Workshop Manual

Octavia II 2004 ➤ , Octavia II 2010 ➤ , Octavia III 2013 ➤ , Octavia III 2014 ➤ , Superb II 2008 ➤ , Superb II 2011 ➤ , Yeti 2010 ➤ , Yeti 2011 ➤

Propshaft and rear final drive

Edition 07.2014

List of Workshop Manual Repair Groups

Repair Group

00 - Technical data

39 - Final drive - rear 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.

Contents

00 – Technical data

1 Identification

(SRL000722; Edition 07.2014)

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1.1 Identification of rear final drive

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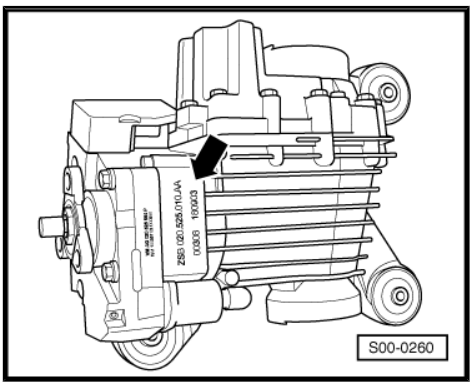
1.1.1 Identification of rear final drive 02D

Location on the final drive

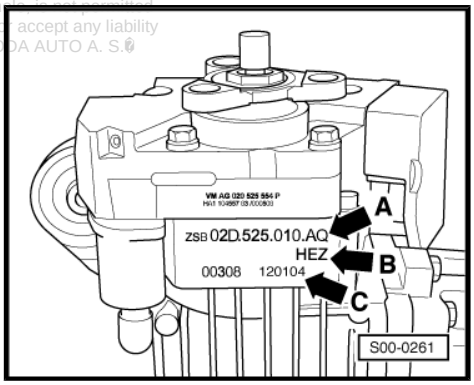
Part number, identification characters of the final drive, production date -arrow-.



Rear final drive 02D

-Arrow A- Part number of rear final drive

-Arrow B- Identification characters rear final drive



Note

The identification characters do not appear on all final drives. If they do not appear, assignment ⇒ Electronic Catalogue of Original Parts .

-Arrow C- Production date

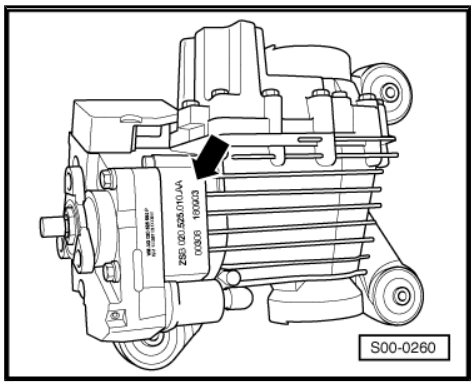
Example:	HEZ	12	01	04
	I	I	I	I
	Identification characters	Day	Month	Manufacturing year (2004)

Additional data provides information about the production facility.

1.1.2 Identification of rear final drive 0AV

Location on the final drive

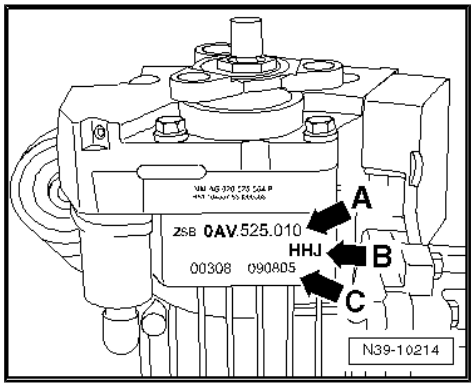
Part number, identification characters of the final drive, production date -arrow-.



Rear final drive 0AV

-Arrow A- Part number of rear final drive

-Arrow B- Identification characters rear final drive



Note

The identification characters do not appear on all final drives. If they do not appear, assignment ⇒ Electronic Catalogue of Original Parts .

-Arrow C- Production date

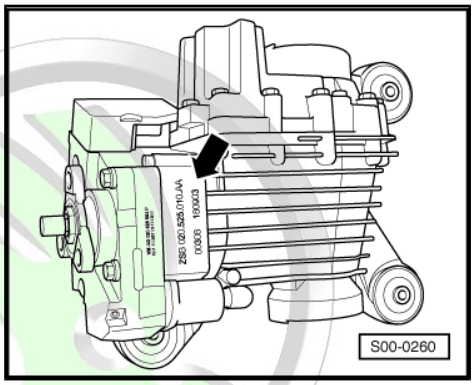
Example:	HHJ	09	08	05
	I	I	I	I
	Identification characters	Day	Month	Manufacturing year (2005)

Additional data provides information about the production facility.

1.1.3 Identification of rear final drive 0BR

Location on the final drive

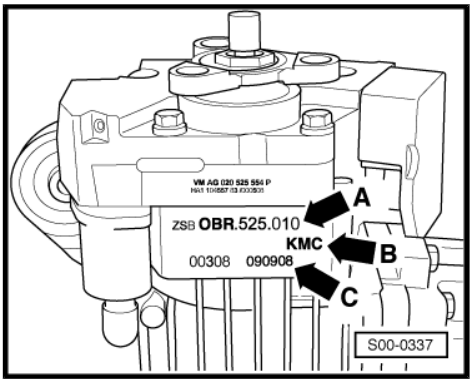
Part number, identification characters of the final drive, production date -arrow-.



Rear final drive 0BR

-Arrow A- Part number of rear final drive

-Arrow B- Identification characters rear final drive



Note

The identification characters do not appear on all final drives. If they do not appear, assignment ⇒ Electronic Catalogue of Original Parts .

-Arrow C- Production date

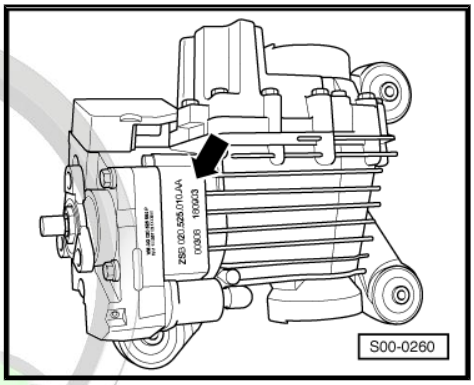
Example:	KMC	09	09	08
	I	I	I	I
	Identification characters	Day	Month	Manufacturing year (2008)

Additional data provides information about the production facility.

1.1.4 Identification of rear final drive 0CQ

Location on the final drive

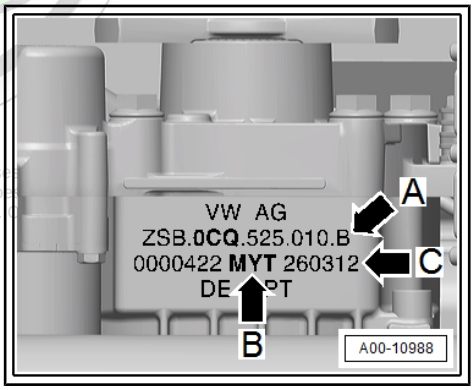
Part number, identification characters of the final drive, production date -arrow-.



Rear final drive 0CQ

-Arrow A- Part number of rear final drive

-Arrow B- Identification characters rear final drive



Note

The identification characters do not appear on all final drives. If they do not appear, assignment ⇒ Electronic Catalogue of Original Parts .

-Arrow C- Production date

Example:	MYT	26	03	12
	I	I	I	I
	Identification characters	Day	Month	Manufacturing year (2012)

Additional data provides information about the production facility.

2 Technical data

2.1 Aggregate assignment

2.1.1 Aggregate assignment for vehicles Octavia II

Rear final drive	02D	
	(2nd Generation of Haldex coupling)	
Gearbox	6 speed gearbox 02Q	6 speed gearbox 02S
Identification characters of final drive	HEY	HEZ
Engine	1.9 ltr./77 kW TDI PD	2.0 ltr./110 kW FSI
Drive shaft flange ∅	100 mm	

Rear final drive	0AV			
	(2nd Generation of Haldex coupling)			
Gearbox	6 speed gearbox 02Q			
Identification characters of final drive	HHK	HVZ	JYP	KJT
Engine	1.9 ltr./77 kW TDI PD	1.9 ltr/77 kW TDI PD 2.0 ltr/103 kW TDI PD		
Drive shaft flange ∅	100 mm			

Rear final drive	0AV			
	(2nd Generation of Haldex coupling)			
Gearbox	6 speed gearbox 02S			
Identification characters of final drive	HHJ	HVY	JJN	KJS
Engine	2.0 ltr./110 kW FSI			
Drive shaft flange ∅	100 mm			

Rear final drive	0BR	
	4th Generation of Haldex coupling)	
Gearbox	6 speed gearbox 02Q	DSG 6-speed gearbox - 02E

Rear final drive	0BR			
Identification characters of final drive	KMC	KMC	MMK	MMK
Engine	2.0 ltr./ 110 kW FSI	1.6 ltr/77 kW TDI CR 1.9 ltr/77 kW TDI PD 2.0 ltr/ 103 kW TDI PD 1.8 ltr/ 118 kW TFSI 1.8 ltr/ 112 kW TFSI	1.6 ltr/77 kW TDI CR 1.9 ltr/77 kW TDI PD 2.0 ltr/81 kW TDI CR 2.0 ltr/ 103 kW TDI PD 2.0 ltr/ 103 kW TDI CR 1.8 ltr/ 118 kW TFSI 1.8 ltr/ 112 kW TFSI	2.0 ltr./ 103 kW TDI CR
Drive shaft flange ∅	100 mm			

2.1.2 Aggregate assignment for vehicles Octavia III

Rear final drive	0CQ			
	(5th Generation of Haldex coupling)			
Gearbox	DSG 6-speed gearbox - 0D9		6 speed gearbox 02Q	
Identification characters of final drive	PHF	PYP	PHF	PYP
Engine	1.8 ltr/132 kW TFSI 2.0 ltr/135 kW TDI CR		2.0 ltr./110 kW TDI CR	
Drive shaft flange ∅	100 mm			

2.1.3 Aggregate assignment for vehicles Superb II

Rear final drive	0BR				
	4th Generation of Haldex coupling)				
Gearbox	DSG 6-speed gearbox - 02E			6 speed gearbox 02Q	
Identification characters of final drive	MMK	KMC	PYG	MMK	KMC

Rear final drive	0BR				
Engine	2.0 ltr/ 103 kW TDI CR 2.0 ltr/ 125 kW TDI CR 3.6 ltr/ 191 kW FSI	3.6 ltr./ 191 kW FSI	2.0 ltr/ 125 kW TDI CR 3.6 ltr/ 191 kW FSI	1.8 ltr/ 112 kW TFSI 1.8 ltr/ 118 kW TFSI 2.0 ltr/ 125 kW TDI CR 2.0 ltr/ 103 kW TDI CR	1.8 ltr/ 112 kW TFSI 1.8 ltr/ 118 kW TFSI 2.0 ltr/ 125 kW TDI CR
Drive shaft flange ∅	100 mm				

2.1.4 Aggregate assignment for vehicles Yeti

Note

In rear final drives 0BR, the Haldex coupling of the 4th generation is installed . From 11/2013 the Haldex coupling of the 5th generation .

Rear final drive	0BR			
Gearbox	6 speed gearbox 02Q			
Identification characters of final drive	KMC	MMK	PYG	PFZ
Engine	1.8 ltr/ 112 kW TFSI 1.8 ltr/ 118 kW TFSI 2.0 ltr l/81 kW TDI CR 2.0 ltr/ 103 kW TDI CR 2.0 ltr/ 125 kW TDI CR	1.8 ltr/ 112 kW TFSI 1.8 ltr/ 118 kW TFSI 2.0 ltr l/81 kW TDI CR 2.0 ltr/ 103 kW TDI CR 2.0 ltr/ 125 kW TDI CR	1.8 ltr/ 118 kW TFSI	1.8 ltr/ 118 kW TFSI
Drive shaft flange ∅	100 mm			

Rear final drive	0BR			
Gearbox	DSG 6-speed gearbox - 02E			
Identification characters of final drive	KMC	MMK	PYG	PFZ
Engine	2.0 ltr./ 103 kW TDI CR	1.8 ltrl112 kW TFSI 2.0 ltr/ 103 kW TDI CR 2.0 ltr/ 125 kW TDI CR	1.8 ltr./ 112 kW TFSI	1.8 ltr./ 112 kW TFSI

Rear final drive	0BR
Drive shaft flange ∅	100 mm

2.2 Filling capacity

⇒ “2.2.1 Filling capacity Rear final drive 02D”, page 7

⇒ “2.2.2 Filling capacity Rear final drive 0AV”, page 7

⇒ “2.2.3 Filling capacity Rear final drive 0BR”, page 7

⇒ “2.2.4 Filling capacity Rear final drive 0CQ”, page 7

2.2.1 Filling capacity Rear final drive 02D

Rear final drive	02D
Capacity final drive	0.925 litre
Specification	⇒ Electronic Catalogue of Original Parts
Capacity Haldex coupling	0.850 litre
Changing capacity Haldex coupling	0.645 litre
Specification	⇒ Electronic Catalogue of Original Parts

2.2.2 Filling capacity Rear final drive 0AV

Rear final drive	0AV
Capacity final drive	0.925 litre
Specification	⇒ Electronic Catalogue of Original Parts
Capacity Haldex coupling	0.850 litre
Changing capacity Haldex coupling	0.645 litre
Specification	⇒ Electronic Catalogue of Original Parts

2.2.3 Filling capacity Rear final drive 0BR

Rear final drive	0BR
Capacity final drive	0.925 litre
Specification	⇒ Electronic Catalogue of Original Parts
Capacity Haldex coupling	0.850 litre
Changing capacity Haldex coupling	0.720 litre
Specification	⇒ Electronic Catalogue of Original Parts

2.2.4 Filling capacity Rear final drive 0CQ

Rear final drive	0CQ
Capacity final drive	0.925 litre
Specification	⇒ Electronic Catalogue of Original Parts
Capacity Haldex coupling	0.745 litre
Changing capacity Haldex coupling	0.655 litre
Specification	⇒ Electronic Catalogue of Original Parts

3 Repair instructions

3.1 General repair instructions

To ensure flawless and successful gearbox repairs, the greatest care and cleanliness as well as the use of good and proper tools are essential. Also note the basic rules on safety when performing repair procedures.

A number of generally valid notes for individual repair operations - which are otherwise listed several times at numerous points in the workshop manual - are summarised under the term “Parts”. They apply for this particular workshop manual.

3.1.1 Oil

Note

The rear final drive and the Haldex coupling have two separate oil circulation systems.

The rear final drive is filled with gearbox oil ⇒ Electronic Catalogue of Original Parts , the Haldex coupling is filled with high-performance oil ⇒ Electronic Catalogue of Original Parts .

Caution

No additives may be mixed with the oils.

The oils must not be mixed up or mixed with each other.

Drained oil must not be reused.

Otherwise there is a risk of damage to the rear final drive.

3.1.2 Circlips

Do not over-tension the circlips.

Always replace damaged or over-expanded circlips ⇒ Electronic Catalogue of Original Parts .

Circlips must be positioned in the base of the groove.

3.1.3 Bearings

New taper roller bearings are fitted as supplied and do not require any additional lubrication.

Insert moist all bearings (except taper roller bearings) in the gearbox with gear oil.

Before installing, heat the inner rings of the tapered-roller bearings on a heating plate or with an induction heater unit , e.g. -VAS

6414- , to approx. 100°C. Press in axially and play-free up to the stop.

Do not mix up the outer and inner races of bearings of the same size.

Always jointly replace tapered-roller bearings on the same shaft and use products of the same manufacturer.

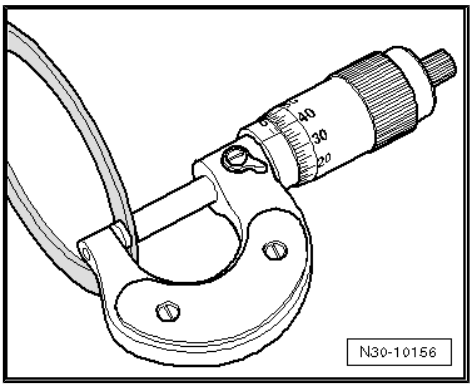
Position needle bearing with the lettered side (thicker end) towards the drift pin.

3.1.4 Shims

Gauge shims at several points with a micrometer. Different tolerances allow to select the required thickness for each washer very precisely.

Check for burrs and damage.

Install only adjusting washers which are in perfect condition.



3.2 Gasket rings, O-rings, gaskets

Always replace gasket rings, O-rings and gaskets ⇒ Electronic Catalogue of Original Parts .

After removing gaskets, check the contact surface in the housing or shaft for burrs or damage which occured during the assembly.

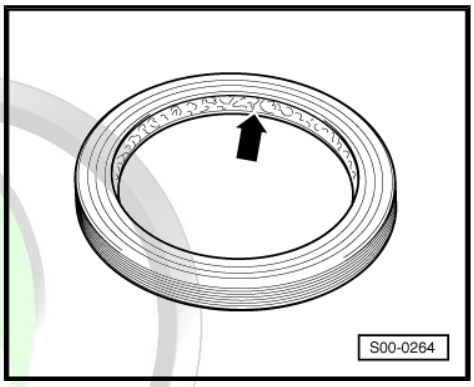
Radial shaft seals - before mounting lightly oil at outside diameter and fill half the space between the sealing lips -arrow- with sealing grease - G 052 128 A1- .

The open side of the sealing rings faces the side with fluid filling.

Press in new gasket ring in such a way that the sealing lip is not located on the same point as the sealing lip of the old gasket ring (use tolerance for insertion depth).

Before inserting lightly oil the O-rings, in order to prevent the rings being squashed during installation.

Inspect the oil level after replacing the gaskets and gasket rings.



3.3 Screws, nuts

Slacken the bolts and nuts against the tightening sequence.

Slacken and tighten screws or fixing nuts of covers and housings without tightening sequence diagonally across in stages.

Replace the self-locking screws and nuts.

Specified torques given are for unlubricated nuts, bolts and screws.

Clean all threaded holes into which self-locking screws or screws with locking agent are inserted (using e.g. a thread tap). Otherwise there is a danger of bolts shearing when subsequently being removed.

It is important to ensure at all bolted connections that the contact surfaces as well as the nuts and bolts are waxed only after being installed, should this be necessary.

4 Safety instructions

⇒ “4.1 Safety precautions during road tests in which testing and measuring equipment is used”, page 10

⇒ “4.2 Safety measures for working on vehicles with start/stop system”, page 10

4.1 Safety precautions during road tests in which testing and measuring equipment is used

If test and measuring devices are required during test drives, observe the following information:

WARNING

There is a risk of accident from unintended motion and insufficient securing of testers and measuring instruments.

There is a risk of injury from the release of the passenger airbag in the event of an accident.

- *Operation of test and measuring instruments by the driver while driving may result in deviating from the direction of travel.*
- *There is an increased risk of injury or accident from unsecured testers and measuring instruments.*

◆ *Fasten test and measurement equipment with a strap on the rear seat and secure their operation by another person sitting on the rear seat.*

4.2 Safety measures for working on vehicles with start/stop system

When working on vehicles with start/stop system, please observe the following instructions:

WARNING

Risk of injury from automatic engine start on vehicles with start/stop system.

◆ *In vehicles with an activated start-stop system (indicated by a message in the dash panel insert), the engine can start automatically if necessary.*

◆ *It is necessary to ensure that the start-stop system is deactivated when carrying out work on the vehicle (switch ignition off and if required switch ignition on again).*

5 Electrical components

⇒ “5.1 Electric/Electronic components and fitting locations”, page 11

5.1 Electric/Electronic components and fitting locations

⇒ “5.1.1 Electric/electronic components and fitting locations Rear final drive 02D/0AV - Haldex coupling of 2nd generation”, page 11

⇒ “5.1.2 Electric/electronic components and fitting locations Rear final drive 0BR - Haldex coupling of 4th generation”, page 12

⇒ “5.1.3 Electric/electronic components and fitting locations Rear final drive 0BR - Haldex coupling of 5th generation”, page 14

⇒ “5.1.4 Electric/electronic components and fitting locations Rear final drive 0CQ - Haldex coupling of 5th generation”, page 16

5.1.1 Electric/electronic components and fitting locations Rear final drive 02D/0AV - Haldex coupling of 2nd generation

1 - Four-wheel drive control unit - J492 -

- ❑ Fitting location ⇒ page 12
- ❑ forms a single unit with the control valve for opening degree of coupling - N373-
- ❑ the pressure sensor is also located in the control unit - removing and installing

2 - Pump for Haldex coupling - V181-

- ❑ Fitting location ⇒ page 12
- ❑ sprawdzanie ⇒ Vehicle diagnostic tester
- ❑ removing and installing

3 - Diagnostic connection

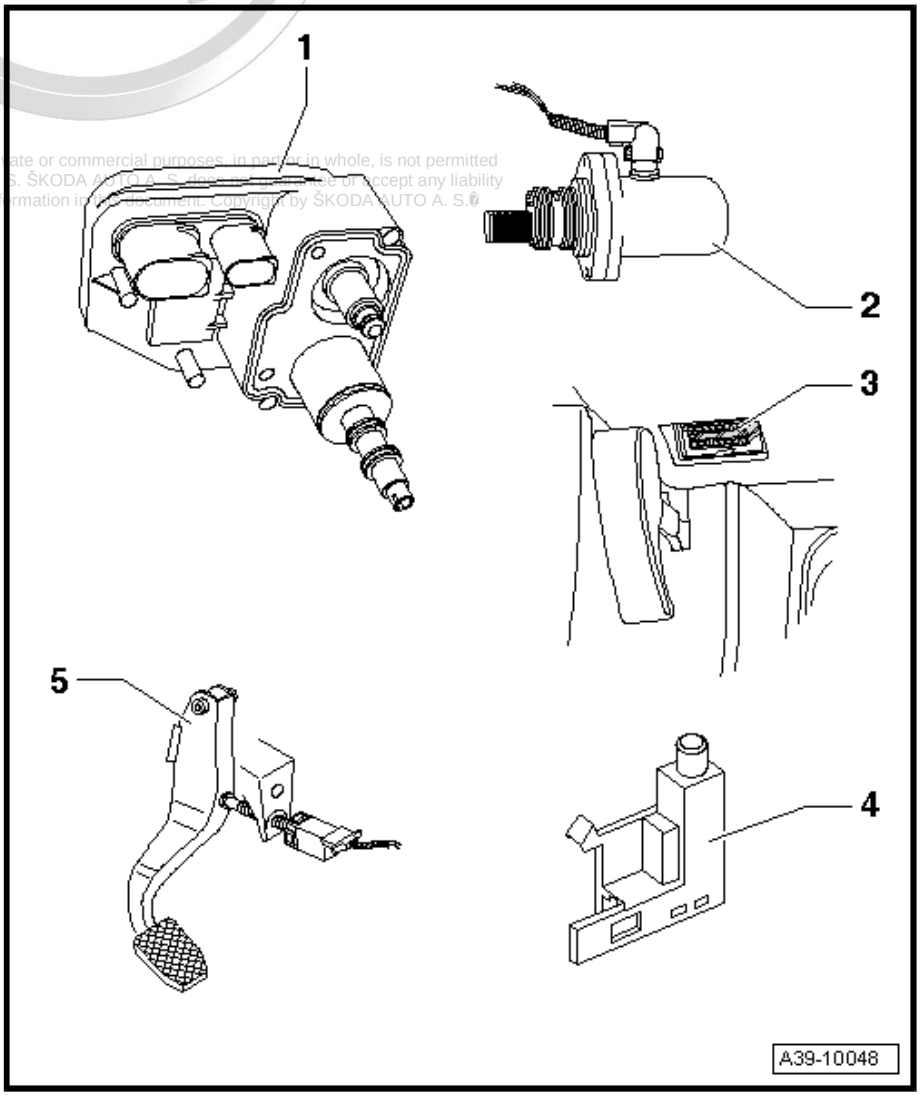
- ❑ is located in the driver's footwell, next to the front flap control lever

4 - Switch for hand-brake control - F9-

- ❑ Fitting location ⇒ Suspension; Rep. gr. 46
- ❑ sprawdzanie ⇒ Vehicle diagnostic tester
- ❑ removing and installing ⇒ Chassis; Rep. gr. 46

5 - Brake light switch - F-

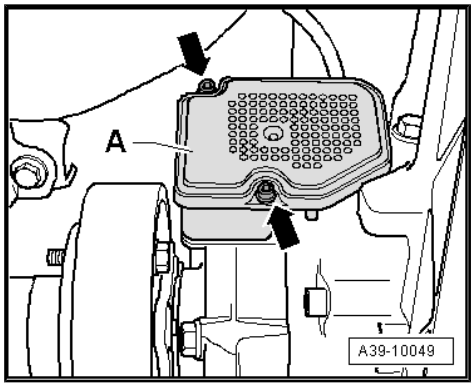
- ❑ Fitting location ⇒ Suspension; Rep. gr. 47
- ❑ sprawdzanie ⇒ Vehicle diagnostic tester



- ❑ removing and installing ⇒ Chassis; Rep. gr. 46

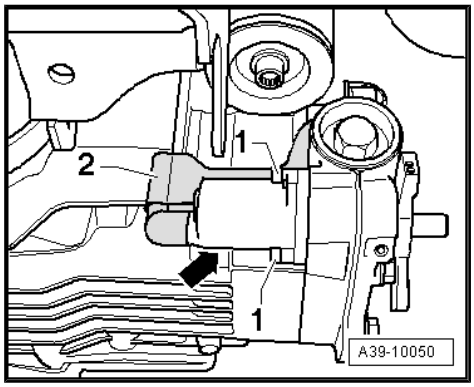
Four-wheel drive control unit - J492-

Fitting location: Control unit -A- is located on the rear final drive, in front (left) area.



Pump for Haldex coupling - V181-

Fitting location: Pump for Haldex coupling -arrow- is located on the rear final drive, in front (right) area.



5.1.2 Electric/electronic components and fitting locations Rear final drive 0BR - Haldex coupling of 4th generation

Note

In rear final drives 0BR of the YETI vehicles, the Haldex coupling of the 4th generation is installed up to production date 10/2013. From 11/2013 the Haldex coupling of the 5th generation .

1 - Four-wheel drive control unit - J492-

- ❑ Fitting location ⇒ page 13
- ❑ forms a single unit with the control valve for opening degree of coupling - N373- Pos. 2
- ❑ Important signals are sent from the engine control unit and ABS control unit with EDS - J104- to the four-wheel drive control unit via the databus.

2 - valve for control of the opening degree of the coupling - N373-

3 - Pump for Haldex coupling - V181-

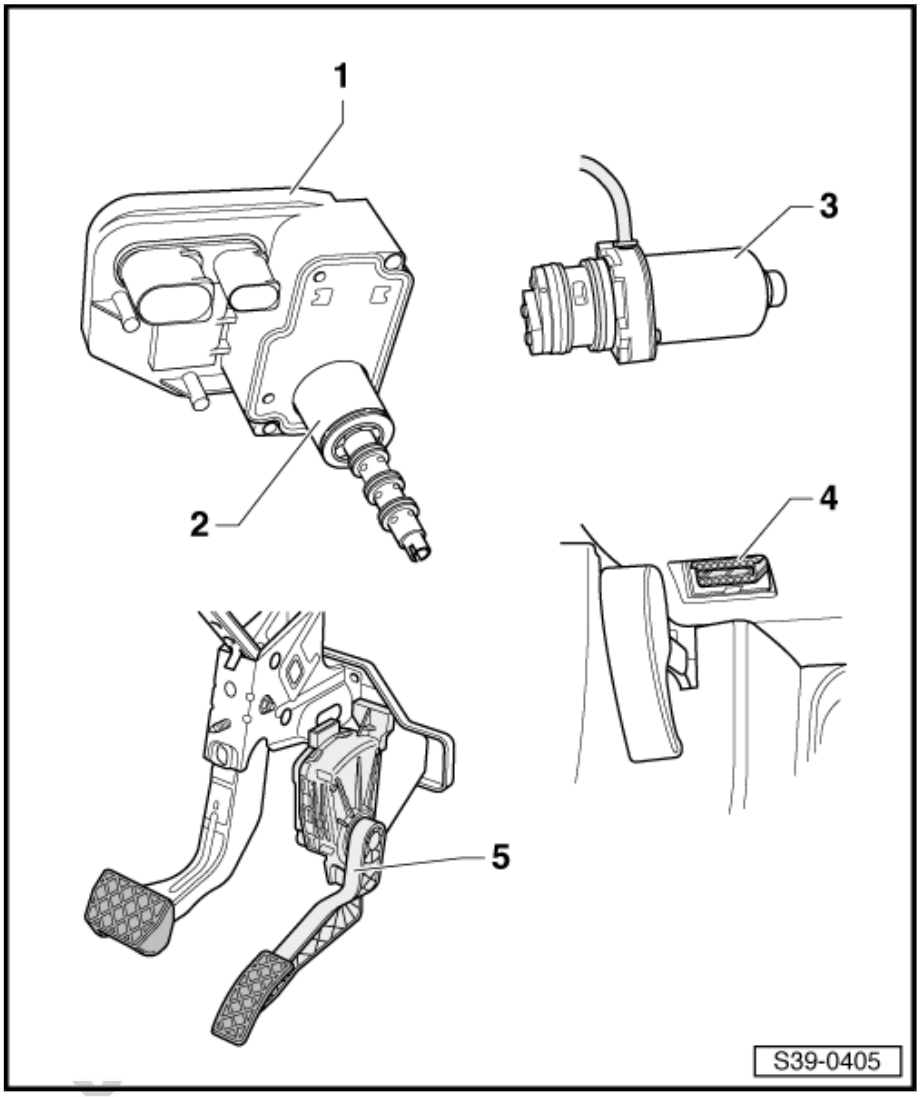
- ❑ Fitting location ⇒ page 14
- ❑ the pump can be inspected with ⇒ Vehicle diagnostic tester in the operating mode “Targeted fault finding”
- ❑ removing and installing

4 - Diagnostic connection

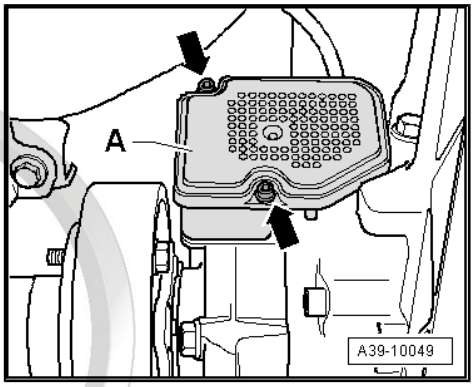
- ❑ is located in the driver's footwell, next to the front flap control lever

5 - Accelerator pedal position sender - G79-

- ❑ Fitting location ⇒ page 14

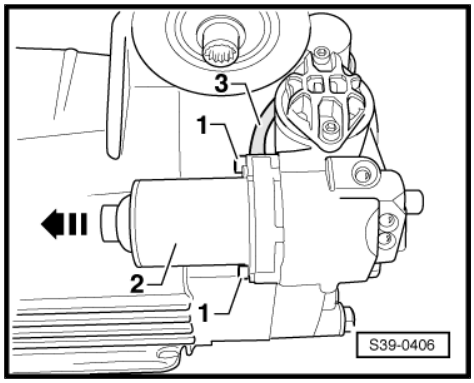


Four-wheel drive control unit - J492-



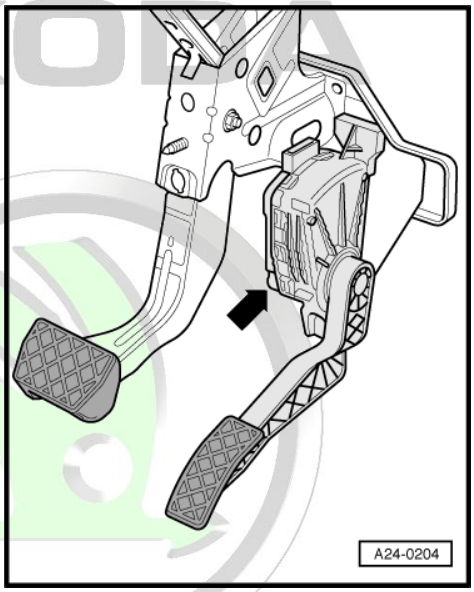
Pump for Haldex coupling - V181-

Fitting location: Pump for Haldex coupling -2- is located on the rear final drive, in front (right) area.



Accelerator pedal position sender - G79-

Fitting location: The accelerator pedal position sender - G79- -arrow- is located at the foot controls.



5.1.3 Electric/electronic components and fitting locations Rear final drive 0BR - Haldex coupling of 5th generation

Note

In rear final drives 0BR, the Haldex coupling of the 4th generation is installed . From 11/2013 the Haldex coupling of the 5th generation .

1 - Four-wheel drive control unit - J492-

- ❑ removing and installing

2 - Pump for Haldex coupling - V181-

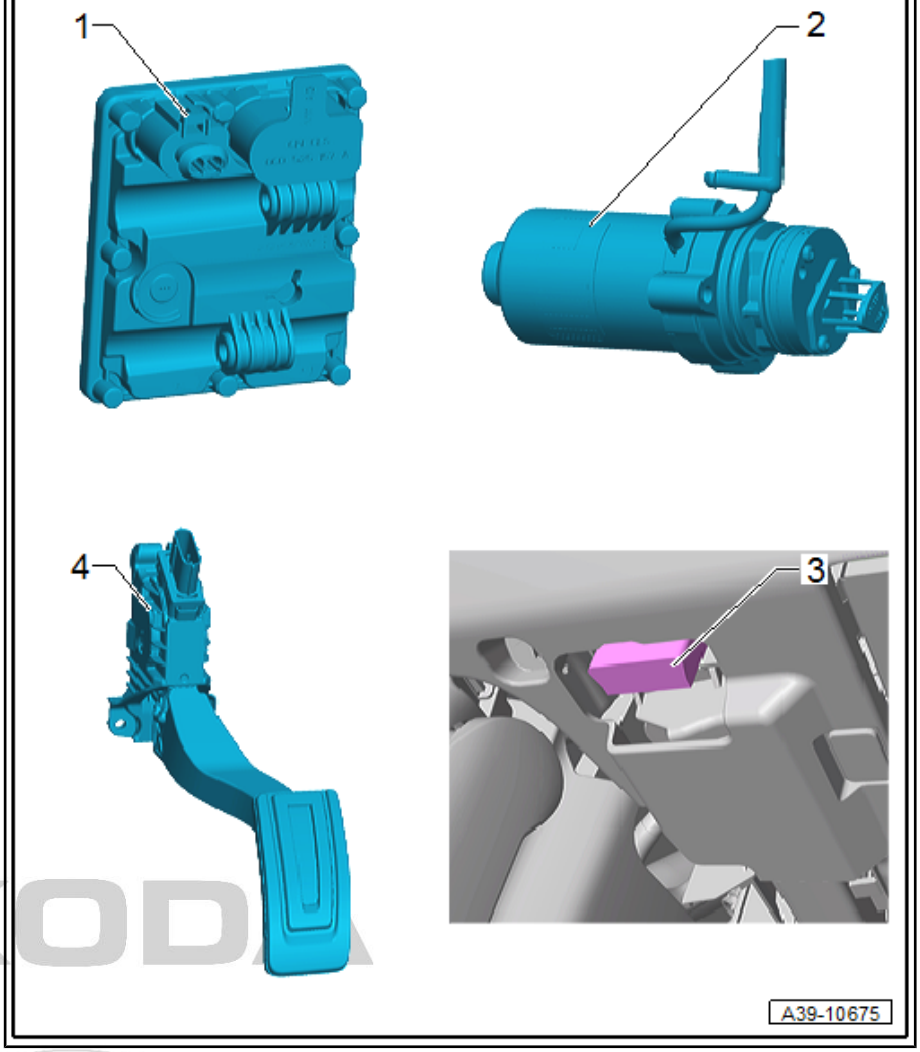
- ❑ sprawdzanie ⇒ Vehicle diagnostic tester
- ❑ wymontowanie i zamontowanie

3 - Diagnostic connection

- ❑ Fitting position: Front left footwell

4 - Accelerator pedal module

- ❑ with accelerator pedal position sender - G79- and accelerator pedal position sender 2 - G185-
- ❑ Removing and Installing ⇒ Engine; Rep. gr. 20



5.1.4 Electric/electronic components and fitting locations Rear final drive 0CQ - Haldex coupling of 5th generation

1 - Four-wheel drive control unit - J492-

- ❑ removing and installing

2 - Pump for Haldex coupling - V181-

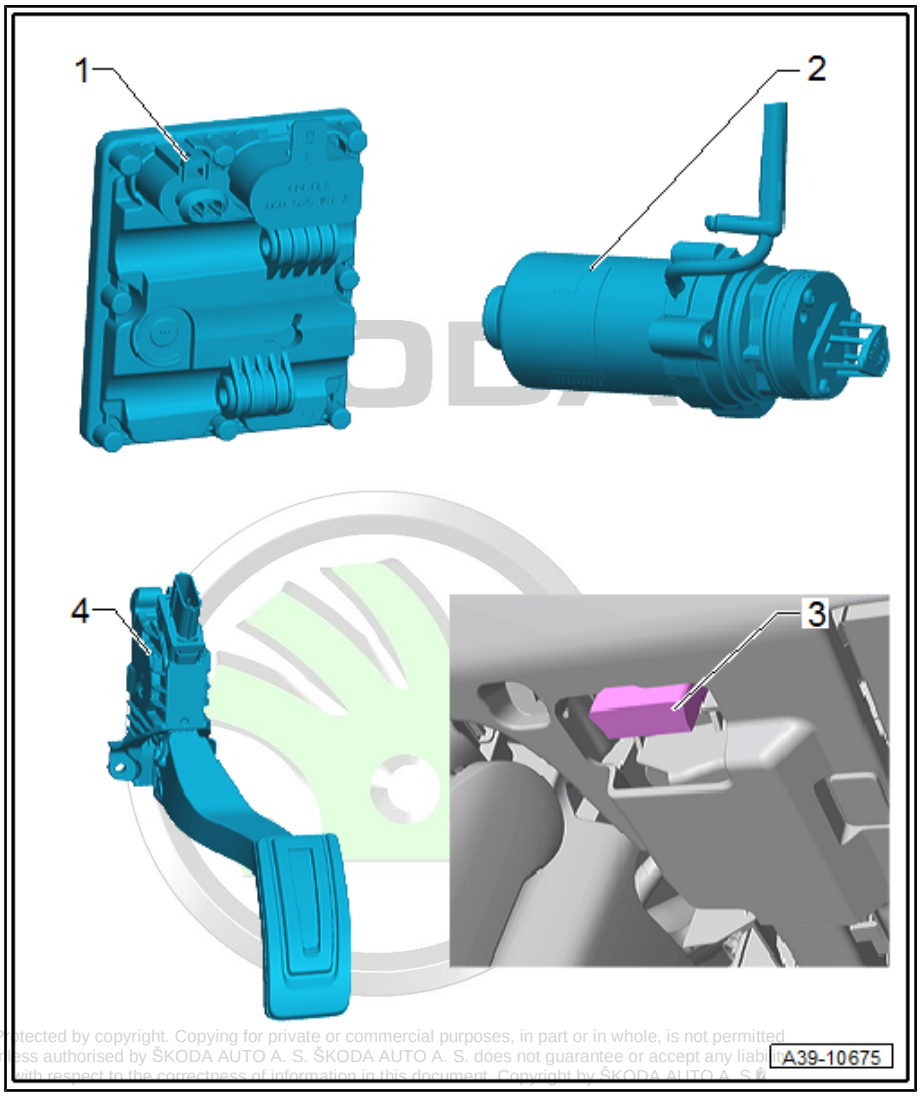
- ❑ sprawdzanie ⇒ Vehicle diagnostic tester
- ❑ wymontowanie i zamontowanie

3 - Diagnostic connection

- ❑ Fitting position: Front left footwell

4 - Accelerator pedal module

- ❑ with accelerator pedal position sender - G79- and accelerator pedal position sender 2 - G185-
- ❑ Removing and Installing ⇒ Engine; Rep. gr. 20

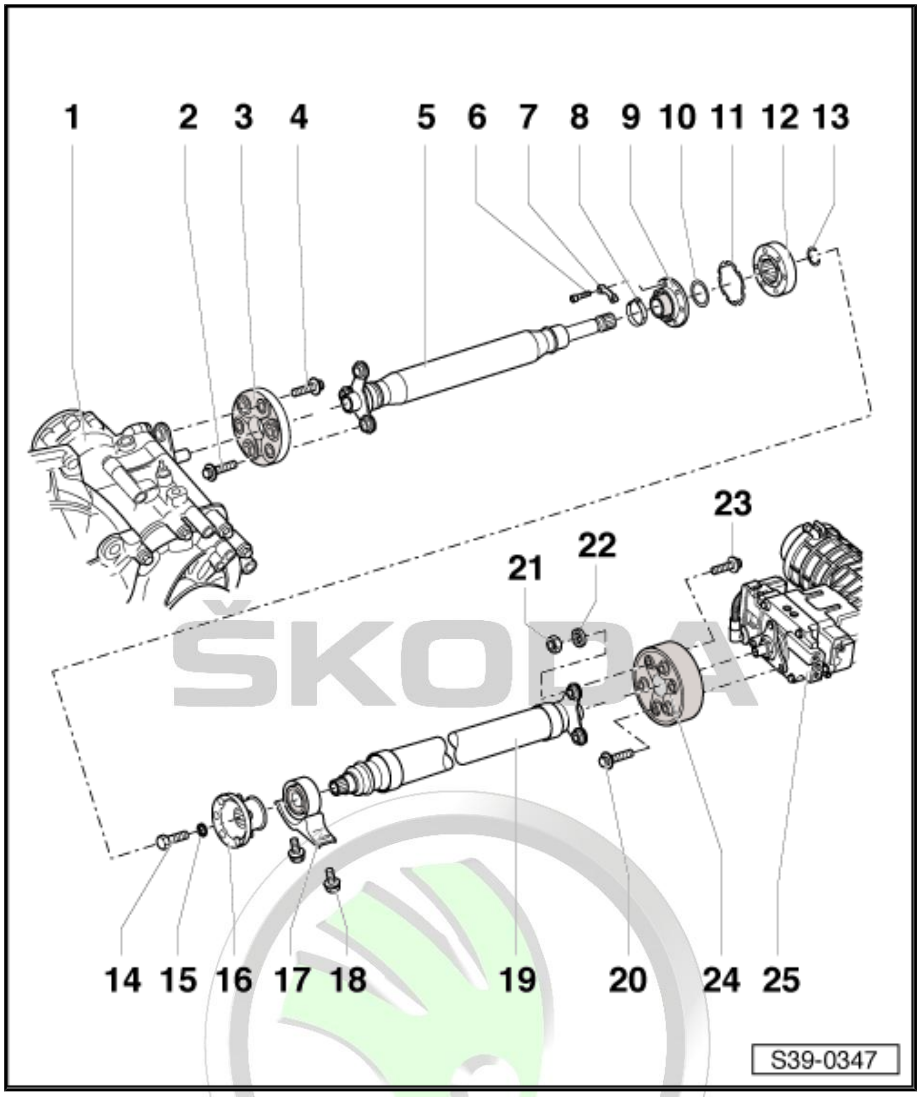


39 – Final drive - rear differential

1 Propshaft

1.1 Summary of components propeller shaft

1.1.1 Summary of components - propeller shaft Octavia II up to 05/2007



1 - Angle gearbox

2 - Screw

- ❑ replace after each disassembly ⇒ electronic catalogue of original parts
- ❑ 50 Nm + 90° further

3 - Flexible disk

- ❑ Fitting position: The open side of the flexible ring faces towards the gearbox.

