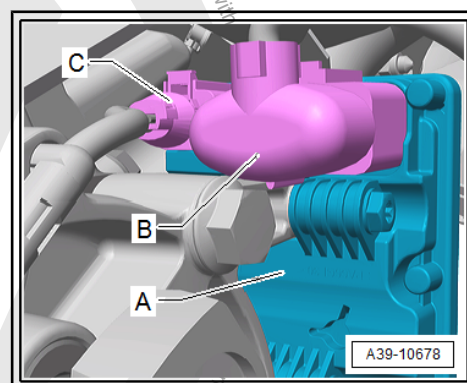
- Carefully position the control module -A- and tighten the bolts -arrows- to the tightening specification -item 2- ➔ [Item 2 \(page 72\)](#) .
- Check the oil level in the Haldex clutch. Refer to ➔ ["4 High-Performance Haldex Clutch Oil", page 55](#) .



## 6.5.2 AWD Control Module - J492- , Removing and Installing, Generation V

### Removing

- Remove the connectors from -B and C- from the AWD Control Module - J492- -A-.







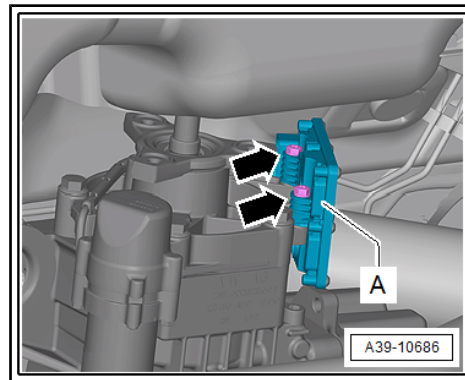
- Remove the AWD Control Module - J492- bolts -arrows- from the Haldex clutch and the AWD Control Module - J492- -A-.

### Installing

Install in reverse order of removal.

### Tightening Specifications

- ♦ AWD Control Module - J492- to Haldex clutch -item 3-  
⇒ [Item 3 \(page 73\)](#)





## 7 Driveshaft

⇒ [“7.1 Overview - Driveshaft”, page 91](#)

⇒ [“7.2 Driveshaft, Removing and Installing”, page 94](#)

⇒ [“7.3 Front Flexible Disc, Removing and Installing”, page 108](#)

⇒ [“7.4 Rear Flexible Disc, Removing and Installing”, page 109](#)

### 7.1 Overview - Driveshaft

⇒ [“7.1.1 Overview - Driveshaft, CC from MY 2012, Passat from MY 2011, Passat Wagon from MY 2011, Golf from MY 2013, Golf Wagon from MY 2014, Passat from MY 2015 and Passat Wagon from MY 2015”, page 91](#)

#### 7.1.1 Overview - Driveshaft, CC from MY 2012, Passat from MY 2011, Passat Wagon from MY 2011, Golf from MY 2013, Golf Wagon from MY 2014, Passat from MY 2015 and Passat Wagon from MY 2015



#### Note

*Do not perform any repair work on the driveshaft.*



## 1 - Transmission with Bevel Box

### 2 - Bolt

- ☐ 50 Nm + 90°
- ☐ Always replace.
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ For flexible disk to driveshaft

### 3 - Front Flexible Disc

- ☐ Allocation. Refer to the Parts Catalog.

### 4 - Bolt

- ☐ 60 Nm
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ For flexible disk to bevel gear.

### 5 - Driveshaft

- ☐ It cannot be separated at the joint -arrow-.
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ Removing and installing. Refer to [⇒ "7.2 Driveshaft, Removing and Installing", page 94](#).

### 6 - Bolt

- ☐ 25 Nm
- ☐ Allocation. Refer to the Parts Catalog.

### 7 - Intermediate Bearing

- ☐ Align it so that it is free of tension.

### 8 - Bolt

- ☐ 50 Nm + 90°
- ☐ Always replace.
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ For flexible disk to driveshaft

### 9 - Bolt

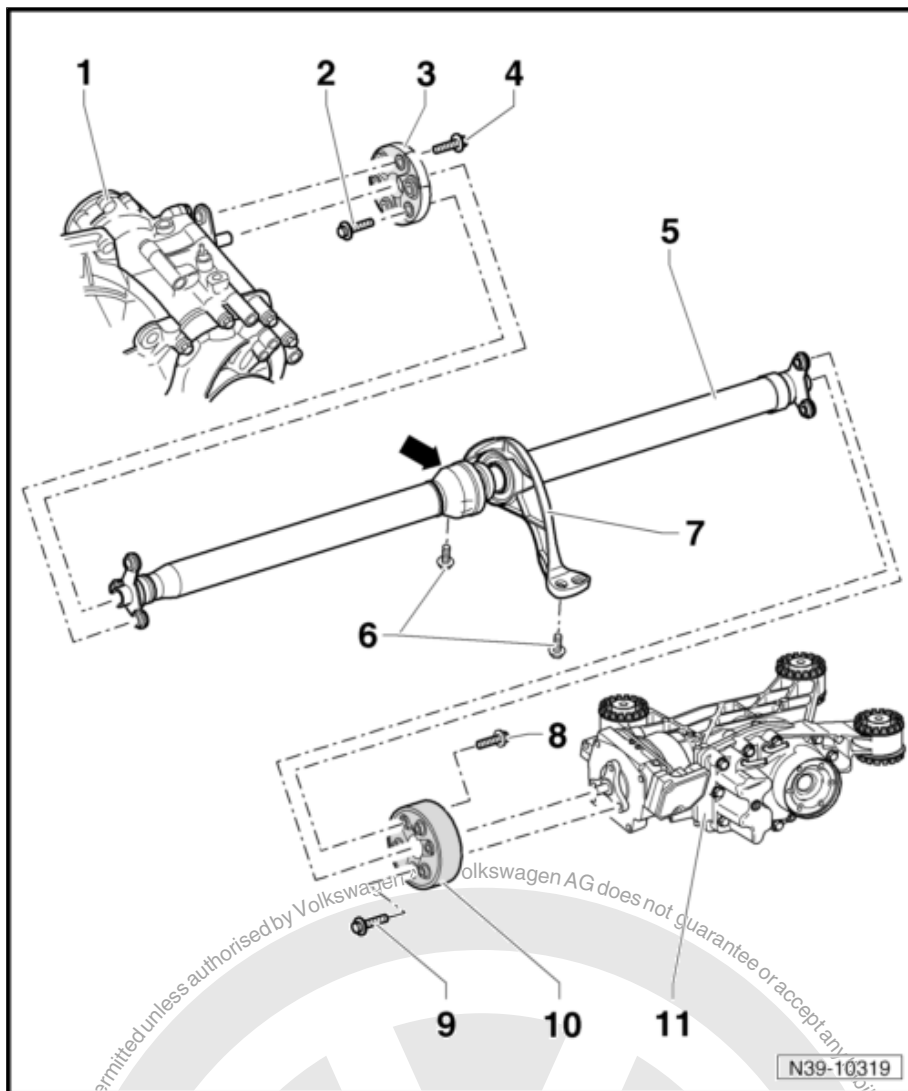
- ☐ 60 Nm
- ☐ Allocation. Refer to the Parts Catalog.
- ☐ For attaching the flexible disk to the final drive

### 10 - Flexible Disc with Vibration Damper

- ☐ Allocation. Refer to the Parts Catalog.

### 11 - Rear Final Drive

- ☐ Removing and installing. Refer to [⇒ "1.2 Final Drive, Removing and Installing", page 18](#).





## 7.1.2 Overview - Propshaft, Sharan from MY 2016



### Note

*Do not perform any repair work on the propshaft.*

#### 1 - Rear Final Drive

#### 2 - Flexible Disc with Vibration Damper

- ☐ Allocation. Refer to the ⇒ Electronic Parts Catalog (ETKA) .

#### 3 - 12-Point Collar Bolt

- ☐ Allocation. Refer to the ⇒ Electronic Parts Catalog (ETKA) .
- ☐ For flexible disc to rear final drive
- ☐ 60 Nm

#### 4 - Bolt

- ☐ Allocation. Refer to the ⇒ Electronic Parts Catalog (ETKA) .
- ☐ For flexible disc to propshaft
- ☐ Always replace.
- ☐ 50 Nm and 90° additional turn.

#### 5 - Propshaft

- ☐ Cannot be separated at the joints
- ☐ Allocation. Refer to the ⇒ Electronic Parts Catalog (ETKA) .
- ☐ Removing and Installing. Refer to ⇒ [page 105](#) .

#### 6 - Front intermediate bearing

- ☐ Align free of tension

#### 7 - Bolt

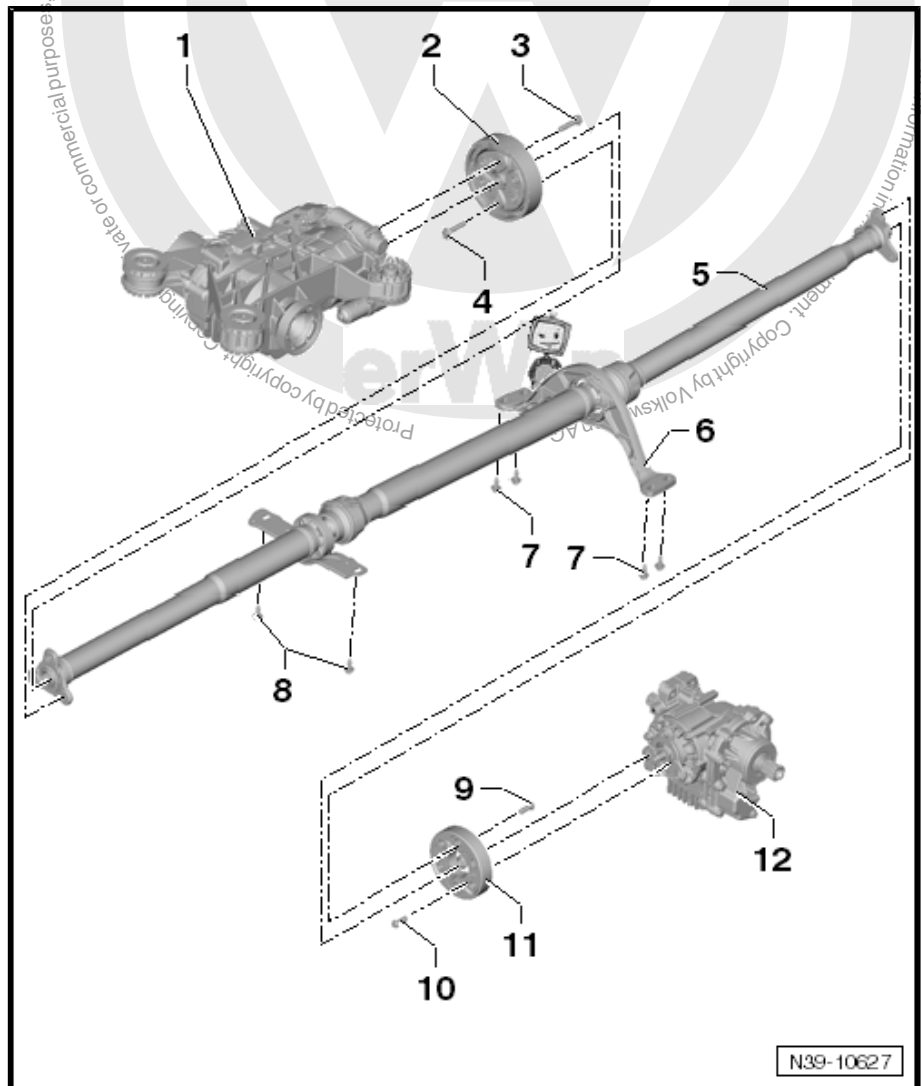
- ☐ Allocation. Refer to the ⇒ Electronic Parts Catalog (ETKA) .
- ☐ 25 Nm

#### 8 - Bolt

- ☐ Allocation. Refer to the ⇒ Electronic Parts Catalog (ETKA) .
- ☐ 25 Nm

#### 9 - Bolt

- ☐ Allocation. Refer to the ⇒ Electronic Parts Catalog (ETKA) .
- ☐ For flexible disc to propshaft
- ☐ Always replace.
- ☐ 50 Nm and 90° additional turn.