4 - Screw

- ❑ 60 Nm

5 - Front propshaft pipe

- ❑ When installing and removing do not damage the centering bushing and gasket ring in the middle of the flange

6 - Screw

- ❑ 40 Nm

7 - Surface

8 - Open warm-type clamp

- ❑ tensioning ⇒ page 48

9 - Joint boot for CV joint

- ❑ drive out with drift pin before pressing off the CV joint
- ❑ check for damage

10 - Disc spring

- ❑ interlocked at inside diameter
- ❑ Fitting position: Large diameter lies on the CV joint

11 - Gasket

- ❑ always replace (pull off protective foil and stick in joint) ⇒ Electronic Catalogue of Original Parts

12 - CV joint

- ❑ Pressing off ⇒ page 47
- ❑ Pressing on ⇒ page 48
- ❑ Grease filling: Push 25 g grease on each side (total 50 g) into the joint. Grease joint if necessary, when replacing the joint boot

13 - Circlip

- ❑ replace after each disassembly ⇒ electronic catalogue of original parts
- ❑ removing and installing with circlip pliers

14 - Screw

- ❑ 45 Nm

15 - Surface

- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

16 - Flange

- ❑ Removing ⇒ page 48
- ❑ Installing ⇒ page 48

17 - Intermediate bearing

- ❑ Removing ⇒ page 49
- ❑ położenie montażowe ⇒ page 49
- ❑ Installing ⇒ page 49

18 - Screw

- ❑ 25 Nm
- ❑ attaches additionally the heat shield

19 - Rear propshaft pipe

- ❑ When installing and removing do not damage the centering bushing and gasket ring in the middle of the flange

20 - Screw

- ❑ 60 Nm
- ❑ Assignment ⇒ page 28

21 - Balancing nut

- ❑ not fitted to all propshafts
- ❑ if the collar screw Pos. 23 was detached, the balancing nut and the balancing washer Pos. 22 must not be installed again

22 - Balancing washer

- ❑ not fitted to all propshafts
- ❑ if the collar screw Pos. 23 was detached, the balancing nut and the balancing washer Pos. 21 must not be installed again

23 - Screw

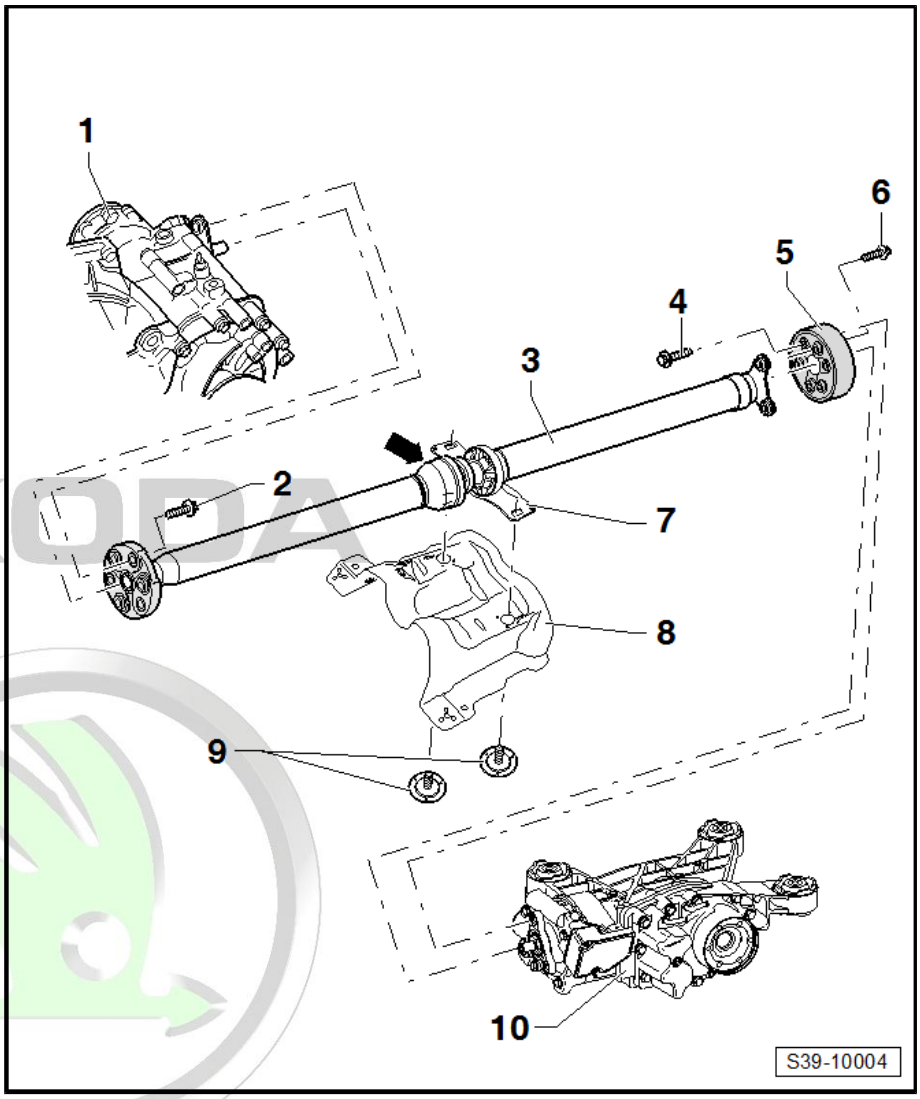
- ❑ 50 Nm + 90° further
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

24 - Flexible disk/oscillation damper

- ❑ położenie montażowe ⇒ page 53
- ❑ wymontowanie i zamontowanie ⇒ page 53

25 - Rear final drive

1.1.2 Summary of components - propeller shaft Octavia II as of 06/2007



1 - Angle gearbox

2 - Screw

- ❑ 60 Nm
- ❑ 3 pieces
- ❑ M10 x 30

3 - Propshaft

- ❑ wymontowanie i zamontowanie ⇒ page 24
- ❑ when installing and removing do not damage the centering bushing and gasket ring in the middle of the flange
- ❑ Fitting position: The intermediate bearing Pos. 5 is located in the direction of travel behind the monoblock joint -arrow-

4 - Screw

- ❑ 60 Nm
- ❑ 3 pieces
- ❑ M10 x 45

5 - Flexible disk/oscillation damper

- ❑ Assignment ⇒ Electronic Catalogue of Original Parts
- ❑ Fitting position
- ❑ wymontowanie i zamontowanie ⇒ page 53

6 - Screw

- ❑ 50 Nm + 90°
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

7 - Intermediate bearing

- ❑ align free of stress
- ❑ replace propshaft if damaged

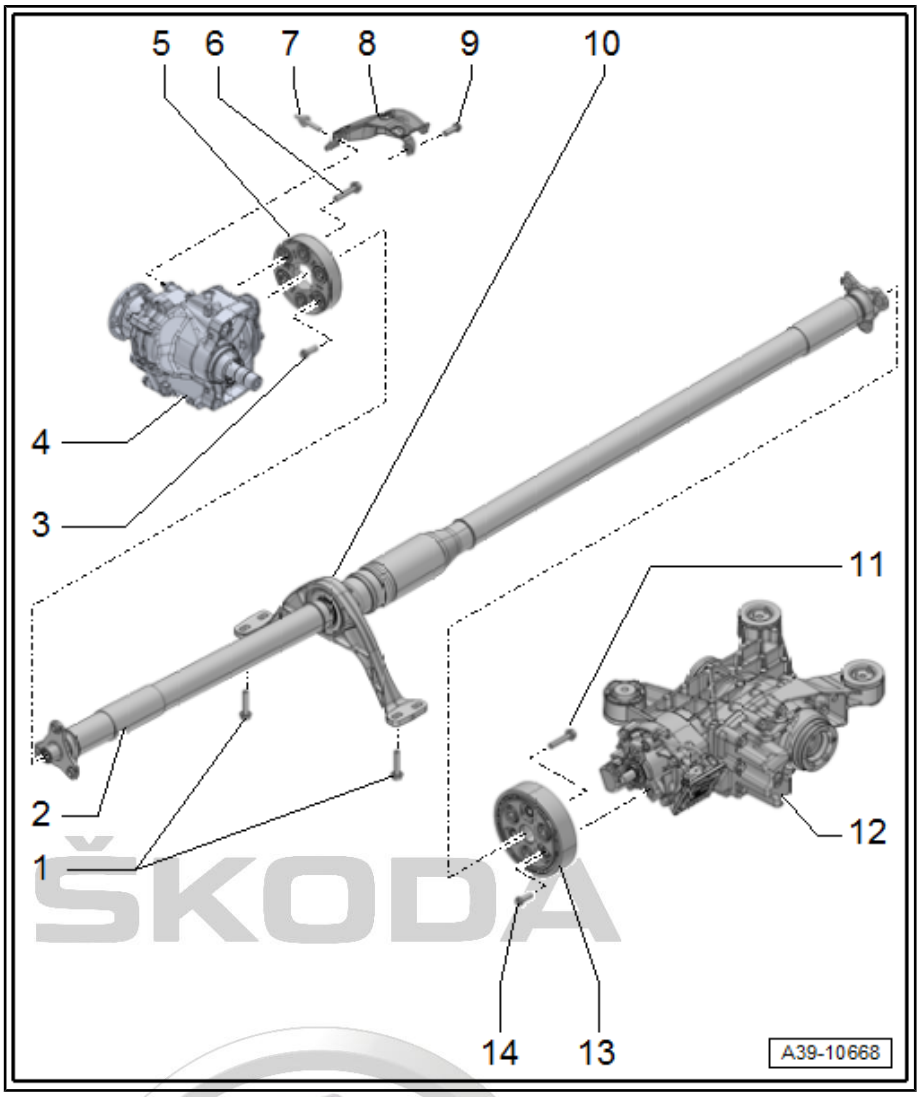
8 - Heat shield

9 - Screw

- ❑ 25 Nm

10 - Rear final drive

1.1.3 Summary of components propeller shaft Octavia III



1 - Screw
- ❑ 20 Nm + 90°
- ❑ replace after each removal

2 - Propshaft
- ❑ cannot be separated in the joint
- ❑ wymontowanie i zamontowanie ⇒ page 24

3 - Screw
- ❑ 50 Nm + 90°
- ❑ for flexible disk at the front of the propshaft
- ❑ replace after each removal

4 - Angle gearbox

5 - Flexible disk
- ❑ Fitting position: The open side of the heat shield faces towards the gearbox
- ❑ wymontowanie i zamontowanie ⇒ page 50

6 - Screw
- ❑ 50 Nm + 90°
- ❑ for flexible disk at angular gearbox
- ❑ replace after each removal

7 - Double screw
- ❑ 40 Nm

8 - Heat shield

9 - Screw
- ❑ 20 Nm

10 - Guide bearing
- ❑ align free of stress

11 - Screw
- ❑ 50 Nm + 90°
- ❑ for flexible disk at the rear of the propshaft
- ❑ replace after each removal

12 - Rear final drive

13 - Flexible disk/oscillation damper
- ❑ Heat protection points towards propshaft
- ❑ wymontowanie i zamontowanie ⇒ page 53

14 - Screw
- ❑ 50 Nm + 90°
- ❑ for flexible disk on rear final drive

- ❑ replace after each removal

1.1.4 Summary of components propeller shaft Superb II

1 - Angle gearbox

2 - Screw

- ❑ 50 Nm + 90°
- ❑ for flexible disk at the front of the propshaft
- ❑ replace after each removal

3 - Flexible disk

- ❑ Fitting position: The open side of the heat shield faces towards the gearbox
- ❑ wymontowanie i zamontowanie ⇒ page 50

4 - Screw

- ❑ 60 Nm

5 - Propshaft

- ❑ cannot be separated in the joint
- ❑ wymontowanie i zamontowanie ⇒ page 24

6 - Screw

- ❑ 25 Nm

7 - Guide bearing

- ❑ align free of stress

8 - Screw

- ❑ 50 Nm + 90°
- ❑ for flexible disk at angular gearbox
- ❑ replace after each removal

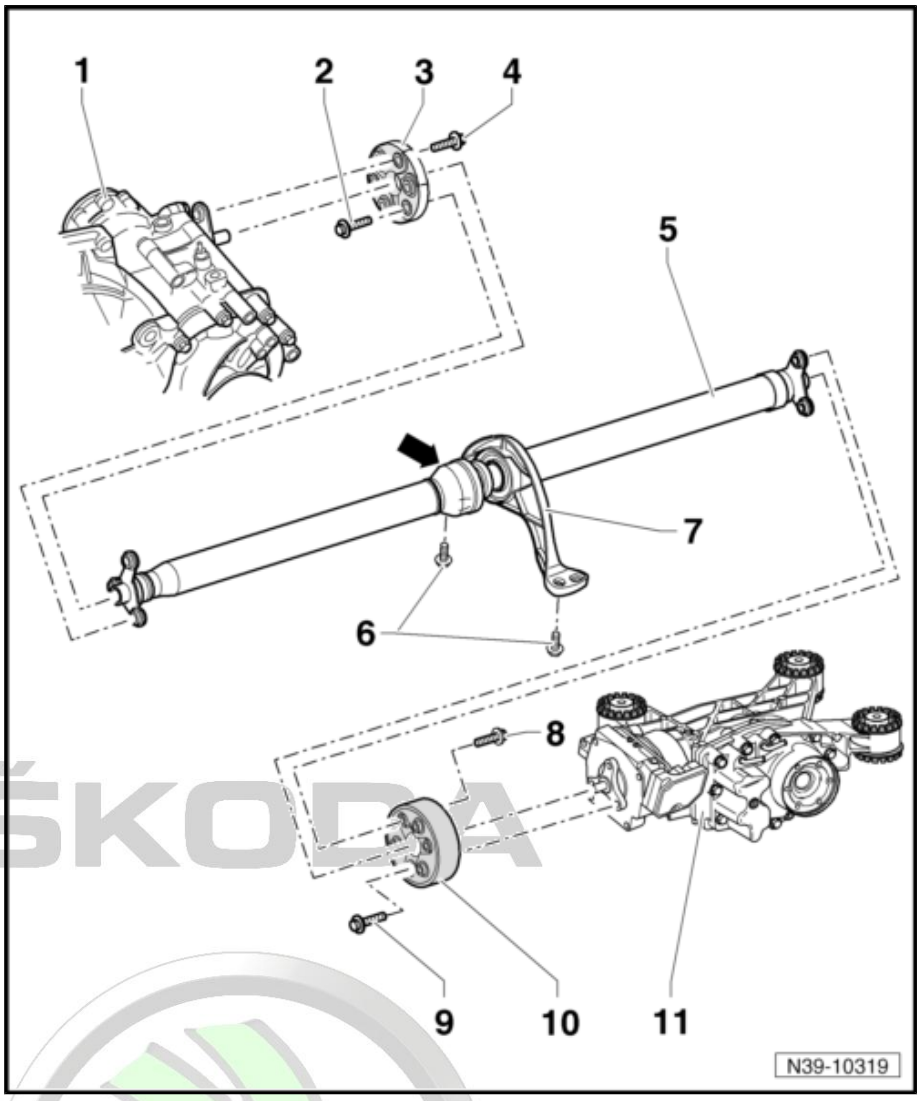
9 - Screw

- ❑ 60 Nm

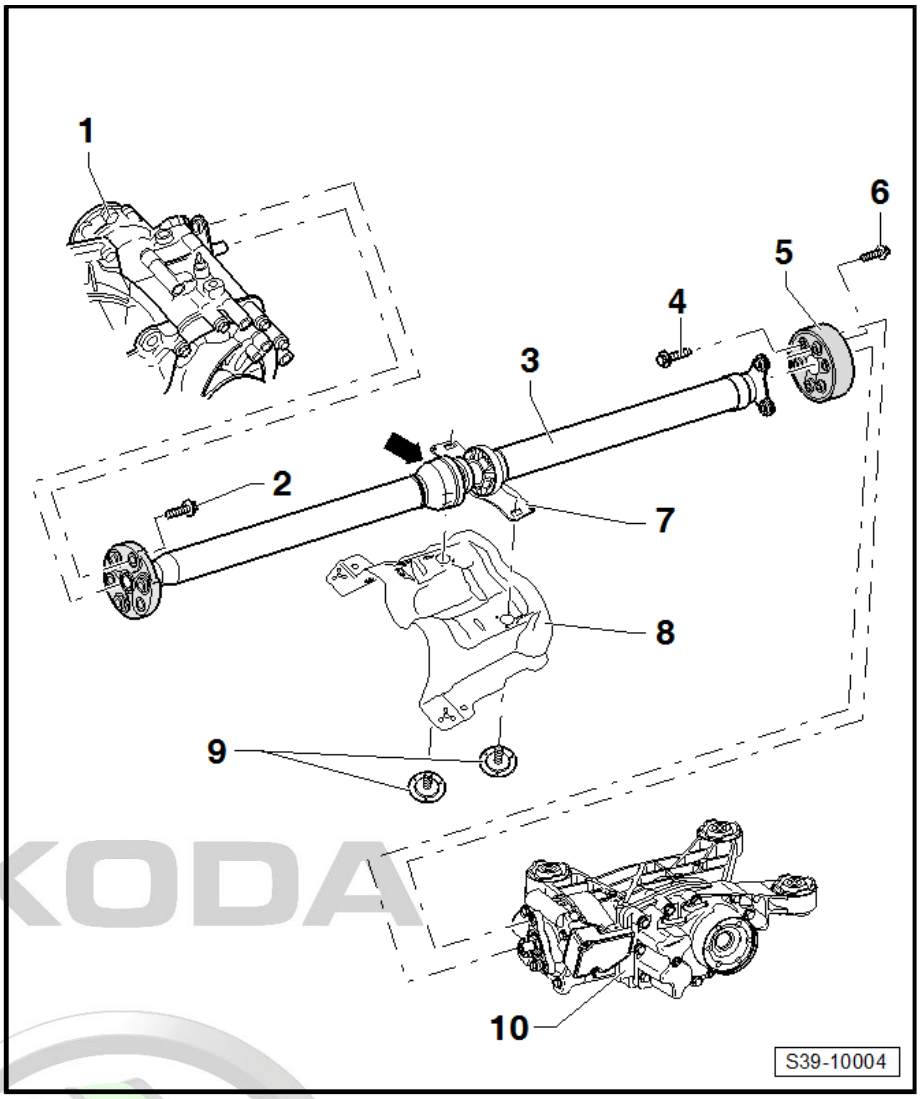
10 - Flexible disk/oscillation damper

- ❑ Heat protection points towards propshaft
- ❑ wymontowanie i zamontowanie ⇒ page 53

11 - Rear final drive



1.1.5 Summary of components propeller shaft Yeti



1 - Angle gearbox

2 - Screw

- ❑ 60 Nm
- ❑ 3 pieces
- ❑ M10 x 30

3 - Propshaft

- ❑ removing and installing
- ❑ when installing and removing do not damage the centering bushing and gasket ring in the middle of the flange
- ❑ Fitting position: The intermediate bearing Pos. 5 is located in the direction of travel behind the monoblock joint -arrow-

4 - Screw

- ❑ 60 Nm
- ❑ 3 pieces
- ❑ M10 x 45

5 - Flexible disk/oscillation damper

- ❑ Assignment ⇒ Electronic Catalogue of Original Parts
- ❑ Fitting position
- ❑ wymontowanie i zamontowanie ⇒ page 53

6 - Screw

- ❑ 50 Nm + 90°
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

7 - Intermediate bearing

- ❑ align free of stress
- ❑ replace propshaft if damaged

8 - Heat shield

9 - Screw

- ❑ 25 Nm

10 - Rear final drive

1.2 Removing and installing propshaft

⇒ “1.2.1 Removing and installing propshaft Octavia II up to 05/2007”, page 24

⇒ “1.2.2 Removing and installing propshaft Octavia II as of 06/2007”, page 29

⇒ “1.2.3 Remove and install propshaft (Octavia III)”, page 34

⇒ “1.2.4 Removing and installing propeller shaft Superb II”, page 39

⇒ “1.2.5 Removing and installing propshaft Yeti”, page 43

1.2.1 Removing and installing propshaft Octavia II up to 05/2007

Special tools and workshop equipment required

- Engine and gearbox jack e.g. -V.A.G 1383A -
- Thread repair set - z. B. VAS 6024-
- Counterholder - T10172-
- Adapter - T10172/5-

Note

- *The two-piece propshaft is installed until 27/05/07. The front propshaft pipe can be separated from rear propshaft pipe.*
- *Work on the propshaft should be carried out on a two-pillar lift platform.*
- *Before the removal, mark the position of all parts to each other. Carry out the installation again in the same position, otherwise the imbalance is too great, damages to the bearing and humming noises could occur.*
- *Do not bend the propshaft, only store extended and transport.*

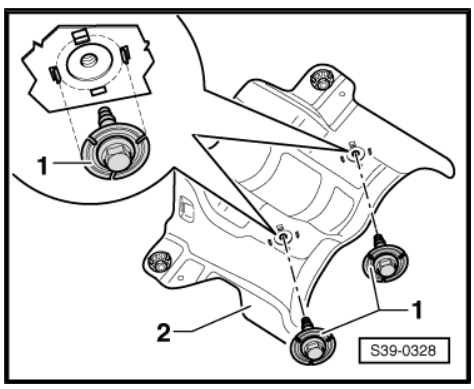
Removing

– Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .

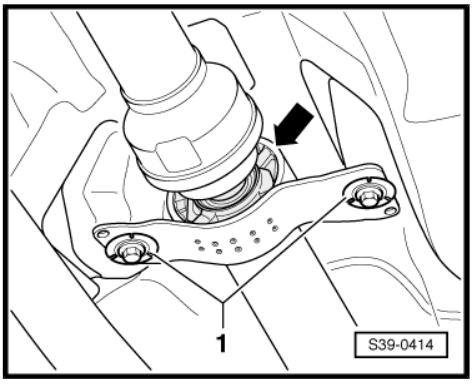
– Remove the whole exhaust gas system ⇒ Engine; Rep. gr. 26

– Support propshaft with engine/gearbox jack e.g. -V.A.G 1383A- (as an aid, e.g. use a wooden wedge)

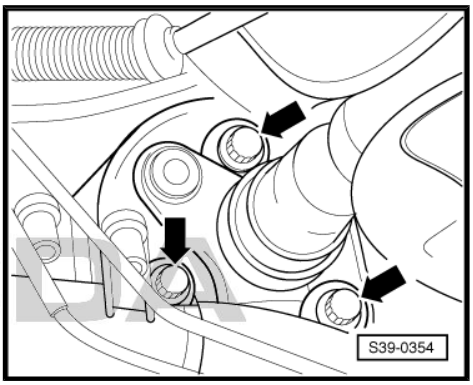
– Remove heat shield -2-, to do so release the screws -1-.



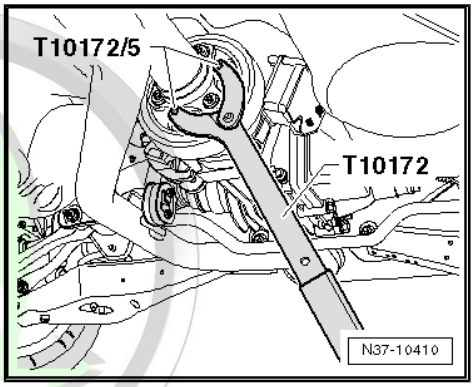
– After removing the heat shield screw on again by hand the intermediate bearing of the propshaft -arrow- with the screws -1-.



– Unscrew propshaft from angle gearbox -arrows-.



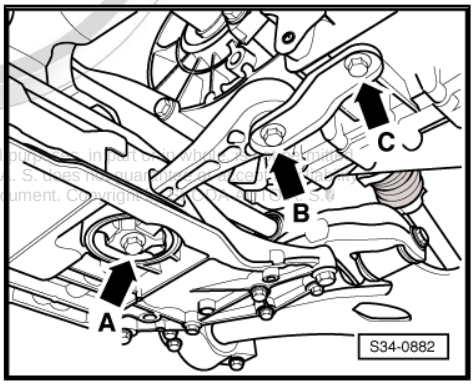
When loosening and tightening, counterhold the propshaft on the rear final drive.



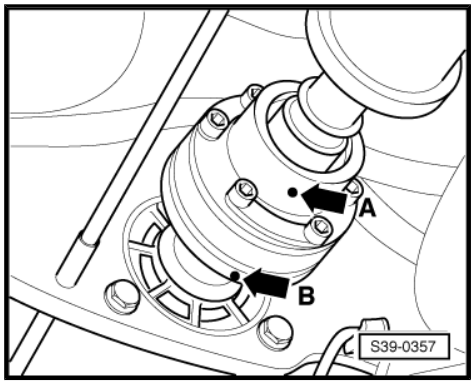
– Unscrew screws arrow -B- and arrow -C- of the pendulum support.

Note

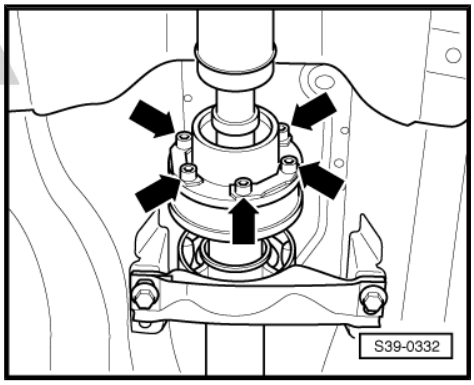
After unscrewing the fixing screw of the pendulum support at the gearbox, the engine/gearbox unit is slided ahead somewhat. Make sure that the gasket in the cardan shaft flange is not damaged.



– Check, if the markings of the CV joint/propshaft -arrows A and B- are present. If not, mark them with colours.



– Flange off the front propshaft pipe from the rear propshaft pipe -arrows-.
– Push the front propshaft pipe to the front and swivel out the flange of the rear propshaft pipe.



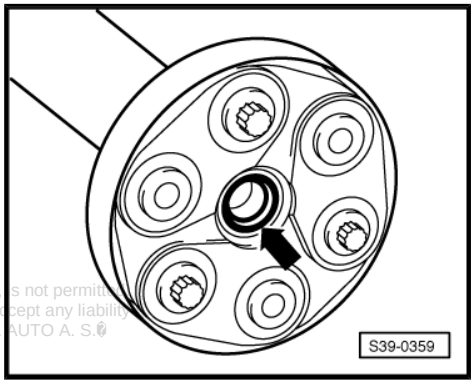
Note

When swivelling out make sure that the front propshaft pipe is inclined as little as possible to the bottom.

– Carefully pull off the front propshaft pipe from the centering stud.

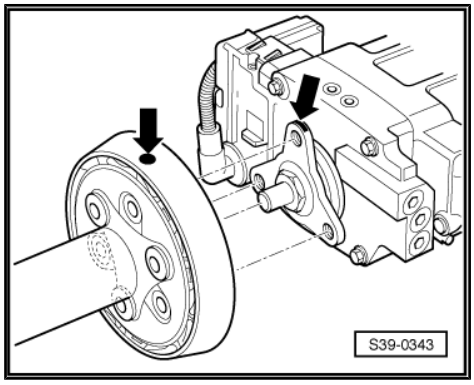
Note

The gasket ring -arrow- in the cardan shaft flange must not be damaged.

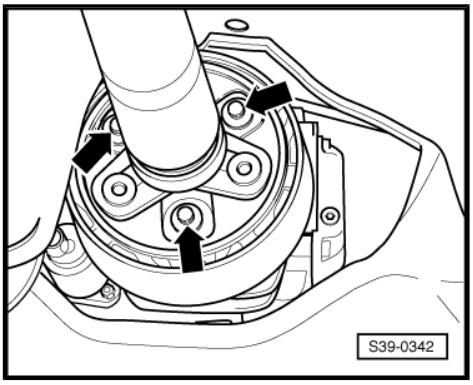


– Pull off propshaft horizontally from centering stud.
– Swivel down the front propshaft pipe and remove.

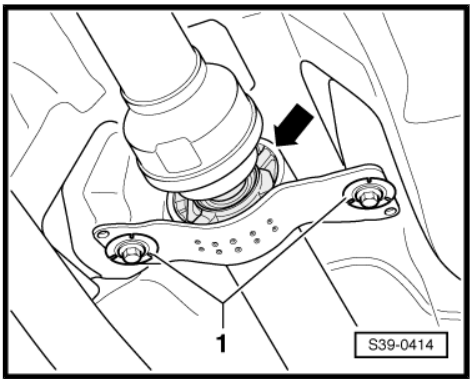
– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.



– Unscrew rear propshaft pipe with flexible disk and oscillation damper from rear final drive -arrows-.

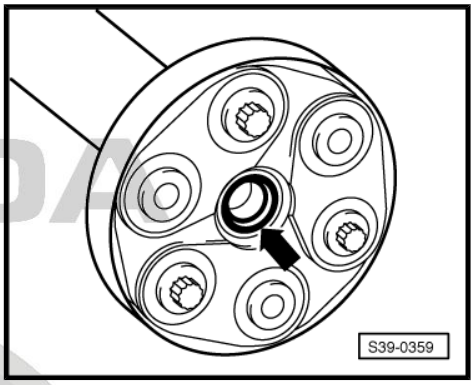


– Unscrew screws -1- for intermediate bearing of the cardan shaft from the vehicle.
– Carefully pull off the rear propshaft pipe from the centering stud.



Note

- *Do not tilt propshaft when removing, pull off horizontally from the centering stud.*
- *The gasket ring in the centering bush -arrow- must not be damaged.*



The flexible disk and oscillation damper cannot be separated.

Install

Installation is performed in the reverse order, pay attention to the following points:

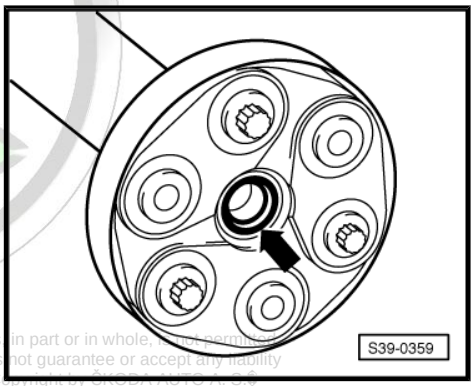
When re-installing, fit all parts of the propshaft marked to each other in the same position.

The gasket rings -arrow- in the flanges of the propshaft must not be damaged when removing and installing. In case of damaged gasket rings the propshaft must be replaced.

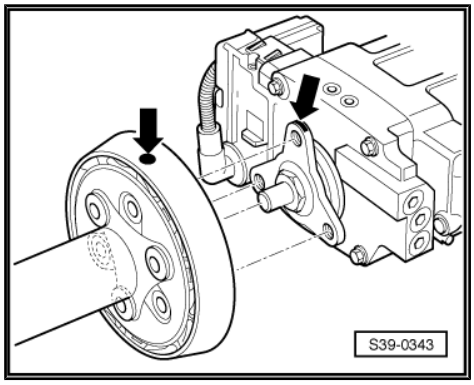
– Push propshaft horizontally onto the respective centering studs.

Fitting position:

Three protruding bushings at the angle gearbox flange or the Haldex coupling flange and propshaft flange grip into the location holes of the flexible disks.

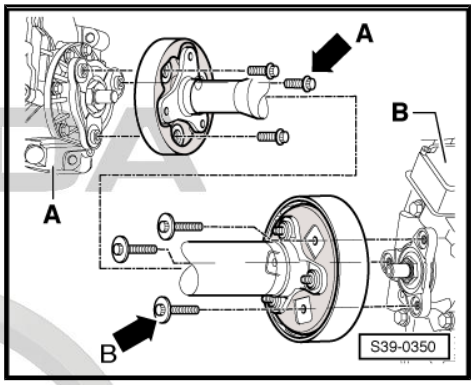


– Install the propshaft on the flange of the Haldex coupling and on the flange of the angle gearbox in such a way that the markings -arrows- are on the same line.



Observe fitting location of the different collar screws.

Collar screw with	Fitting location
small collar -arrow A-	Propshaft on front final drive -A-
large collar -arrow B-	Propshaft on rear final drive -B-



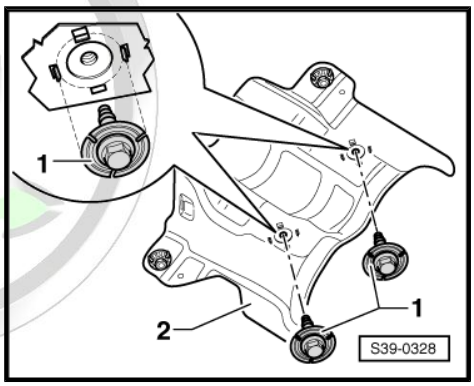
– Align intermediate bearing in its elongated holes in such a way that the propshaft or the intermediate bearing is not under tension.

– Only screw down intermediate bearing after tightening the propshaft.

When screwing the heat shield -2- with the intermediate bearing make sure that the screws -1- are within the four centering tabs.

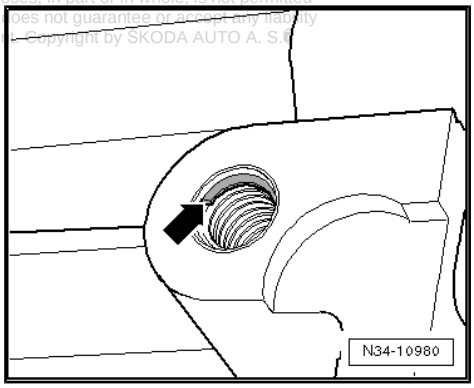
– Align the exhaust system, without tightening ⇒ Engine; Rep. gr. 26 .

– Install pendulum support at the gearbox ⇒ Engine; Rep. gr. 10 .

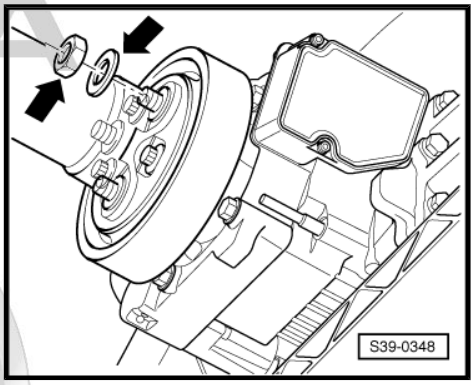


Note

- *As of gearbox production date 28/05/2007, threaded inserts are located in the bolt-holes for the pendulum support (e.g. "HeliCoil").*
- *Distinguishing feature: Shoulder on the first thread -arrow-. These threaded inserts can be installed with Thread Repair Kit - z. B. VAS 6024- .*
- *Note the corresponding securing bolts and the tightening torque for the pendulum support ⇒ Engine; Rep. gr. 10*



– Install the noise insulation ⇒ Body Work; Rep. gr. 50 .



Note

- *If droning noises occur while driving, the following must be observed.*
- *Remove balancing nut and balancing washer -arrows-.*
- *Afterwards unscrew if necessary the propshaft with the flexible disk from the flange of the Haldex coupling and screw on again offset to a hole.*
- *If the droning noises can still be heard, the propshaft must be screwed on once again offset to a hole.*

Tightening torques

⇒ page 17

1.2.2 Removing and installing propshaft Octavia II as of 06/2007

Special tools and workshop equipment required

- Engine/gearbox jack , e.g. -V.A.G 1383A -
- Thread repair set , e. g. -VAS 6024-
- Counterholder - T10172-
- Adapter - T10172/5-

Note

- *One-part propeller shaft is installed as of 28/05/07. The front propshaft pipe cannot be separated from the rear propshaft pipe.*
- *Work on the propshaft should be carried out on a two-pillar lift platform.*
- *Before the removal, mark the position of all parts to each other. Carry out the installation again in the same position, otherwise the imbalance is too great, damages to the bearing and humming noises could occur.*
- *The front flexible disk on the propshaft and the corresponding fixing screws are not available as a spare part. Thus in case of damage, the entire propshaft must be replaced ⇒ Electronic Catalogue of Original Parts .*
- *Do not bend the propshaft, only store extended and transport.*
- *When removing, do not let the propshaft »hang«, always support it.*
- *Always remove the propshaft horizontally from the centering stud or push on.*

Removing

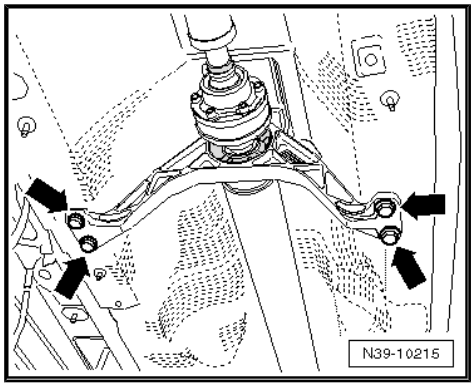
– Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .

– Removing the whole exhaust gas system ⇒ Engine; Rep. gr. 26 .

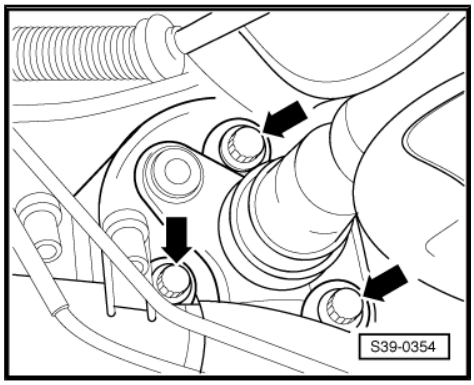
– Support propshaft with engine and gearbox jack e.g. -V.A.G 1383A- (as an aid, e.g. use a wooden wedge).

– Secure the propshaft against falling down with a belt.

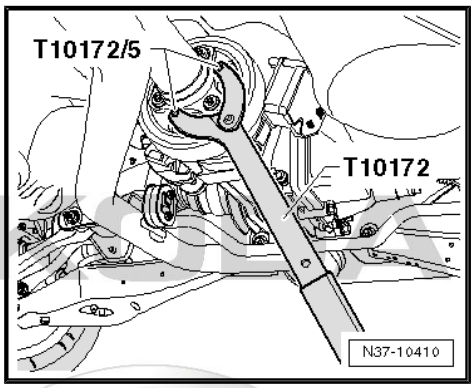
– Unscrew intermediate bearing of propshaft from the vehicle -arrows-.
– Mark the position of the propshaft with flexible disk to the output flange of the angle gearbox.



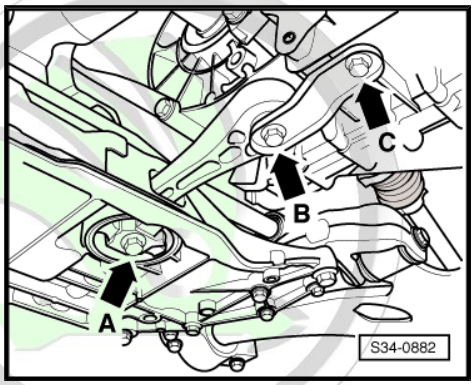
– Unscrew propshaft from angle gearbox -arrows-.



When loosening and tightening, counterhold the propshaft on the rear final drive.

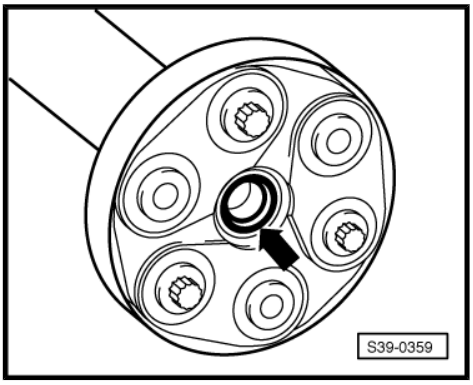


– Remove pendulum support from gearbox, to do so release the bolts -arrow B- and -arrow C-.



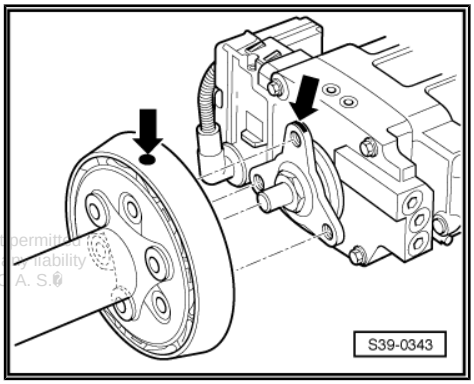
Note

After unscrewing the fixing screw of the pendulum support at the gearbox, the engine/gearbox unit is slided ahead somewhat. Make sure that the gasket in the cardan shaft flange is not damaged.

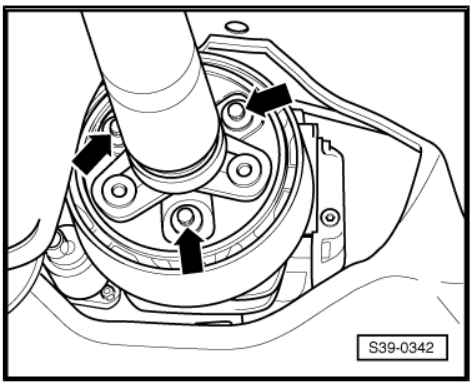


For vehicles with rear final drive “02D/0AV”

– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.

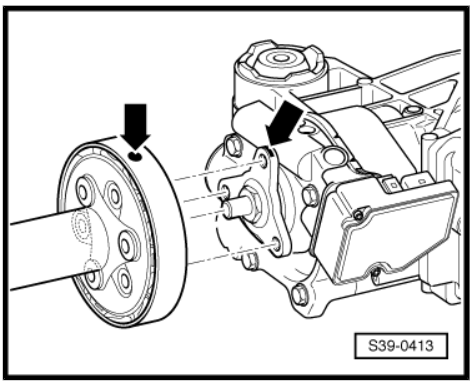


– Unscrew propshaft with flexible disk and oscillation damper from rear final drive -arrows-.

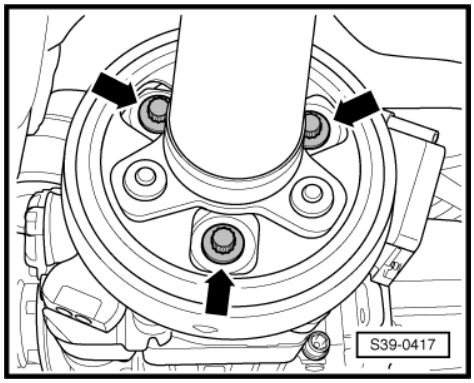


For vehicles with rear final drive “0BR”

– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.



– Unscrew propshaft with flexible disk and oscillation damper from rear final drive -arrows-.



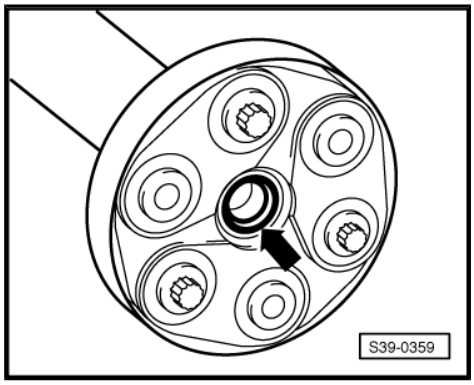
For all vehicles

A second person is required to secure the front propshaft pipe for the further removal operations.

– Guide propshaft towards the front. While doing so, slightly press the engine/gearbox assembly forwards.

– Pull off the propshaft from the centering stud at the rear final drive.

– Pull off the propshaft from the centering stud at the angle gearbox.



Note

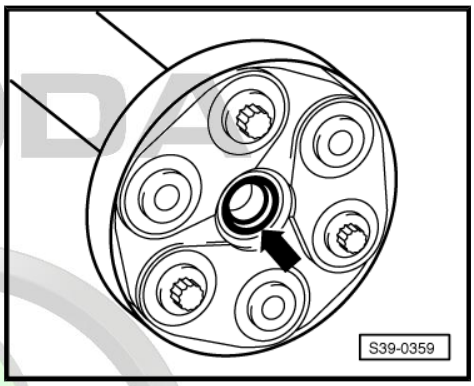
- *Do not tilt propshaft when removing, detach horizontally from centering stud of angular gearbox and from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.*
- *Do not bend the propshaft, only store extended and transport.*

Install

Installation is performed in the reverse order, pay attention to the following points:

When re-installing, fit all parts of the propshaft marked to each other in the same position.

The gasket rings -arrow- in the flanges of the propshaft must not be damaged when removing and installing. In case of damaged gasket rings the propshaft must be replaced.

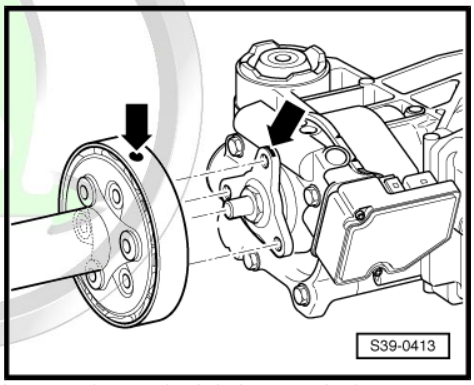


– Push propshaft horizontally onto the respective centering studs.

Fitting position

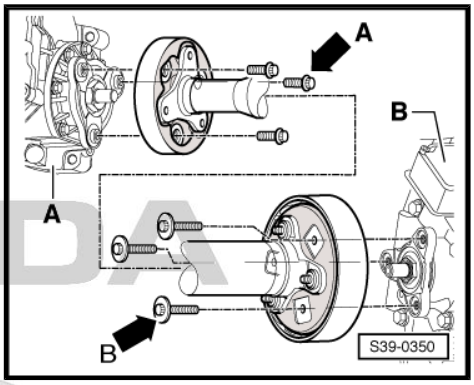
Three protruding bushings at the angle gearbox flange or the Haldex coupling flange and propshaft flange grip into the location holes of the flexible disks.

– Install the propshaft on the flange of the Haldex coupling and on the flange of the angle gearbox in such a way that the markings -arrows- are on the same line.



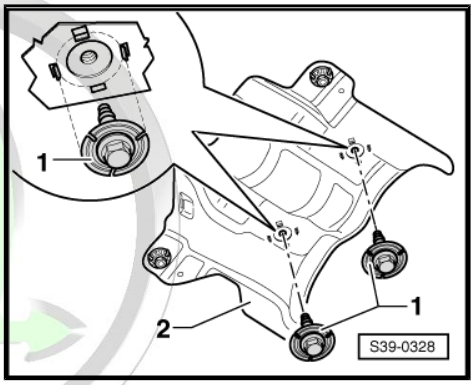
Observe fitting location of the different collar screws.

Screw	Fitting location
M10 x 30 with small collar arrow -A-	Propshaft on front final drive -A-
M10 x 45 with large collar -arrow B-	Propshaft on rear final drive -B-



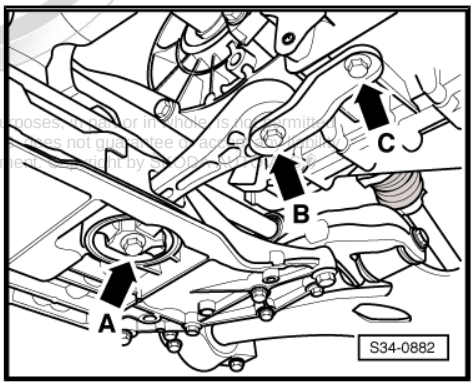
– Align intermediate bearing in its elongated holes in such a way that the propshaft or the intermediate bearing is not under tension.

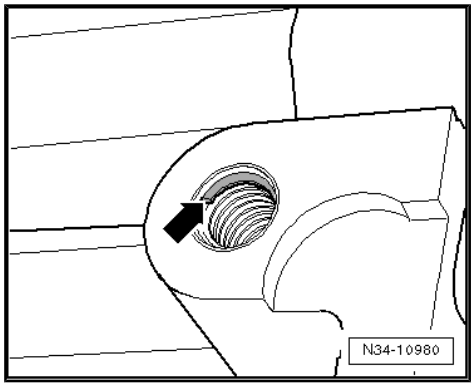
When screwing the heat shield -2- with the intermediate bearing make sure that the screws -1- are within the four centering tabs.



– Only screw down intermediate bearing after tightening the propshaft.

– Screw the pendulum support with new screws -arrow B- and -arrow C- onto the gearbox ⇒ Engine; Rep. gr. 10





Note

- *As of gearbox production date 28/05/2007, threaded inserts are located in the bolt-holes for the pendulum support (e.g. "HeliCoil").*
- *Distinguishing feature: Shoulder on the first thread -arrow-. These threaded inserts can be installed with Thread Repair Kit , e.g. -VAS 6024- .*
- *Pay attention to the corresponding fixing screws and the tightening torque for the pendulum support ⇒ Engine; Rep. gr. 10 .*

– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .

– Install the noise insulation ⇒ Body Work; Rep. gr. 50 .

Note

- *If droning noises occur while driving, the following must be observed.*
- *Unscrew the propshaft with the flexible disk from the flange of the Haldex coupling and screw on again offset to a hole.*
- *If the droning noises can still be heard, the propshaft must be screwed on once again offset to a hole.*

Tightening torques:

⇒ "1.1.2 Summary of components - propeller shaft Octavia II as of 06/2007", page 20

1.2.3 Remove and install propshaft (Octavia III)

Special tools and workshop equipment required

- counterholder - T10172- with adapters - T10172/5-

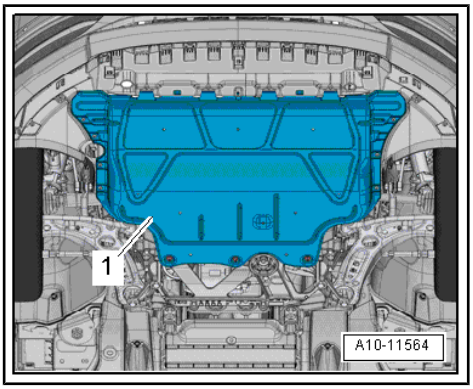
Removing

Note

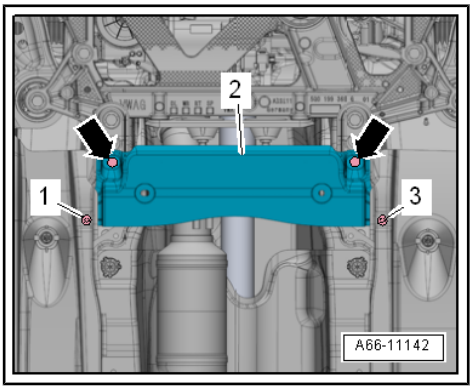
- *Work on the propshaft should be carried out on a two-pillar lift platform.*
- *Before the removal, mark the position of all parts to each other. Reinstall in the same position, otherwise the imbalance increases, so that damage to the bearing and booming noise could occur.*
- *Do not bend the propshaft, only store extended and transport.*
- *When removing, do not let the propshaft hang down, but always support it.*
- *Always remove or mount the propshaft horizontally from the centering stud.*

– Remove middle and rear part of exhaust system ⇒ Engine; Rep. gr. 26 .

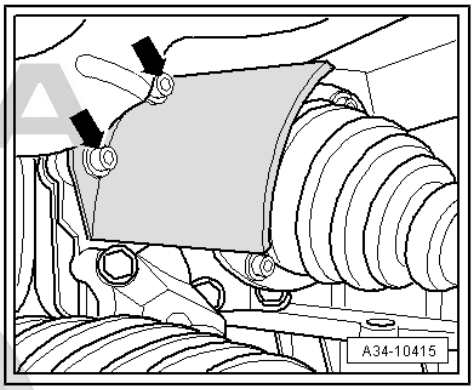
– Remove the sound dampening system -1- ⇒ Body Work; Rep. gr. 66 .



– Remove the rear sound dampening system -2- ⇒ Body Work; Rep. gr. 66 .

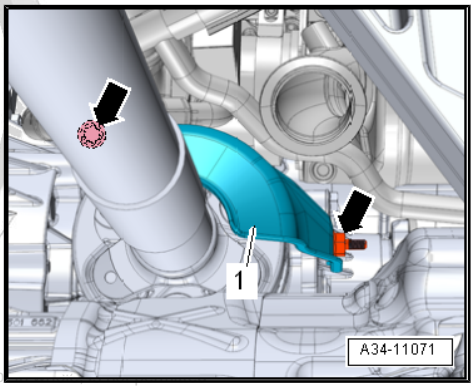


– If present, release screws -arrows- and remove heat shield for right drive shaft.

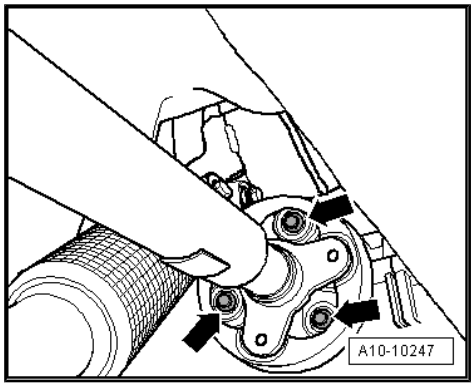


– Release screws -arrows- and remove heat shield -1-.

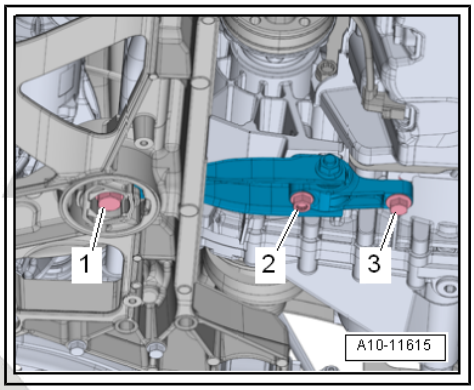
– To reinstall, mark the position of the flexible disk and the angle gearbox flange to each other.



– Unscrew the propshaft from the angle gearbox -arrows-, while counterholding with a lever on the triangular flange.

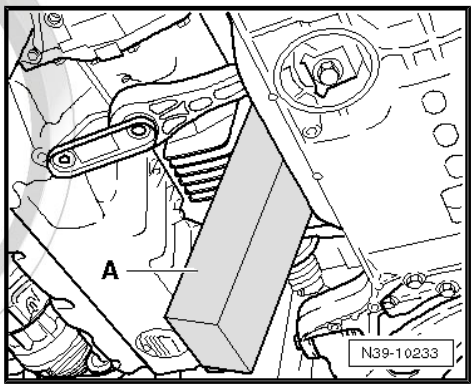


– Remove screws -2- and -3- of the pendulum support.



– Push the engine/gearbox unit forward and secure with a suitable piece of wood -A-.

– Pull off the front propshaft pipe from the centering stud of the angle gearbox and push it to the right side of the vehicle.



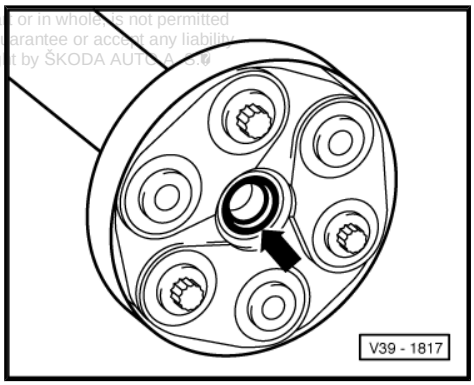
Caution

Risk of damage to the gasket ring -arrow- on the flange of the propshaft.

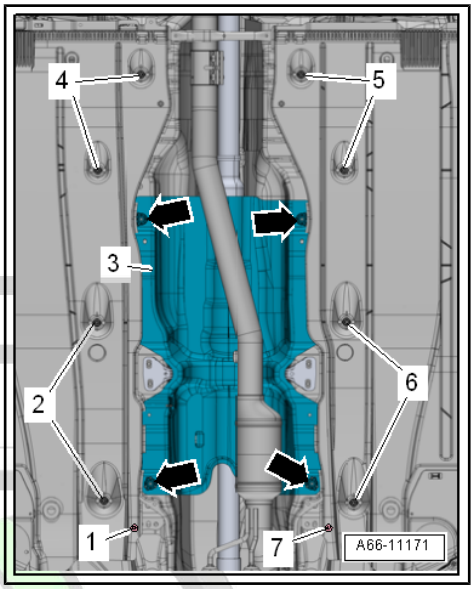
- ***Push the propshaft horizontally back as far as possible.***

Note

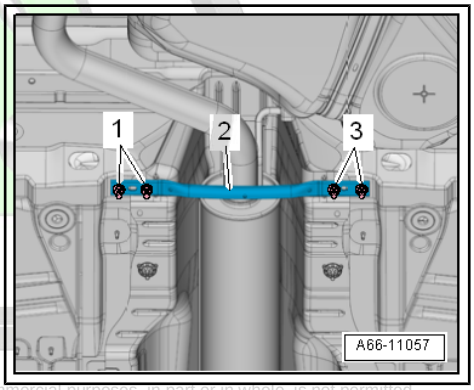
In case of damaged gasket ring the propshaft must be replaced.



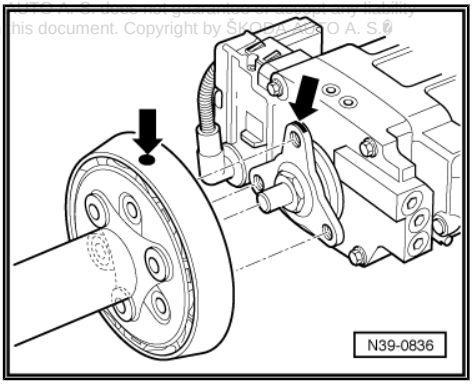
– Remove heat shield -3- for propeller shaft ⇒ Body Work; Rep. gr. 66 .



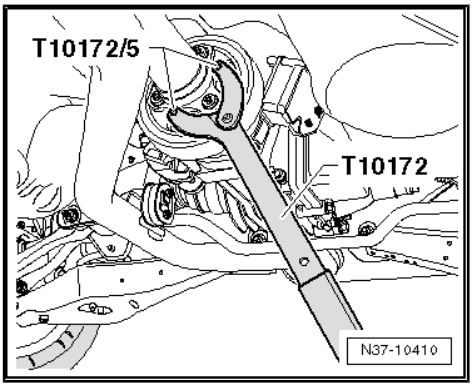
– Removing the tunnel bridge -2- ⇒ Body Work; Rep. gr. 66 .



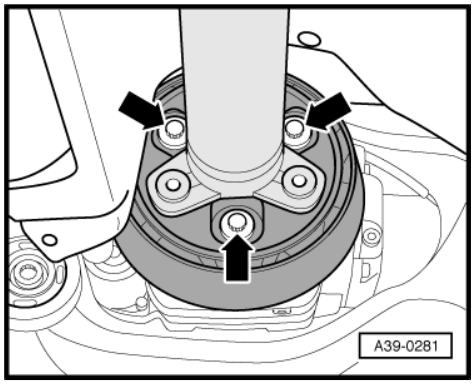
– Check if there are markings (coloured points) on the flexible disk and on the propshaft flange on the rear final drive -arrows-.
– If there are no markings, mark the position of the flexible disk opposite the propshaft flange on the rear final drive.
– Also mark the position of the propshaft opposite the flange on the angle gearbox.



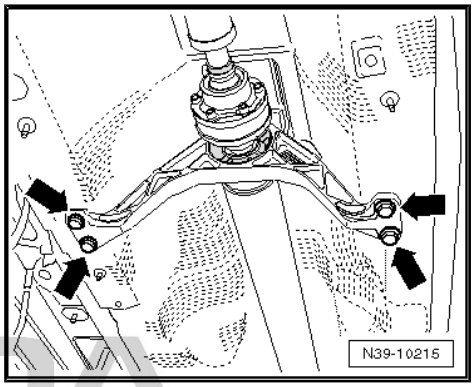
– When loosening and tightening the screws for the propshaft, hold the rear final drive with counterholder - T10172- with adapters - T10172/5- .



– Unscrew screws -arrows- of the screw connections of the propshaft/rear final drive.



– Unscrew screws -arrows- for guide bearings of the propshaft and remove the propshaft to the rear.
– Pull off the propeller shaft from the centring stud of the rear final drive.



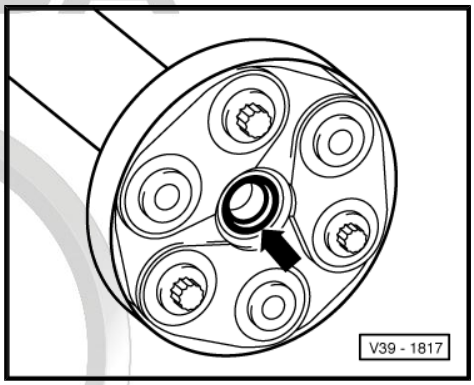
Caution

Risk of damage to the gasket ring -arrow- on the flange of the propshaft.

- ***Pull off propshaft horizontally from centering stud.***

Note

In case of damaged gasket ring the propshaft must be replaced.



Caution

Risk of damage to protective collar for guide bearing.

- ***Store propshaft stretched out as far as possible, remove and install.***

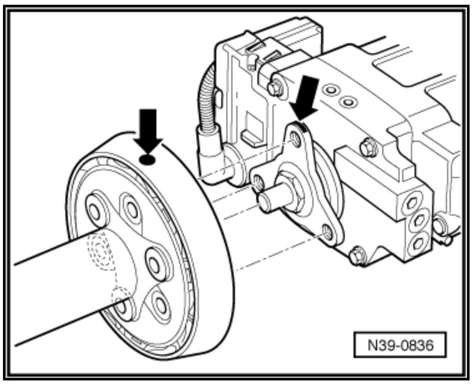
Install

Installation is performed in the reverse order, pay attention to the following points:

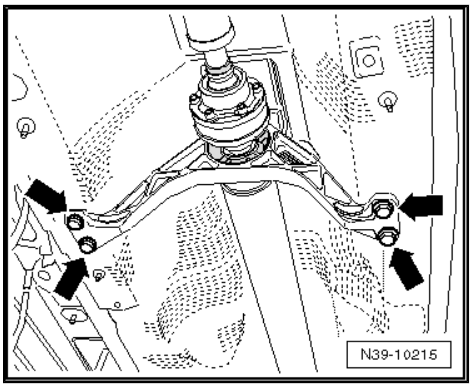
Note

- *Install all parts marked relative to each other in the same position.*
- *Replace screws which have been tightened to torquing angle.*

– Fit propshaft to rear final drive such that the markings -arrows- are in one plane.



– Insert screws -arrows- for guide bearing, but do not tighten.



– Tighten screws for flexible disks of propshaft on angle gearbox and rear final drive.

– Align guide bearing in elongated holes so that propshaft and guide bearing are free of stress.

– Tighten screws -arrows-.

Tightening torques

⇒ “1.1.3 Summary of components propeller shaft Octavia III”, page 21

Unit mounting for ⇒ engine; Rep. gr. 10

Exhaust System ⇒ Engine; Rep. gr. 26

Tunnel bridge ⇒ Body work; Rep. gr. 66 .

Heat shield⇒ Body Work; Rep. gr. 66

Noise insulation ⇒ Body Work- Assembly; Rep. gr. 66

1.2.4 Removing and installing propeller shaft Superb II

Special tools and workshop equipment required

♦ Engine/gearbox jack , e.g. -V.A.G 1383A -

♦ Thread repair set , e. g. -VAS 6024-

♦ Counterholder - T10172-

♦ Adapter - T10172/5-

Removing

Note

♦ *Work on the propshaft should be carried out on a two-pillar lift platform.*

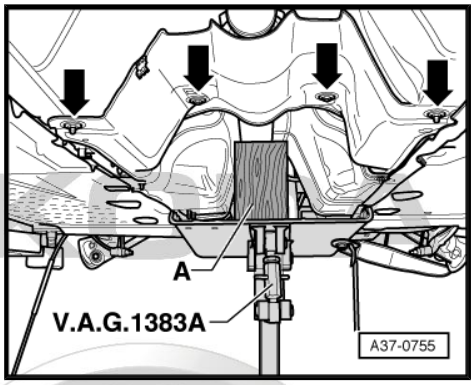
♦ *Before the removal, mark the position of all parts to each other. Carry out the installation again in the same position, otherwise the imbalance is too great, damages to the bearing and humming noises could occur.*

♦ *Do not bend the propshaft, only store extended and transport.*

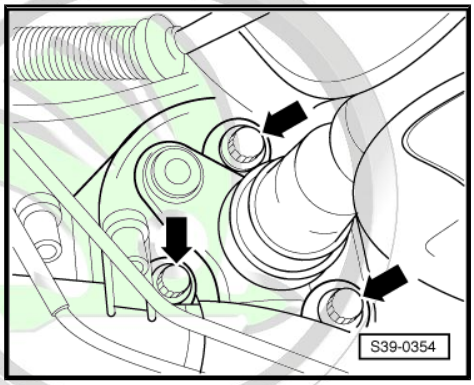
♦ *When removing, do not let the propshaft »hang«, always support it.*

♦ *Always remove the propshaft horizontally from the centering stud or push on.*

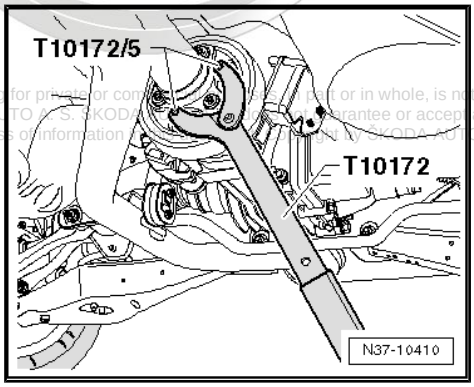
– Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
– Removing the whole exhaust gas system ⇒ Engine; Rep. gr. 26 .
– Support propshaft with engine and gearbox jack e.g. -V.A.G 1383A- (as an aid, e.g. use a wooden wedge).
– Secure the propshaft against falling down with a belt.
– Remove the heat protection plate below the propshaft -arrows-.
– Mark the position of the propshaft with flexible disk to the output flange of the angle gearbox.



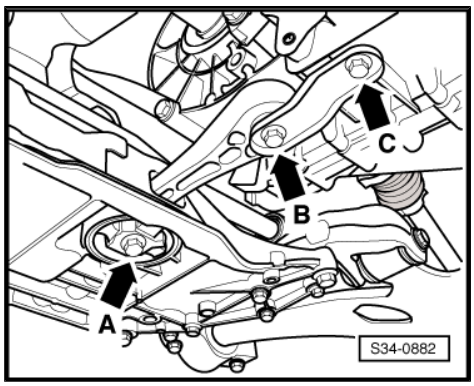
– Unscrew propshaft from angle gearbox -arrows-.



When loosening and tightening, counterhold the propshaft on the rear final drive.

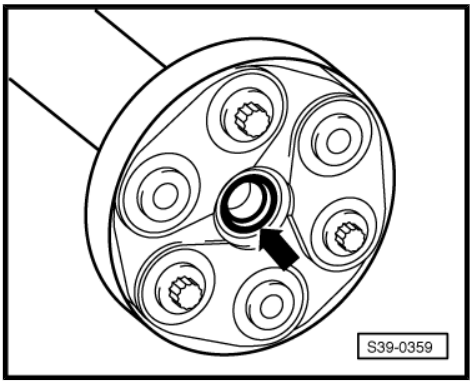


– Remove pendulum support from gearbox, to do so release the bolts -arrow B- and -arrow C-.

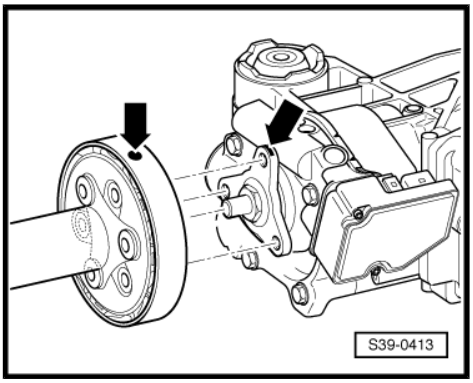


Note

After unscrewing the fixing screw of the pendulum support at the gearbox, the engine/gearbox unit is slided ahead somewhat. Make sure that the gasket in the cardan shaft flange is not damaged.

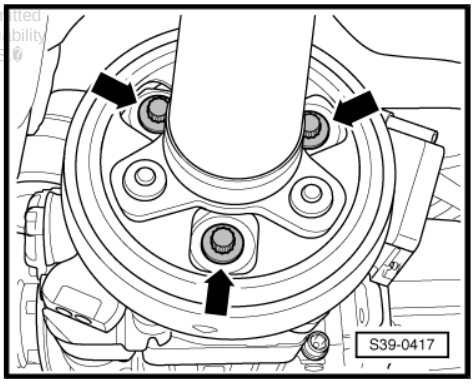


– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.

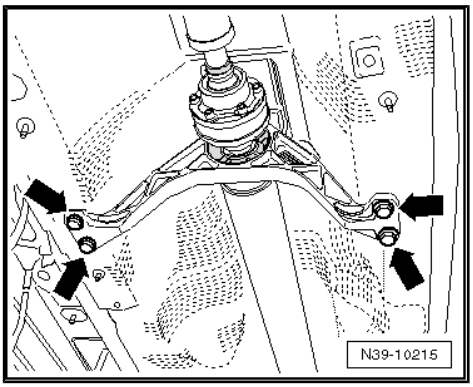


– Unscrew propshaft with flexible disk and oscillation damper from rear final drive -arrows-.

A second person is required to secure the front propshaft pipe for the further removal operations.

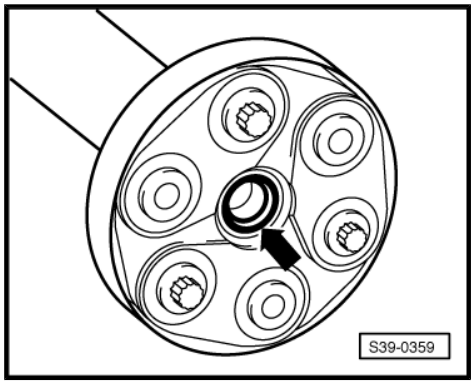


– Unscrew intermediate bearing of propshaft from the vehicle -arrows-.
– Guide propshaft towards the front. While doing so, slightly press the engine/gearbox assembly forwards.
– Pull off the propshaft from the centering stud at the rear final drive.
– Pull off the propshaft from the centering stud at the angle gearbox.



Note

- *Do not tilt propshaft when removing, detach horizontally from centering stud of angular gearbox and from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.*
- *Do not bend the propshaft, only store extended and transport.*

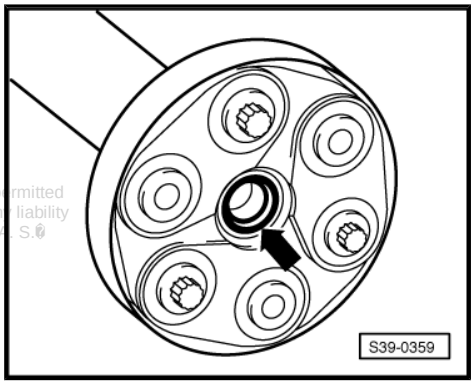


Install

Installation is performed in the reverse order, pay attention to the following points:

When re-installing, fit all parts of the propshaft marked to each other in the same position.

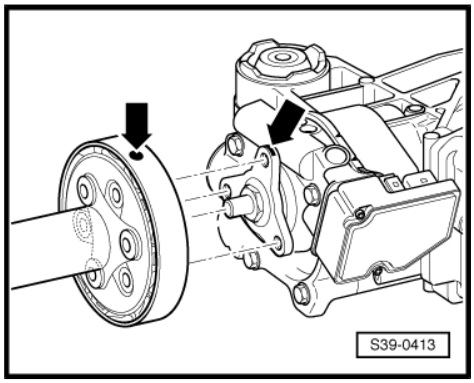
The gasket rings -arrow- in the flanges of the propshaft must not be damaged when removing and installing. In case of damaged gasket rings the propshaft must be replaced.



– Push propshaft horizontally onto the respective centering studs.

Fitting position

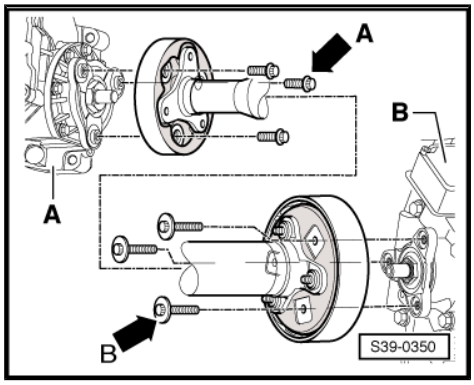
Three protruding bushings at the angle gearbox flange or the Haldex coupling flange and propshaft flange grip into the location holes of the flexible disks.



– Install the propshaft on the flange of the Haldex coupling and on the flange of the angle gearbox in such a way that the markings -arrows- are on the same line.

Observe fitting location of the different collar screws.

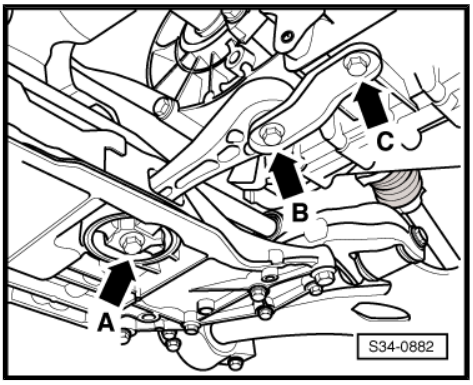
Screw	Fitting location
M10 x 30 with small collar arrow -A-	Propshaft on front final drive -A-
M10 x 45 with large collar -arrow B-	Propshaft on rear final drive -B-



– Align intermediate bearing in its elongated holes in such a way that the propshaft or the intermediate bearing is not under tension.

– Only screw down intermediate bearing after tightening the propshaft.

– Screw the pendulum support with new screws -arrow B- and -arrow C- onto the gearbox ⇒ Engine; Rep. gr. 10



Caution

Pay attention to the corresponding fixing screws and the tightening torque for the pendulum support ⇒ Engine; Rep. gr. 10 .

– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .

– Install the noise insulation ⇒ Body Work; Rep. gr. 50 .

Note

- *If droning noises occur while driving, the following must be observed.*
- *Unscrew the propshaft with the flexible disk from the flange of the Haldex coupling and screw on again offset to a hole.*
- *If the droning noises can still be heard, the propshaft must be screwed on once again offset to a hole.*

Tightening torques:

⇒ "1.1.4 Summary of components propeller shaft Superb II", page 22

1.2.5 Removing and installing propshaft Yeti

Special tools and workshop equipment required

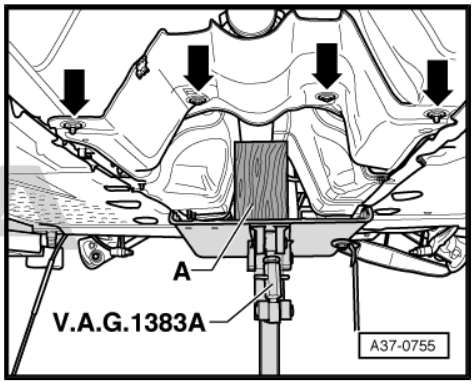
- Engine/gearbox jack , e.g. -V.A.G 1383A -
- Thread repair set , e. g. -VAS 6024-
- Counterholder - T10172-
- Adapter - T10172/5-

Removing

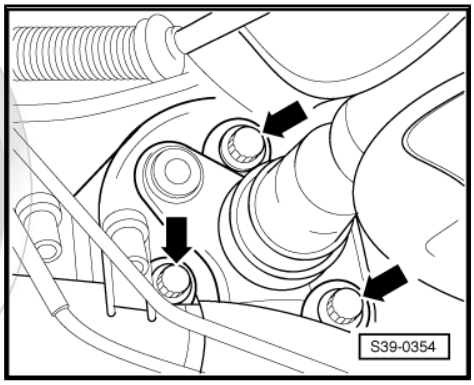
Note

- *Work on the propshaft should be carried out on a two-pillar lift platform.*
- *Before the removal, mark the position of all parts to each other. Carry out the installation again in the same position, otherwise the imbalance is too great, damages to the bearing and humming noises could occur.*
- *Do not bend the propshaft, only store extended and transport.*
- *The front flexible disk on the propshaft and the corresponding fixing screws are not available as a spare part. Thus in case of damage, the entire propshaft must be replaced ⇒ Electronic Catalogue of Original Parts .*
- *When removing, do not let the propshaft »hang«, always support it.*
- *Always remove the propshaft horizontally from the centering stud or push on.*

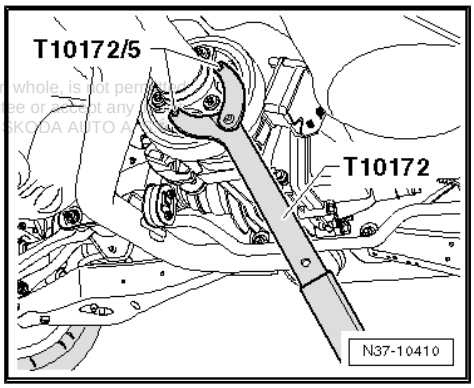
– Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
– Removing the whole exhaust gas system ⇒ Engine; Rep. gr. 26 .
– Support propshaft with engine and gearbox jack e.g. -V.A.G 1383A- (as an aid, e.g. use a wooden wedge).
– Secure the propshaft against falling down with a belt.
– Remove the heat protection plate below the propshaft -arrows-.
– Mark the position of the propshaft with flexible disk to the output flange of the angle gearbox.