## 10 - 12-Point Collar Bolt

- ☐ Allocation. Refer to the ⇒ Electronic Parts Catalog (ETKA) .
- ☐ For flexible disc to bevel gear
- ☐ 60 Nm

## 11 - Front Flexible Disc

## 12 - Bevel Box

## 7.2 Driveshaft, Removing and Installing

⇒ "7.2.1 Driveshaft, Removing and Installing, CC from 2012, Passat from 2011, Passat Wagon from 2011", page 94

⇒ "7.2.2 Driveshaft, Removing and Installing, Golf from 2013, Golf Wagon from 2014", page 97

⇒ "7.2.3 Driveshaft, Removing and Installing, Passat from MY 2015, Passat Wagon from MY 2015", page 101

### 7.2.1 Driveshaft, Removing and Installing, CC from 2012, Passat from 2011, Passat Wagon from 2011



#### Note

- ◆ *Perform work on driveshaft on a two-column lift if possible.*
- ◆ *Mark the position of all the parts to each other before removing them. Install in the same position otherwise the imbalance will be excessive and the bearings could get damaged causing rumbling noises.*
- ◆ *Do not bend the driveshaft, only store and move when fully extended.*
- ◆ *Do not allow the driveshaft to »hang down « during removal. Always support it.*
- ◆ *Always remove or install the driveshaft horizontally with respect to the drive flange.*

#### Special tools and workshop equipment required

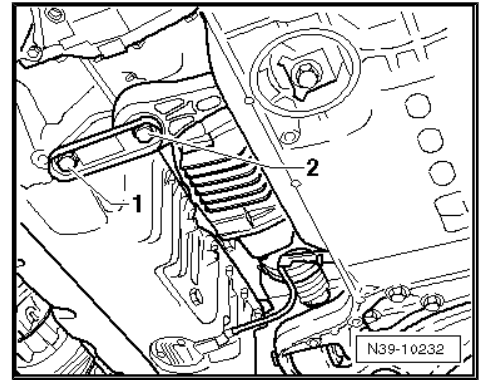
- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-
- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Torque Wrench 1332 40-200Nm - VAG1332-

#### Removing

- Remove the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .

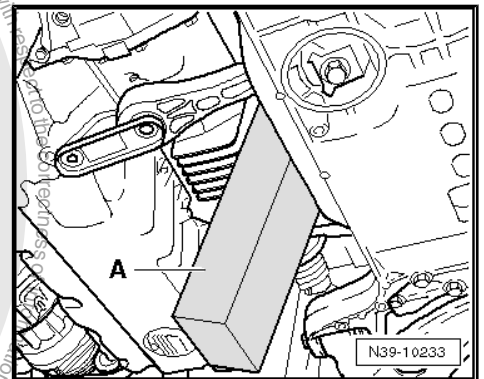


- Remove the bolts -1 and 2- from the pendulum support.



Press the »engine and transmission« forward and secure the position with a suitable piece of wood -A-.

- Support the front part of the exhaust system using the Engine and Gearbox Jack - VAS6931- .

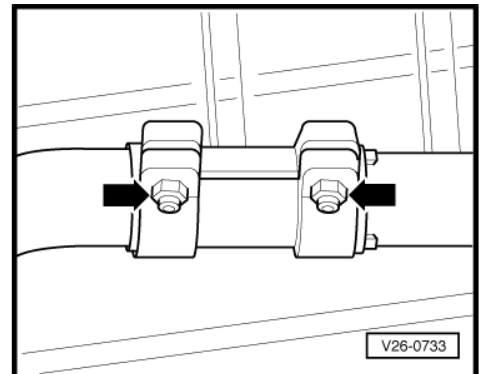


- Separate the exhaust system at the clamping sleeve -arrows- and remove the rear section of the exhaust system. Refer to ⇒ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers .

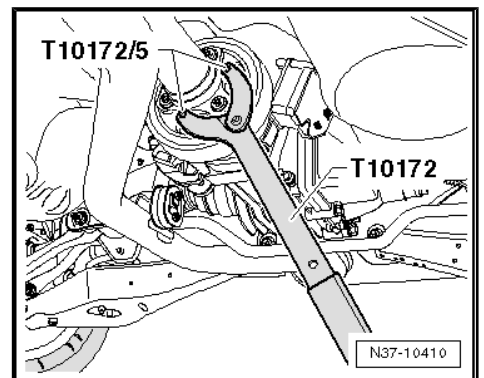


#### Note

*Do not bend the exhaust system decoupling element more than 10° or it could be damaged.*

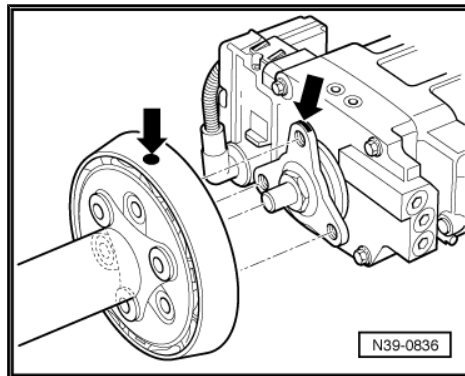


- Remove the center tunnel heat shield under the intermediate bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Remove the rear tunnel brace. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Loosen the driveshaft from the bevel box and the rear final drive but do not remove it.
- Counterhold the rear final drive to loosen and tighten the driveshaft.

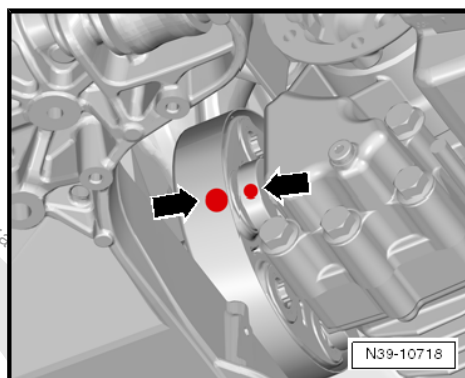




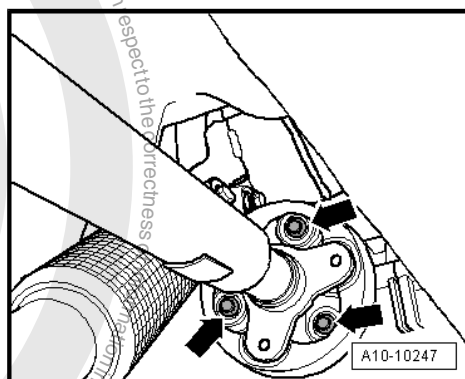
- Before removing, see if there is a marking (color dot) on the flexible disc and on the final drive output flange -arrows-. If not, mark the position of the flexible disc and flange/driveshaft on the final drive with respect to one another -arrows-.



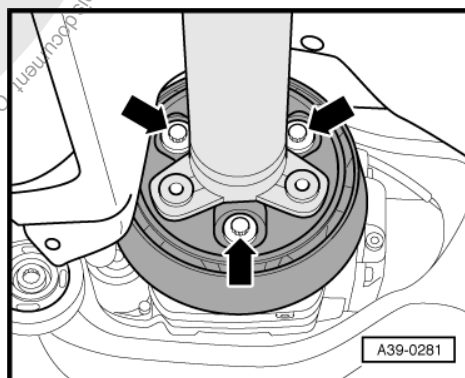
- Also mark the position of the driveshaft with respect to the flange on the bevel gear.



- Remove the driveshaft bolts from the bevel box -arrows-.



- Remove the driveshaft bolts from the rear final drive -arrows-.



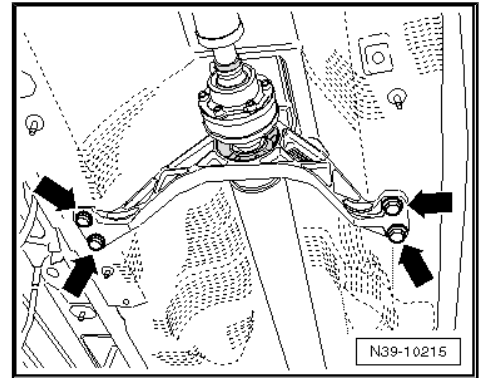
#### Note

- ◆ The centering pins on the bevel box, the rear final drive and in the center through the intermediate bearing hold the driveshaft in place.
- ◆ Two technicians are needed to remove the driveshaft.





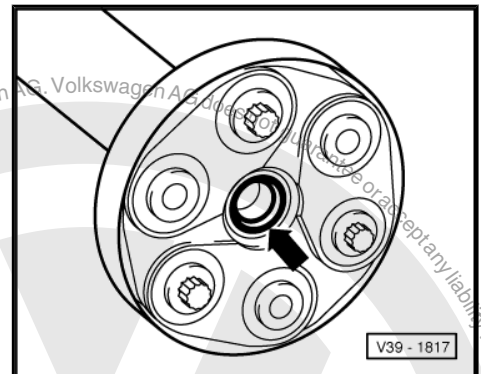
- Remove the intermediate bearing -arrows- and if possible, remove the driveshaft to the rear in its fully extended length.



- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.

**⚠ WARNING**

*To prevent damaging the protective boot in the intermediate bearing, remove and install the driveshaft in its fully extended position; likewise, store it in this position.*



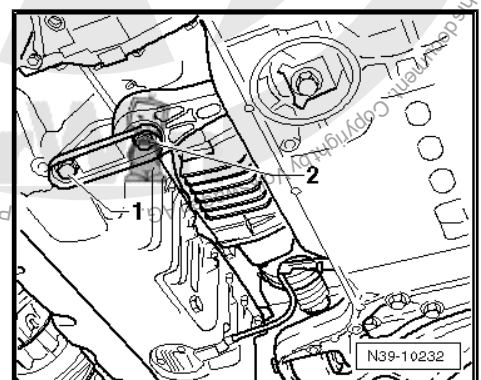
### Installing

Install in reverse order of removal. Note the following:

- Install all parts marked to each other in original positions.

#### Install the Intermediate Bearing without Tension.

- Align the intermediate bearing in its elongated holes so the driveshaft or bearing is not under stress.
- Tighten the intermediate bearing only after the driveshaft has been attached.
- Tighten the driveshaft and intermediate bearing. Tightening specifications. Refer to [⇒ "7.1 Overview - Driveshaft", page 91](#).
- Tighten the pendulum support with »new« bolts. Tightening specifications. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 40 ; Subframe; Overview - Subframe
- Install the center tunnel heat shield under the center bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Install the rear section of the exhaust system. Refer to ⇒ Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Install the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .
- Install the rear tunnel brace. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .



## 7.2.2 Driveshaft, Removing and Installing, Golf from 2013, Golf Wagon from 2014

### Special tools and workshop equipment required

- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-

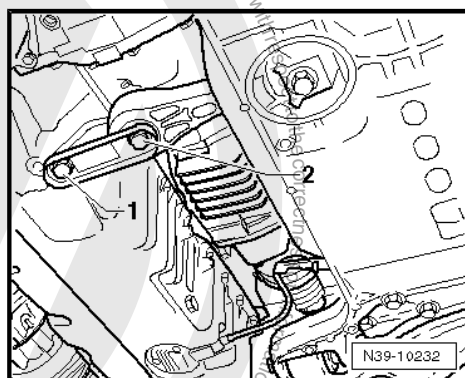


## Note

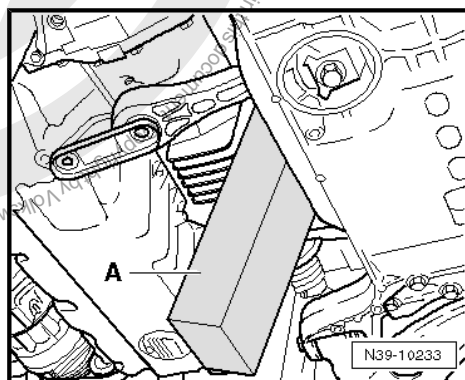
- ◆ Perform work on driveshaft on a two-column lift if possible.
- ◆ Mark the position of all the parts to each other before removing them. Install in the same position otherwise the imbalance will be excessive and the bearings could get damaged causing rumbling noises.
- ◆ Do not bend the driveshaft, only store and move when fully extended.
- ◆ Do not allow the driveshaft to »hang down« during removal. Always support it.
- ◆ Always remove or install the driveshaft horizontally with respect to the drive flange.