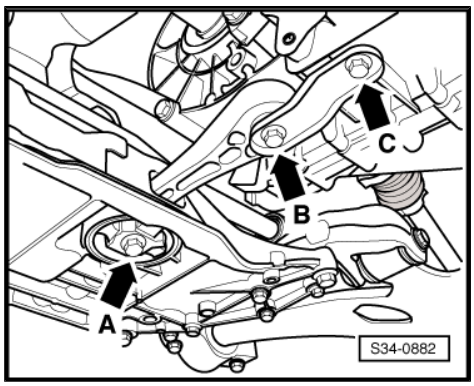
– Unscrew propshaft from angle gearbox -arrows-.



When loosening and tightening, counterhold the propshaft on the rear final drive.

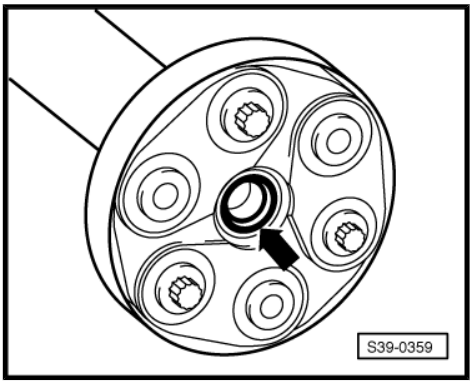


– Remove pendulum support from gearbox, to do so release the bolts -arrow B- and -arrow C-.

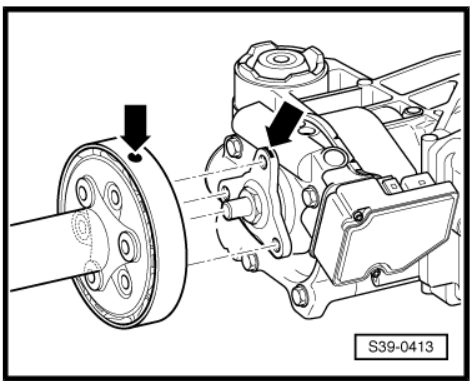


Note

After unscrewing the fixing screw of the pendulum support at the gearbox, the engine/gearbox unit is slided ahead somewhat. Make sure that the gasket in the cardan shaft flange is not damaged.

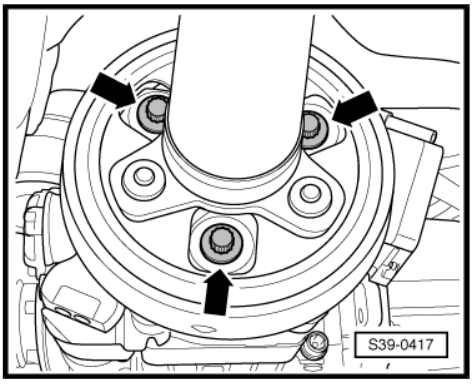


– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.

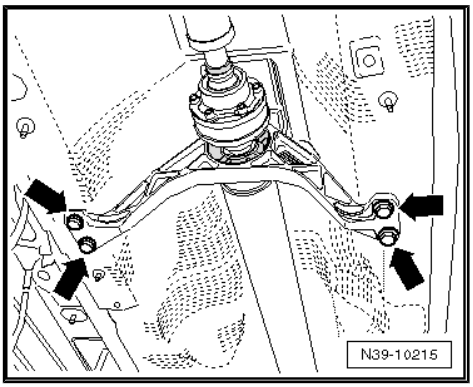


– Unscrew propshaft with flexible disk and oscillation damper from rear final drive -arrows-.

A second person is required to secure the front propshaft pipe for the further removal operations.

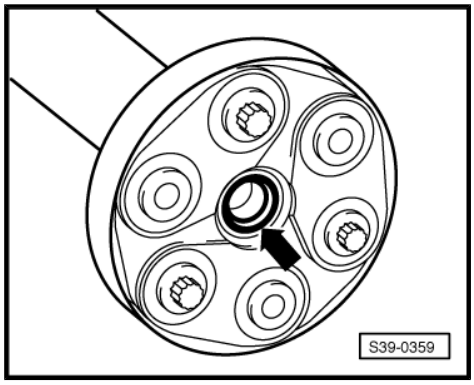


– Unscrew intermediate bearing of propshaft from the vehicle -arrows-.
– Guide propshaft towards the front. While doing so, slightly press the engine/gearbox assembly forwards.
– Pull off the propshaft from the centering stud at the rear final drive.
– Pull off the propshaft from the centering stud at the angle gearbox.



Note

- *Do not tilt propshaft when removing, detach horizontally from centering stud of angular gearbox and from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.*
- *Do not bend the propshaft, only store extended and transport.*

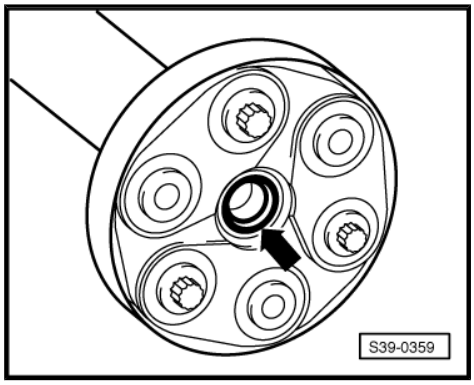


Install

Installation is performed in the reverse order, pay attention to the following points:

When re-installing, fit all parts of the propshaft marked to each other in the same position.

The gasket rings -arrow- in the flanges of the propshaft must not be damaged when removing and installing. In case of damaged gasket rings the propshaft must be replaced.

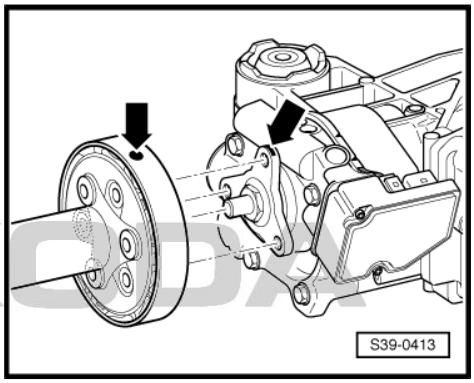


– Push propshaft horizontally onto the respective centering studs.

Fitting position

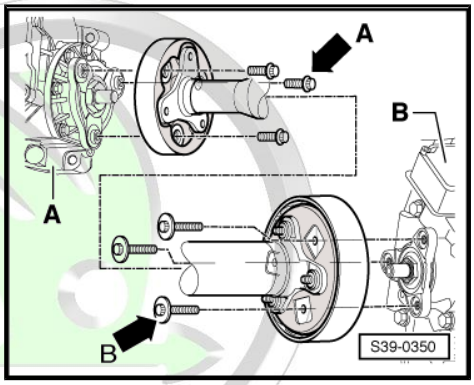
Three protruding bushings at the angle gearbox flange or the Haldex coupling flange and propshaft flange grip into the location holes of the flexible disks.

– Install the propshaft on the flange of the Haldex coupling and on the flange of the angle gearbox in such a way that the markings -arrows- are on the same line.



Observe fitting location of the different collar screws.

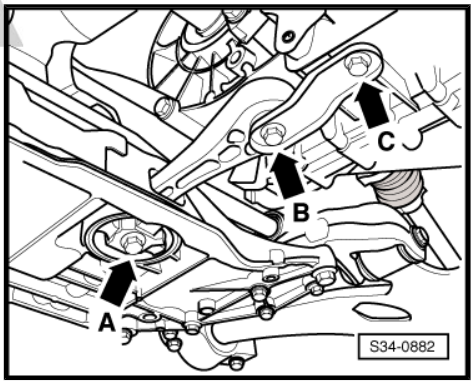
Screw	Fitting location
M10 x 30 with small collar arrow -A-	Propshaft on front final drive -A-
M10 x 45 with large collar -arrow B-	Propshaft on rear final drive -B-



– Align intermediate bearing in its elongated holes in such a way that the propshaft or the intermediate bearing is not under tension.

– Only screw down intermediate bearing after tightening the propshaft.

– Screw the pendulum support with new screws -arrow B- and -arrow C- onto the gearbox ⇒ Engine; Rep. gr. 10



Caution

Pay attention to the corresponding fixing screws and the tightening torque for the pendulum support ⇒ Engine; Rep. gr. 10 .

– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .

– Install the noise insulation ⇒ Body Work; Rep. gr. 50 .

Note

- *If droning noises occur while driving, the following must be observed.*
- *Unscrew the propshaft with the flexible disk from the flange of the Haldex coupling and screw on again offset to a hole.*
- *If the droning noises can still be heard, the propshaft must be screwed on once again offset to a hole.*

Tightening torques:

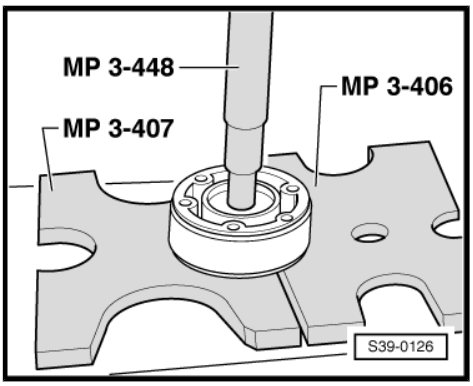
⇒ "1.1.5 Summary of components propeller shaft Yeti", page 23

1.3 Repairing propshaft

⇒ "1.3.1 Repairing propeller shaft Octavia II up to 05/2007", page 47

1.3.1 Repairing propeller shaft Octavia II up to 05/2007

Special tools and workshop equipment required



- Drive bushing - MP3-402 (VW 244B)-
- Pressure plate - MP3-406 (VW 401)-
- Pressure plate - MP3-407 (VW 402)-
- Assembly device for drive shaft - MP3-422 (VW 391)-
- Pressure spindle - MP3-448 (VW 408A)-
- Strutting bushing - MP6-428 (VW 522)-
- Clamping device - MP6-429 (40-204A)-
- Separating device 12...75 mm , e.g. -Kukko 17/1-
- Puller , e.g. -Kukko 18/0-
- Hose binding claw

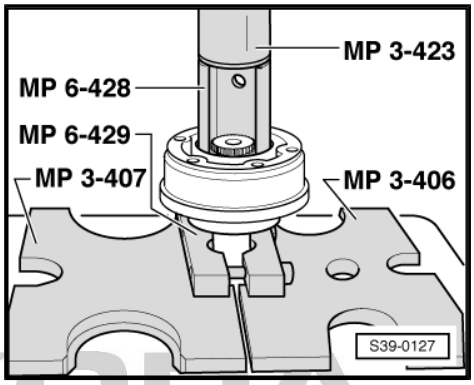
Pressing off CV joint

Pressing on CV joint

– Carefully pressing on.

– Tighten tensioner -MP6-429- , propshaft must not be pressed down in the tensioner -MP6-429- , otherwise this could result in paint damage.

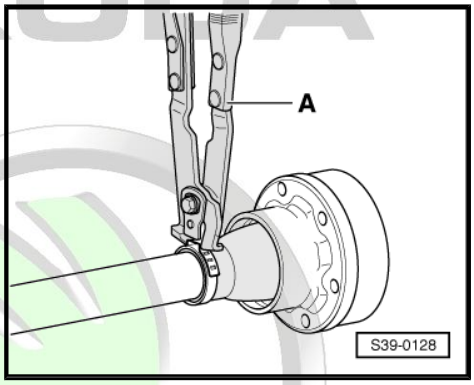
– Remove any paint damage as follows: Remove grease residues with nitro thinner -L 001 600- . Apply 2-component acrylic paint -ALN 769 041- with hardener -ALZ 009 001- .



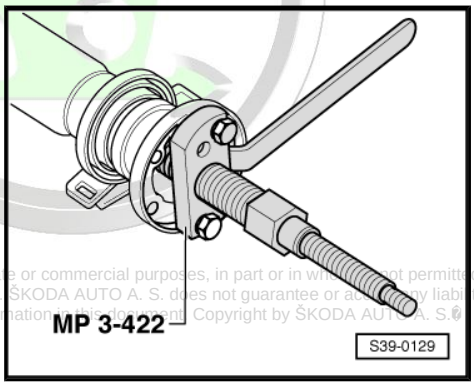
Tighten warm-type clamp

-A- Hose binding claw

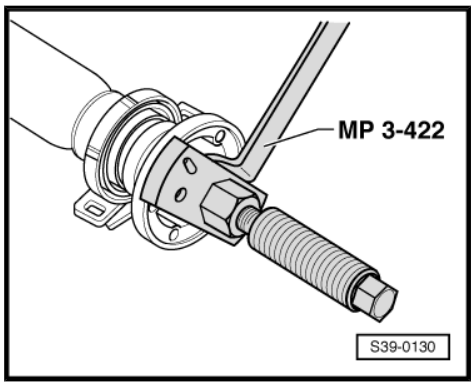
In case of repair assign the warm-type clamp via ⇒ Electronic catalogue of original parts .



Remove the flange



Install the flange

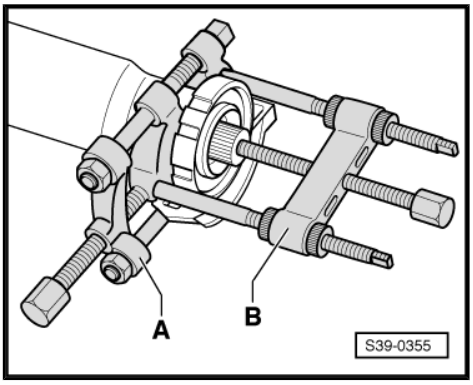


Remove the intermediate bearing

– The rubber guide of the intermediate bearing must be cut through and the sheet covering must be removed.

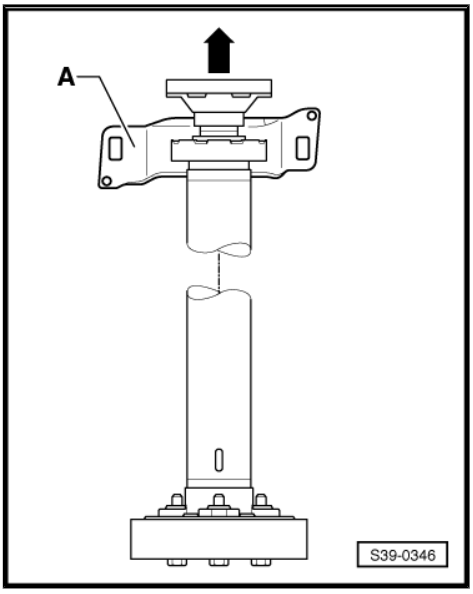
-A- Separating device 12...75 mm e.g. -Kukko 17/1-

-B- extractor e.g. -Kukko 18/0-



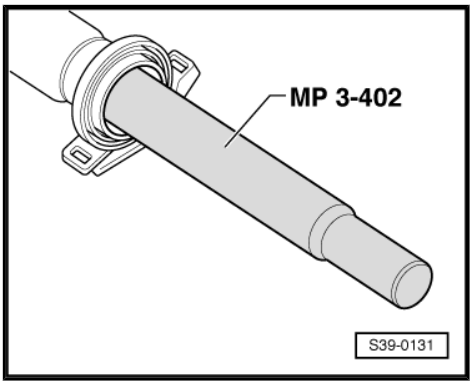
Fitting position of the intermediate bearing

The longest land -A- points in direction of travel -arrow- to the left.



Drive in intermediate bearing

Drive in intermediate bearing up to the stop.



1.4 Removing and installing the front flexible disk

1.4.1 Removing and installing front flexible disk Octavia II up to 05/2007

Removing

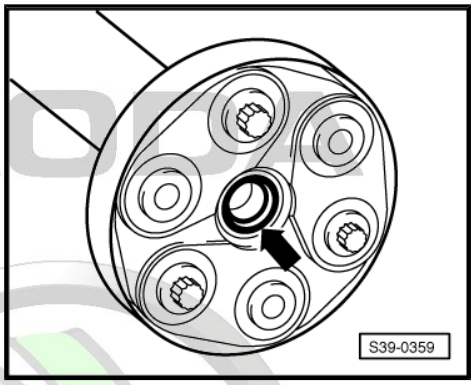
Special tools and workshop equipment required

- Engine and gearbox jack e.g. -V.A.G 1383A -
- Thread repair set - z. B. VAS 6024-
- Counterholder - T10172-
- Adapter - T10172/5-

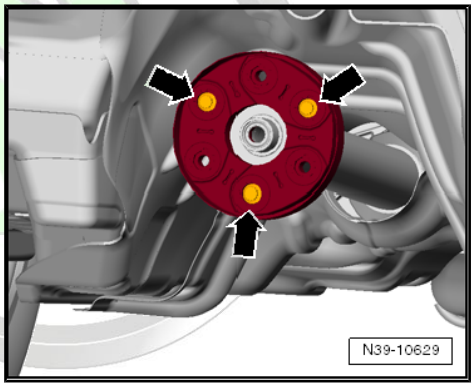
– Remove propshaft ⇒ page 24 .

Note

- *Do not tilt propshaft when removing, pull off horizontally from the centering stud.*
- *The gasket ring in the centering bush -arrow- must not be damaged.*
- *The following diagrams show the individual parts as installed.*



– Remove screws -arrows- from the flexible disk.

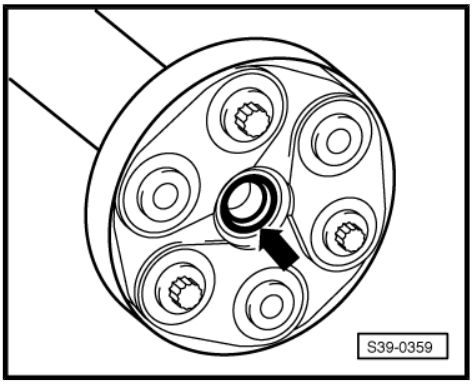


Install

Installation is performed in the reverse order, pay attention to the following points:

When re-installing, fit all parts of the propshaft marked to each other in the same position.

The gasket rings -arrow- in the flanges of the propshaft must not be damaged when removing and installing. In case of damaged gasket rings the propshaft must be replaced.



Tightening torques

⇒ "1.1.1 Summary of components - propeller shaft Octavia II up to 05/2007", page 17

1.4.2 Removing and installing front flexible disk Octavia II as of 06/2007

Note

The front flexible disk on the propshaft and the corresponding fixing screws are not available as a spare part. Thus in case of damage, the entire propshaft must be replaced ⇒ Electronic Catalogue of Original Parts .

1.4.3 Remove and install rear flexible disk Octavia III

Removing

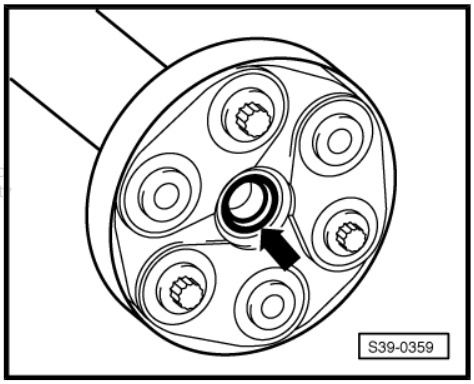
Special tools and workshop equipment required

- Engine and gearbox jack e.g. -V.A.G 1383A -
- Thread repair set - z. B. VAS 6024-
- Counterholder - T10172-
- Adapter - T10172/5-

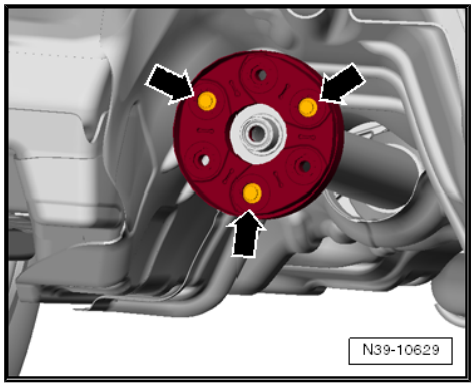
– Remove propshaft ⇒ page 24 .

Note

- *Do not tilt propshaft when removing, pull off horizontally from the centering stud.*
- *The gasket ring in the centering bush -arrow- must not be damaged.*
- *The following diagrams show the individual parts as installed.*



– Remove screws -arrows- from the flexible disk.

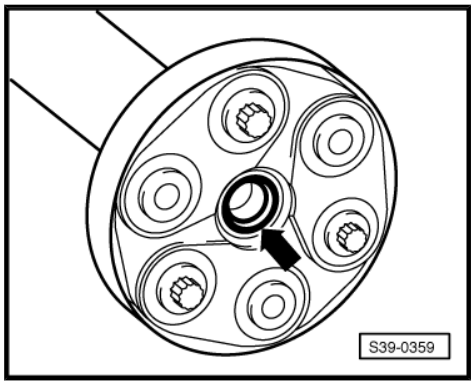


Install

Installation is performed in the reverse order, pay attention to the following points:

When re-installing, fit all parts of the propshaft marked to each other in the same position.

The gasket rings -arrow- in the flanges of the propshaft must not be damaged when removing and installing. In case of damaged gasket rings the propshaft must be replaced.



Tightening torques

⇒ "1.1.3 Summary of components propeller shaft Octavia III", page 21

1.4.4 Removing and installing front flexible disk Superb II

Removing

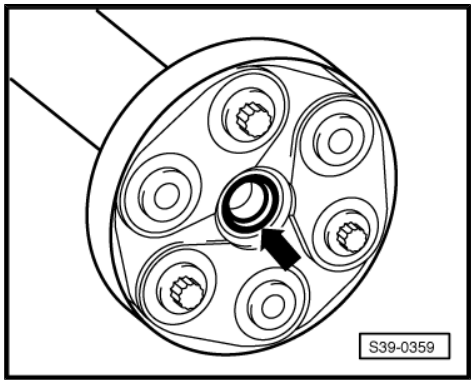
Special tools and workshop equipment required

- Engine and gearbox jack e.g. -V.A.G 1383A -
- Thread repair set - z. B. VAS 6024-
- Counterholder - T10172-
- Adapter - T10172/5-

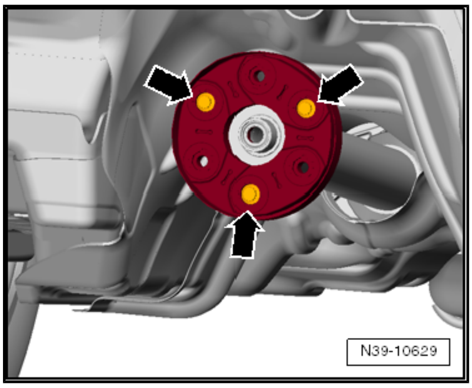
– Remove propshaft ⇒ page 24 .

Note

- *Do not tilt propshaft when removing, pull off horizontally from the centering stud.*
- *The gasket ring in the centering bush -arrow- must not be damaged.*
- *The following diagrams show the individual parts as installed.*



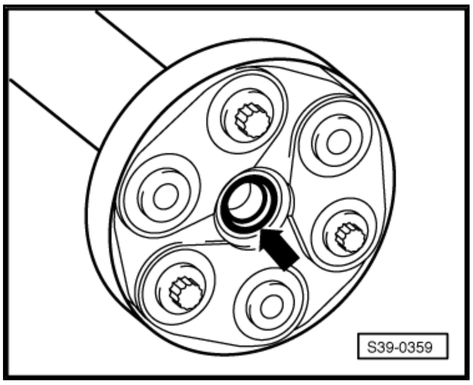
– Remove screws -arrows- from the flexible disk.



Install

Installation is performed in the reverse order, pay attention to the following points:

When re-installing, fit all parts of the propshaft marked to each other in the same position.



The gasket rings -arrow- in the flanges of the propshaft must not be damaged when removing and installing. In case of damaged gasket rings the propshaft must be replaced.

Tightening torques

⇒ “1.1.4 Summary of components propeller shaft Superb II”, page 22

1.4.5 Removing and installing the front flexible disk Yeti

Note

The front flexible disk on the propshaft and the corresponding fixing screws are not available as a spare part. Thus in case of damage, the entire propshaft must be replaced ⇒ Electronic Catalogue of Original Parts .

1.5 Removing and installing the rear flexible disk

⇒ “1.5.1 Removing and installing rear flexible disk Octavia II up to 05/2007”, page 53

⇒ “1.5.2 Removing and installing rear flexible disk Octavia II as of 06/2007”, page 58

⇒ “1.5.3 Remove and install rear flexible disk Octavia III”, page 62

⇒ “1.5.4 Removing and installing rear flexible disk Superb II”, page 66

⇒ “1.5.5 Removing and installing the rear flexible disk Yeti”, page 70

1.5.1 Removing and installing rear flexible disk Octavia II up to 05/2007

Removing

Special tools and workshop equipment required

- ♦ Engine/gearbox jack, e.g. - V.A.G 1383/A-
- ♦ Counterholder - T10172-

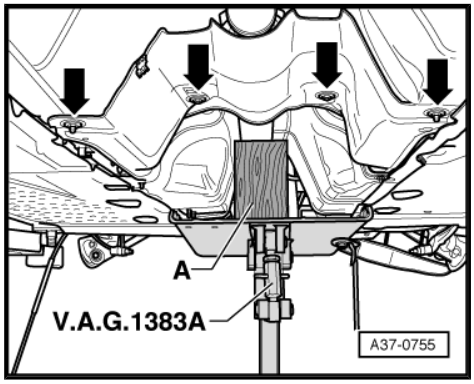
Note

- *Work on the propshaft should be carried out on a two-pillar lift platform.*
- *Before the removal, mark the position of all parts to each other. Carry out the installation again in the same position, otherwise the imbalance is too great, damages to the bearing and humming noises could occur.*
- *Do not bend the propshaft, only store extended and transport.*
- *When removing, do not let the propshaft »hang«, always support it.*
- *Always remove or mount the propshaft horizontally from the centering stud.*

– Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .

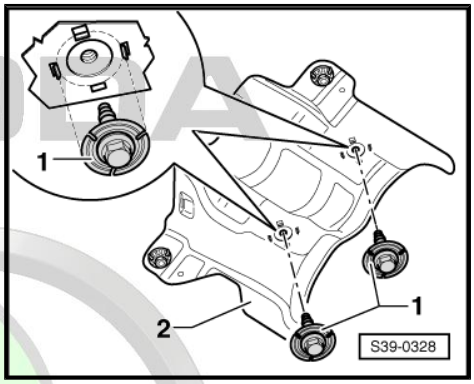
– Remove the rear part of the exhaust gas system ⇒ Engine; Rep. gr. 26 .

– Support propshaft with engine/gearbox jack e.g. -V.A.G 1383A- (as an aid, e.g. use a wooden wedge)

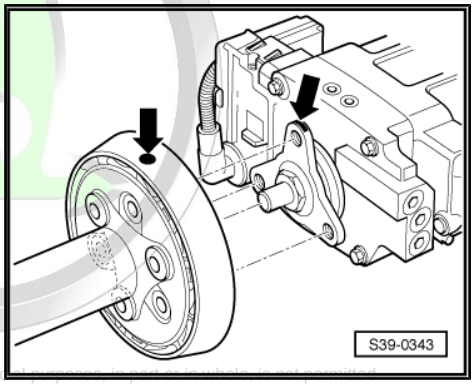


– Remove heat shield -2-, to do so release the screws -1-.

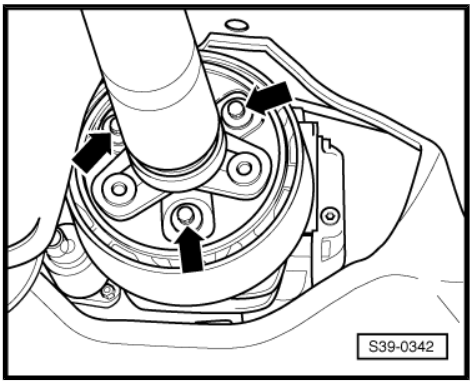
– After removing the heat shield screw on again by hand the intermediate bearing of the propshaft with the screws -1-.



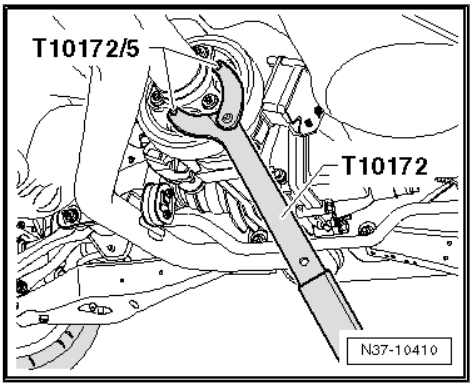
– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk/oscillation damper and the flange on the Haldex coupling to each other -arrows-.



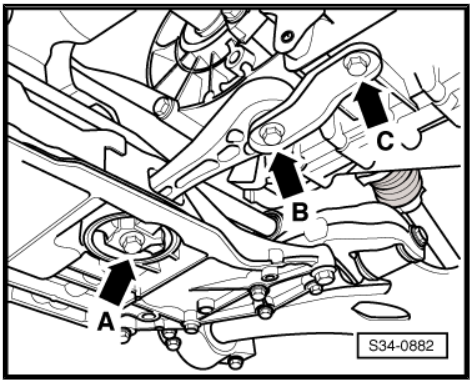
– Unscrew rear propshaft pipe with flexible disk and oscillation damper from rear final drive -arrows-.



When loosening and tightening the screws, counterhold the propshaft on the rear final drive.

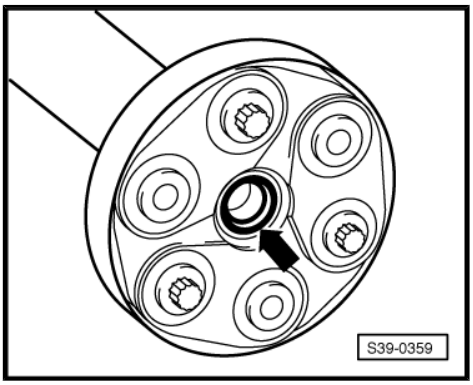


– Unscrew screws arrow -B- and arrow -C- of the pendulum support.

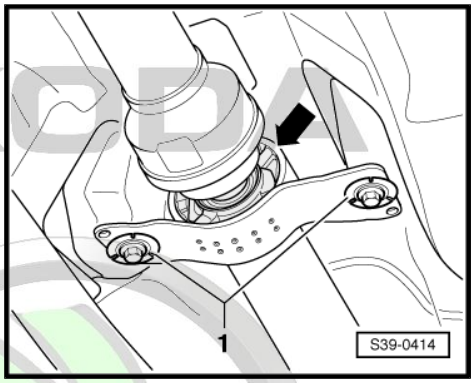


Note

After unscrewing the fixing screw of the pendulum support at the gearbox, the engine/gearbox unit is slided ahead somewhat. Make sure that the gasket in the cardan shaft flange is not damaged.

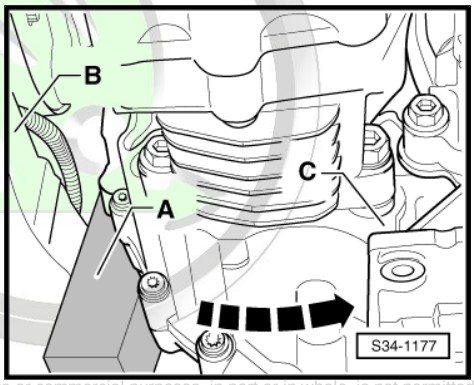


– Remove the intermediate bearing of the propshaft -arrow- from the structure, to do so release the screws -1-.



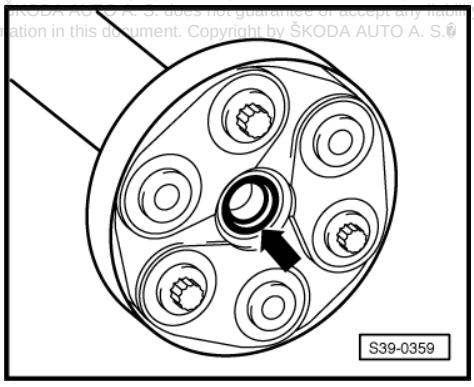
– Subsequently push the engine/gearbox unit to the front with a 2nd mechanic -direction of arrow- and insert a suitable wooden wedge -A- (approx. 50 mm thick) between the assembly carrier -B- and the gearbox -C-.

– While doing so, remove the propshaft from the flange at the Haldex coupling (centering stud) on the rear final drive.



Note

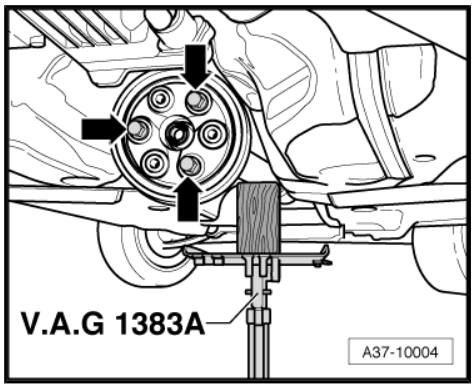
- *Do not tilt propshaft when removing, pull off horizontally from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.*
- *Do not bend the propshaft, only store extended and transport.*



– Install the intermediate bearing of the propshaft and screw the screws on handtight.

– Support propshaft.

– Unscrew the flexible disk with oscillation damper from the propshaft.



Install

Installation is performed in the reverse order, pay attention to the following points:

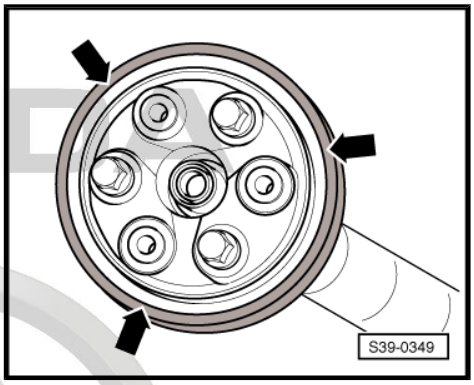
During re-installation, Install all parts marked relative to each other in the same position.

Fitting position of flexible disk with oscillation damper

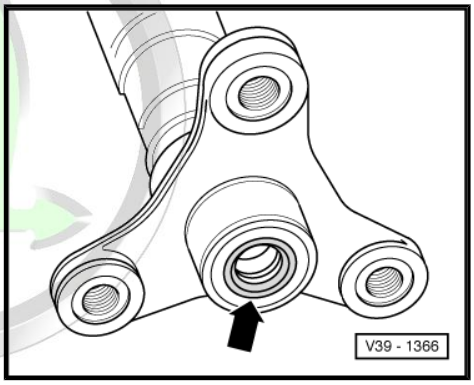
The land on the outside diameter -arrows- points away from the propshaft pipe.

Three protruding bushings at the Haldex coupling flange and on the flange of the propshaft grip into the location holes of the flexible disk.

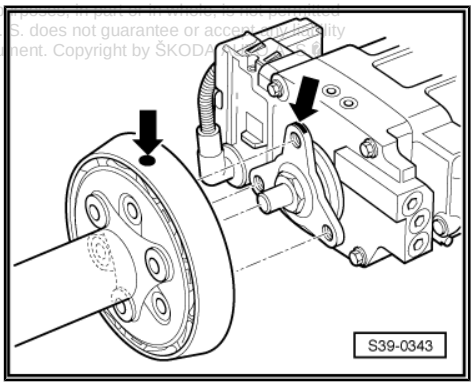
– Slide the propshaft horizontally onto the centering stud of the rear final drive.



The gasket ring -arrow- in the cardan shaft flange must not be damaged when removing and installing. In case of damaged gasket ring the propshaft must be replaced.

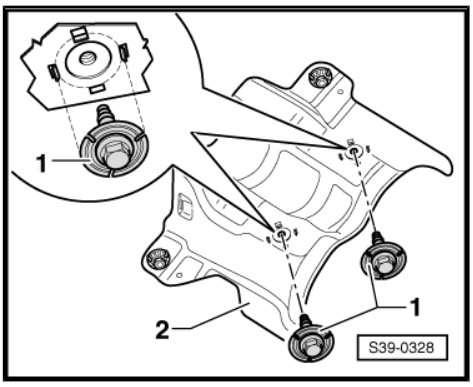


– Install the propshaft on the flange of the Haldex coupling in such a way that the markings -arrows- are on the same line.



When screwing the heat shield -2- with the intermediate bearing make sure that the screws -1- are within the four centering tabs.

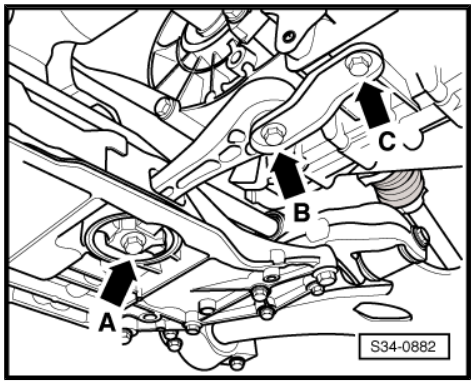
– Only screw down intermediate bearing after tightening the propshaft.



– Screw the pendulum support with new screws -arrow B- and -arrow C- onto the gearbox ⇒ Engine; Rep. gr. 10 .

– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .

– Install the noise insulation ⇒ Body Work; Rep. gr. 50 .



Note

- *If droning noises occur while driving, the following must be observed.*
- *Unscrew the propshaft with flexible disk with oscillation damper from the flange of the Haldex coupling and screw on again offset by a hole.*
- *When the droning noises are still audible, the propshaft with flexible disk with oscillation damper must be removed from the Haldex coupling again and offset by another hole.*

Tightening torques

⇒ "1.1.1 Summary of components - propeller shaft Octavia II up to 05/2007", page 17

1.5.2 Removing and installing rear flexible disk Octavia II as of 06/2007

Removing

Special tools and workshop equipment required

- Engine/gearbox jack, e.g. - V.A.G 1383/A-
- Counterholder - T10172-

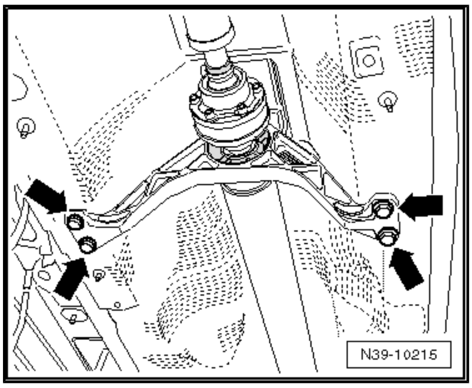
Note

- *Work on the propshaft should be carried out on a two-pillar lift platform.*
- *Before the removal, mark the position of all parts to each other. Carry out the installation again in the same position, otherwise the imbalance is too great, damages to the bearing and humming noises could occur.*
- *Do not bend the propshaft, only store extended and transport.*
- *When removing, do not let the propshaft »hang«, always support it.*
- *Always remove or mount the propshaft horizontally from the centering stud.*

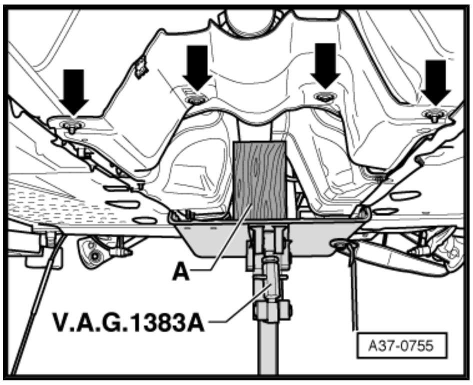
– Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .

– Remove the rear part of the exhaust gas system ⇒ Engine; Rep. gr. 26 .

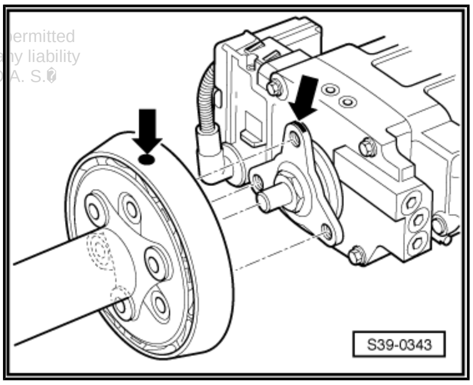
– Loosen screws -arrows- for center bearing about 3 turns.



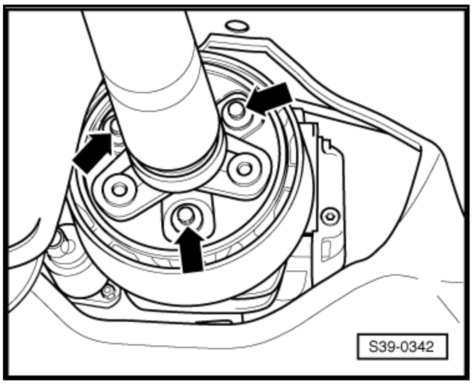
– Support propshaft with engine/gearbox jack e.g. -V.A.G 1383A- (as an aid, e.g. use a wooden wedge)



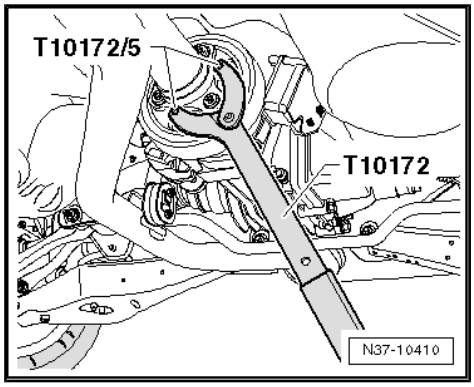
– Check if a marking (colour point) is present on the flexible disk/oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk/oscillation damper and the flange on the Haldex coupling to each other -arrows-.