## Removing

- Remove the noise insulation. Refer to ➤ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .
- Remove the exhaust system. Refer to ➤ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Remove the bolts 1 and 2- from the pendulum support.

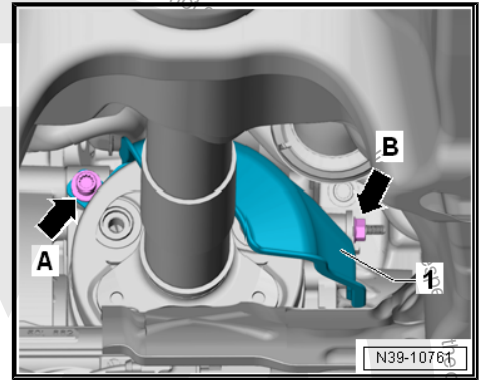


- Press the »engine and transmission« forward and secure the position with a suitable piece of wood -A-.

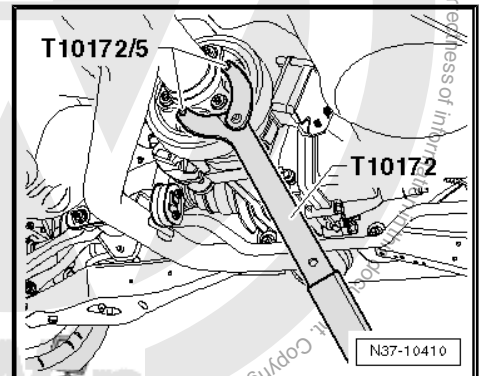




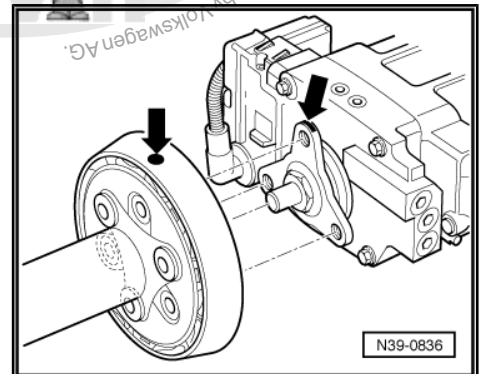
- Remove the bolts -A and B- from the bevel box and remove heat shield -1-.
- Remove the center tunnel heat shield under the intermediate bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Remove the rear tunnel brace. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Loosen the driveshaft from the bevel box and the rear final drive but do not remove it.



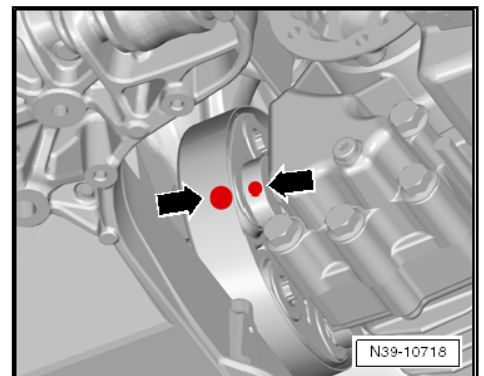
- Counterhold the rear final drive to loosen and tighten the driveshaft.



- Before removing, see if there is a marking (color dot) on the flexible disc and on the final drive output flange -arrows-. If not, mark the position of the flexible disc and flange/driveshaft on the final drive with respect to one another -arrows-.



- Also mark the position of the driveshaft with respect to the flange on the bevel gear.



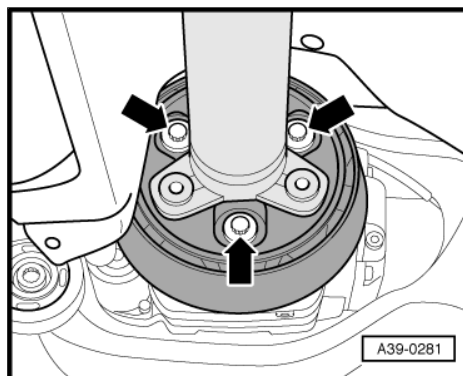


- Remove the driveshaft bolts from the front bevel box and the rear final drive -arrows-.

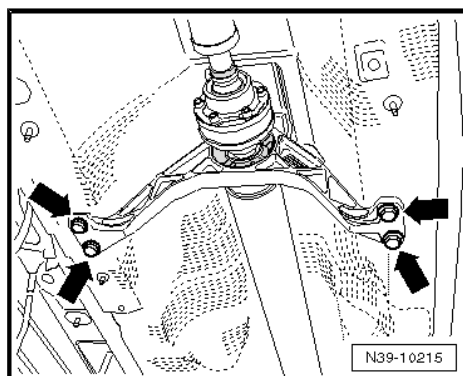


#### Note

- ♦ *The centering pins on the bevel box, the rear final drive and in the center through the intermediate bearing hold the driveshaft in place.*
- ♦ *Two technicians are needed to remove the driveshaft.*



- Remove the intermediate bearing -arrows- and if possible, remove the driveshaft to the rear in its fully extended length.

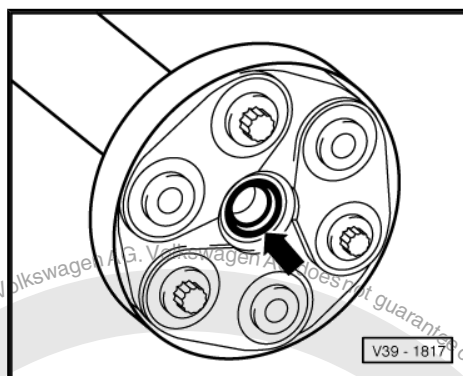


- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.



#### WARNING

*To prevent damaging the protective boot in the intermediate bearing, remove and install the driveshaft in its fully extended position; likewise, store it in this position.*



#### Installing

Install in reverse order of removal. Note the following:

- Install all parts marked to each other in original positions.

#### Install Intermediate Bearing without Tension

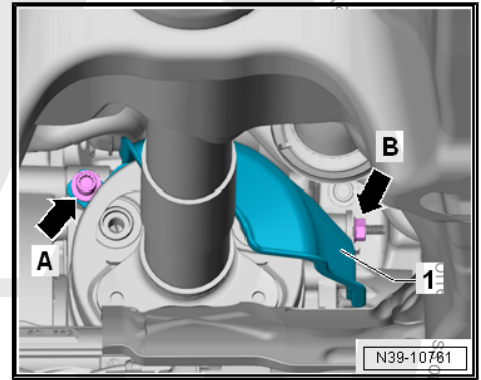
- Align the intermediate bearing in its elongated holes so the driveshaft or bearing is not under stress.
- Tighten the intermediate bearing only after the driveshaft has been attached.
- Tighten the driveshaft and intermediate bearing. Tightening specifications. Refer to [⇒ "7.1 Overview - Driveshaft", page 91](#) .



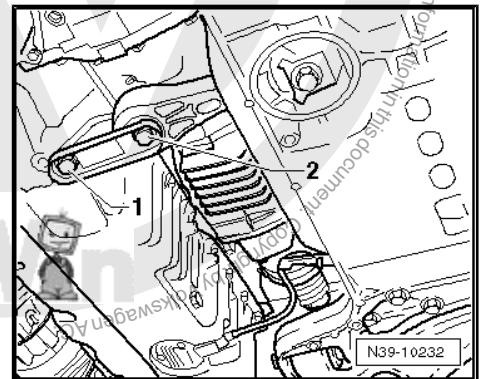
- Remove the heat shield -1- from the bevel box.

#### Tightening Specification

- ◆ Bolt -A- 20 Nm
- ◆ Bolt -B- 40 Nm



- Tighten the pendulum support with »new« bolts. Tightening specifications. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 40 ; Subframe; Overview - Subframe
- Install the center tunnel heat shield under the center bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Install the exhaust system. Refer to ⇒ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Install the rear tunnel brace. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Install the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .



### 7.2.3 Driveshaft, Removing and Installing, Passat from MY 2015, Passat Wagon from MY 2015

#### Special tools and workshop equipment required

- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-



#### Note

- ◆ Perform work on driveshaft on a two-column lift if possible.
- ◆ Mark the position of all the parts to each other before removing them. Install in the same position otherwise the imbalance will be excessive and the bearings could get damaged causing rumbling noises.
- ◆ Do not bend the driveshaft, only store and move when fully extended.
- ◆ Do not allow the driveshaft to »hang down « during removal. Always support it.
- ◆ Always remove or install the driveshaft horizontally with respect to the drive flange.

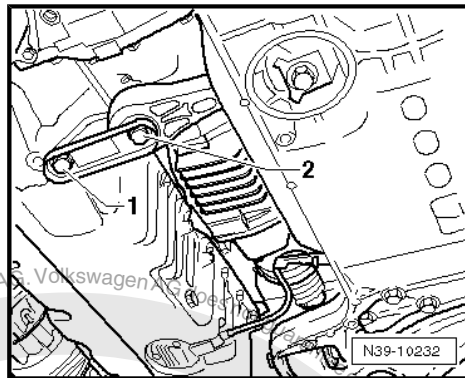
#### Removing

- Remove the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .
- Remove the exhaust system. Refer to ⇒ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .

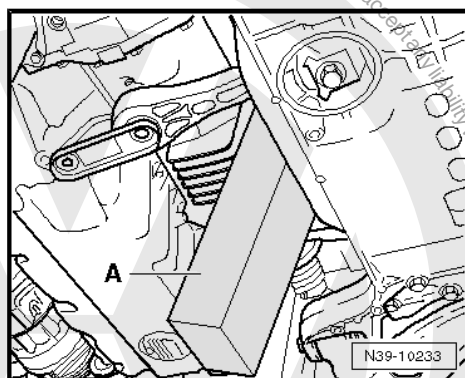




- Remove the bolts -1 and 2- from the pendulum support.

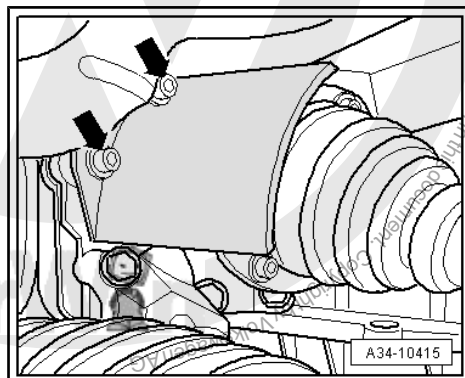


- Press the »engine and transmission« forward and secure the position with a suitable piece of wood -A-.

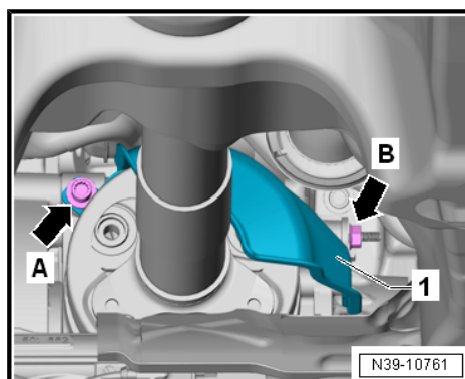


- Remove the drives axle heat shield, if equipped, from the bevel box -arrows-. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 40 ; Drive Axle .

The heat shield for the right drive axle is attached with 2 or 3 nuts.

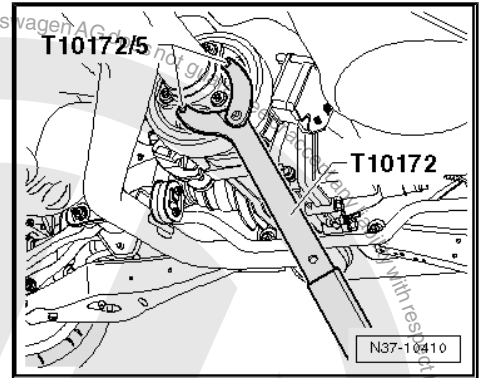


- Remove the bolts -A and B- from the bevel box and remove heat shield -1-.
- Remove the center tunnel heat shield under the intermediate bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Remove the rear tunnel brace. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Loosen the driveshaft from the bevel box and the rear final drive but do not remove it.

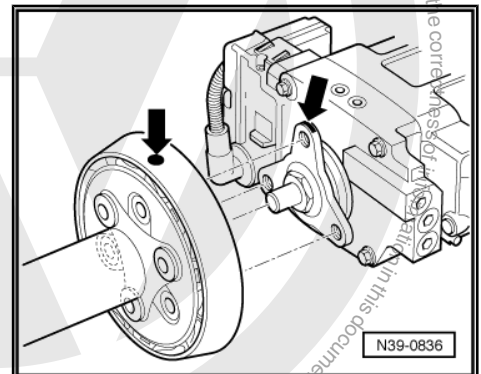




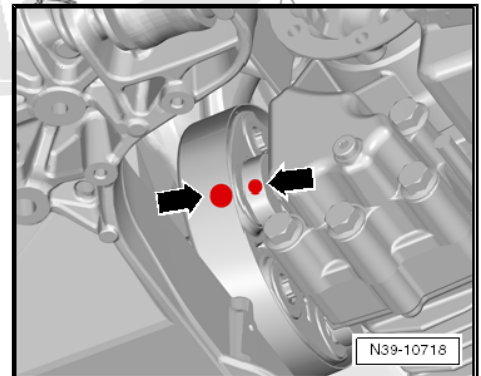
- Counterhold the rear final drive to loosen and tighten the driveshaft.



- Before removing, see if there is a marking (color dot) on the flexible disc and on the final drive output flange -arrows-. If not, mark the position of the flexible disc and flange/driveshaft on the final drive with respect to one another -arrows-.



- Also mark the position of the driveshaft with respect to the flange on the bevel gear.

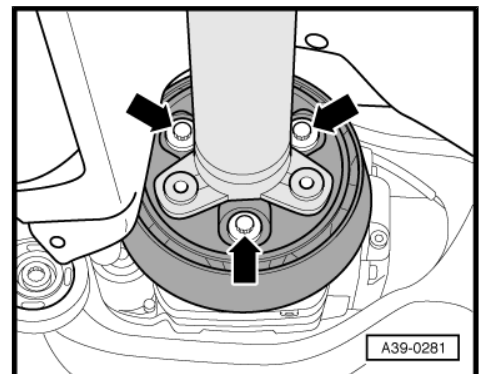


- Remove the driveshaft bolts from the front bevel box and the rear final drive -arrows-.



#### Note

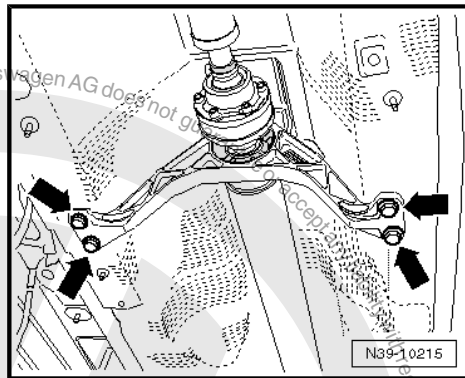
- ◆ The centering pins on the bevel box, the rear final drive and in the center through the intermediate bearing hold the driveshaft in place.
- ◆ Two technicians are needed to remove the driveshaft.







- Remove the intermediate bearing -arrows- and if possible, remove the driveshaft to the rear in its fully extended length.

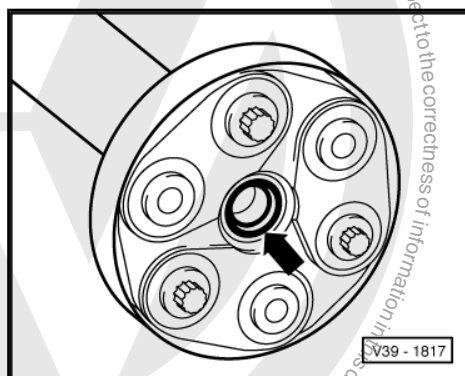


- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.



#### WARNING

*To prevent damaging the protective boot in the intermediate bearing, remove and install the driveshaft in its fully extended position; likewise, store it in this position.*



#### Installing

Install in reverse order of removal. Note the following:

- Install all parts marked to each other in original positions.

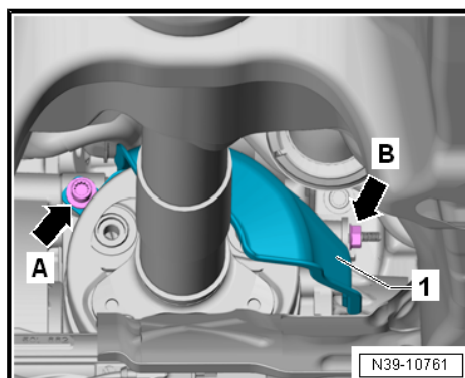
#### Install Intermediate Bearing without Tension

- Align the intermediate bearing in its elongated holes so the driveshaft or bearing is not under stress.
- Tighten the intermediate bearing only after the driveshaft has been attached.
- Tighten the driveshaft and intermediate bearing. Tightening specifications. Refer to [⇒ "7.1 Overview - Driveshaft", page 91](#).

- Remove the heat shield -1- from the bevel box.

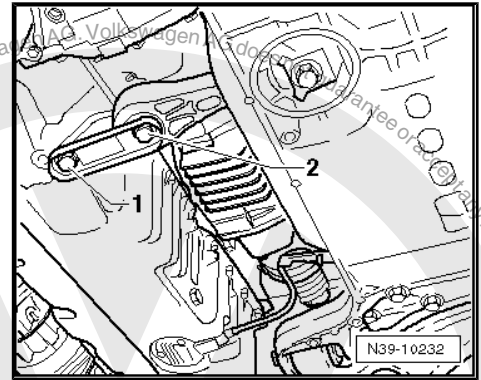
#### Tightening Specification

- ◆ Bolt -A- 20 Nm
- ◆ Bolt -B- 40 Nm





- Tighten the pendulum support with »new« bolts. Tightening specifications. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 40 ; Subframe; Overview - Subframe
- Install the center tunnel heat shield under the center bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Install the exhaust system. Refer to ⇒ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Install the rear tunnel brace. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Install the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .



## 7.2.4 Propshaft, Removing and Installing, Sharan from MY 2016

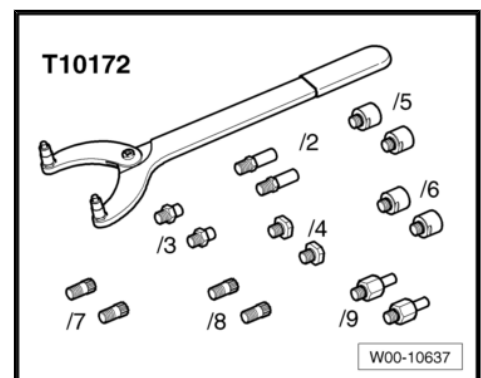


### Note

- ◆ Perform work on propshaft on a two-column workshop hoist if possible.
- ◆ Label the position of all the parts to each other before removing them. Install in the same position otherwise the imbalance will be excessive and the bearings could get damaged causing rumbling noises.
- ◆ Do not bend the propshaft, only store and move when fully extended.
- ◆ Do not allow the propshaft to »hang down« during removal. Always support it.
- ◆ Always remove or install the propshaft horizontally with respect to the drive flange.

### Special tools and workshop equipment required

- ◆ Torque Wrench 1332 40-200Nm - V.A.G 1332-
- ◆ Engine and Gearbox Jack - VAS 6931-
- ◆ Counterhold - Kit - Multiple Use - T10172-

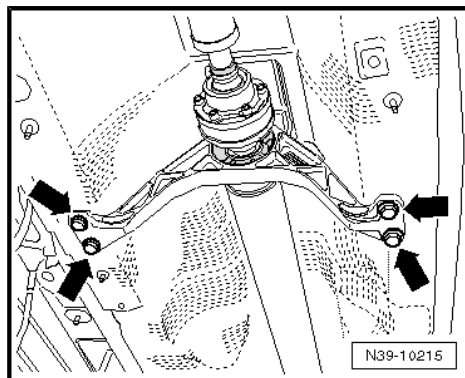


### Removing

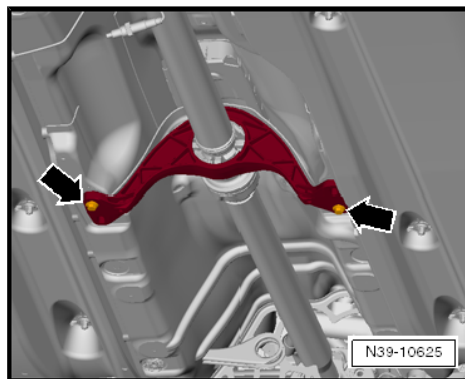
- Remove the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .
- Remove the front exhaust pipe. Refer to ⇒ 4-Cylinder Common Rail (2.0L, 4V, Turbocharger); Rep. Gr. 26 ; Exhaust Pipe/Muffler; Front Exhaust Pipe, Removing and Installing .



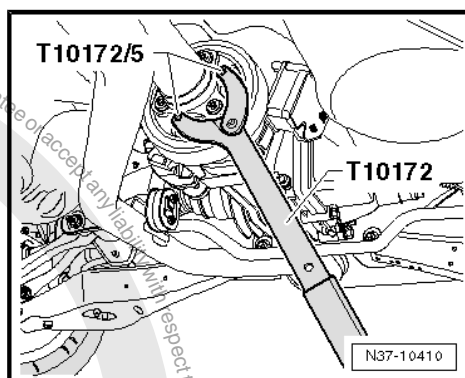
- Remove the fuel tank. Refer to ➤ Engine Mechanical, Fuel Injection, and Ignition; Rep. Gr. 20 ; Fuel Supply .
- Remove the center tunnel heat shield under the intermediate bearing. Refer to ➤ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Trim Panels .
- Loosen the bolts -arrows- for the front propshaft intermediate bearing.



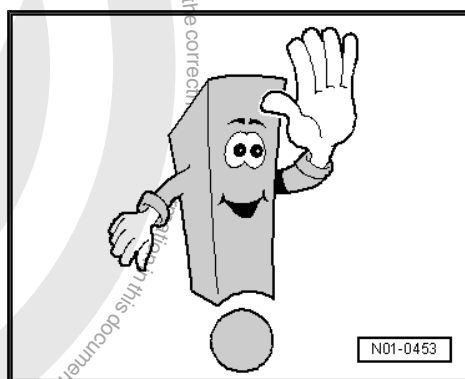
- Remove the two bolts completely. The two bolts -arrows- remain installed.
- Loosen but do not unscrew the front and rear propshaft.



- Counterhold the rear final drive to loosen and tighten the propshaft.

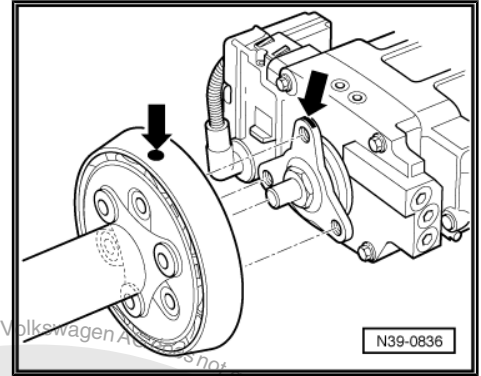


So that noises due to imbalance do not occur later:

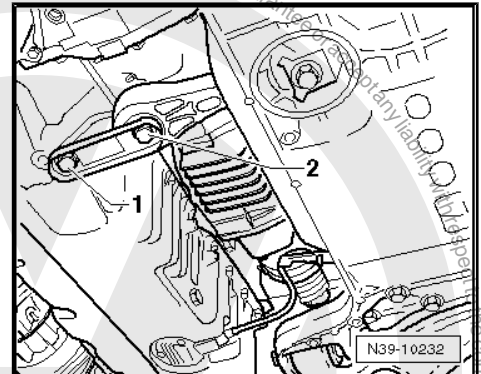




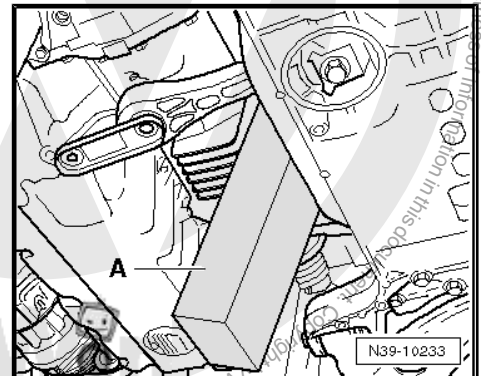
- If no markings -arrows- are present, mark the position of the propshaft with respect to the flange on the final drive.
- Also mark the position of the propshaft with respect to the flange on the bevel gear.
- Unbolt the propshaft from the bevel box.