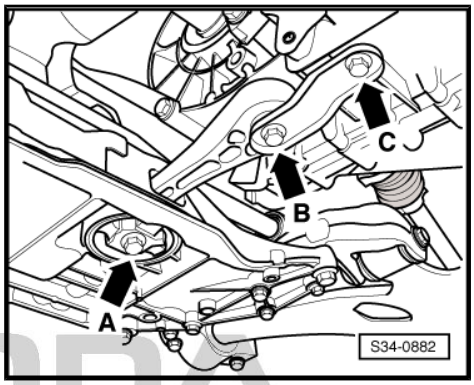
– Unscrew rear propshaft pipe with flexible disk and oscillation damper from rear final drive -arrows-.



When loosening and tightening the screws, counterhold the propshaft on the rear final drive.

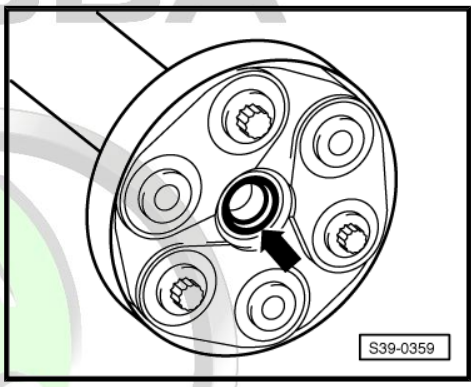


– Unscrew screws arrow -B- and arrow -C- of the pendulum support.

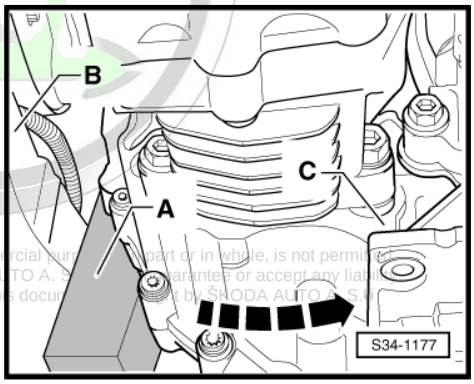


Note

After unscrewing the fixing screw of the pendulum support at the gearbox, the engine/gearbox unit is slided ahead somewhat. Make sure that the gasket in the cardan shaft flange is not damaged.

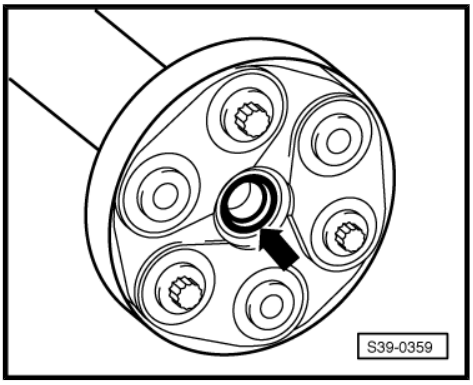


– Subsequently push the engine/gearbox unit to the front with a 2nd mechanic -direction of arrow- and insert a suitable wooden wedge -A- (approx. 50 mm thick) between the assembly carrier -B- and the gearbox -C-.
– While doing so, remove the propshaft from the flange at the Haldex coupling (centering stud) on the rear final drive.



Note

- *Do not tilt propshaft when removing, pull off horizontally from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.*
- *Do not bend the propshaft, only store extended and transport.*

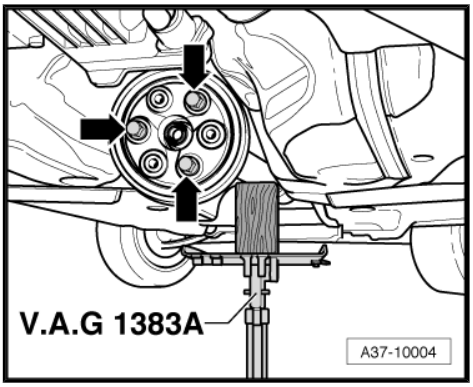


– Support propshaft.
– Unscrew the flexible disk with oscillation damper from the propshaft.

Install

Installation is performed in the reverse order, pay attention to the following points:

During re-installation, Install all parts marked relative to each other in the same position.

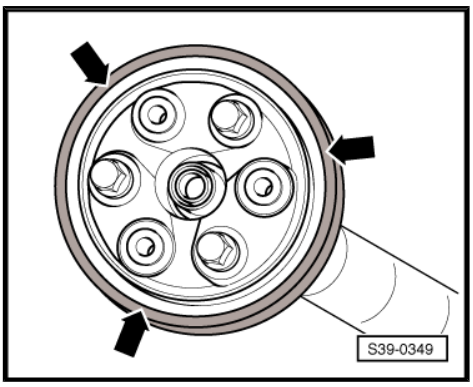


Fitting position of flexible disk with oscillation damper

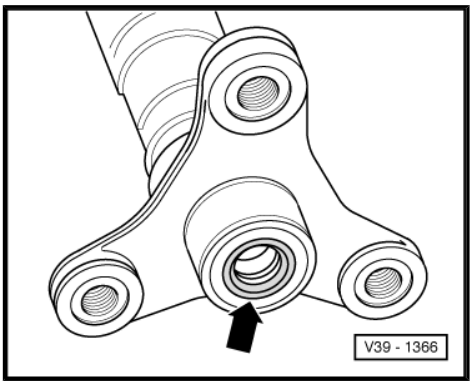
The land on the outside diameter -arrows- points away from the propshaft pipe.

Three protruding bushings at the Haldex coupling flange and on the flange of the propshaft grip into the location holes of the flexible disk.

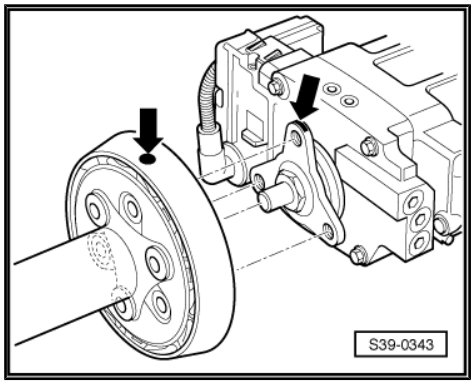
– Slide the propshaft horizontally onto the centering stud of the rear final drive.



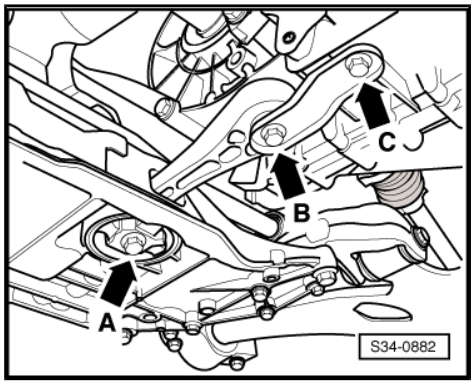
The gasket ring -arrow- in the cardan shaft flange must not be damaged when removing and installing. In case of damaged gasket ring the propshaft must be replaced.



– Install the propshaft on the flange of the Haldex coupling in such a way that the markings -arrows- are on the same line.
– Only screw down intermediate bearing after tightening the propshaft.



– Screw the pendulum support with new screws -arrow B- and -arrow C- onto the gearbox ⇒ Engine; Rep. gr. 10 .
– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .
– Install the noise insulation ⇒ Body Work; Rep. gr. 50 .



Note

- *If droning noises occur while driving, the following must be observed.*
- *Unscrew the propshaft with flexible disk with oscillation damper from the flange of the Haldex coupling and screw on again offset by a hole.*
- *When the droning noises are still audible, the propshaft with flexible disk with oscillation damper must be removed from the Haldex coupling again and offset by another hole.*

Tightening torques

⇒ "1.1.2 Summary of components - propeller shaft Octavia II as of 06/2007", page 20

1.5.3 Remove and install rear flexible disk Octavia III

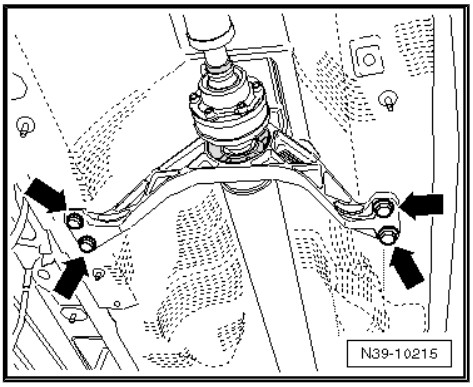
Removing

Note

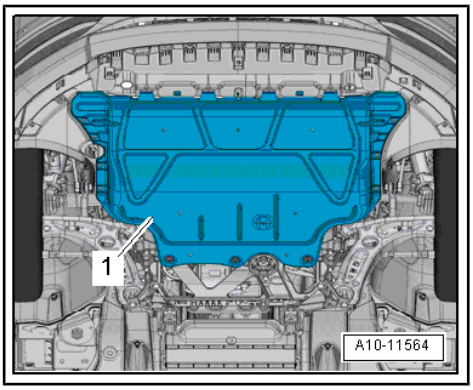
- *Work on the propshaft must be carried out on a two-pillar lift platform.*
- *Before the removal, mark the position of all parts to each other. Reinstall in the same position, otherwise the imbalance increases, so that damage to the bearing and booming noise could occur.*
- *Do not bend the propshaft, only store extended and transport.*
- *When removing, do not let the propshaft hang down, but always support it.*
- *Always remove or mount the propshaft horizontally from the centering stud.*

– Remove middle and rear part of exhaust system ⇒ Engine; Rep. gr. 26 .

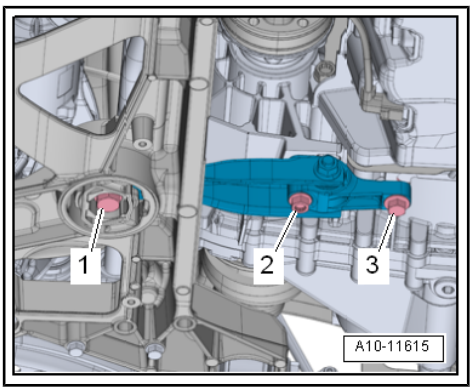
– Loosen screws -arrows- for center bearing about 3 turns.



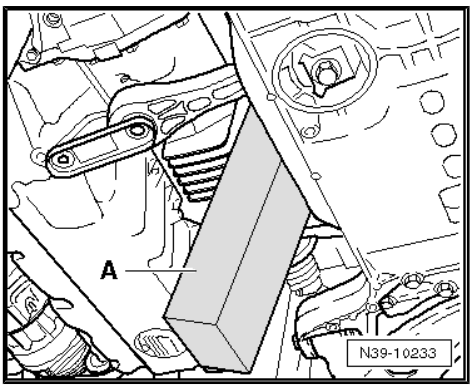
– Remove the sound dampening system -1- ⇒ Body Work; Rep. gr. 66 .



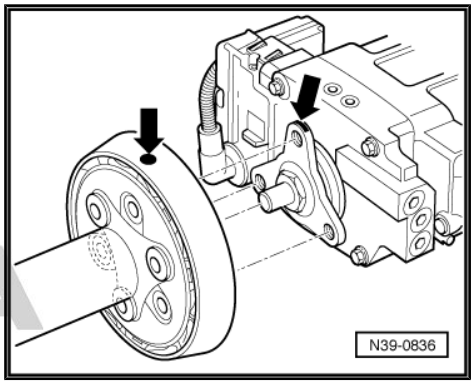
– Unscrew screws -2 and 3- for pendulum support.



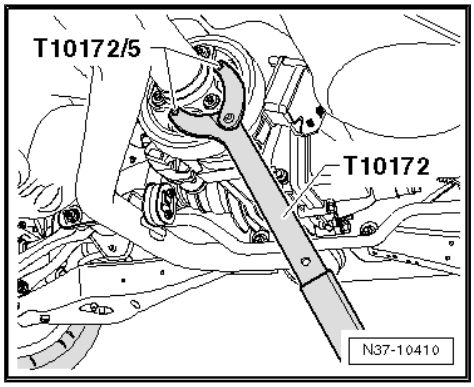
– Push the engine/gearbox unit forward and secure with a suitable piece of wood -A-.



– Check if there are markings (coloured points) on the flexible disk and on the propshaft flange on the rear final drive -arrows-.
– If there are no markings, mark the position of the flexible disk opposite the propshaft flange on the rear final drive.



– When loosening and tightening the screws for the propshaft, hold the rear final drive with counterholder - T10172- with adapters - T10172/5- .

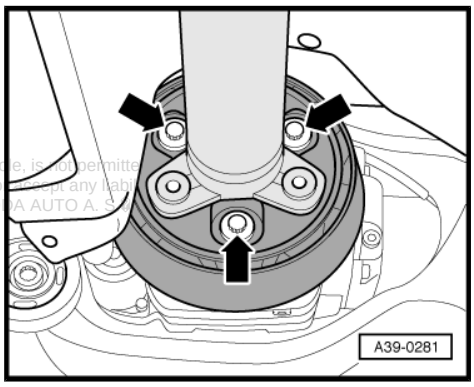


– Unscrew screws -arrows- of the screw connections of the propshaft/rear final drive.

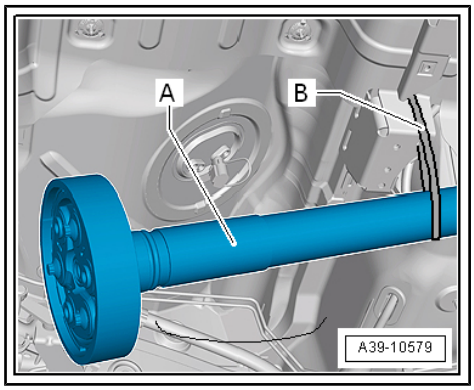
Caution

Risk of damage to the gasket ring arrow on the flange of the propshaft.

- ***Pull off propshaft horizontally from centering stud.***

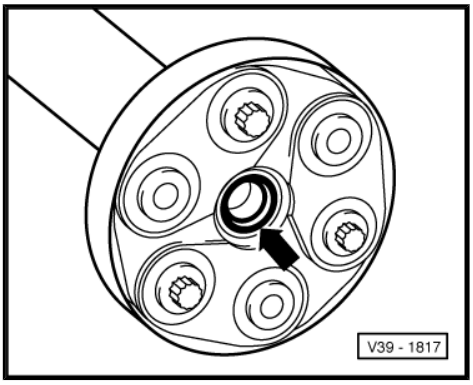


– Pull off propshaft -A- from centering stud of rear final drive and tie, e.g. with a wire -B- to the body.

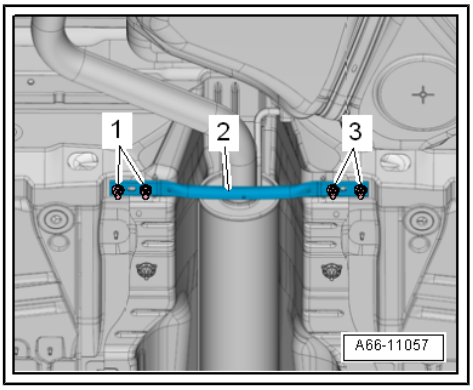


Note

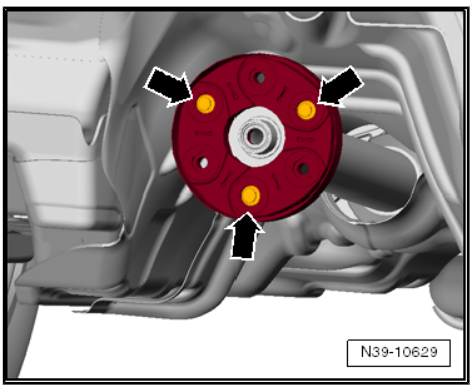
If the gasket ring -arrow- is damaged, the propshaft must be replaced.



– Remove rear tunnel bridge -2- ⇒ Body work; Rep. gr. 66 .
– Mark the mutual positions of the rear flexible disk and the flange for the propshaft tube.



– Remove the rear flexible disk from the propeller shaft -arrows-.



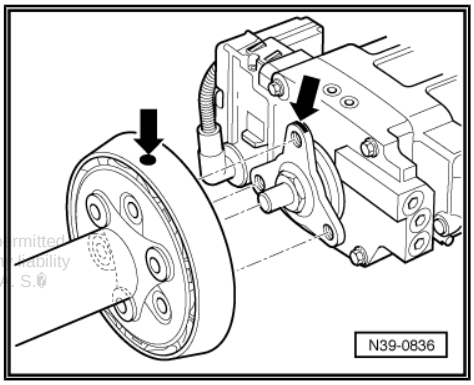
Install

Installation is performed in the reverse order, pay attention to the following points:

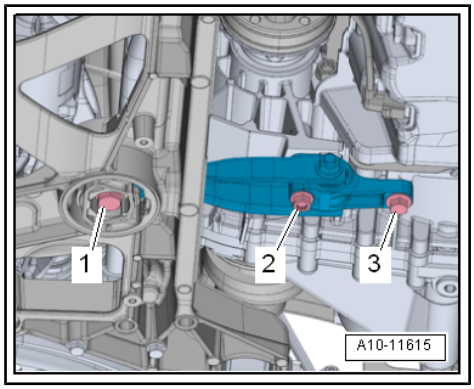
Note

- *Install all parts marked relative to each other in the same position.*
- *Replace screws which have been tightened to torquing angle.*

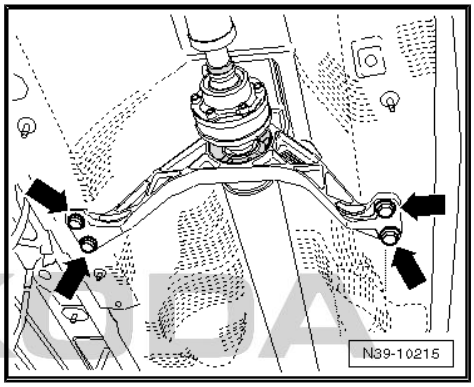
– Insert propshaft to rear final drive such that the markings -arrows- are in one plane.
– Tighten screws for flexible disk of propshaft on rear final drive.



– Tighten screws -2 and 3- for pendulum support.



– Align guide bearing in elongated holes so that propshaft and guide bearing are free of stress.
– Tighten screws -arrows-.



Tightening torques

- ⇒ “1.1.3 Summary of components propeller shaft Octavia III”, page 21
- Unit mounting ⇒ Engine; Rep. gr. 10 .
- Exhaust system⇒ Engine; Rep. gr. 26 .
- Tunnel bridge ⇒ Body work; Rep. gr. 66 .
- Heat shield⇒ Body work; Rep. gr. 66 .
- Noise insulation ⇒ Body work; Rep. gr. 66 .

1.5.4 Removing and installing rear flexible disk Superb II

Removing

Special tools and workshop equipment required

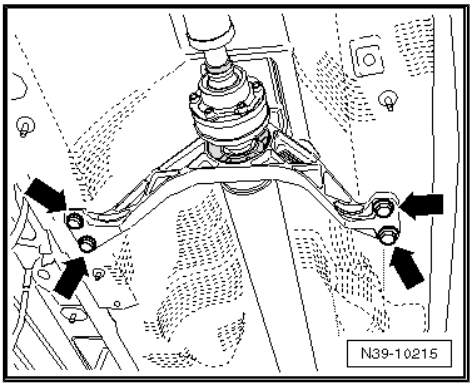
- Engine/gearbox jack, e.g. - V.A.G 1383/A-
- Counterholder - T10172-

Note

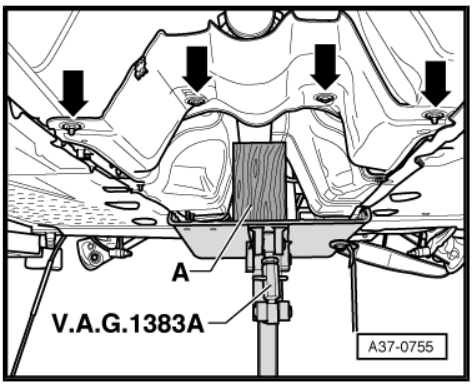
- *Work on the propshaft should be carried out on a two-pillar lift platform.*
- *Before the removal, mark the position of all parts to each other. Carry out the installation again in the same position, otherwise the imbalance is too great, damages to the bearing and humming noises could occur.*
- *Do not bend the propshaft, only store extended and transport.*
- *When removing, do not let the propshaft »hang«, always support it.*
- *Always remove or mount the propshaft horizontally from the centering stud.*

– Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
– Remove the rear part of the exhaust gas system ⇒ Engine; Rep. gr. 26 .

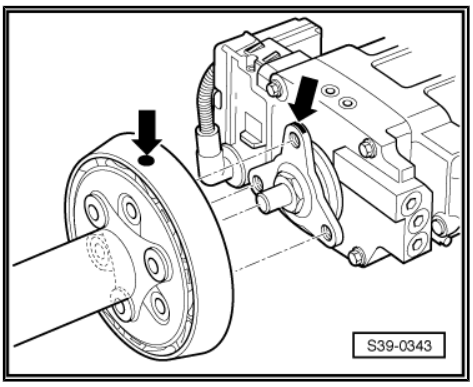
– Loosen screws -arrows- for center bearing about 3 turns.



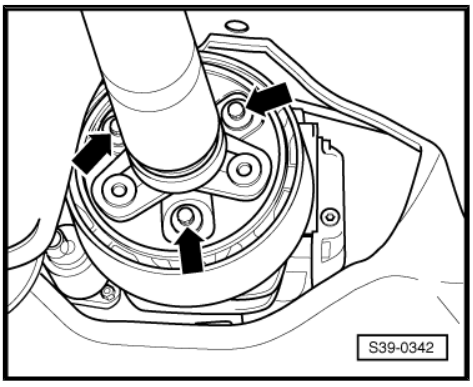
– Support propshaft with engine/gearbox jack e.g. -V.A.G 1383A- (as an aid, e.g. use a wooden wedge)



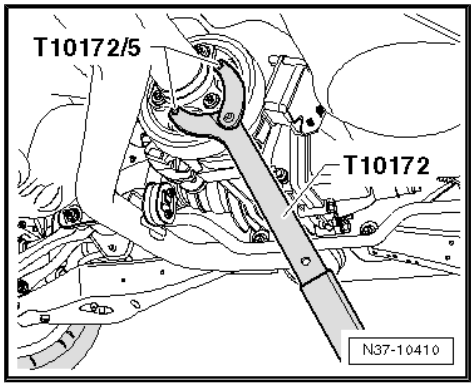
– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk/oscillation damper and the flange on the Haldex coupling to each other -arrows-.



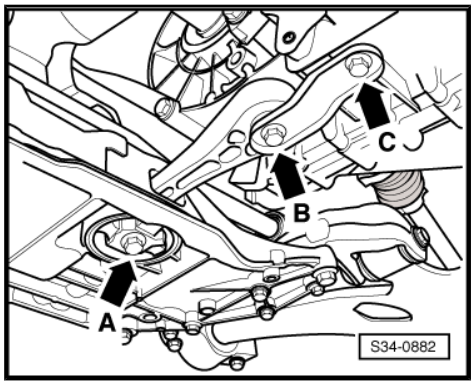
– Unscrew rear propshaft pipe with flexible disk and oscillation damper from rear final drive -arrows-.



When loosening and tightening the screws, counterhold the propshaft on the rear final drive.

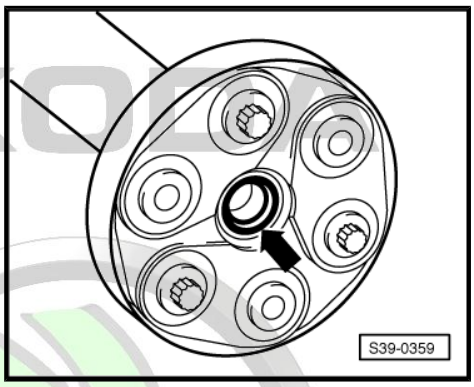


– Unscrew screws arrow -B- and arrow -C- of the pendulum support.

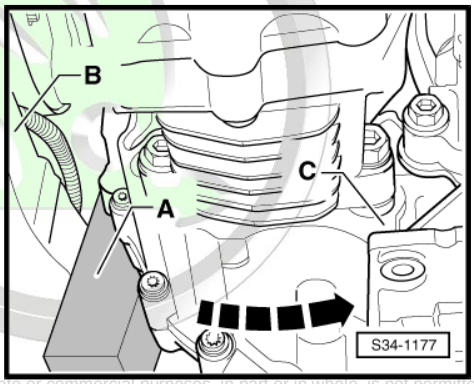


Note

After unscrewing the fixing screw of the pendulum support at the gearbox, the engine/gearbox unit is slided ahead somewhat. Make sure that the gasket in the cardan shaft flange is not damaged.

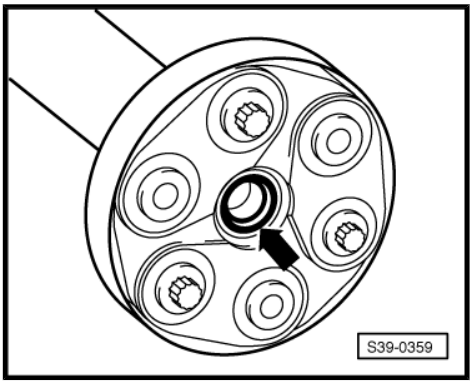


– Subsequently push the engine/gearbox unit to the front with a 2nd mechanic -direction of arrow- and insert a suitable wooden wedge -A- (approx. 50 mm thick) between the assembly carrier -B- and the gearbox -C-.
– While doing so, remove the propshaft from the flange at the Haldex coupling (centering stud) on the rear final drive.



Note

- *Do not tilt propshaft when removing, pull off horizontally from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.*
- *Do not bend the propshaft, only store extended and transport.*

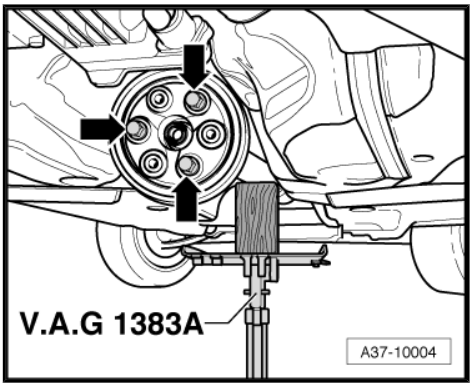


– Support propshaft.
– Unscrew the flexible disk with oscillation damper from the propshaft.

Install

Installation is performed in the reverse order, pay attention to the following points:

During re-installation, Install all parts marked relative to each other in the same position.

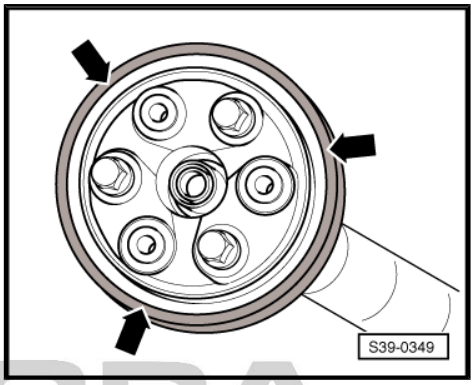


Fitting position of flexible disk with oscillation damper

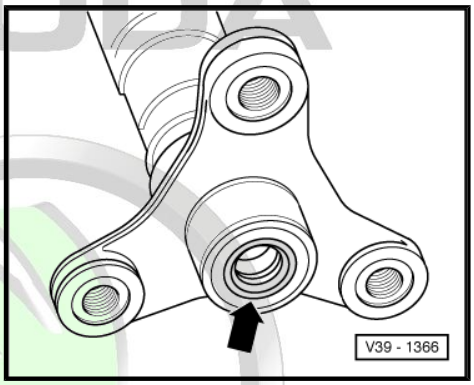
The land on the outside diameter -arrows- points away from the propshaft pipe.

Three protruding bushings at the Haldex coupling flange and on the flange of the propshaft grip into the location holes of the flexible disk.

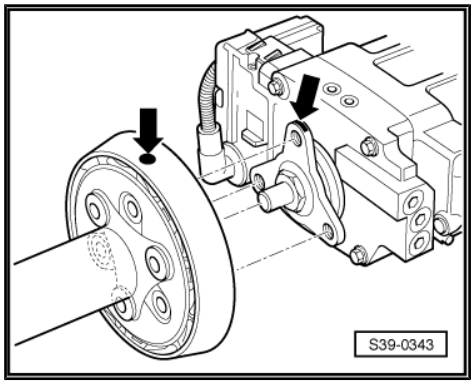
– Slide the propshaft horizontally onto the centering stud of the rear final drive.



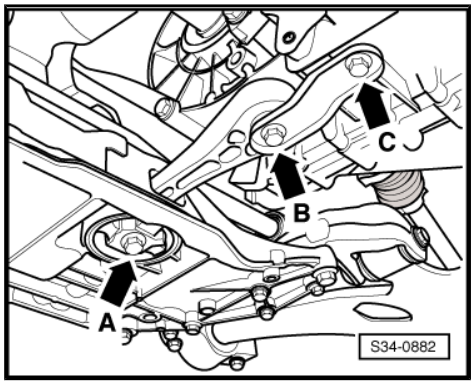
The gasket ring -arrow- in the cardan shaft flange must not be damaged when removing and installing. In case of damaged gasket ring the propshaft must be replaced.



– Install the propshaft on the flange of the Haldex coupling in such a way that the markings -arrows- are on the same line.
– Only screw down intermediate bearing after tightening the propshaft.



– Screw the pendulum support with new screws -arrow B- and -arrow C- onto the gearbox ⇒ Engine; Rep. gr. 10 .
– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .
– Install the noise insulation ⇒ Body Work; Rep. gr. 50 .



Note

- *If droning noises occur while driving, the following must be observed.*
- *Unscrew the propshaft with flexible disk with oscillation damper from the flange of the Haldex coupling and screw on again offset by a hole.*
- *When the droning noises are still audible, the propshaft with flexible disk with oscillation damper must be removed from the Haldex coupling again and offset by another hole.*

Tightening torques

⇒ "1.1.4 Summary of components propeller shaft Superb II", page 22

1.5.5 Removing and installing the rear flexible disk Yeti

Removing

Special tools and workshop equipment required

- Engine/gearbox jack, e.g. - V.A.G 1383/A-
- Counterholder - T10172-

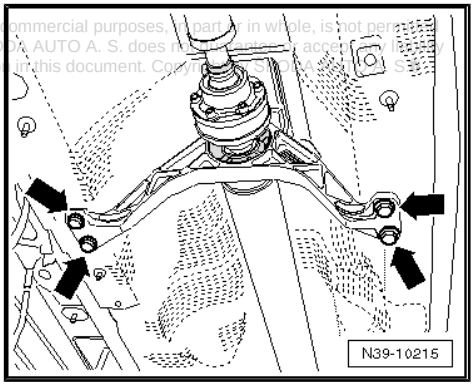
Note

- *Work on the propshaft should be carried out on a two-pillar lift platform.*
- *Before the removal, mark the position of all parts to each other. Carry out the installation again in the same position, otherwise the imbalance is too great, damages to the bearing and humming noises could occur.*
- *Do not bend the propshaft, only store extended and transport.*
- *When removing, do not let the propshaft »hang«, always support it.*
- *Always remove or mount the propshaft horizontally from the centering stud.*

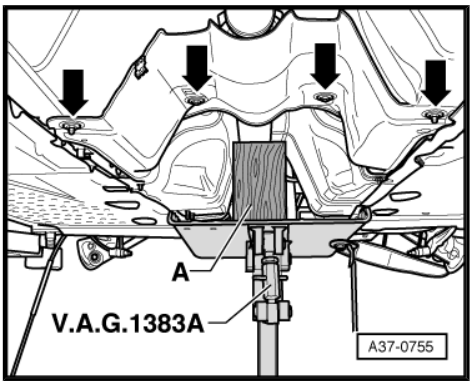
– Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .

– Remove the rear part of the exhaust gas system ⇒ Engine; Rep. gr. 26 .

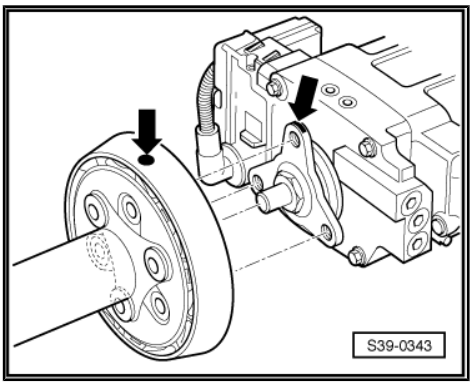
– Loosen screws -arrows- for center bearing about 3 turns.



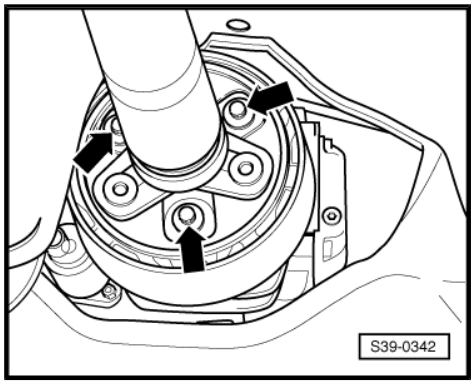
– Support propshaft with engine/gearbox jack e.g. -V.A.G 1383A- (as an aid, e.g. use a wooden wedge)



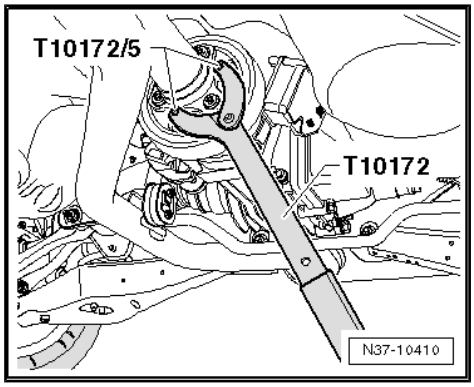
– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk/oscillation damper and the flange on the Haldex coupling to each other -arrows-.



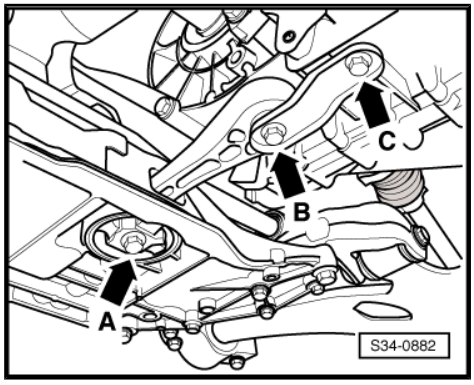
– Unscrew rear propshaft pipe with flexible disk and oscillation damper from rear final drive -arrows-.



When loosening and tightening the screws, counterhold the propshaft on the rear final drive.

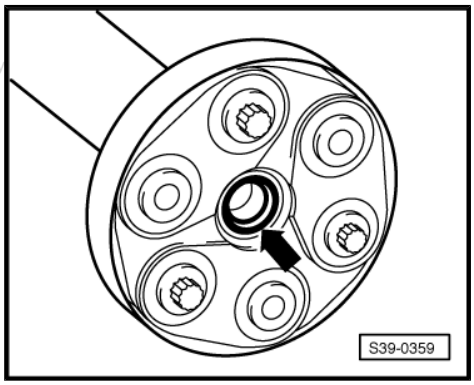


– Unscrew screws arrow -B- and arrow -C- of the pendulum support.



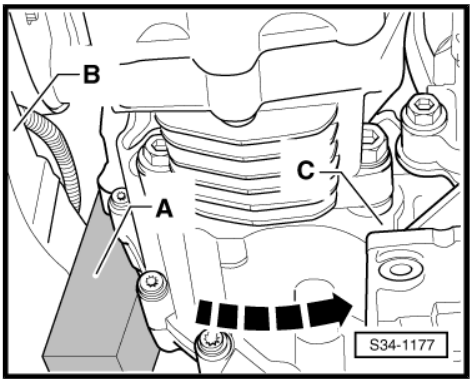
Note

After unscrewing the fixing screw of the pendulum support at the gearbox, the engine/gearbox unit is slided ahead somewhat. Make sure that the gasket in the cardan shaft flange is not damaged.



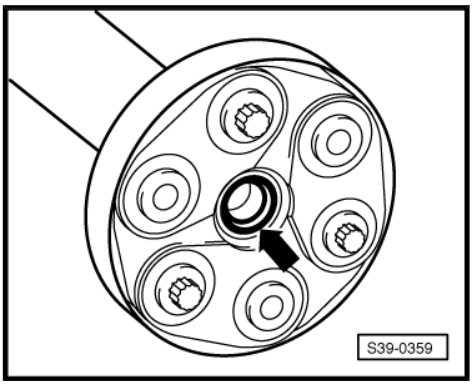
– Subsequently push the engine/gearbox unit to the front with a 2nd mechanic -direction of arrow- and insert a suitable wooden wedge -A- (approx. 50 mm thick) between the assembly carrier -B- and the gearbox -C-.

– While doing so, remove the propshaft from the flange at the Haldex coupling (centering stud) on the rear final drive.



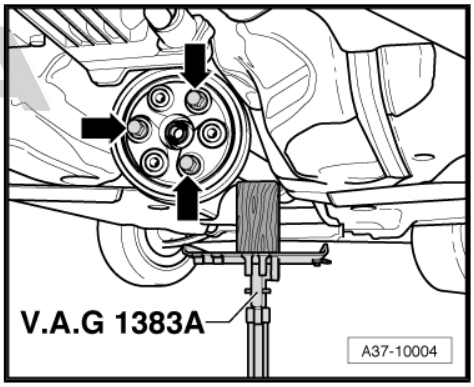
Note

- *Do not tilt propshaft when removing, pull off horizontally from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.*
- *Do not bend the propshaft, only store extended and transport.*



– Support propshaft.

– Unscrew the flexible disk with oscillation damper from the propshaft.



Install

Installation is performed in the reverse order, pay attention to the following points:

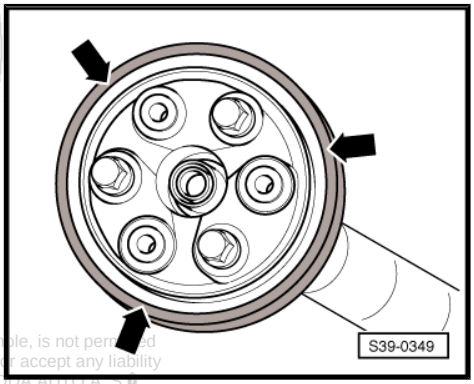
During re-installation, Install all parts marked relative to each other in the same position.

Fitting position of flexible disk with oscillation damper

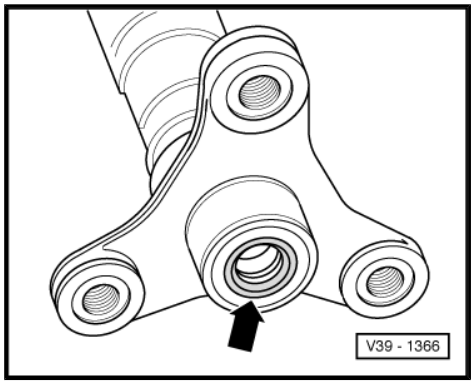
The land on the outside diameter -arrows- points away from the propshaft pipe.

Three protruding bushings at the Haldex coupling flange and on the flange of the propshaft grip into the location holes of the flexible disk.

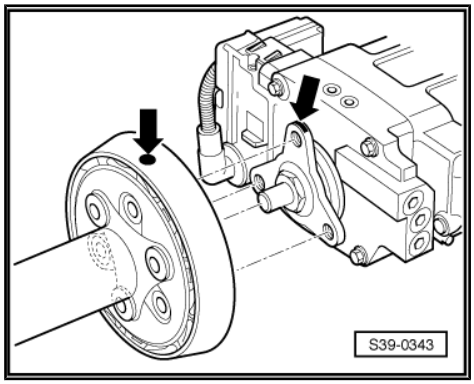
– Slide the propshaft horizontally onto the centering stud of the rear final drive.