- Remove the pendulum support bolts -1- and -2-.



- Press the »engine and transmission« forward and secure the position with a suitable piece of wood -A-.
- Remove the propshaft from the rear final drive and lower it onto the Engine and Gearbox Jack - VAS 6931- .



- When removing and installing the propshaft, always be careful not to damage the bushing -arrow-.



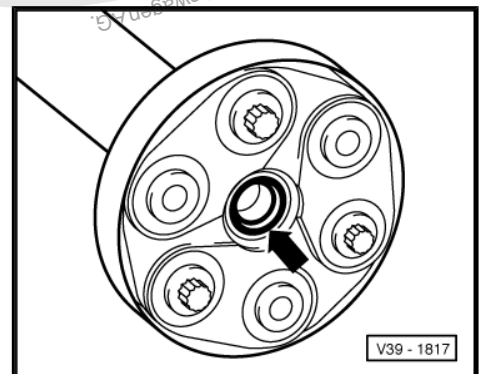
#### Note

Two technicians are needed to remove the propshaft.



#### WARNING

**To prevent damaging the protective boot in the center bearing, remove and install the propshaft in its fully extended position; likewise, store it in this position.**



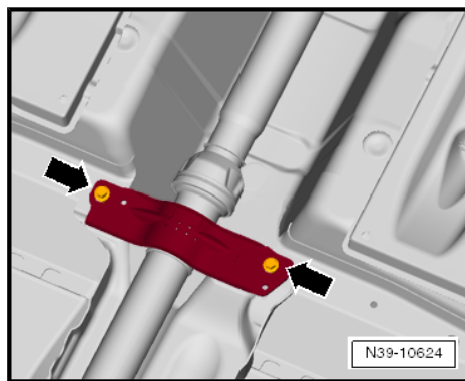


- Remove the rear intermediate bearing -arrows- and both bolts on the front intermediate bearing and then remove the propshaft in its extended length if possible.

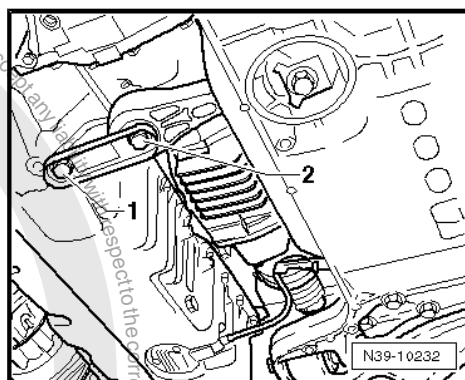
### Installing

Install in reverse order of removal while. Note the following:

- Install all parts marked to each other in their original positions.
- Tighten the propshaft. Tightening specifications. Refer to [⇒ page 91](#) .



- Tighten the pendulum support with »new« bolts. Tightening specifications. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 40 .
- Install the front exhaust pipe. Refer to ⇒ 4-Cylinder Common Rail (2.0L, 4V, Turbocharger); Rep. Gr. 26 ; Exhaust Pipe/ Muffler; Front Exhaust Pipe, Removing and Installing .
- Install the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 50. Noise Insulation .



## 7.3 Front Flexible Disc, Removing and Installing

### Short Description

Remove and install the front flexible disc only when the driveshaft is removed.

### Special tools and workshop equipment required

- ♦ Engine and Gearbox Jack - VAS6931- or -VAG1383A-
- ♦ Counterhold - Kit - Multiple Use - T10172-
- ♦ Torque Wrench 1331 5-50Nm - VAG1331-
- ♦ Torque Wrench 1332 40-200Nm - VAG1332-

### Removing



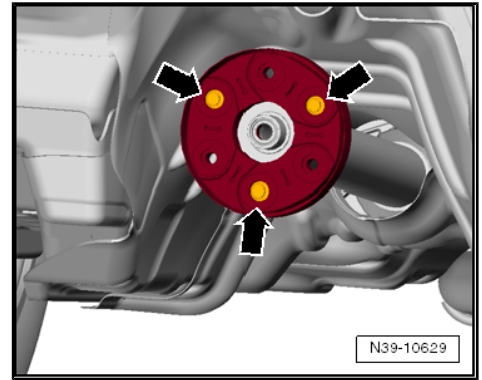
#### Note

- ♦ *A twin-pillar lifting platform should be used when working on the driveshaft.*
- ♦ *Mark the position of all the parts to each other before removing them. Install in the same position otherwise the imbalance will be excessive and the bearings could get damaged causing rumbling noises.*
- ♦ *Do not bend the driveshaft, only store and move when fully extended.*
- Remove the driveshaft. Refer to [⇒ "7.2 Driveshaft, Removing and Installing", page 94](#) .
- Lay the driveshaft down fully extended.

The following illustration shows it installed.



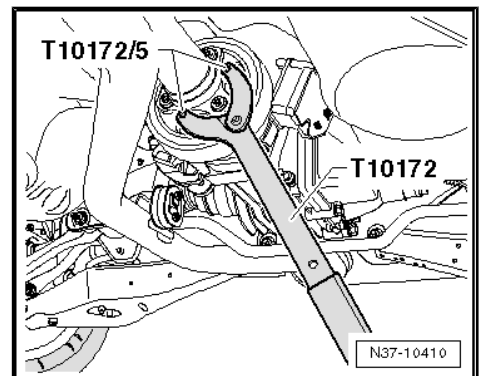
Remove the front flexible disc from the driveshaft -arrows-.



- Counterhold using Counterhold - Kit - Multiple Use - T10172- when loosening and tightening the bolts.

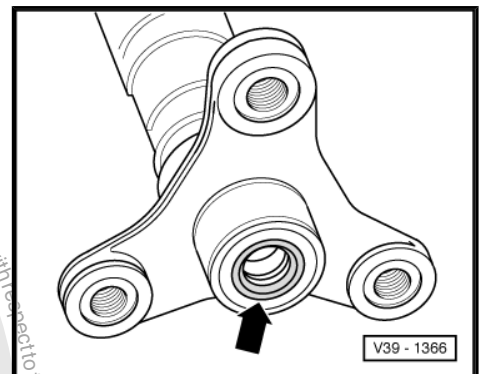
### Installing

Install in reverse order of removal. Note the following:



### Note

- ◆ *Sealing rings in driveshaft flanges -arrow- must not be damaged when removing and installing.*
- ◆ *Replace the driveshaft if it is damaged.*
- ◆ *Do not tilt the driveshaft. Push it horizontally onto the centering pins.*
- ◆ *Install all driveshaft parts marked in relation to each other in same position when reinstalling.*
- Attach the flexible disc to the driveshaft using new bolts. Tightening specifications. Refer to ["7.1 Overview - Driveshaft", page 91](#).



### Flexible Disc and Heat Shield Installed Position

- ◆ The open side of the heat shield faces away from the driveshaft.
- ◆ Install the flexible disc so that the heat shield touches the driveshaft flange
- Install the driveshaft. Refer to ["7.2 Driveshaft, Removing and Installing", page 94](#).

## 7.4 Rear Flexible Disc, Removing and Installing

### Special tools and workshop equipment required

- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-
- ◆ Counterhold - Kit - Multiple Use - T10172-
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Torque Wrench 1332 40-200Nm - VAG1332-



## Removing



### Note

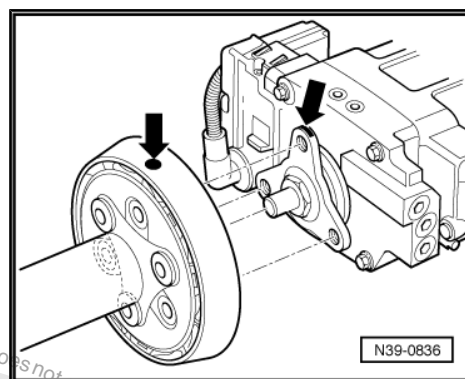
- ♦ A twin-pillar lifting platform should be used when working on the driveshaft.
- ♦ Mark the position of all the parts to each other before removing them. Install in the same position otherwise the imbalance will be excessive and the bearings could get damaged causing rumbling noises.
- ♦ Do not bend the driveshaft, only store and move when fully extended.

The following applies only to installing the removed parts.

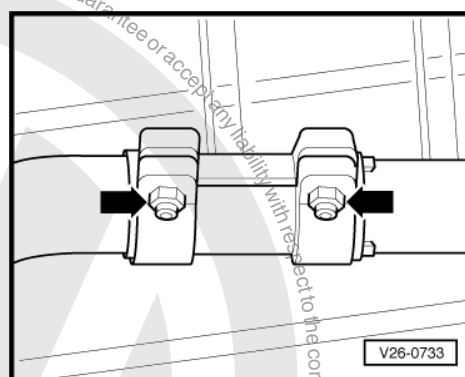
- Before removing, see if there is a marking (color dot) on the flexible disc and on the flange/final drive as well as on the flange/driveshaft -arrows-. If the dot is not there, mark the installed position of the flexible disc -arrows-.

### Continuation for All

- Remove the noise insulation. Refer to ➤ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .
- Support the front part of the exhaust system using the Engine and Gearbox Jack - VAS6931- .



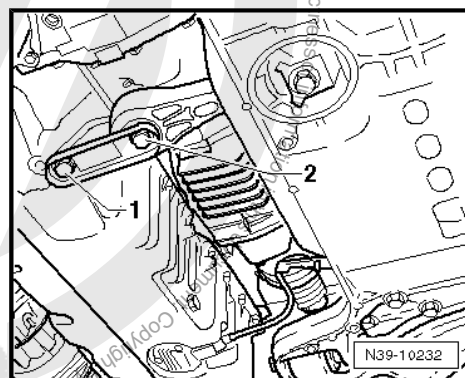
- Separate the exhaust system at the clamping sleeve -arrows- and remove the rear section of the exhaust system. Refer to ➤ Engine Mechanical, Fuel Injection and Ignition; Rep. Gr. 26 ; Exhaust Pipes/Mufflers .



### Note

Do not bend the exhaust system decoupling element more than 10° or it could be damaged.

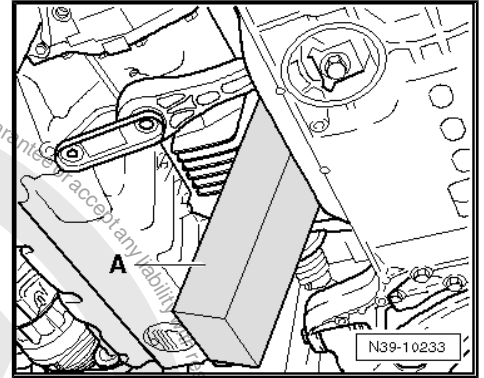
- Remove the bolts -1 and 2- from the pendulum support.



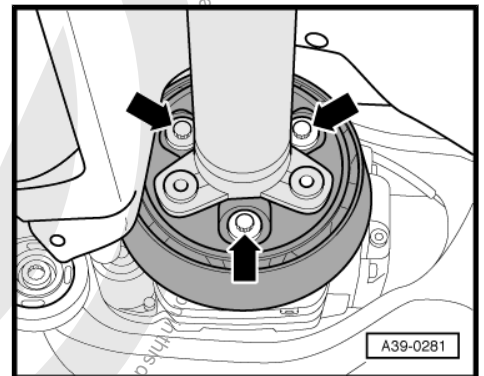




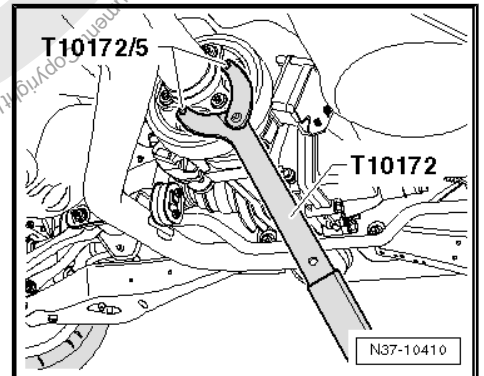
- Press the »engine and transmission« forward slightly and secure it with a suitable piece of wood -A-.
- Remove the center tunnel heat shield under the intermediate bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .



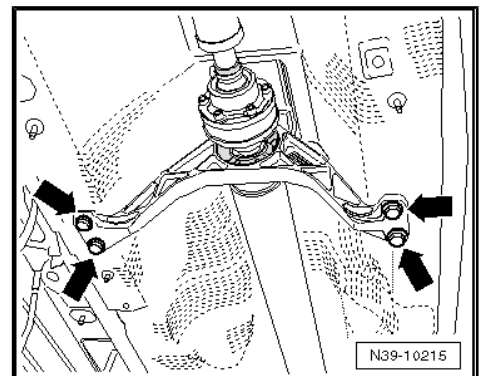
- Remove the flexible disc with the vibration damper from the rear final drive -arrows-.



- Counterhold using Counterhold - Kit - Multiple Use - T10172- when loosening and tightening the bolts.

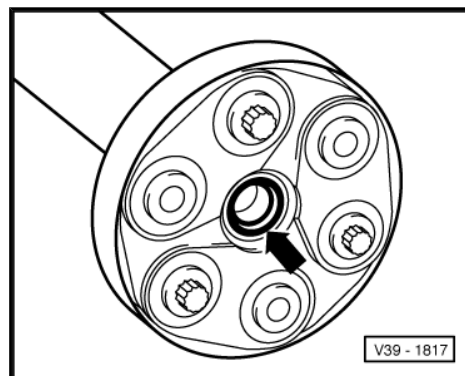


- Remove the bolts -arrows- from the front intermediate bearing.
- Remove the driveshaft from the final drive and lay it on the tunnel brace; place a cloth on the tunnel brace to protect the shaft.





- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.

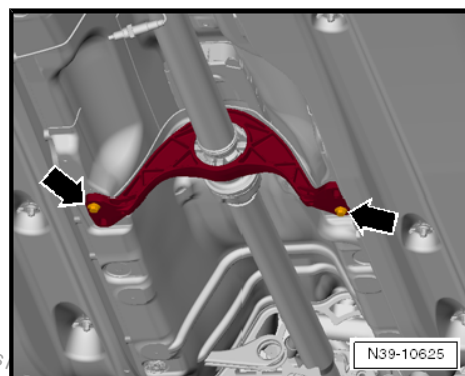


- Secure the intermediate bearing to the body with 2 bolts -arrows- after removing the driveshaft. This way the front flexible disc will not be unnecessarily loaded.

Remove the rear flexible disc with the vibration damper from the driveshaft.

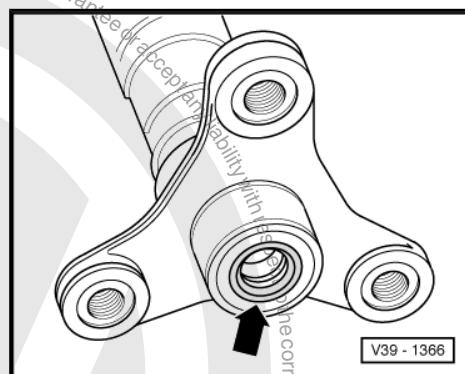
### Installing

Install in reverse order of removal. Note the following:



### Note

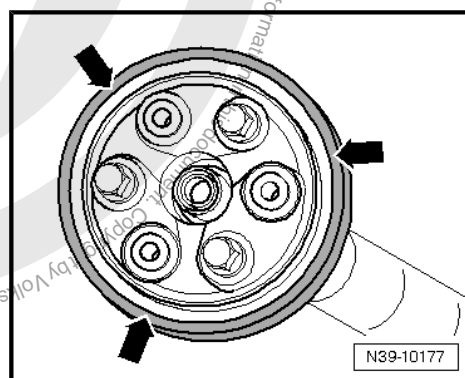
- ♦ *Sealing rings in driveshaft flanges -arrow- must not be damaged when removing and installing.*
  - ♦ *Replace the driveshaft if it is damaged.*
  - ♦ *Do not tip rear driveshaft tube, push horizontally onto centering pins.*
  - ♦ *Install all driveshaft parts marked in relation to each other in same position when reinstalling.*
- Attach the flexible disc to the driveshaft using new bolts. Tightening specifications. Refer to [⇒ "7.1 Overview - Driveshaft", page 91](#).



### Location of Flexible Disc with Vibration Damper

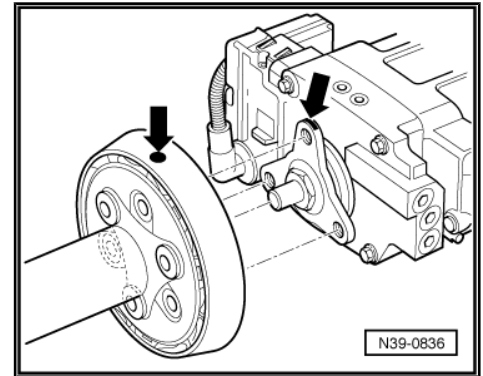
- ♦ The brace on the outer diameter -arrows- faces away from the driveshaft tube.
- ♦ Each of the three protruding sleeves on the flange/driveshaft and on the flange/final drive engages in the mounting holes in the flexible disc.

The following applies only to installing the removed flexible disc.





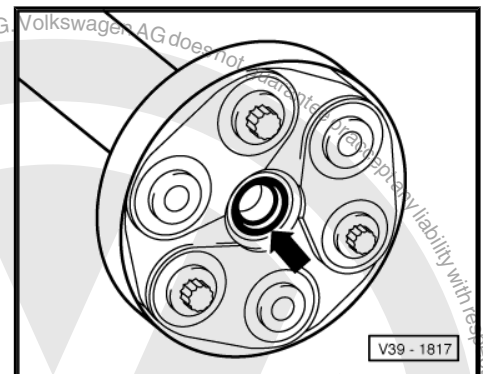
- Attach the driveshaft to the flange/driveshaft on the rear final drive so that the markings -arrows- line up.



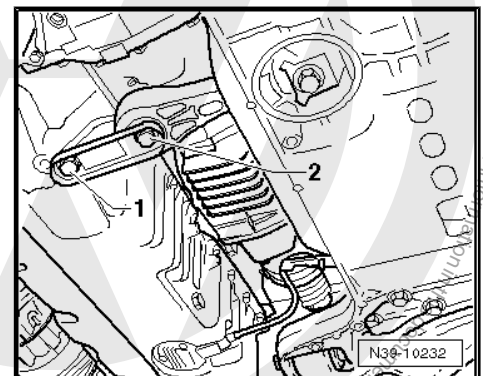
- When removing and installing the driveshaft, be careful not to damage the bushing -arrow-.

#### Install Intermediate Bearing without Tension

- Align the intermediate bearing in its elongated holes so the driveshaft or bearing is not under stress.
- Tighten the intermediate bearing only after the driveshaft has been attached.
- Tighten the driveshaft and intermediate bearing. Tightening specifications. Refer to [⇒ "7.1 Overview - Driveshaft", page 91](#).



- Tighten the pendulum support with »new« bolts. Tightening specifications. Refer to ⇒ Suspension, Wheels, Steering; Rep. Gr. 40 ; Subframe; Overview - Subframe
- Install the center tunnel heat shield under the center bearing. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Underbody Trim Panel; Overview - Underbody Panels .
- Install the rear section of the exhaust system. Refer to ⇒ Rep. Gr. 26 ; Exhaust Pipes/Mufflers; Overview - Muffler .
- Install the noise insulation. Refer to ⇒ Body Exterior; Rep. Gr. 66 ; Noise Insulation; Overview - Noise Insulation .

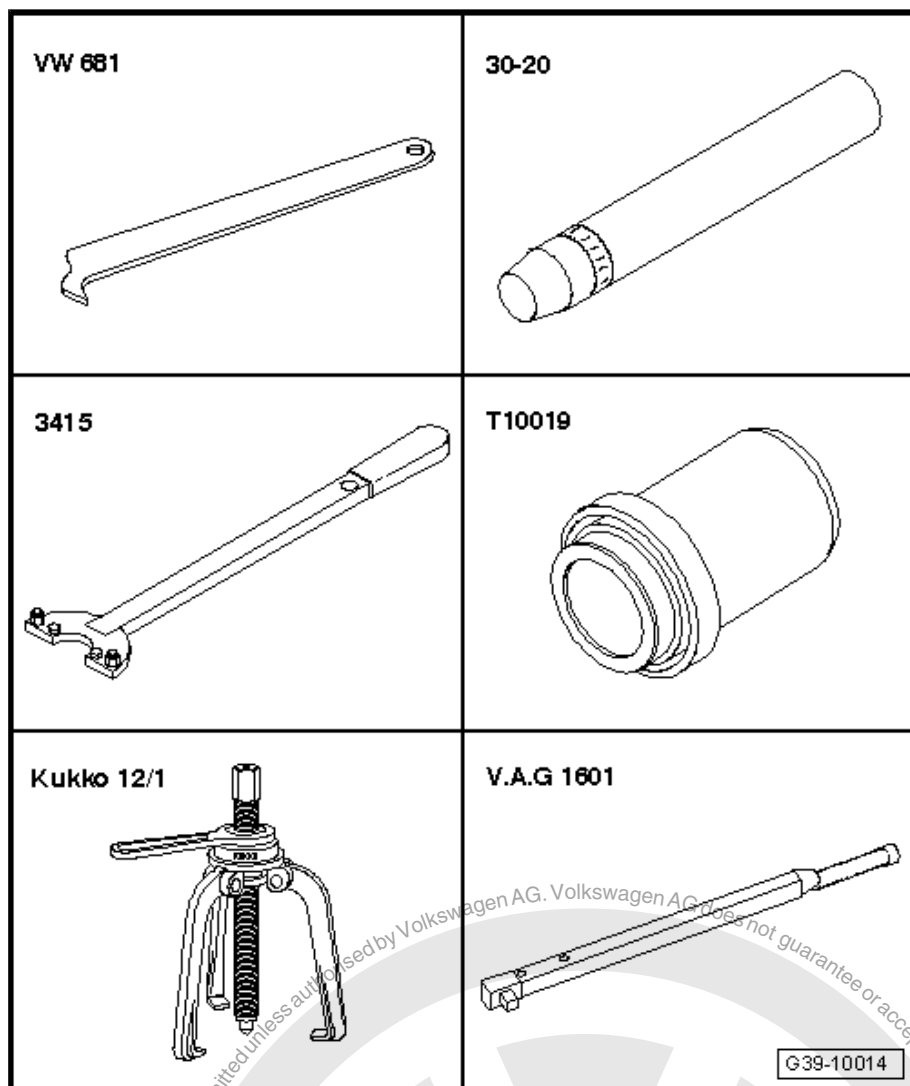




## 8 Special Tools

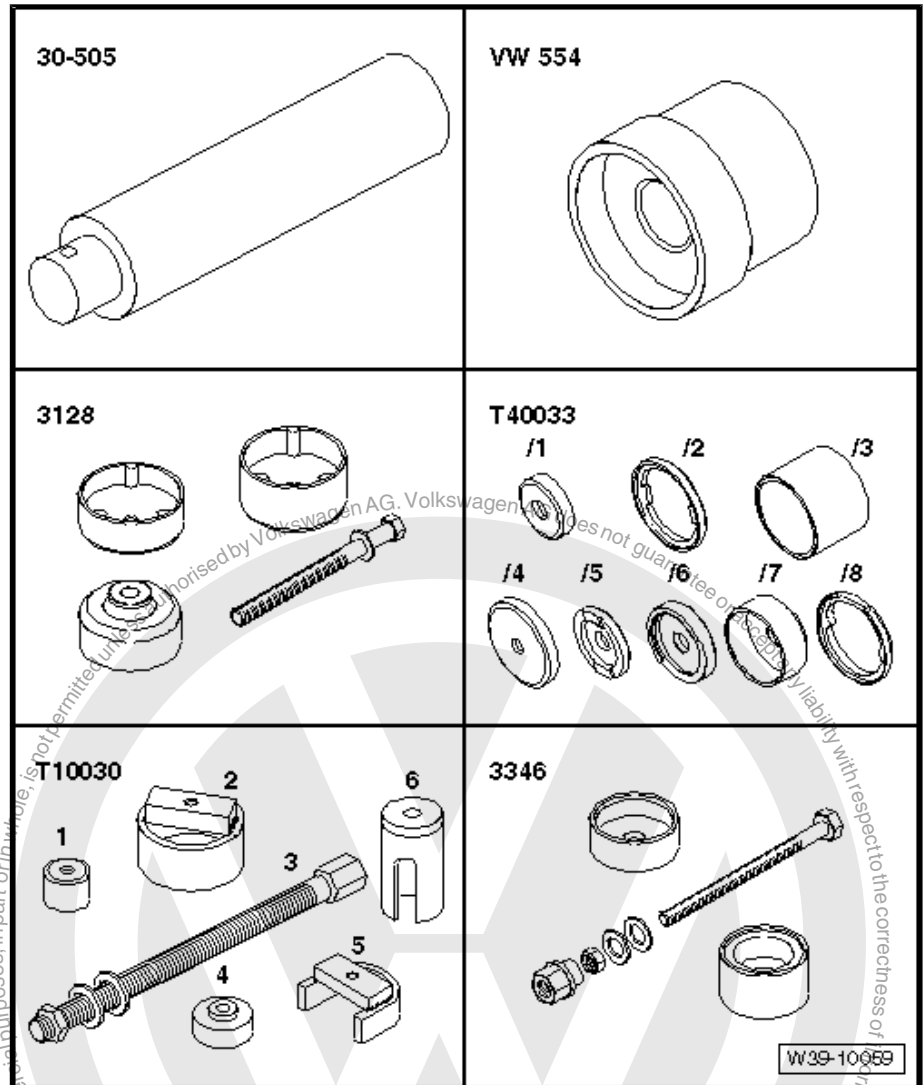
### Special tools and workshop equipment required