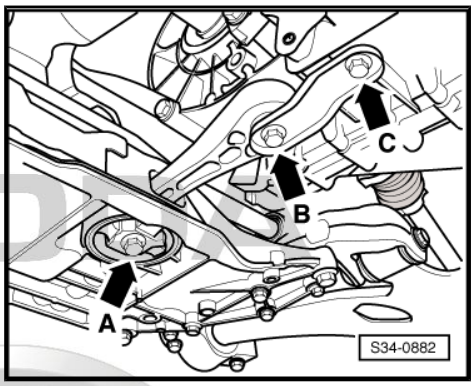
The gasket ring -arrow- in the cardan shaft flange must not be damaged when removing and installing. In case of damaged gasket ring the propshaft must be replaced.



– Install the propshaft on the flange of the Haldex coupling in such a way that the markings -arrows- are on the same line.
– Only screw down intermediate bearing after tightening the propshaft.



– Screw the pendulum support with new screws -arrow B- and -arrow C- onto the gearbox ⇒ Engine; Rep. gr. 10 .
– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .
– Install the noise insulation ⇒ Body Work; Rep. gr. 50 .



Note

- *If droning noises occur while driving, the following must be observed.*
- *Unscrew the propshaft with flexible disk with oscillation damper from the flange of the Haldex coupling and screw on again offset by a hole.*
- *When the droning noises are still audible, the propshaft with flexible disk with oscillation damper must be removed from the Haldex coupling again and offset by another hole.*

Tightening torques

⇒ “1.1.5 Summary of components propeller shaft Yeti”, page 23

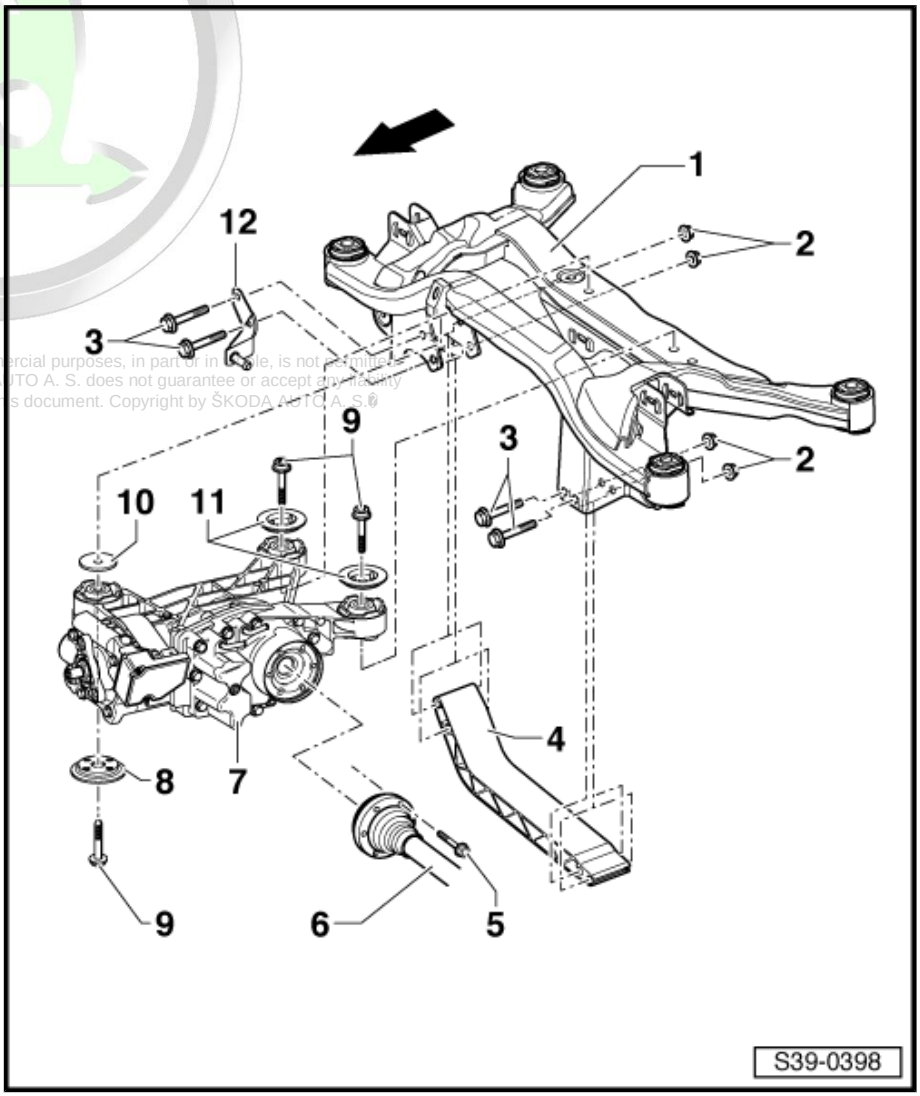
2 Final drive

2.1 Summary of components final drive

2.1.1 Summary of components final drive 02D/0AV

Note

The -arrow- shows the direction of travel.



1 - Assembly carrier

2 - Nut

- ❑ 4 pieces
- ❑ Tightening torque ⇒ Chassis; Rep. gr. 42
- ❑ Assignment ⇒ Electronic Catalogue of Original Parts

3 - Screw

- ❑ 4 pieces
- ❑ for cross member Pos. 4 at assembly carrier Pos. 1
- ❑ Assignment ⇒ Electronic Catalogue of Original Parts

4 - Cross member

- ❑ is not applicable for the steel assembly carrier
- ❑ Assignment ⇒ Electronic Catalogue of Original Parts

5 - Screw

- ❑ Tightening torque ⇒ Chassis; Rep. gr. 42
- ❑ for drive shaft to rear final drive

6 - Drive shaft

- ❑ removing and installing ⇒ Chassis; Rep. gr. 42

7 - Rear final drive

- ❑ wymontowanie i zamontowanie ⇒ page 77
- ❑ Replace the rubber-metal bearing ⇒ page 99

8 - Stop washer

- ❑ mount onto the rubber-metal bearing ⇒ page 99

9 - Screw

- ❑ 3 pieces
- ❑ Tightening torque ⇒ Chassis; Rep. gr. 42
- ❑ Assignment ⇒ Electronic Catalogue of Original Parts

10 - Surface

- ❑ installed between final drive and assembly carrier

11 - Stop washer

- ❑ mount onto the rubber-metal bearing ⇒ page 99

12 - Support

2.1.2 Summary of components final drive 0BR

Note

The -arrow- shows the direction of travel.

1 - Rear assembly carrier

2 - Drive shaft

- ❑ removing and installing ⇒ Chassis; Rep. gr. 42

3 - Rear final drive

- ❑ wymontowanie i zamontowanie ⇒ page 77
- ❑ Replace the rubber-metal bearing ⇒ page 99

4 - Stop washer

- ❑ install on rubber-metal bearing ⇒ page 99

5 - Screw

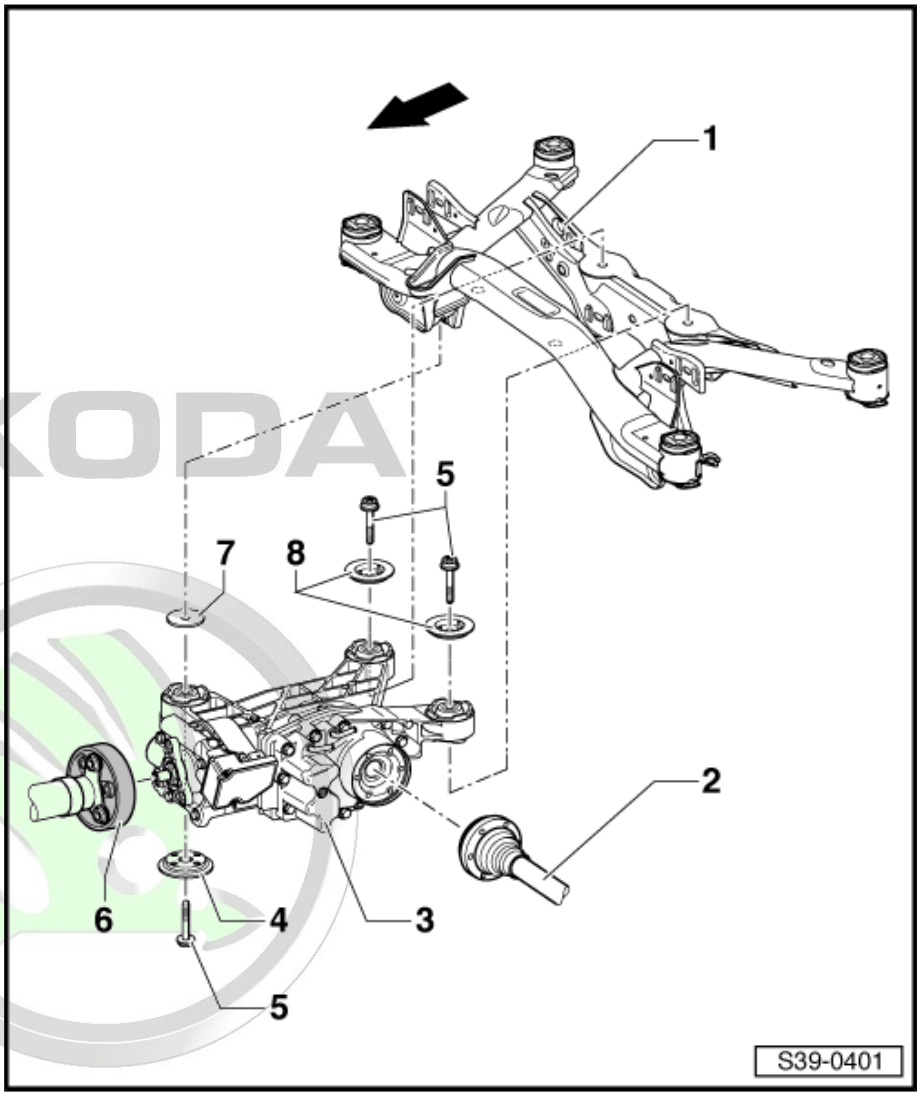
- ❑ 3 pieces
- ❑ Tightening torque ⇒ Chassis; Rep. gr. 42
- ❑ Assignment ⇒ Electronic Catalogue of Original Parts

6 - Propshaft

- ❑ wymontowanie i zamontowanie ⇒ page 24

7 - Surface

- ❑ installed between final drive and assembly carrier
- ❑ on certain vehicles 2 washers can also be present
- ❑ install the same number of washers as removed



8 - Stop washer

- ❑ install on rubber-metal bearing ⇒ page 99

2.1.3 Summary of components final drive 0CQ

1 - Screw

- ❑ 3 pieces
- ❑ 60 Nm + 180° further
- ❑ replace after each removal

2 - Stop washer

- ❑ fit on rubber-metal bearing ⇒ page 100

3 - Surface

- ❑ Fitting position: Chamfer (smaller diameter) points towards the rear assembly carrier

4 - Screw

- ❑ 60 Nm + 180° further
- ❑ replace after each removal

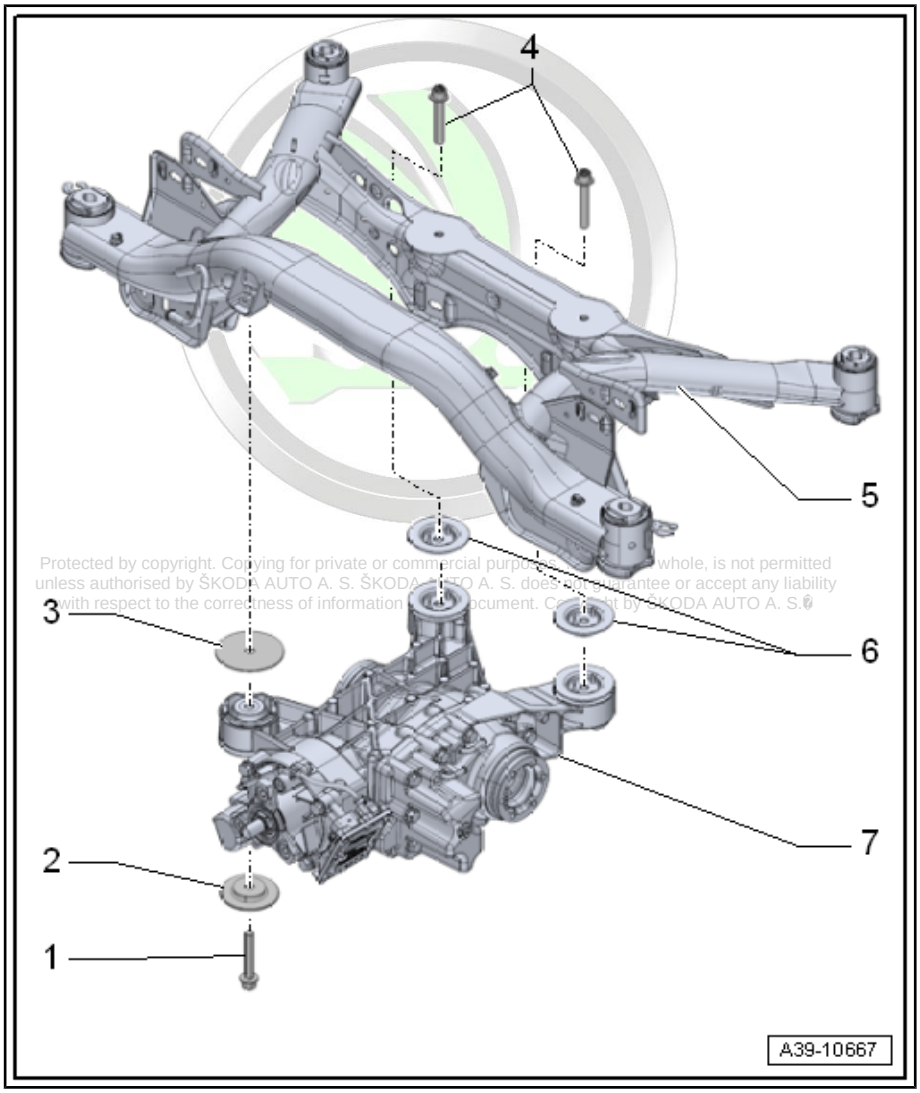
5 - Rear assembly carrier

6 - Stop washer

- ❑ fit on rubber-metal bearing ⇒ page 100

7 - Rear final drive

- ❑ wymontowanie i zamontowanie ⇒ page 77
- ❑ Removing and installing rubber-metal bearing ⇒ page 99



2.2 Removing and installing the rear final drive

⇒ "2.2.1 Removing and installing the rear final drive 02D/0AV", page 77

⇒ "2.2.2 Removing and installing the rear final drive 0BR", page 83

⇒ "2.2.3 Removing and installing the rear final drive 0CQ", page 90

2.2.1 Removing and installing the rear final drive 02D/0AV

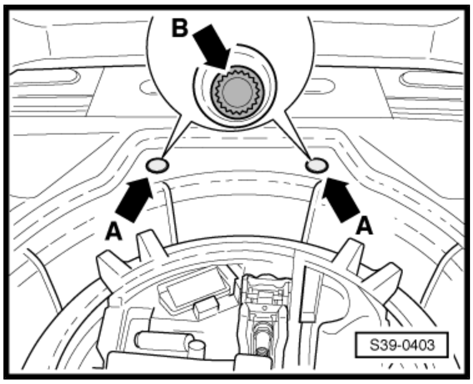
Special tools and workshop equipment required

- ♦ Engine and gearbox jack e.g. -V.A.G 1383A-

- ♦ Counterholder - T10172-
- ♦ Adapter - T10172/5-

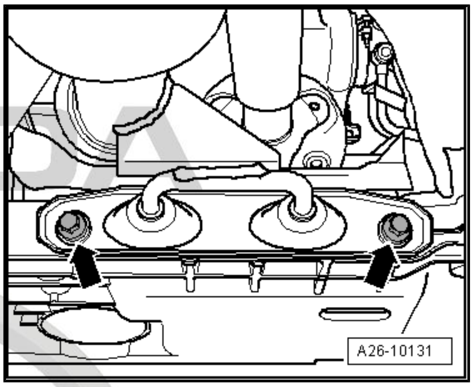
Removing

- – Remove luggage compartment floor covering.
- – Remove the two rubber plugs -arrows A- in the luggage compartment floor.
- – Release both screws -arrow B- for the rear final drive to the assembly carrier from the top through the holes in the luggage compartment floor. Thus, the socket insert - T10061- can be used.
- – Raise vehicle.
- – Remove the rear silencer ⇒ Engine; Rep. gr. 26 .
- – Tie up pre-exhaust pipe.

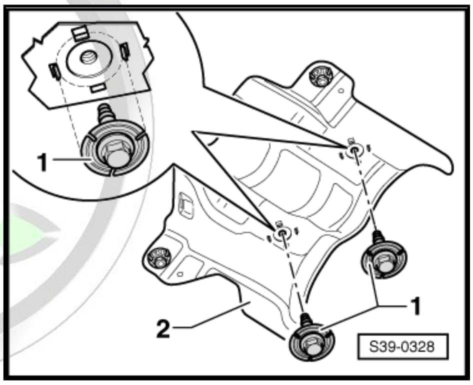


- – Remove mounting bracket of exhaust system from assembly carrier ⇒ Engine; Rep. gr. 26 .

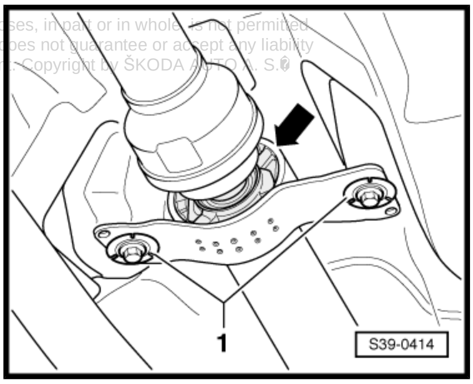
> ⚠ Caution
>
> *The decoupling elements in the exhaust pipe should not be bent by more than 10° - risk of damage.*



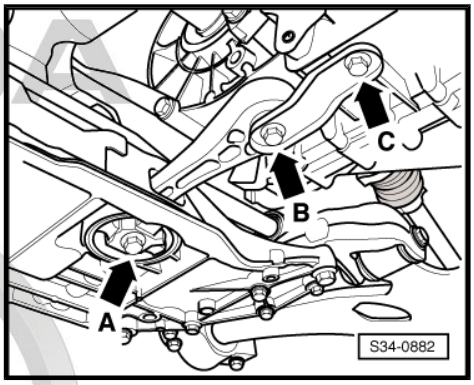
- – Remove the heat shield below the propshaft.
- – Remove the heat shield -2- below the propshaft, to do so release the screws -1-.



- – After removing the heat shield screw on again the intermediate bearing of the propshaft -arrow- with the screws -1- by hand until the intermediate bearing can be moved.



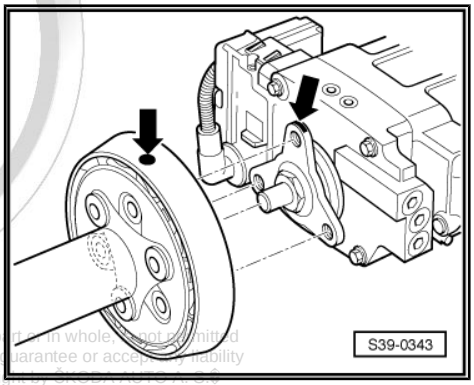
– Remove pendulum support from gearbox, to do so release the bolts -arrow B- and -arrow C-.



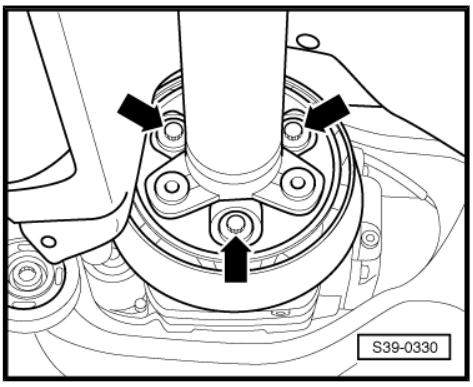
Note

Do not release screw -arrow A-.

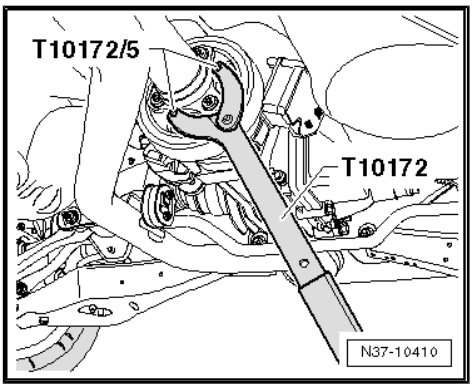
– Check if markings (colour points) are present on the flexible disk/oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.



– Unscrew propshaft with flexible disk and oscillation damper from rear final drive -arrows-.

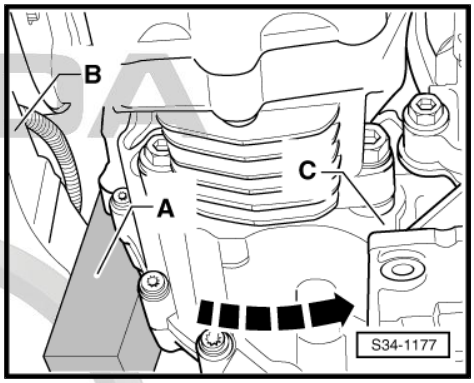


When loosening and tightening, counterhold the propshaft on the rear final drive.



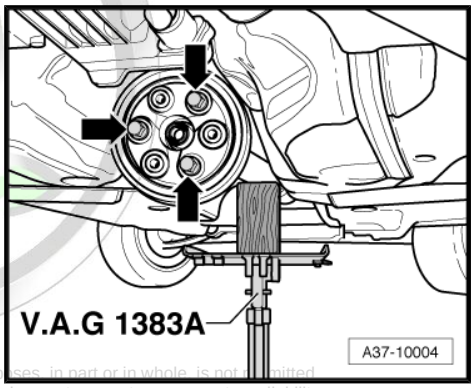
– Subsequently push the engine/gearbox unit to the front with a 2nd mechanic -direction of arrow- and insert a suitable wooden wedge -A- (approx. 50 mm thick) between the assembly carrier -B- and the gearbox -C-.

– While doing so, remove the propshaft from the flange at the Haldex coupling (centering stud) on the rear final drive.



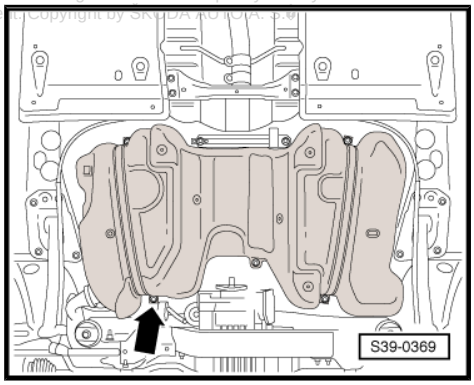
– Support propshaft with engine/gearbox jack , e.g. -V.A.G 1383A - .

Vehicles with aluminium assembly carrier

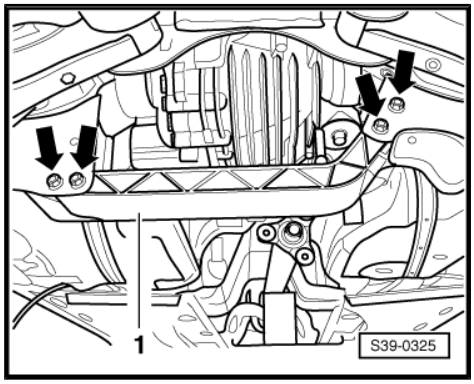


Note

- *In order to remove all the screws (4 pieces) of the cross member, the screw -arrow - for the holder of the retaining strap for the heat shield of the fuel tank must be removed on the right side of the vehicle. Carefully swivel down this heat shield when removing the upper screw of the right cross member.*
- *The cross member is not fitted on vehicles with steel assembly carrier.*



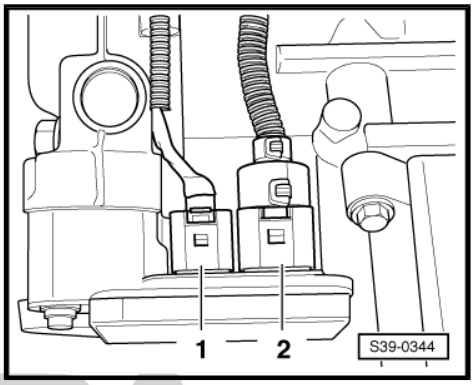
– Remove cross member -1-.



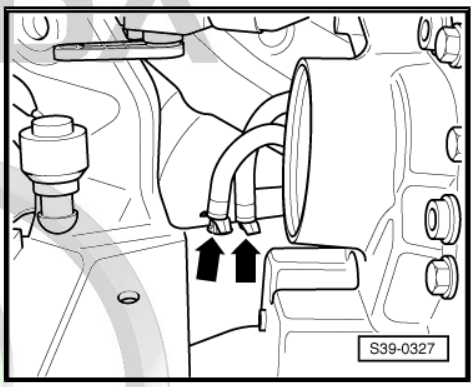
Continued for all vehicles

– Remove anti-roll bar ⇒ Chassis; Rep. gr. 42 .

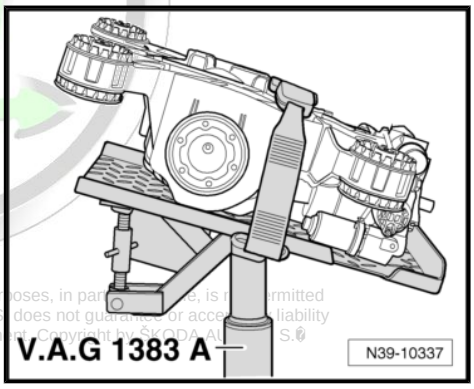
– Disconnect plug connection -2- at top of the control unit.



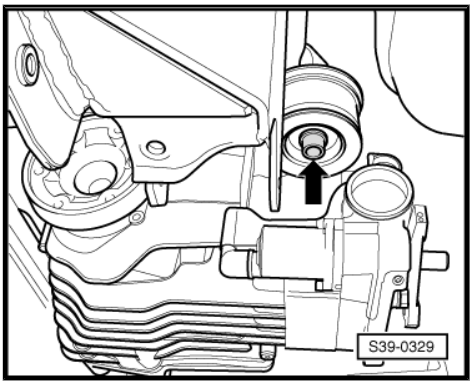
– Unscrew both bleeder hoses for final drive -arrows- at the assembly carrier.



– Position the engine and gearbox jack e.g. -V.A.G 1383A- below the rear final drive and secure the final drive.



– Unscrew fixing screw -arrow- from front bracket-final drive.
– Slightly lower final drive and carefully pull out the engine and gearbox jack e.g. -V.A.G 1383A- from the rear assembly carrier.



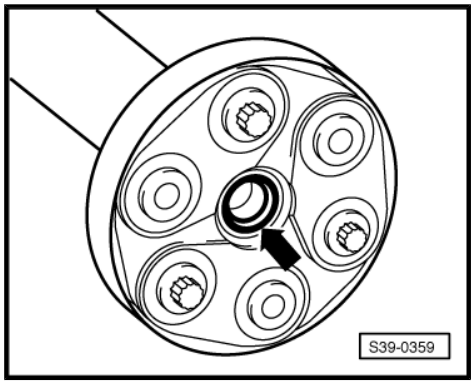
Install

Installation is performed in the reverse order, pay attention to the following points:

When re-installing, fit all parts of the propshaft marked to each other in the same position.

The gasket ring -arrow- in the cardan shaft flange must not be damaged when removing and installing. In case of damaged gasket ring the propshaft must be replaced.

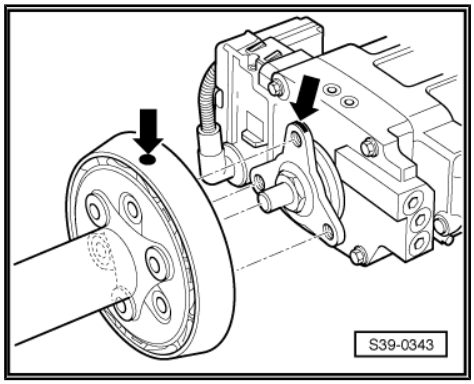
– Push propshaft horizontally onto the respective centering studs.

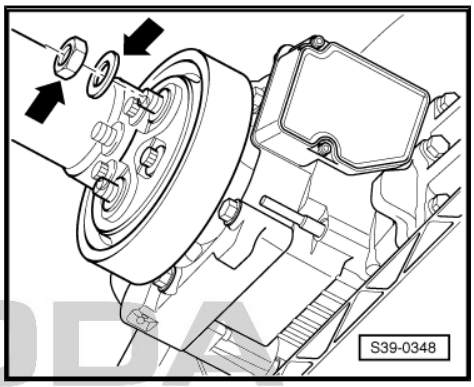


Fitting position

Three protruding bushings at the Haldex coupling flange or the propshaft flange grip into the location holes of the rear flexible disks with oscillation damper.

– Install the propshaft on the flange of the Haldex coupling in such a way that the markings -arrows- are on the same line.





Note

- *When replacing the rear final drive, the axle oil ⇒ page 113 and the oil for the Haldex coupling ⇒ page 117 must be checked and topped up if necessary.*
- *If droning noises occur while driving, the following must be observed.*
- *Remove balancing nut and balancing washer -arrows-.*
- *Afterwards unscrew if necessary the propshaft with the flexible disk from the flange of the Haldex coupling and screw on again offset to a hole.*
- *If the droning noises can still be heard, the propshaft must be screwed on once again offset to a hole.*

Tightening torques

Component	Nm
Retaining strap for the heat shield of the fuel tank[1]	25
Propshaft to rear final drive	⇒ page 17
Rear final drive to assembly carrier[1]	⇒ Chassis; Rep. gr. 42
Exhaust System	⇒ Engine; Rep. gr. 26
Pendulum support to gearbox	⇒ Engine; Rep. gr. 10

[1] Always replace screws ⇒ Electronic Catalogue of Original Parts .

2.2.2 Removing and installing the rear final drive 0BR

Special tools and workshop equipment required

- Engine/gearbox jack , e.g. -V.A.G 1383A-
- Socket insert - T10061-
- Counterholder - T10172-
- Adapter - T10172/5-

Removing

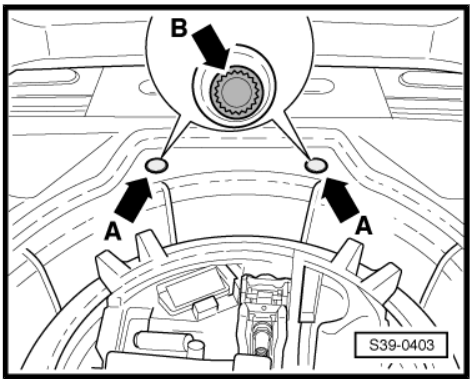
– Remove luggage compartment floor covering.

– Remove the two rubber plugs -arrows A- in the luggage compartment floor.

– Release both screws -arrow B- for the rear final drive to the assembly carrier from the top through the holes in the luggage compartment floor. Thus, the socket insert - T10061- can be used.

– Raise vehicle.

– Remove the rear silencer ⇒ Engine; Rep. gr. 26 .

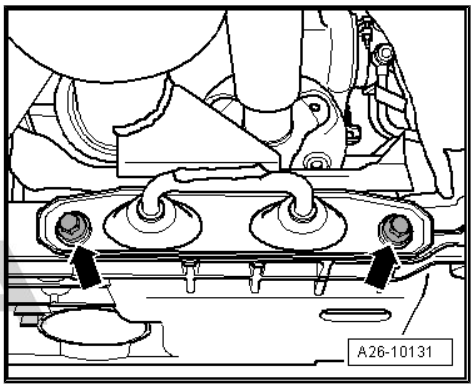


– Remove mounting bracket of exhaust system from assembly carrier ⇒ Engine; Rep. gr. 26 .

– Tie up pre-exhaust pipe.

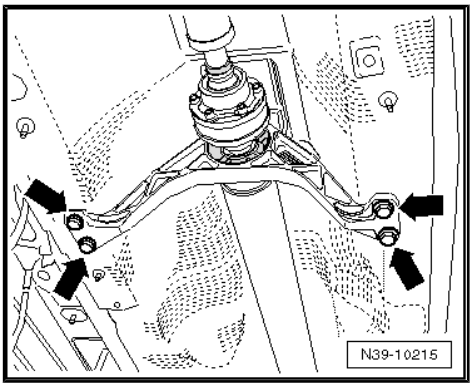
Caution

The decoupling elements in the exhaust pipe should not be bent by more than 10° - risk of damage.

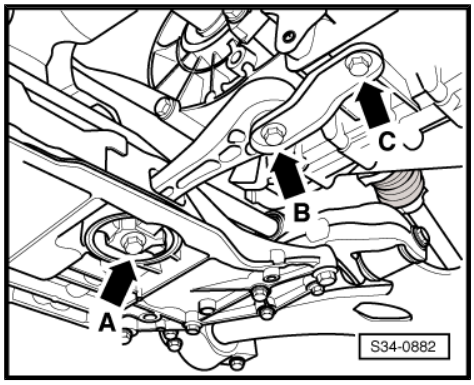


– Remove the heat shield below the propshaft.

– Slacken the intermediate bearing of the propshaft from the body by approx. 4 turns -arrows-.



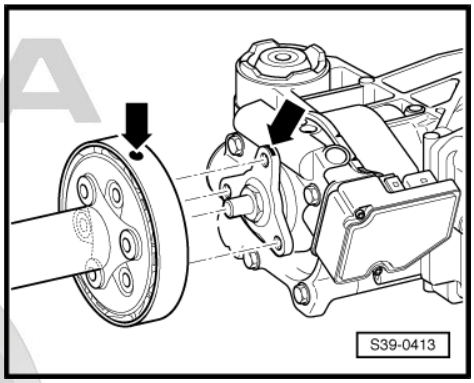
– Remove pendulum support from gearbox, to do so release the bolts -arrow B- and -arrow C-.



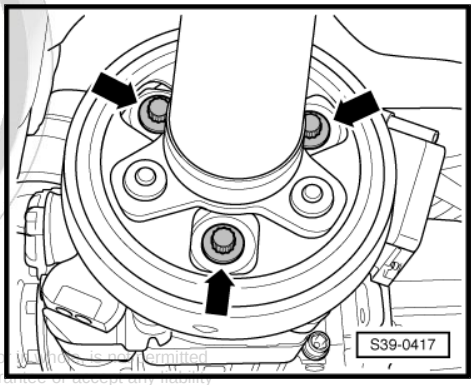
Note

Do not release screw -arrow A-.

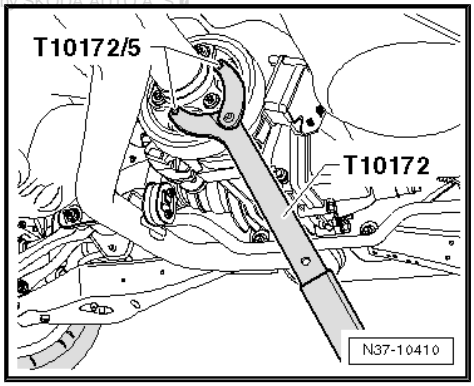
– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.



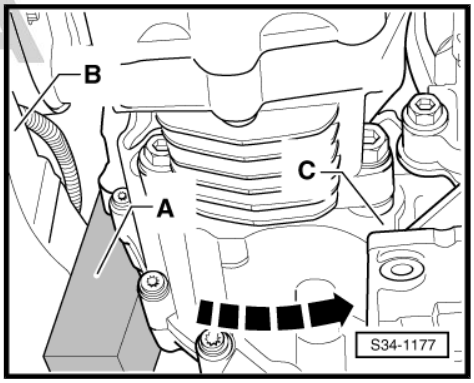
– Unscrew propshaft with flexible disk and oscillation damper from rear final drive -arrows-.



When loosening and tightening, counterhold the propshaft on the rear final drive.

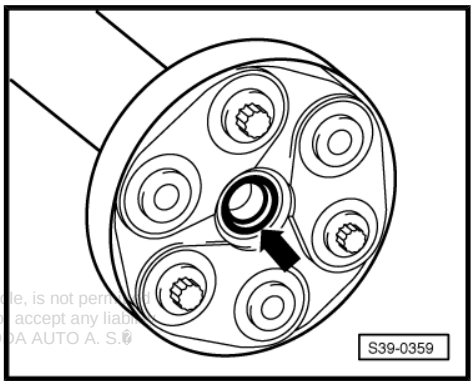


– Push the engine/gearbox unit with a 2nd mechanic in the -direction of arrow- and place a suitable block of wood -A- (around 50 mm thick) between the assembly carrier -B- and gearbox -C-.
– While doing so, remove the propshaft from the flange at the Haldex coupling (centering stud) on the rear final drive.

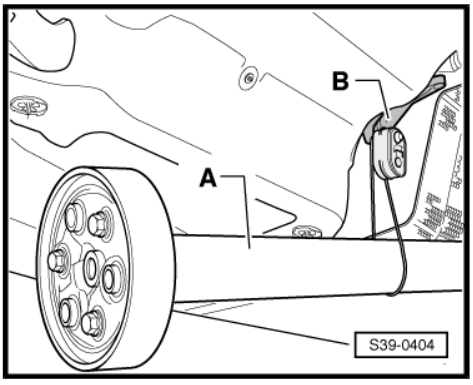


Note

Do not tilt propshaft when removing, pull off horizontally from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.

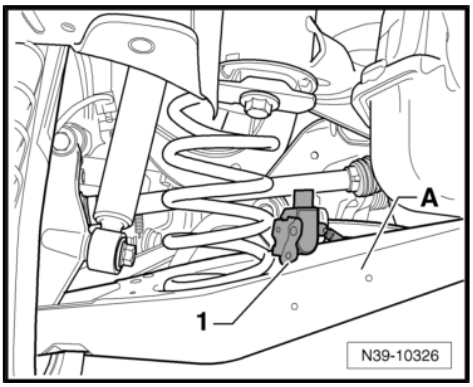


– Tie up the rear part of the propshaft -A- for the suspension -B- of the exhaust gas system.



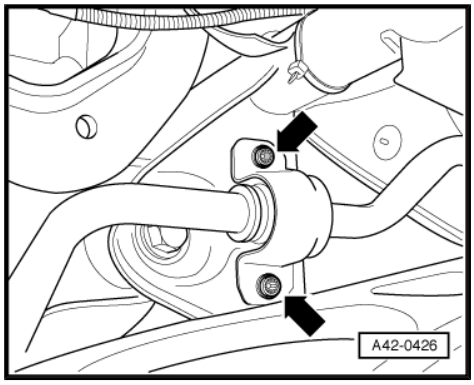
So that the rear left vehicle level sensor - G76- -1- is not damaged.

– Disconnect the plug, unscrew the sender and place down on the bottom suspension arm -A-.
– Unscrew both drive shafts at rear final drive.
– Remove anti-roll bar ⇒ Chassis; Rep. gr. 42 .

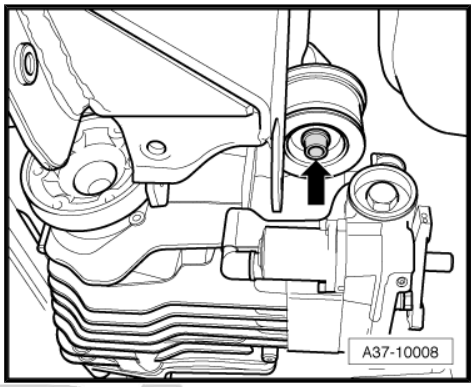


Note

In order to unscrew and screw in the upper fixing screw -top arrow- for the anti-roll bar clamp, remove the relevant drive shaft from the flange shaft of the final drive and press upwards.



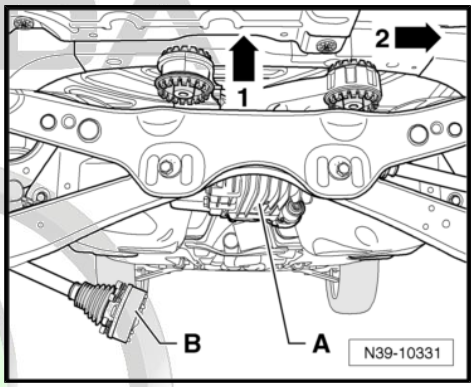
– Do not slacken the screw -arrow- at the front bracket more than 5 turns.