- ◆ Puller - Seal Lever - VW681-
- ◆ Drive Sleeve - 30-20-
- ◆ Counterhold - Crankshaft Sprocket - 3415-
- ◆ Seal Installer - Shaft Seal Ring - T10019-
- ◆ Puller - Kukko 3 Jaw - 100x100mm - 12/1-
- ◆ Torque Wrench 1601 - VAG1601-



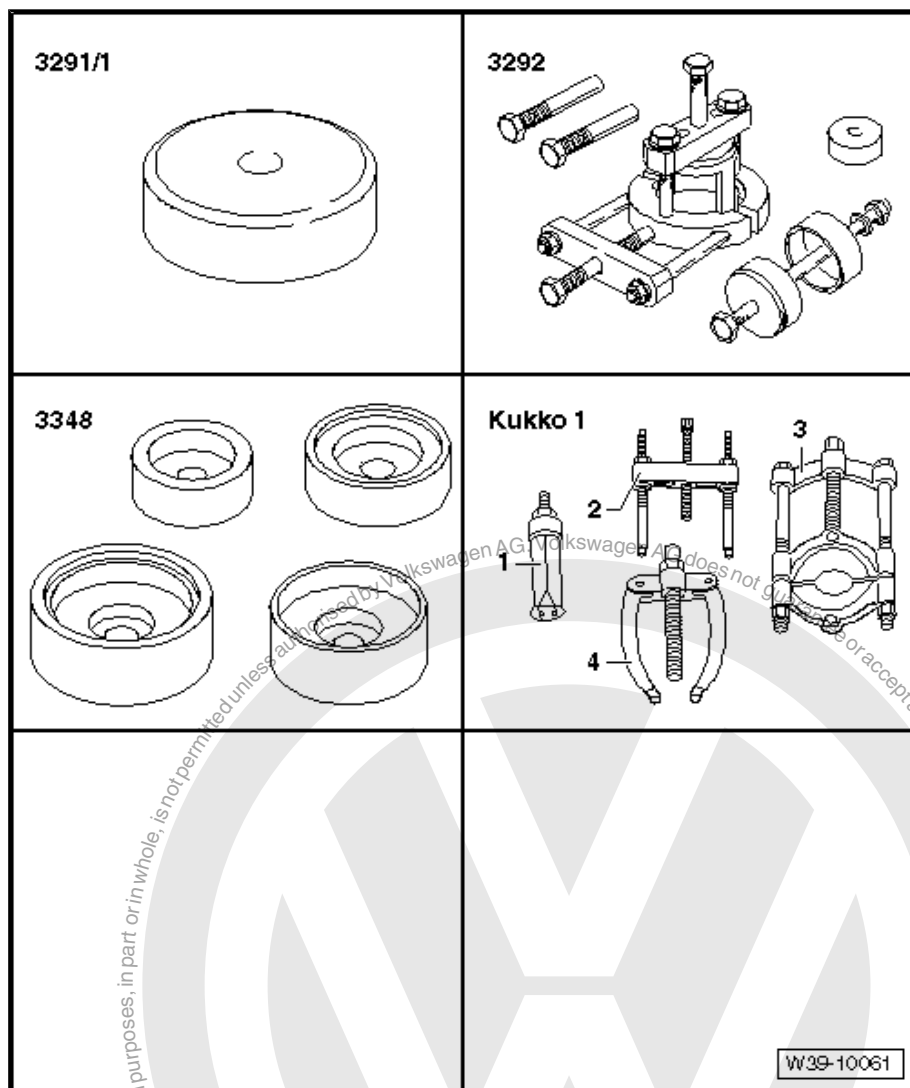


- ◆ Locking Pin Driver - 30-505-
- ◆ Bearing Installer - Clutch Housing/Gearbox Bearing - VW554-
- ◆ Bushing Installer - Rear Axle Beam - 3128-
- ◆ Rear Bushing Tool - Press Piece - T40033/1-
- ◆ Assembly Tool Kit - Transverse - T10030/5-
- ◆ Bearing Installer - Control Arm - Bolt - 3346/2-
- ◆ Bearing Installer - Control Arm - Nut - 3346/3-





- ◆ Thrust Piece 3291/1 from the Bushing Tool Set - 3291-
- ◆ Spindle from the Bushing Tool Set - 3292-
- ◆ Thrust pieces 3348 and 3348/1 from the Bearing Installer - Multiple Use - 3348-
- ◆ -1- Puller - Kukko Internal - 46-56mm - 21/7-
- ◆ -4- Puller - Kukko Counterstay - 22/2-

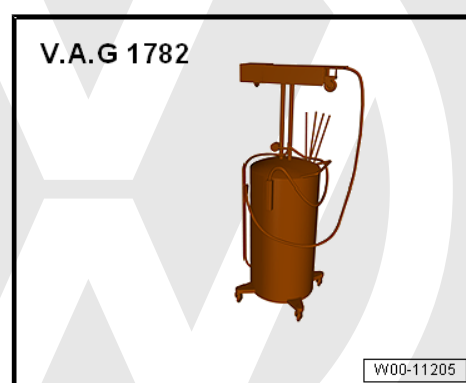




- ◆ Puller - Seal Lever - VW681-
- ◆ Plate from the Puller - Flanged Shaft - T10037-
- ◆ Seal Installer - Flange Shaft - T10049-
- ◆ Shop Crane - Drip Tray - VAS6208-
- ◆ Sealing Grease - G 052 128 A1-



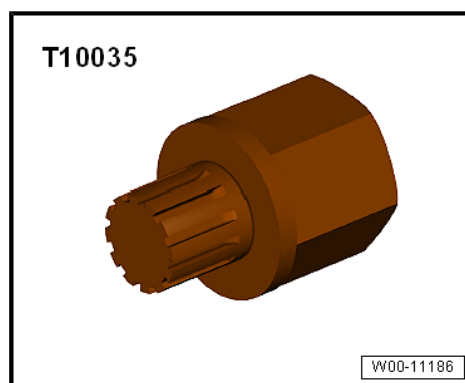
- ◆ Used Oil Collection and Extraction Unit - SMN372500-



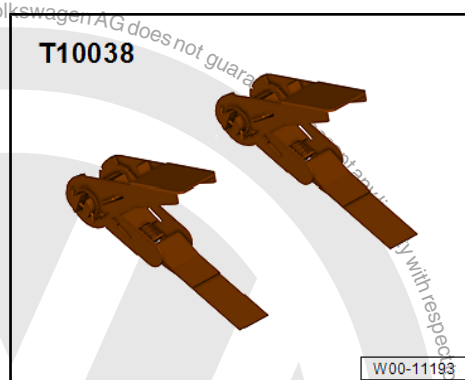




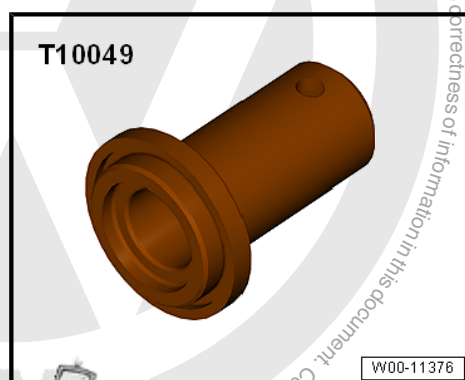
- ◆ Multipoint Socket - T10035- and if necessary Bits for VAG1331/13 - T10099-



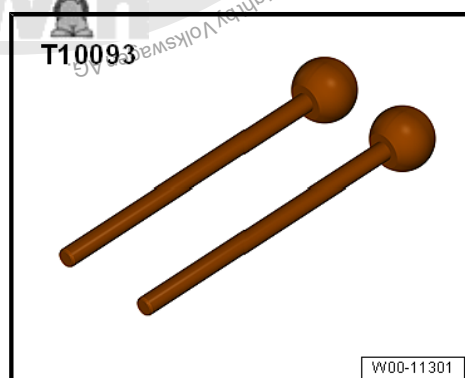
- ◆ Tensioning Strap - T10038-



- ◆ Seal Installer - Flange Shaft T10049-



- ◆ Guide Pins - T10093-

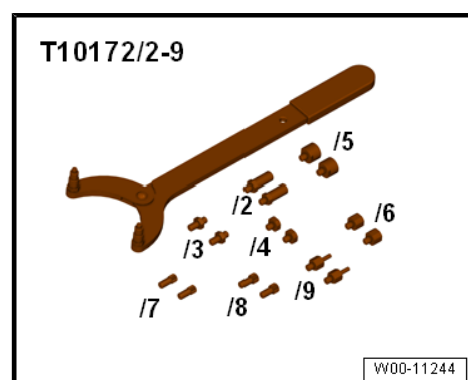




◆ Counterhold - Kit - Multiple Use - T10172-



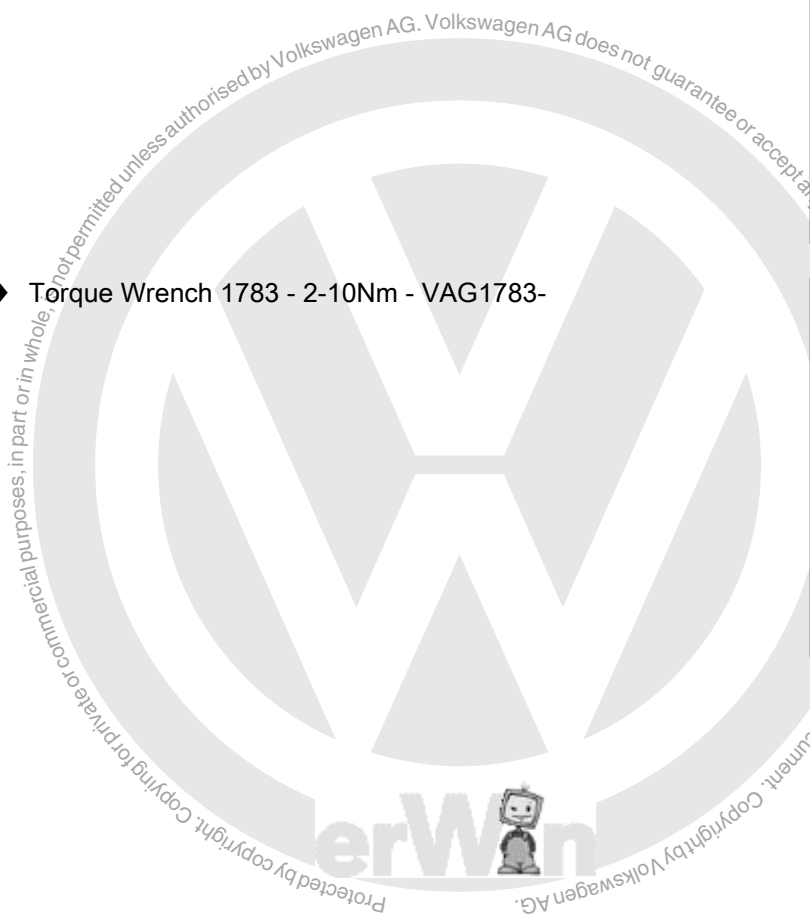
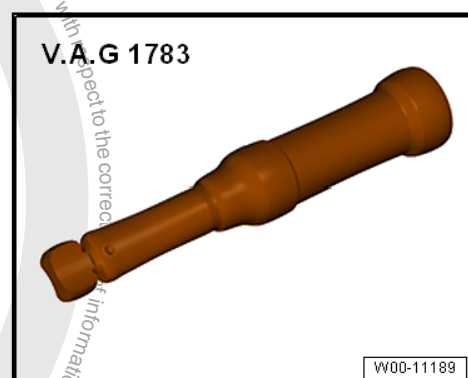
◆ Counterhold - Kit - Multiple Use - T10172-



◆ Engine and Gearbox Jack - VAS6931-



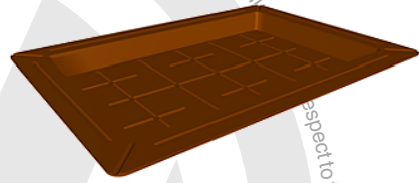
◆ Torque Wrench 1783 - 2-10Nm - VAG1783-





◆ Shop Crane - Drip Tray - VAS6208-

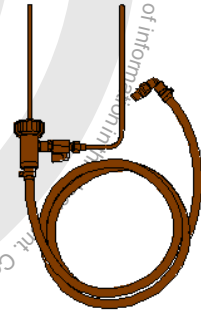
VAS 6208



W00-11209

◆ Charging Device For Haldex Coupling 2 - VAS6291A-

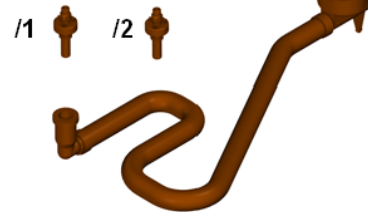
VAS 6291 A



W00-11259

◆ Charging Device For Haldex Coupling 2 - Adapter 2 - VAS6291/2-

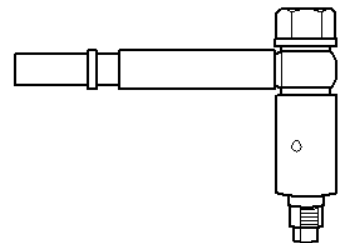
VAS 6291/1-2



W00-11246

◆ Charging Device For Haldex Coupling 2 - Adapter 3 - VAS6291/3-

VAS 6291/3



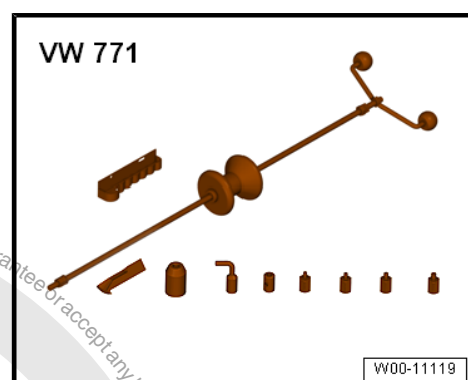
W00-11115



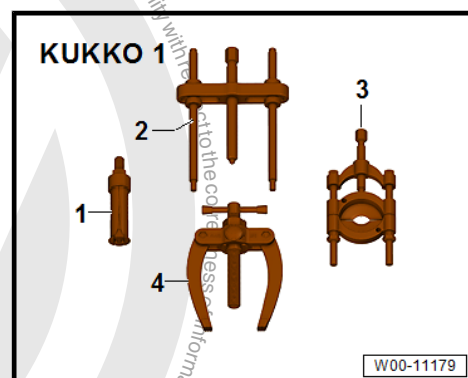
- ◆ Engine and Gearbox Jack - VAS6931- or -VAG1383A-



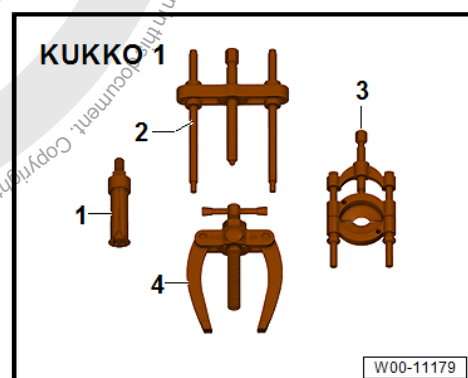
- ◆ Slide Hammer Set - VW771-



- ◆ -2- bridge from Puller - Kukko Puller - 50-110mm Width, 150mm Length - 18/0-



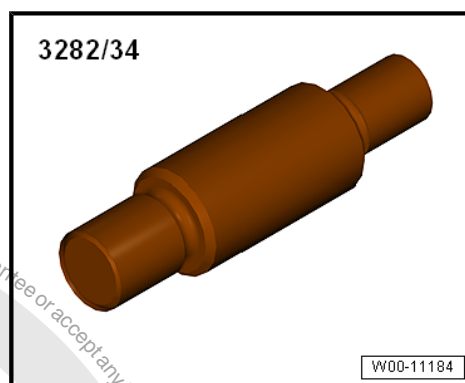
- ◆ -1- Puller - Kukko Internal - 12-16mm - 21/1-



- ◆ -4- Puller - Kukko Counterstay - 22/1-



- ◆ Transmission Support - Bolt - 3282/34-




- ◆ Not illustrated:
- ◆ Torque Wrench 1331 5-50Nm - VAG1331-
- ◆ Torque Wrench 1332 40-200Nm - VAG1332-



## 9 Revision History

DRUCK NUMBER: K0059041321

Factory Edition	Edit Edition	Job Type	Feedback	Notes	Quality Checked By
07.2 015	7/6/2 015	Factory Update	N/A		Jim H
06.2 015	4/8/2 015	Factory Update	N/A		Jim H
03.2 015	03/0 5/20 15	Correction	N/A		Eric P
	02/2 6/20 15	Factory Update	N/A		Eric P
	1/7/2 014	Factory Update	N/A		Jim H 
	11/1 9/20 14	Link checking	N/A		Jim H
	11/1 3/20 14	Factory Update	N/A		Jim H

# Cautions & Warnings

**Please read these WARNINGS and CAUTIONS before proceeding with maintenance and repair work. You must answer that you have read and you understand these WARNINGS and CAUTIONS before you will be allowed to view this information.**

- If you lack the skills, tools and equipment, or a suitable workshop for any procedure described in this manual, we suggest you leave such repairs to an authorized Volkswagen retailer or other qualified shop. We especially urge you to consult an authorized Volkswagen retailer before beginning repairs on any vehicle that may still be covered wholly or in part by any of the extensive warranties issued by Volkswagen.
- Disconnect the battery negative terminal (ground strap) whenever you work on the fuel system or the electrical system. Do not smoke or work near heaters or other fire hazards. Keep an approved fire extinguisher handy.
- Volkswagen is constantly improving its vehicles and sometimes these changes, both in parts and specifications, are made applicable to earlier models. Therefore, part numbers listed in this manual are for reference only. Always check with your authorized Volkswagen retailer parts department for the latest information.
- Any time the battery has been disconnected on an automatic transmission vehicle, it will be necessary to reestablish Transmission Control Module (TCM) basic settings using the VAG 1551 Scan Tool (ST).
- Never work under a lifted vehicle unless it is solidly supported on stands designed for the purpose. Do not support a vehicle on cinder blocks, hollow tiles or other props that may crumble under continuous load. Never work under a vehicle that is supported solely by a jack. Never work under the vehicle while the engine is running.
- For vehicles equipped with an anti-theft radio, be sure of the correct radio activation code before disconnecting the battery or removing the radio. If the wrong code is entered when the power is restored, the radio may lock up and become inoperable, even if the correct code is used in a later attempt.
- If you are going to work under a vehicle on the ground, make sure that the ground is level. Block the wheels to keep the vehicle from rolling. Disconnect the battery negative terminal (ground strap) to prevent others from starting the vehicle while you are under it.
- Do not attempt to work on your vehicle if you do not feel well. You increase the danger of injury to yourself and others if you are tired, upset or have taken medicine or any other substances that may impair you or keep you from being fully alert.
- Never run the engine unless the work area is well ventilated. Carbon monoxide (CO) kills.
- Always observe good workshop practices. Wear goggles when you operate machine tools or work with acid. Wear goggles, gloves and other protective clothing whenever the job requires working with harmful substances.
- Tie long hair behind your head. Do not wear a necktie, a scarf, loose clothing, or a necklace when you work near machine tools or running engines. If your hair, clothing, or jewelry were to get caught in the machinery, severe injury could result.
- Do not re-use any fasteners that are worn or deformed in normal use. Some fasteners are designed to be used only once and are unreliable and may fail if used a second time. This includes, but is not limited to, nuts, bolts, washers, circlips and cotter pins. Always follow the recommendations in this manual - replace these fasteners with new parts where indicated, and any other time it is deemed necessary by inspection.



# Cautions & Warnings

- Illuminate the work area adequately but safely. Use a portable safety light for working inside or under the vehicle. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.
- Friction materials such as brake pads and clutch discs may contain asbestos fibers. Do not create dust by grinding, sanding, or by cleaning with compressed air. Avoid breathing asbestos fibers and asbestos dust. Breathing asbestos can cause serious diseases such as asbestosis or cancer, and may result in death.
- Finger rings should be removed so that they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.
- Before starting a job, make certain that you have all the necessary tools and parts on hand. Read all the instructions thoroughly; do not attempt shortcuts. Use tools that are appropriate to the work and use only replacement parts meeting Volkswagen specifications. Makeshift tools, parts and procedures will not make good repairs.
- Catch draining fuel, oil or brake fluid in suitable containers. Do not use empty food or beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store the oily rags, which can ignite and burn spontaneously.
- Use pneumatic and electric tools only to loosen threaded parts and fasteners. Never use these tools to tighten fasteners, especially on light alloy parts. Always use a torque wrench to tighten fasteners to the tightening torque listed.
- Keep sparks, lighted matches, and open flame away from the top of the battery. If escaping hydrogen gas is ignited, it will ignite gas trapped in the cells and cause the battery to explode.
- Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the oil. Do not pour oil onto the ground, down a drain, or into a stream, pond, or lake. Consult local ordinances that govern the disposal of wastes.
- The air-conditioning (A/C) system is filled with a chemical refrigerant that is hazardous. The A/C system should be serviced only by trained automotive service technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.
- Before doing any electrical welding on vehicles equipped with anti-lock brakes (ABS), disconnect the battery negative terminal (ground strap) and the ABS control module connector.
- Do not expose any part of the A/C system to high temperatures such as open flame. Excessive heat will increase system pressure and may cause the system to burst.
- When boost-charging the battery, first remove the fuses for the Engine Control Module (ECM), the Transmission Control Module (TCM), the ABS control module, and the trip computer. In cases where one or more of these components is not separately fused, disconnect the control module connector(s).
- Some of the vehicles covered by this manual are equipped with a supplemental restraint system (SRS), that automatically deploys an airbag in the event of a frontal impact. The airbag is operated by an explosive device. Handled improperly or without adequate safeguards, it can be accidentally activated and cause serious personal injury. To guard against personal injury or airbag system failure, only trained Volkswagen Service technicians should test, disassemble or service the airbag system.

## Cautions & Warnings

- Do not quick-charge the battery (for boost starting) for longer than one minute, and do not exceed 16.5 volts at the battery with the boosting cables attached. Wait at least one minute before boosting the battery a second time.
- Never use a test light to conduct electrical tests of the airbag system. The system must only be tested by trained Volkswagen Service technicians using the VAG 1551 Scan Tool (ST) or an approved equivalent. The airbag unit must never be electrically tested while it is not installed in the vehicle.
- Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.
- When driving or riding in an airbag-equipped vehicle, never hold test equipment in your hands or lap while the vehicle is in motion. Objects between you and the airbag can increase the risk of injury in an accident.

**I have read and I understand these Cautions and Warnings.**