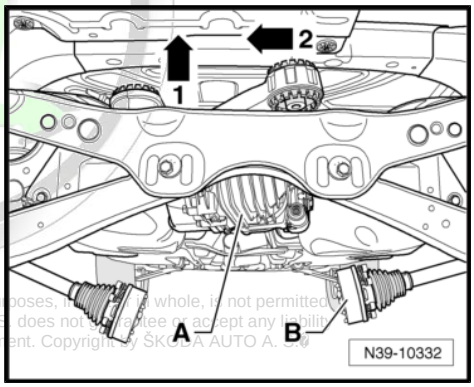
Note

The final drive is now loose.

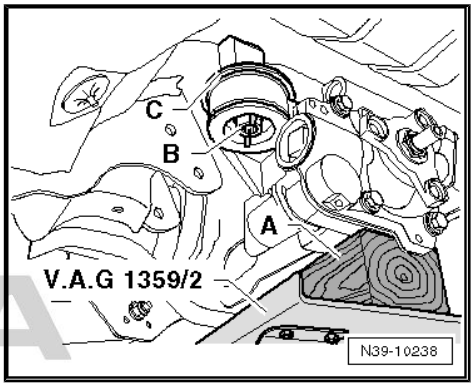
– Raise the rear final drive -A- -arrow 1- and slide it as far to the right as possible -arrow 2-.
– Remove the left drive shaft -B- from the flange and carefully guide downwards.



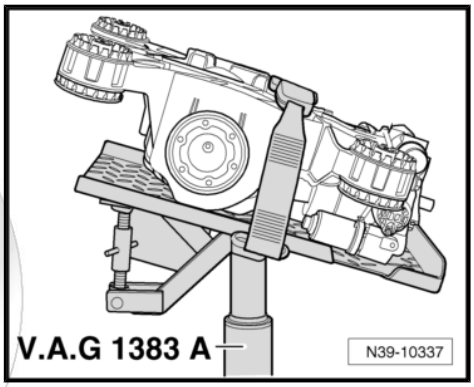
– Raise the rear final drive -A- -arrow 1- and slide it as far to the left as possible -arrow 2-.
– Remove the right drive shaft -B- from the flange and carefully guide downwards.
– Move the final drive back into its installed position.



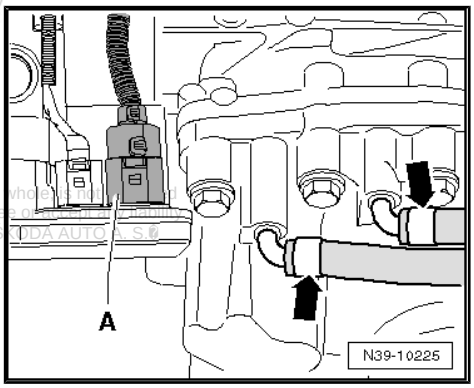
– Place a suitable wooden wedge -A- onto the universal support.
– Support the final drive with the engine and gearbox jack - V.A.G 1383 A- , secure it with the belt on the universal support against falling down.
– Release screw -B- at the front bracket.
– Remove the washer -C- from the top of the bracket.



– Swivel the final drive on the vehicle (see fig.) and at the same time slightly lower.



– Disconnect the plug connection -A- on the four-wheel drive control unit - J492- .
– Remove vent pipe -arrows- from the final drive.
– To remove, lower the final drive further and pull it towards the front, ensuring adequate clearance to other components.

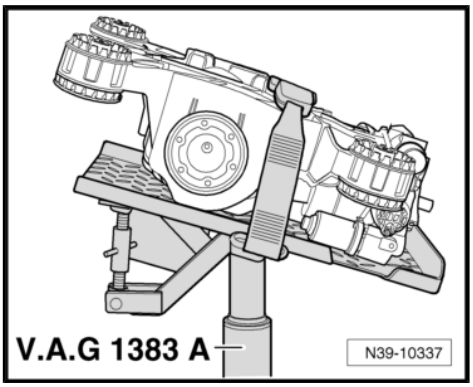


Install

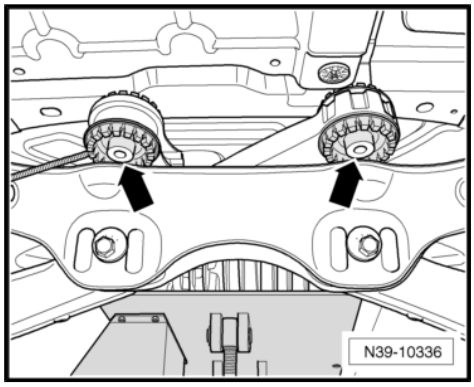
Installation is performed in the reverse order, pay attention to the following points:

– Secure the final drive with the belt of the universal holder against falling down.

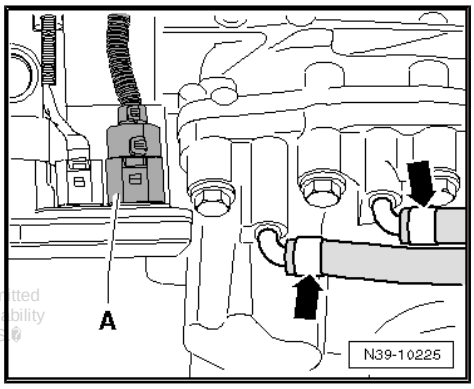
– Bring the final drive into the indicated position.



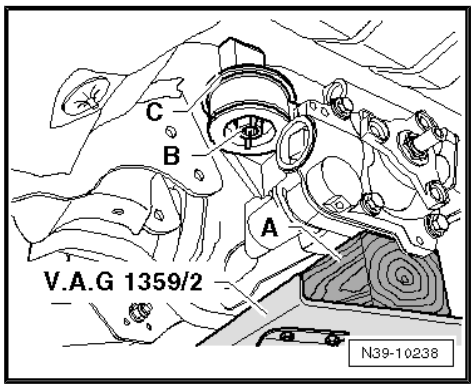
– Raise the final drive and guide the rear bracket -arrows- above the assembly carrier, during this procedure ensure that there is adequate free access to the adjoining components.



– Mount the plug connection -A- on the four-wheel drive control unit - J492- .
– Push the ventilation lines -arrows- onto the ventilation pipes of the final drive.
– Move the final drive into its installed position using the engine and gearbox jack - V.A.G 1383 A- .



– Place the washer -C- on the front bracket.
– Tighten screw -B- by hand.

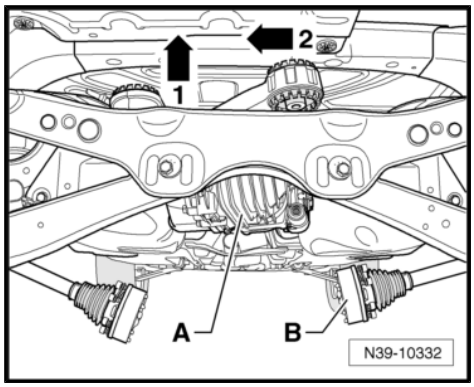


Note

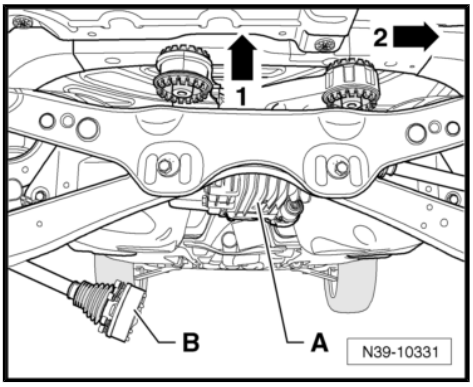
The rear part of the final drive must be free in order to install the drive shafts.

– Remove the engine and gearbox jack - V.A.G 1383 A- from underneath the vehicle.

– Raise the final drive -A- at the rear arrow -1- and move as far to the left as possible arrow -2-.
– Carefully guide the right drive shaft -B- upwards into the flange.

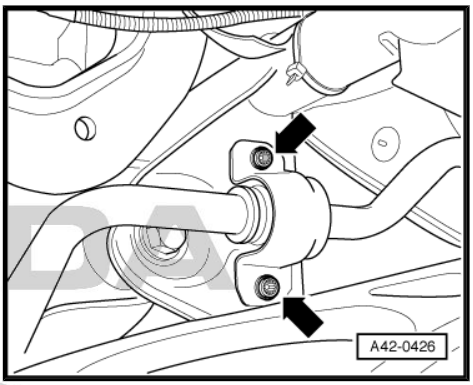


– Raise the final drive -A- at the rear arrow -1- and move as far to the right as possible arrow -2-.
– Carefully guide the left drive shaft -B- upwards into the flange.
– Install the anti-roll bar ⇒ Chassis; Rep. gr. 42 .

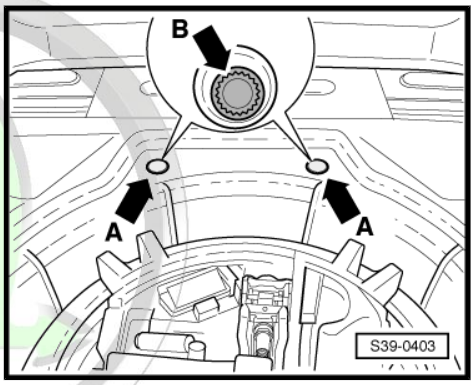


Note

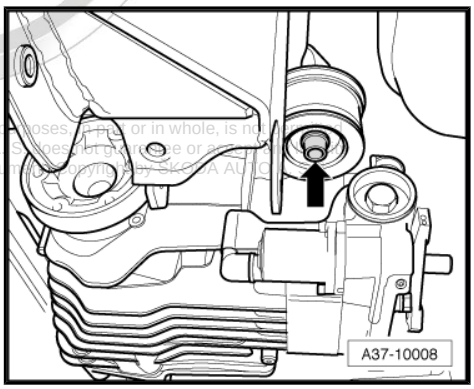
In order to unscrew and screw in the upper fixing screw -top arrow- for the anti-roll bar clamp, grip the relevant drive shaft in the flange shaft of the final drive and press upwards.



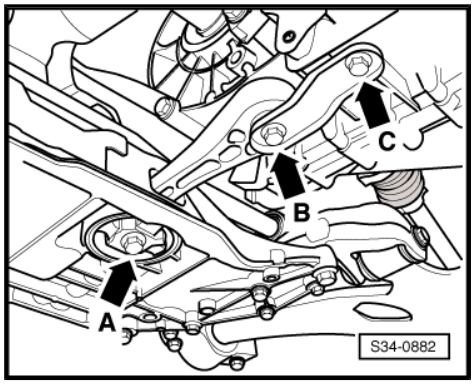
– Insert two new screws -B- through the holes in the luggage compartment floor and tighten.
– Clip the two rubber plugs -arrows A- into the luggage compartment floor.



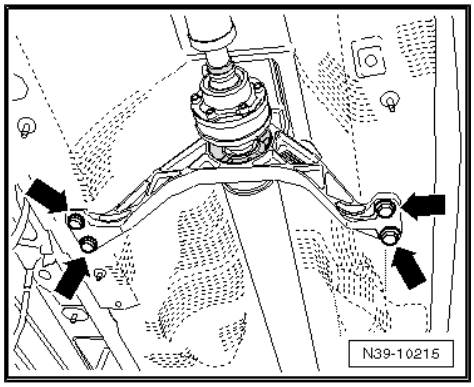
– Tighten the lower screw -arrow-.
– Install propshaft on final drive and tighten.
– Tighten the drive shafts.



– Install new screws -B- and -C- on the pendulum support and tighten.



– Align intermediate bearing free of stress and tighten.
– Install the heat shield below the propshaft.
– Install rear left vehicle level sensor - G76- ⇒ Chassis; Rep. gr. 42 .



Carry out a basic setting of the headlights ⇒ Vehicle diagnostic tester.

– Install exhaust system ⇒ Engine; Rep. gr. 26

If the final drive was replaced:

– Check the oil level in the Haldex coupling, top up with oil if necessary ⇒ page 117 .
– Check the oil level in the rear final drive, top up with oil if necessary ⇒ page 113 .

Tightening torques

- Propshaft at final drive
  ⇒ “1.1 Summary of components propeller shaft”, page 17
- Intermediate bearing
  ⇒ “1.1 Summary of components propeller shaft”, page 17
- Pendulum support to gearbox ⇒ Engine; Rep. gr. 10
- Exhaust System ⇒ Engine; Rep. gr. 26
- Final drive to assembly carrier ⇒ Suspension; Rep. gr. 42
- Anti-roll bar⇒ Chassis; Rep. gr. 42 .

2.2.3 Removing and installing the rear final drive 0CQ

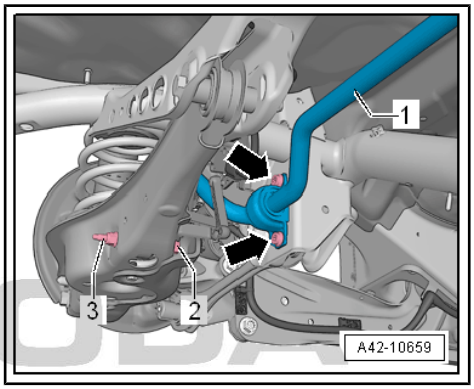
Special tools and workshop equipment required

- Engine/gearbox jack - V.A.G 1383/A-
- Socket insert - T10035-
- counterholder - T10172- with adapters - T10172/5-
- Assembly device - MP5-401 (3346)-
- Assembly device - MP5-402 (3301)-

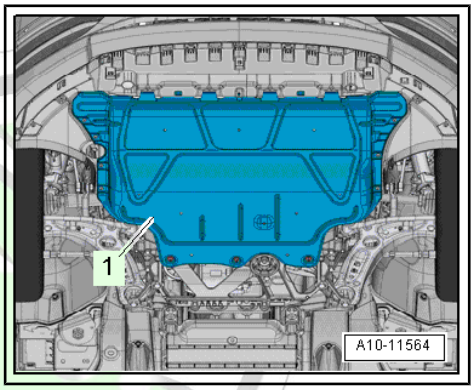
Removing

– Remove middle and rear part of exhaust system ⇒ Engine; Rep. gr. 26 .

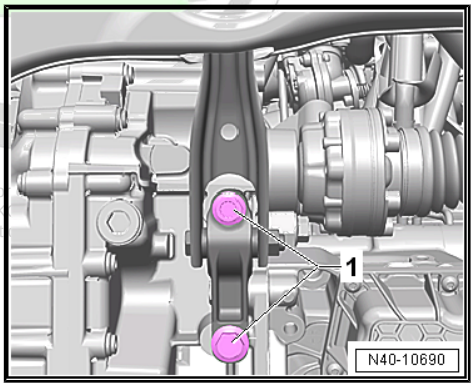
– Remove rear anti-roll bar ⇒ Chassis; Rep. gr. 42 .



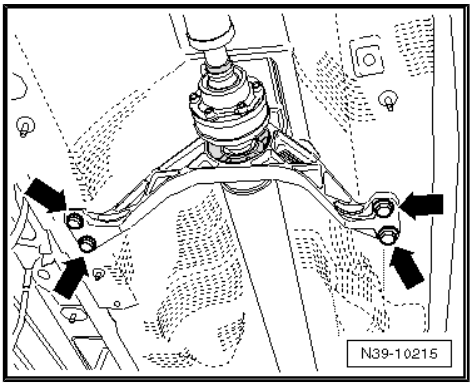
– Remove the sound dampening system -1- ⇒ Body Work; Rep. gr. 66 .



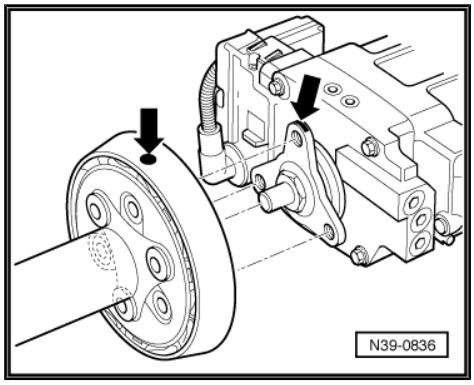
– Remove screws -1- of the pendulum support.



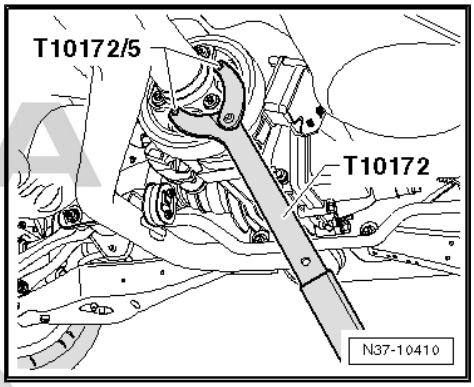
– Undo the screws -arrows- for pilot bearing of the propshaft but do not remove for now.



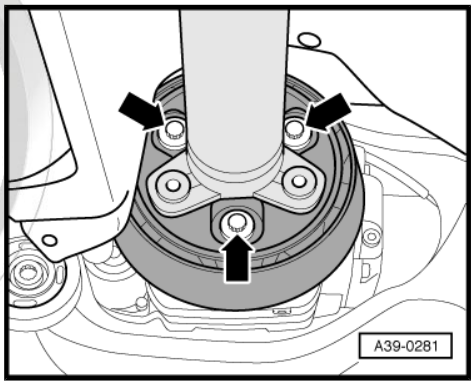
– Check if there are markings (coloured points) on the flexible disk and on the propshaft flange on the rear final drive -arrows-.
– If there are no markings, mark the position of the flexible disk opposite the propshaft flange on the rear final drive.



– When loosening and tightening the screws for the propshaft, hold the rear final drive with counterholder - T10172- with adapters - T10172/5- .



– Unscrew screws -arrows- of the screw connections of the propshaft/rear final drive.

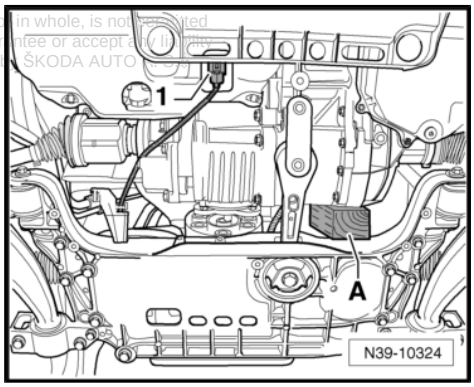


– Push the engine/gearbox unit forward and secure with a suitable piece of wood -A-.

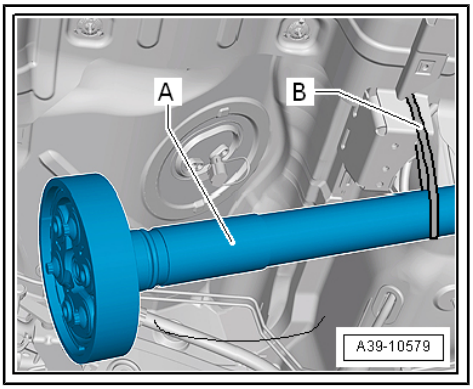
Caution

Risk of damage to the gasket ring arrow on the flange of the propshaft.

- ***Push the propshaft horizontally back as far as possible.***

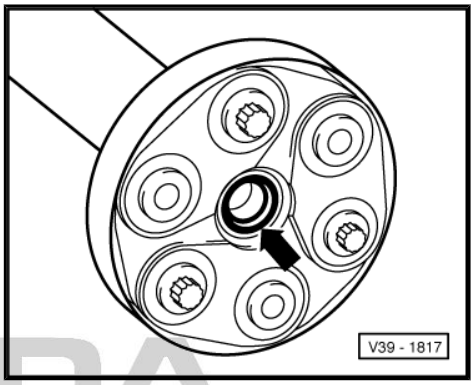


– Pull off propshaft -A- from centering stud of rear final drive and tie, e.g. with a wire -B- to the body.



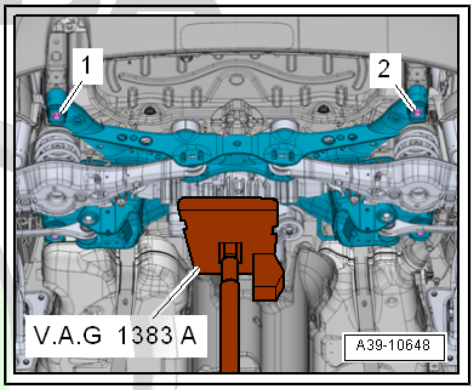
Note

If the gasket ring -arrow- is damaged, the propshaft must be replaced.



– Support rear final drive using engine/gearbox jack - V.A.G 1383/A- and piece of wood underneath.

– Release screws -1 and 2-.

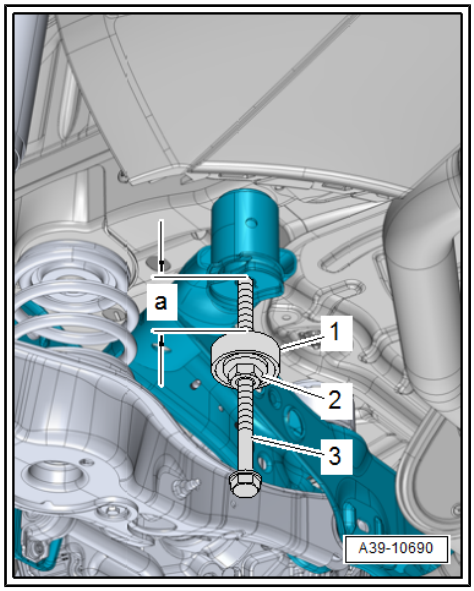


– Screw spindle -3346/2- with assembly tool - 3301- and nut -3346/3- at least 15 mm into the opening of the rear assembly carrier as shown.

1 - Assembly device - 3301-

2 - Nut - 3346/3-

3 - Spindle - 3346/2-



– Screw in nut -3346/3- of spindle -3346/2- until dimension -a- = 40 mm is reached.

Note

Lower rear assembly carrier no more than 40 mm.

– Only lower the engine/gearbox jack - V.A.G 1383/A- until the rear assembly carrier rests against the assembly device - 3301- .

WARNING

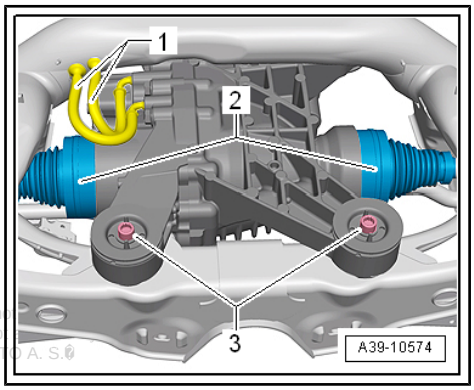
Risk of accident.

- ***The engine/gearbox jack - V.A.G 1383/A- must not be lowered further or remain unattended under the vehicle during removal.***

– Unclip bleeder hoses -1- from the rear assembly carrier.

– Screw off drive shafts -2- from rear final drive ⇒ Chassis; Rep. gr. 42 .

– Unscrew screws -3- for rear final drive with socket insert - T10035- .

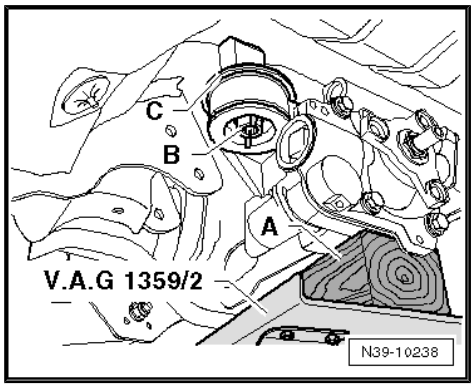


Note

For clearer illustration, the installation position is shown with the assembly carrier removed.

– Unscrew screw -B- at the front of the rubber-metal bearing.

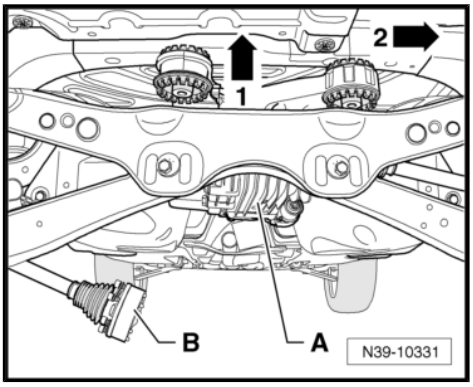
– Remove washer -C- at the top of the rubber-metal bearing.



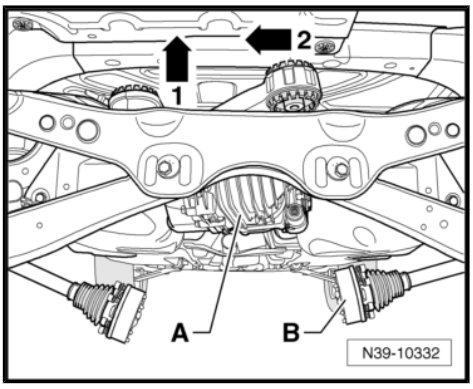
Note

For clearer illustration, the workflow is shown below without the engine/gearbox jack - V.A.G 1383/A- .

– Move the final drive -A- at the rear arrow -1- and move as far to the right as possible arrow -2-.
– Remove the left drive shaft -B- from the flange and carefully guide downwards.



– Move the final drive -A- at the rear arrow -1- and move as far to the left as possible arrow -2-.
– Remove the right drive shaft -B- from the flange and carefully guide downwards.
– Put final drive back into fitting position.

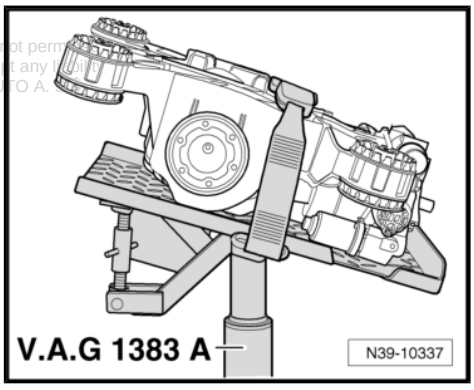


– Secure final drive as shown with tensioning strap.

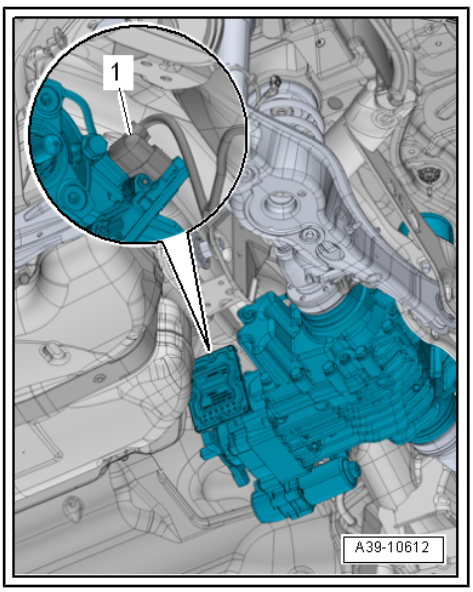
Note

The illustration shows the case with the final drive removed.

– As shown in the illustration, tilt the final drive with engine/gearbox jack - V.A.G 1383/A- and lower it slightly.



– Disconnect plug from four-wheel drive control unit - J492- .
– To remove, lower the final drive further and pull it towards the front, ensuring adequate clearance to other components.



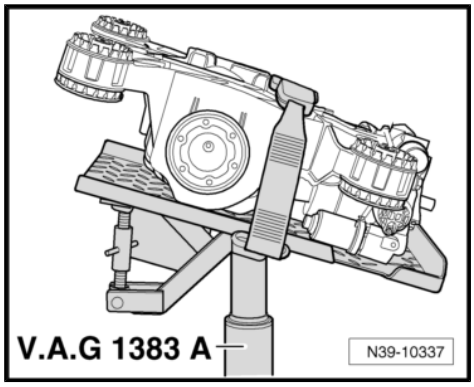
Install

Note

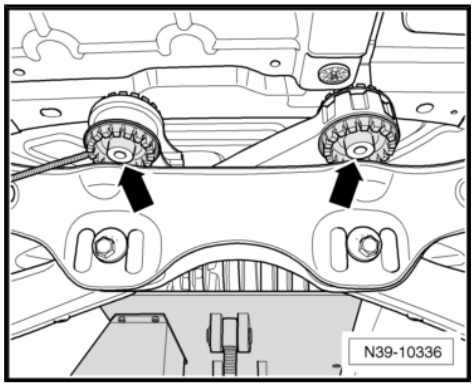
Replace screws which have been tightened to torquing angle.

– Supported with a wooden wedge and secured with a strap, place rear final drive in the correct position under the vehicle.

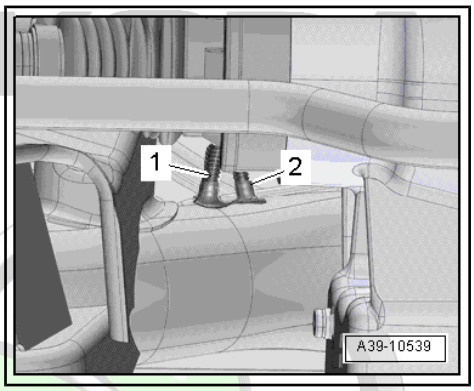
– As shown in the illustration, tilt the final drive with engine/gearbox jack - V.A.G 1383/A- .



– Lift rear final drive, guide rear rubber-metal bearing -arrows- over assembly carrier, making sure of clearance to other components.



– Fasten breather hoses -1- and -2- to rear assembly carrier.



Note

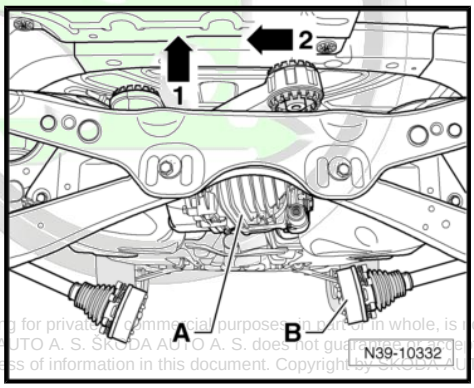
For clearer illustration, the workflow is shown below without the engine/gearbox jack - V.A.G 1383/A- .

– Move the final drive -A- at the rear arrow -1- and move as far to the left as possible arrow -2-.

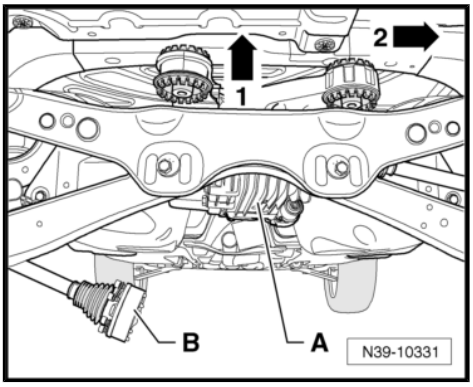
– Carefully guide the right drive shaft -B- upwards into the flange.

– Put final drive back into fitting position.

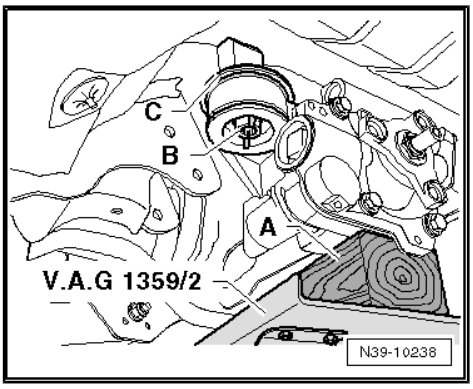
– Screw in screws for right drive shaft on final drive.



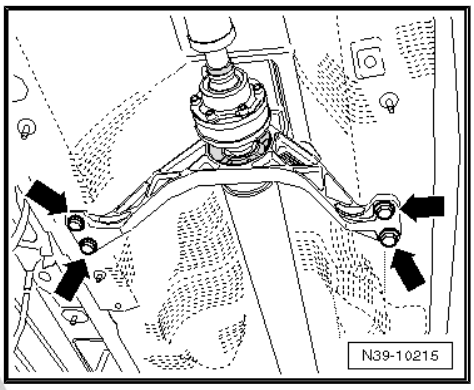
– Move the final drive -A- at the rear arrow -1- and move as far to the right as possible arrow -2-.
– Carefully guide the left drive shaft -B- upwards into the flange.
– Put final drive back into fitting position.
– Screw in screws for right drive shaft on left final drive.
– Tighten propshaft to rear final drive.



– Raise rear final drive with engine/gearbox jack - V.A.G 1383/A- up to installation position.
– Place washer -C- on rubber-metal bearing.
– Screw in screw -B- handtight only after contact and then unscrew approximately 5 turns.



– Align guide bearing in elongated holes so that propshaft and guide bearing are free of stress.
– Tighten screws -arrows-.



Installation is carried out in the reverse order. When installing, note the following:

Note

When replacing the rear final drive, check and top off as needed the axle oil in the final drive ⇒ page 113 and the oil for the Haldex coupling ⇒ page 117 .

Tightening torques

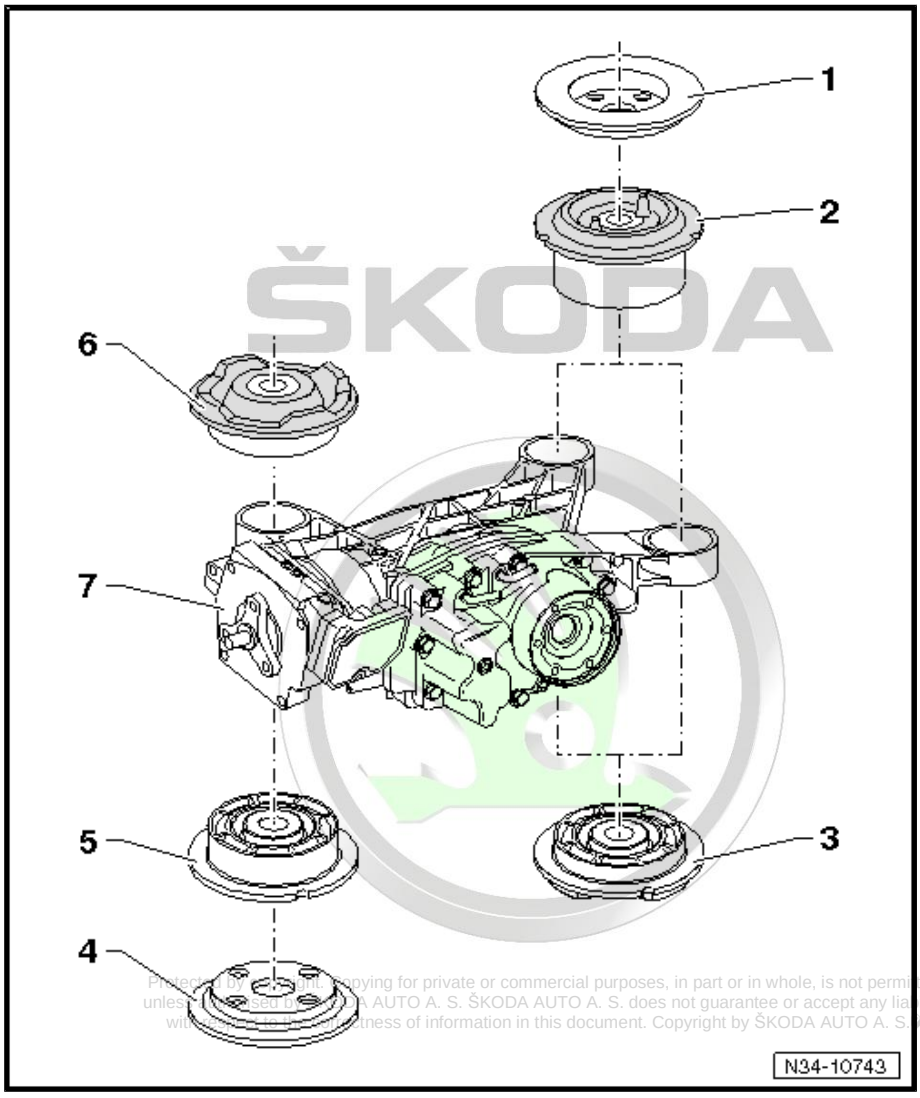
- Rear final drive ⇒ page 77
- Propshaft ⇒ page 21
- Unit mounting for ⇒ engine; Rep. gr. 10
- Exhaust System ⇒ Engine; Rep. gr. 26
- Drive shafts ⇒ Suspension; Rep. gr. 42
- Assembly carrier ⇒ Suspension; Rep. gr. 42
- Anti-roll bar⇒ Chassis; Rep. gr. 42 .
- Noise insulation ⇒ Body Work- Assembly; Rep. gr. 66

3 Assembly bracket

⇒ “3.1 Assembly overview - assembly mountings”, page 98

⇒ “3.2 removing and installing rubber-metal bearing”, page 99

3.1 Assembly overview - assembly mountings



1 - Stop washer

- ❑ remove before removing the rubber-metal bearing Pos. 2
- ❑ install onto the rubber-metal bearings Pos. 2 ⇒ page 100

2 - Top rear rubber-metal bearing

- ❑ removing ⇒ page 99
- ❑ Distinguishing features between top rear and bottom front rubber-metal bearing ⇒ page 99
- ❑ położenie montażowe ⇒ page 100
- ❑ pressing on ⇒ page 100

3 - Top rear rubber-metal bearing

- ❑ removing ⇒ page 100
- ❑ pressing on ⇒ page 100

4 - Stop washer

- ❑ remove before removing the rubber-metal bearing Pos. 5
- ❑ Install onto rubber-metal bearing Pos. 5 ⇒ page 100

5 - Front lower rubber-metal bearing

- ❑ removing ⇒ page 101
- ❑ Distinguishing features between top rear and bottom front rubber-metal bearing ⇒ page 99
- ❑ położenie montażowe ⇒ page 100
- ❑ pressing on ⇒ page 102

6 - Top front rubber-metal bearing

- ❑ removing ⇒ page 101
- ❑ pressing on ⇒ page 102

7 - Rear final drive

- ❑ wymontowanie i zamontowanie ⇒ page 77

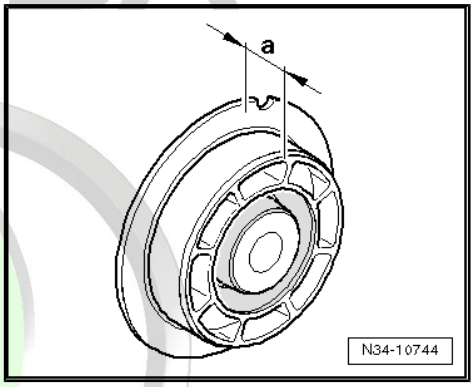
3.2 removing and installing rubber-metal bearing

⇒ “3.2.1 Difference between the rubber-metal bearings”, page 99

⇒ “3.2.2 Replace rear rubber-metal bearing at the rear final drive”, page 99

⇒ “3.2.3 Replace front rubber-metal bearing at the rear final drive”, page 101

3.2.1 Difference between the rubber-metal bearings

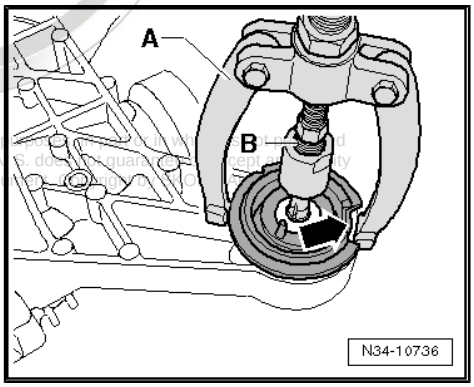


Distinguishing features between top rear and bottom front rubber-metal bearing

The top rear and bottom front rubber-metal bearings differ in height.

Dimension “a” (mm)	Rubber-metal bearing
22	rear top
17	front bottom

3.2.2 Replace rear rubber-metal bearing at the rear final drive



Special tools and workshop equipment required

- Drift pin - MP3-426 (30-505)-
- Thrust piece - MP3-417 (VW 554)-
- Assembly device - MP5-400 (3416)-
- Assembly device - MP5-401 (3346)-
- Assembly device - MP5 402 (3301)-
- Interior extractor 12…14.5 mm , e.g. -Kukko 21/1-
- Countersupport , e.g. -Kukko 22/1-

Removing top rear rubber-metal bearing

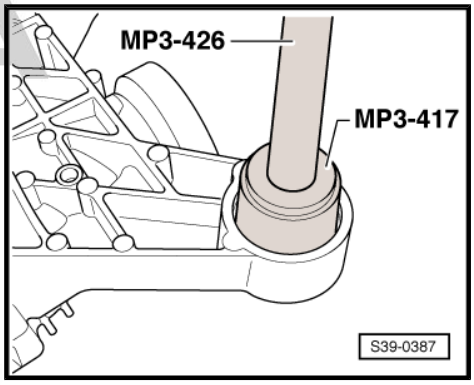
A - Countersupport , e.g. -Kukko 22/1-

B - Interior extractor 12…14.5 mm , e.g. -Kukko 21/1-

– A piece must be broken off from the collar of the rubber-metal bearing in order to be able to position the countersupport -arrow-.

– Insert the interior extractor into the joint of the upper and lower rubber-metal bearing and put it under tension.

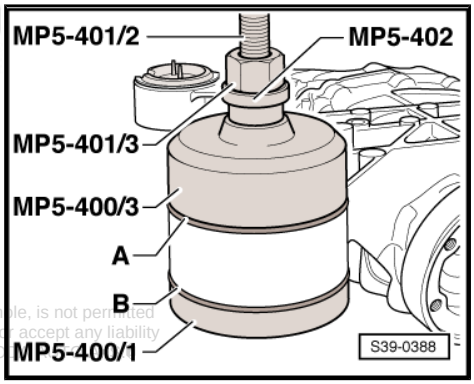
Drive out bottom rear rubber-metal bearing



Note

If the rubber-metal bearing should be replaced separately, it can also be pulled out with the countersupport , e.g. -Kukko 22/1 - and the interior extractor 12…14.5 mm , e.g. -Kukko 21/1-
⇒ page 99 .

Insert top rear rubber-metal bearing -A- and bottom rear rubber-metal bearing -B-

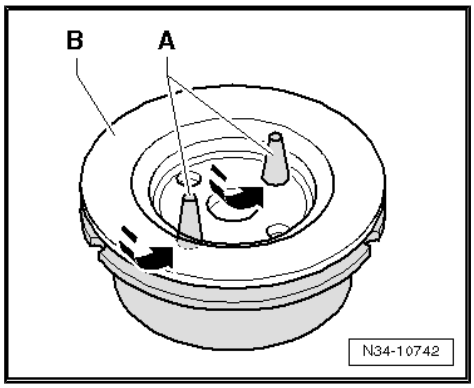


Fitting of the stop washer -B-

– Insert the pegs -A- in the holes of the stop washer -arrows-.

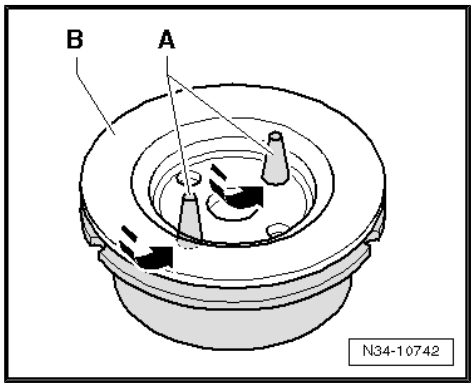
The stop washer -B- is then connected captively with the rubber-metal bearing.

- Final drive in fitting position



Installation position of top rear rubber-metal bearing:

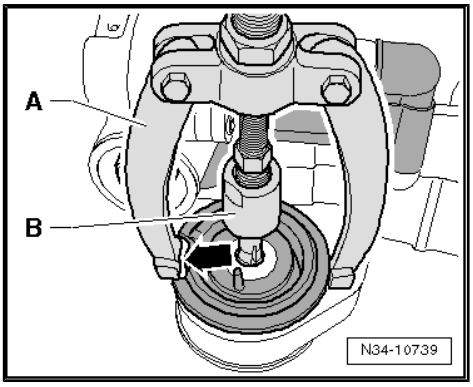
♦ The top rear rubber-metal bearing point the pegs -A- upwards



3.2.3 Replace front rubber-metal bearing at the rear final drive

Special tools and workshop equipment required

- Drift pin - MP3-426 (30-505)-
- Thrust piece - MP3-417 (VW 554)-
- Assembly device - MP5-400 (3416)-
- Assembly device - MP5-401 (3346)-
- Assembly device - MP5 402 (3301)-
- Interior extractor 12…14.5 mm , e.g. -Kukko 21/1-
- Countersupport , e.g. -Kukko 22/1-



Removing front bottom rubber-metal bearing

– Both ventilation pipes must be closed so that in the following work step no oil escapes from the final drive.

– Then place the final drive with the upper part downwards onto the work bench and pull out the rubber-metal bearing:

A - Countersupport , e.g. -Kukko 22/1-

B - Interior extractor 12…14.5 mm , e.g. -Kukko 21/1-

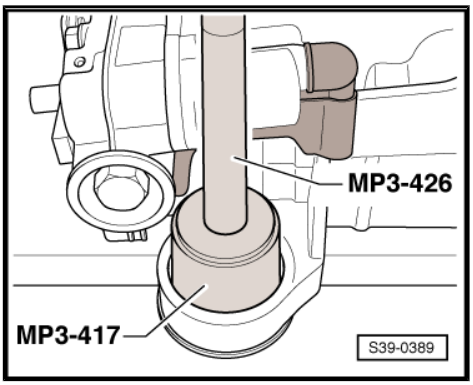
– A piece must be broken off from the collar of the rubber-metal bearing in order to be able to position the countersupport -arrow-.

– Insert the interior extractor into the joint of the upper and lower rubber-metal bearing and put it under tension.

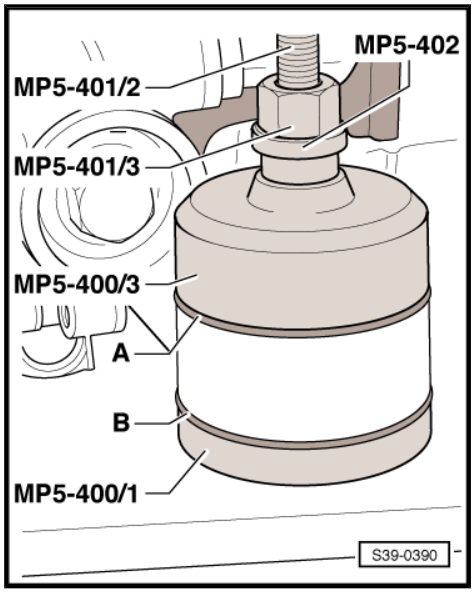
Removing front top rubber-metal bearing

Note

If the rubber-metal bearing should be replaced separately, it can also be pulled out with the countersupport , e.g. -Kukko 22/1 - and the interior extractor 12…14.5 mm , e.g. -Kukko 21/1-
⇒ page 101 .

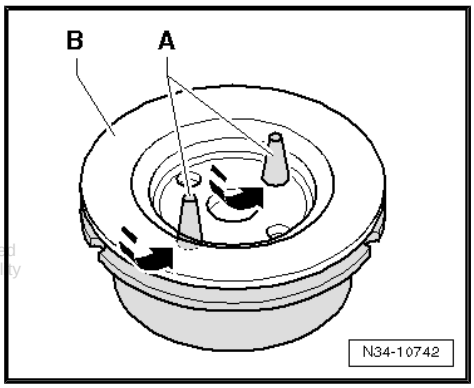


Insert front top rubber-metal bearing -A- and bottom rear rubber-metal bearing -B-



Installation position of front bottom rubber-metal bearing

- The front bottom rubber-metal bearing shows the pegs -A- downwards



4 Gasket rings

4.1 Overview of fitting locations

4.1.1 Overview of fitting locations - Octavia III

1 - Nut

- ❑ 210 Nm
- ❑ replace
- ❑ secure with locking agent - D 000 600-

2 - Propshaft flange

- ❑ wymontowanie i zamontowanie ⇒ page 108

3 - Gasket ring for propshaft flange

Renew. ⇒ page 108 .

4 - Right gasket ring

- ❑ for right flange shaft
- ❑ Renew. ⇒ page 106 .

5 - Circlip

- ❑ replace after removing the flange shaft

6 - Right flange shaft

- ❑ wymontowanie i zamontowanie ⇒ page 106

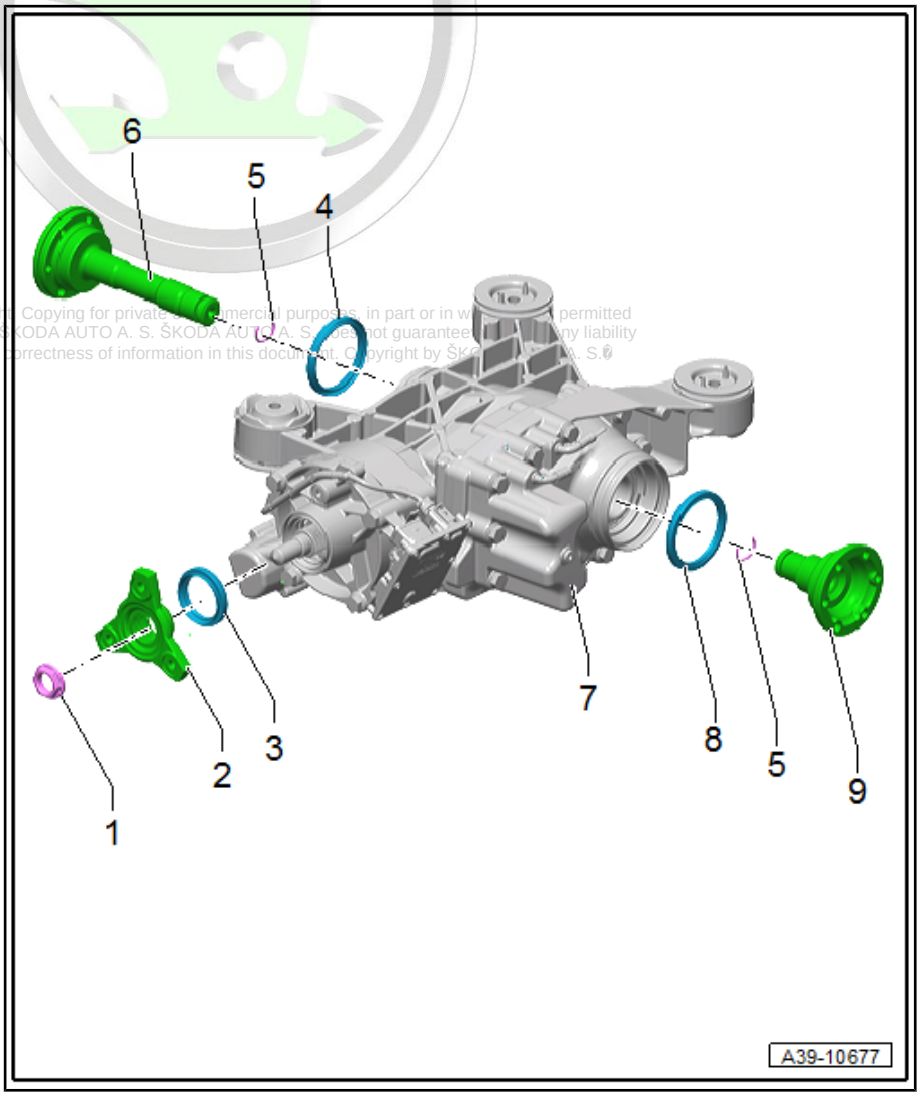
7 - Rear final drive

8 - Left gasket ring

- ❑ for left flange shaft
- ❑ Renew. ⇒ page 104 .

9 - Flange shaft left

- ❑ wymontowanie i zamontowanie ⇒ page 104



4.2 Replacing left sealing ring

⇒ “4.2.1 Replace left gasket ring - Octavia II, Superb II and Yeti”, page 104

⇒ “4.2.2 Replace left gasket ring -Octavia III”, page 105

4.2.1 Replace left gasket ring - Octavia II, Superb II and Yeti

Special tools and workshop equipment required

- Ejection lever - MP3-418 (VW 681)-
- Extractor - T10037-
- Thrust piece - T10049-
- Catch pan
- Sealing grease - G 052 128 A1-

Removing

– Remove drive shaft ⇒ Chassis; Rep. gr. 42

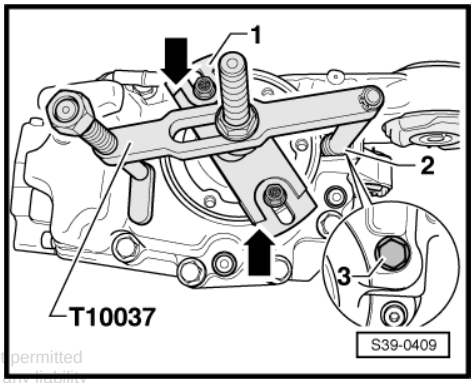
– Place a catch pan under the rear final drive.

– Manually screw the plate -1- of the extractor - T10037- with two screws M8 (30 mm long) onto the flange shaft.

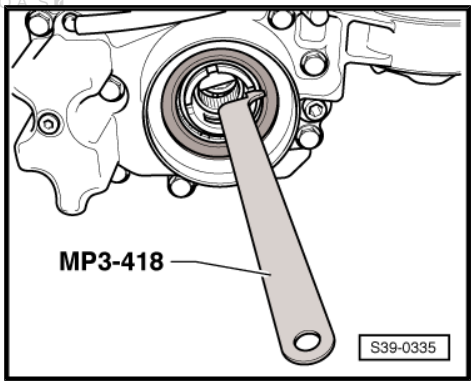
• The shoulders -arrows- for larger flange diameters point to the outside.

– Position the nut of the knurled screw -2- from the extractor - T10037- onto the hexagon screw -3-.

– Pull out the flange shaft with extractor - T10037- .



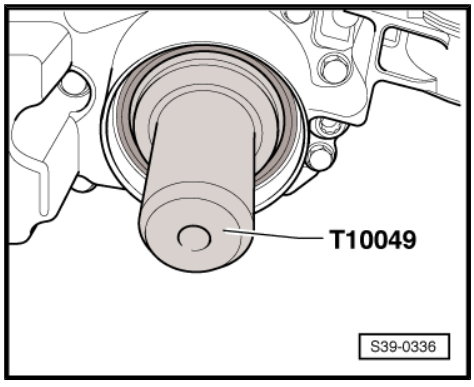
– Pull out gasket ring for flange shaft with ejection lever - MP3-418- .

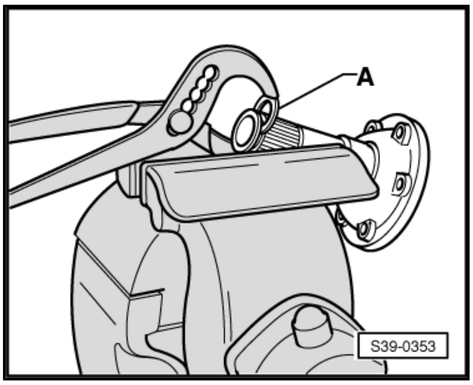


Install

– Lightly oil new gasket ring at outside diameter and drive in with pressure plate - T10049- up to the stop, do not twist the gasket ring.

– Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128 A1- .





– Clamp the flange shaft in a vice with protective jaws.
– Push out the old circlip from the flange shaft groove with the new circlip -A-.
– Drive in the flange shaft with a rubber hammer.
– Install drive shaft ⇒ Chassis; Rep. gr. 42 .
– Checking the oil level in the rear final drive ⇒ page 113 .

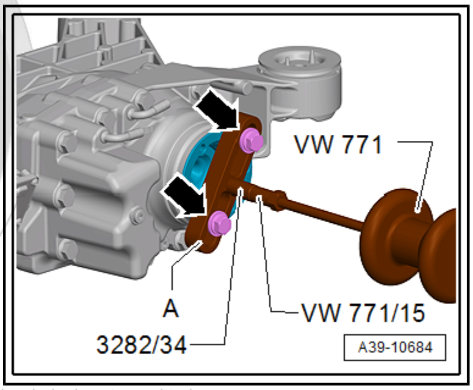
4.2.2 Replace left gasket ring -Octavia III

Special tools and workshop equipment required

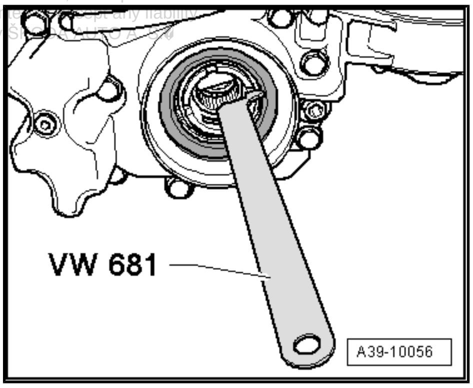
- Ejection lever - MP3-418 (VW 681)-
- Multi-purpose tool - MP3-419 (VW 771)-
- Bolt - 3282/34-
- Thrust piece - T10049-
- Bridge of the extractor - Kukko 18/0-
- Sealing grease - G 052 128 A1-

Removing

– Remove drive shaft with rear final drive installed⇒ Chassis; Rep. gr. 42 .
– Screw out threaded spindle from the bridge of the extractor - Kukko 18/0- and screw in bolt - 3282/34- .
– Fasten bridge -A- with two screws M8 x 30 -Arrows- to flange shaft.
– Take out the flange shaft.



– Lever off gasket ring for flange shaft with ejection lever - VW 681- .



Install

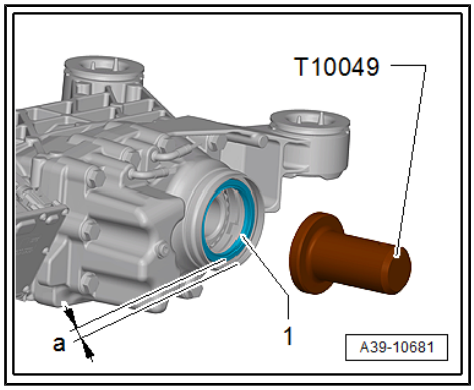
– Light oil new gasket ring -1- on the outer diameter and drive in with thrust piece - T10049- to the dimension -a- while taking care that the gasket ring is not tilted.

• Measure dimension -a- = 4.8 ± 0.1 mm from the flat housing surface to the gasket ring.

• Do not drive in the gasket ring up to the stop.

• Verify that the parallelism error of the gasket ring -1- to the flat housing surface is no more than 0.25 mm.

– Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128 A1- .



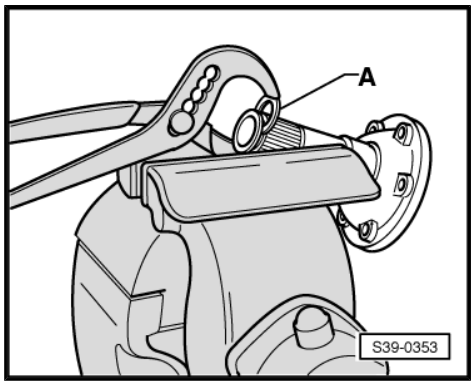
– Clamp the flange shaft in a vice with protective jaws.

– Push out the old circlip from the flange shaft groove with the new circlip -A-.

– Drive in flanged shaft with a plastic hammer, and a mandrel if necessary.

– Install drive shaft ⇒ Chassis; Rep. gr. 42 .

– Check gear oil level ⇒ page 113 .



4.3 Replacing right sealing ring

⇒ “4.3.1 Replace right gasket ring - Octavia II, Superb II and Yeti”, page 106

⇒ “4.3.2 Replace right gasket ring -Octavia III”, page 107

4.3.1 Replace right gasket ring - Octavia II, Superb II and Yeti

Special tools and workshop equipment required

♦ Ejection lever - MP3-418 (VW 681)-

♦ Extractor - T10037-

♦ Thrust piece - T10049-

♦ Catch pan

♦ Sealing grease - G 052 128 A1-

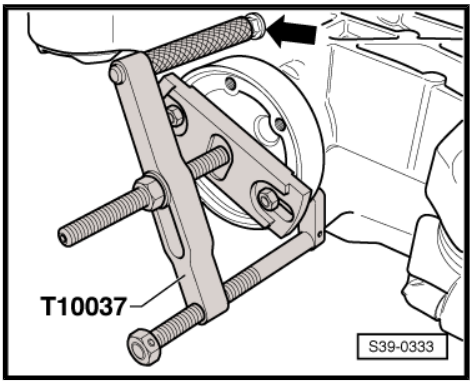
– Remove drive shaft ⇒ Chassis; Rep. gr. 42

– Place a catch pan under the rear final drive.

– Manually screw the plate of the extractor - T10037- with two screws M8 (30 mm long) onto the flange shaft.

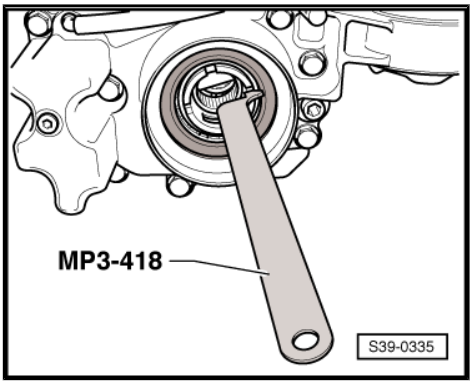
• The shoulders for larger flange diameters point to the outside.

– Fit the nut of the knurled screw -arrow- of the extractor - T10037- in such a way that the start of the thread is aligned with the housing.
– Pull out the flange shaft with extractor - T10037- .

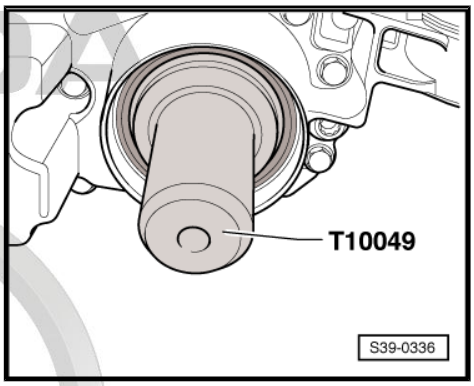


– Pull out gasket ring for flange shaft with ejection lever - MP3-418- .

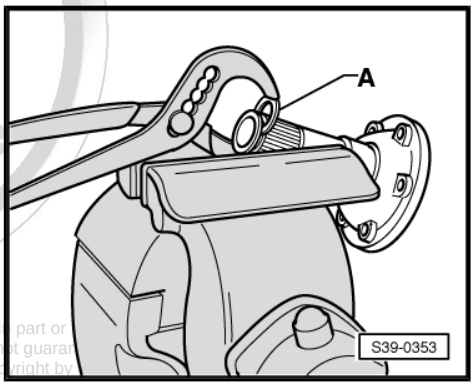
Install



– Lightly oil new gasket ring at outside diameter and drive in with pressure plate - T10049- up to the stop, do not twist the gasket ring.
– Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128 A1- .



– Clamp the flange shaft in a vice with protective jaws.
– Push out the old circlip from the flange shaft groove with the new circlip -A-.
– Drive in the flange shaft with a rubber hammer.
– Install drive shaft ⇒ Chassis; Rep. gr. 42 .
– Checking the oil level in the rear final drive ⇒ page 113 .



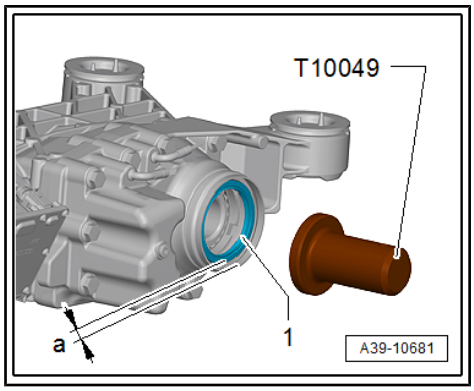
4.3.2 Replace right gasket ring -Octavia III

Special tools and workshop equipment required

- Ejection lever - MP3-418 (VW 681)-
- Multi-purpose tool - MP3-419 (VW 771)-
- Bolt - 3282/34-
- Thrust piece - T10049-

- ♦ Bridge of the extractor - Kukko 18/0-
- ♦ Sealing grease - G 052 128 A1-

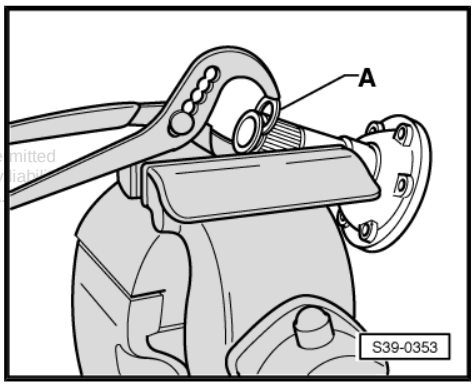
– Light oil new gasket ring -1- on the outer diameter and drive in with thrust piece - T10049- to the dimension -a- while taking care that the gasket ring is not tilted.



- Measure dimension -a- = 4.8 ± 0.1 mm from the flat housing surface to the gasket ring.
- Do not drive in the gasket ring up to the stop.
- Verify that the parallelism error of the gasket ring -1- to the flat housing surface is no more than 0.25 mm.

– Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128 A1- .

– Clamp the flange shaft in a vice with protective jaws.



– Push out the old circlip from the flange shaft groove with the new circlip -A-.

– Drive in flanged shaft with a plastic hammer, and a mandrel if necessary.

– Install drive shaft ⇒ Chassis; Rep. gr. 42 .

– Check gear oil level ⇒ page 113 .

4.4 Replacing gasket ring for flange on Haldex coupling

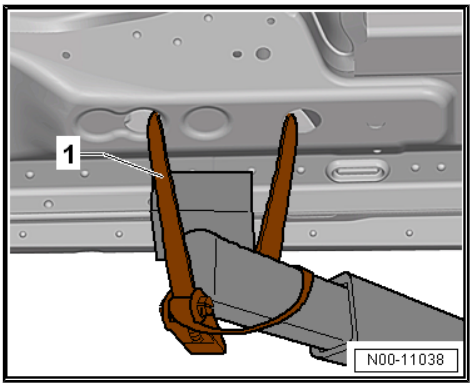
Special tools and workshop equipment required

- ♦ Ejection lever - MP3-418 (VW 681)-
- ♦ Counterholder - T30004 (3415)-
- ♦ Thrust piece - T10019-
- ♦ Tensioning strap - T10038-
- ♦ counterholder - T10172- with adapters - T10172/5-
- ♦ Three arm puller - Kukko 12/1-
- ♦ Locking agent - D 000 600-
- ♦ Bolt M10 x 25
- ♦ Allan screw M8 x 15
- Rear final drive is installed.

Removing

– Lash the vehicle on both sides to the supporting arms of the lift platform using tensioning straps - T10038- .

1 - Tensioning strap - T10038-



WARNING

If the vehicle is not securely lashed, there is a risk of the vehicle falling down from the lift platform.

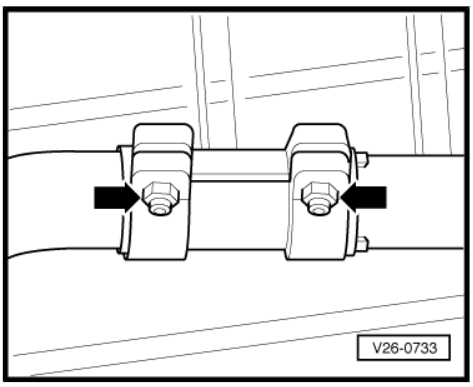
Caution

Risk of damage to the decoupling element of the exhaust system.

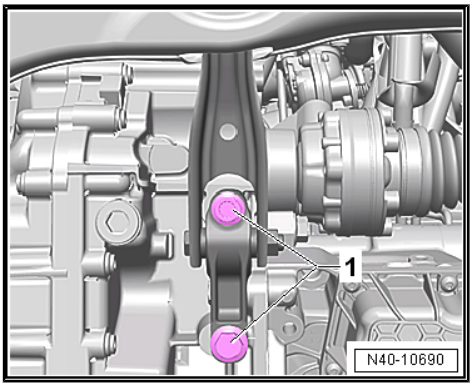
- *The decoupling element should not be bent by more than 10° - risk of damage.*
- *Do not load the decoupling element with tensile stress.*
- *Do not damage wire mesh on decoupling element.*

– Loosen nuts of clamping sleeve -arrow- and slide it backwards.

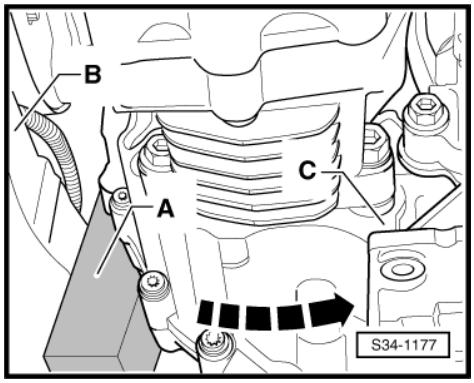
– Tie pre-exhaust pipe to the underfloor.



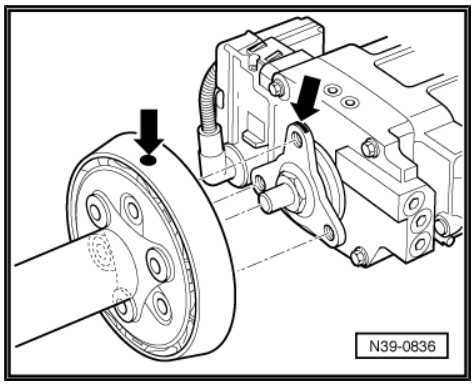
– Remove screws -1- of the pendulum support.



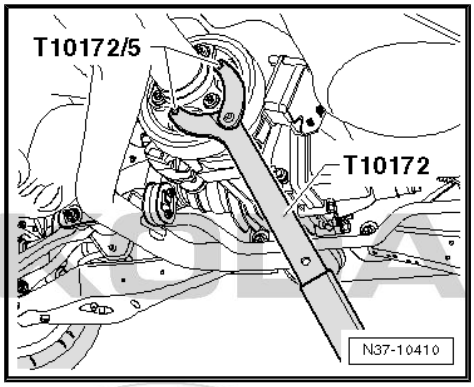
– Push the engine/gearbox unit with a 2nd mechanic in the -direction of arrow- and place a suitable block of wood -A- (around 50 mm thick) between the assembly carrier -B- and gearbox -C-.
– Remove middle and rear part of exhaust system ⇒ Engine; Rep. gr. 26 .
– Only loosen screws for guide bearing of propshaft, do not remove.



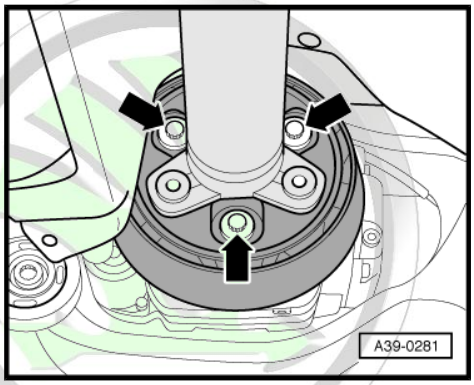
– Check if there are assembly markings (coloured points) on the flexible disk and on the propshaft flange on the rear final drive -arrows-.
– If there are no markings, mark the mutual positions of the flexible disk and the propshaft flange on the rear final drive.



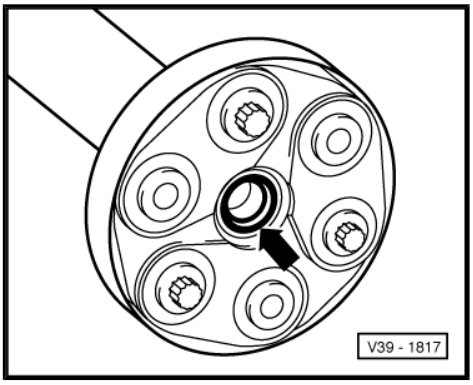
– When loosening and tightening the screws for the propshaft, hold the rear final drive with counterholder - T10172- with adapters - T10172/5- .



– Unscrew screws -arrows- of the screw connections of the propshaft/rear final drive.



– Pull off the propshaft from the centering stud on the rear final drive, pressing the prop slightly forward.

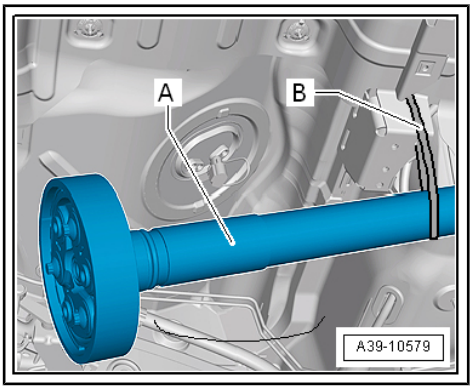


Caution

Risk of damage to the gasket ring -arrow- on the flange of the propshaft.

- *Pull off propshaft horizontally from centering stud.*

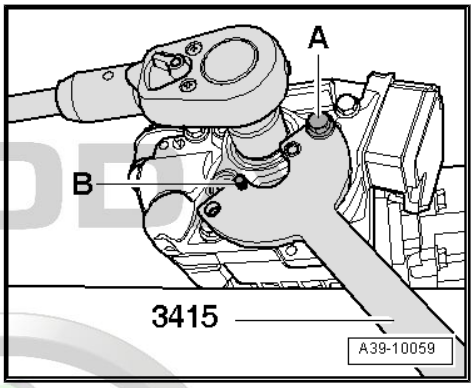
– Then tie rear end of propshaft -A-, e.g. with wire -B- to body.



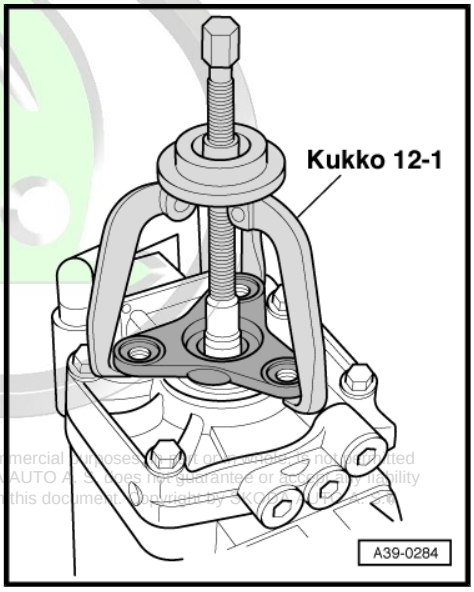
– Unscrew nut for propshaft flange.

A - Bolt M10 x 25

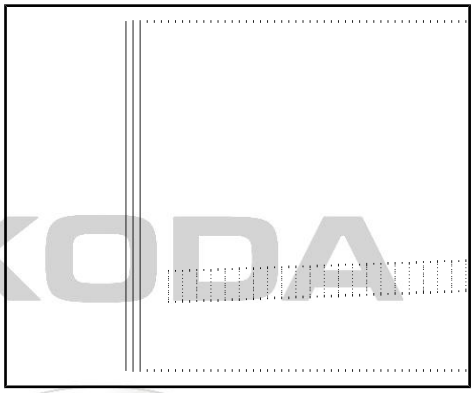
B - Allen screw M8 x 15 (is screwed in from the reverse side into the counterholder - T30004 (3415)-)



– Remove propshaft flange. If there is any resistance, use three armed extractor , e.g. -Kukko 12-1- .



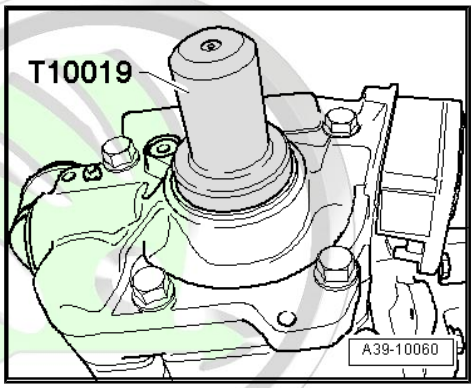
– Pull out gasket ring with ejection lever - VW 681- .



Install

– Before installing, lightly oil new gasket ring on the outside diameter and between the sealing lips with high efficiency oil for Haldex couplings .

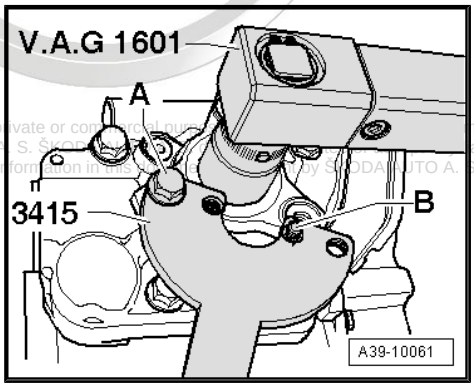
– Drive in new gasket ring with thrust piece - T10019- up to the stop. Do not tilt the gasket ring.



– Then screw in new nut using locking agent - D 000 600- and tighten.

A - Bolt M10 x 25

B - Allen screw M8 x 15 (is screwed in from the reverse side into the counterholder - T30004 (3415)-)



– Connect propshaft to rear final drive ⇒ page 24 .

– Align guide bearing in elongated holes so that propshaft and guide bearing are free of stress.

– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .

– Check oil level in the Haldex coupling ⇒ page 117 .

Tightening torques

♦ Nuts for propshaft flange. ⇒ page 17

5 Gear oil

⇒ “5.1 Check gear oil level”, page 113

5.1 Check gear oil level

⇒ “5.1.1 Checking the gear oil level in the rear final drive 02D/0AV”, page 113

⇒ “5.1.2 Checking the gear oil level in the rear final drive 0BR”, page 114

⇒ “5.1.3 Checking the gear oil level in the rear final drive 0CQ”, page 115

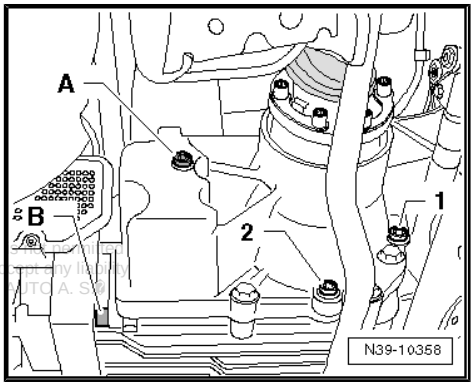
5.1.1 Checking the gear oil level in the rear final drive 02D/0AV

Caution

The Haldex coupling is fitted into the rear rear final drive.

The rear final drive and the Haldex coupling have separate oil circulation systems.

Assign oil filler plug and oil drain plug



A - Filler screw (inspection plug) for high efficiency oil for Haldex coupling

B - Drain plug for high efficiency oil for Haldex coupling

1 - Filler screw for gearbox oil (inspection plug)

2 - Drain plug for gearbox oil

Inspection

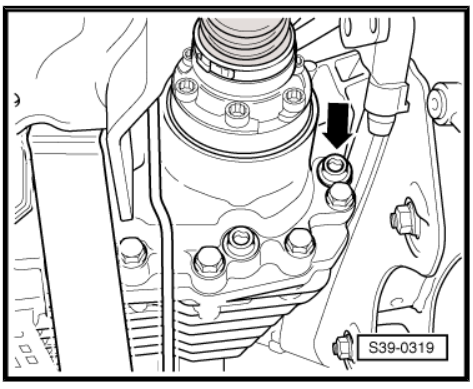
Special tools and workshop equipment required

- Catch pan
- Filling device for Haldex coupling 2 - VAS 6291- or -VAS 6291A-

• Vehicle on level ground.

– Place a catch pan under the rear final drive.

– Unscrew screw for oil inspection -arrow-.



Oil is at the correct level if the rear final drive is filled up to the lower edge of the oil filler hole.

– Screw in oil check screw -arrow- and tighten to tightening torque.

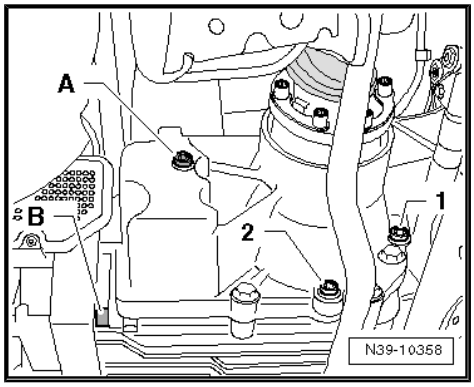
Refilling

– Place a catch pan under the rear final drive.

– Unscrew gearbox oil inspection plug -1-.
– Fill up with as much oil as possible using the filling device - VAS 6291- or -VAS 6291A- until it flows out between the adapter of the filling device and the final drive housing.
– Remove filling device and adapter. Some excess oil might still drain off.

Oil is at the correct level if the rear final drive is filled up to the lower edge of the oil filler hole.

– Screw in new gearbox oil check screw -1- and firmly tightening.



Tightening torque

Component	Nm
Oil check screw M 10	15

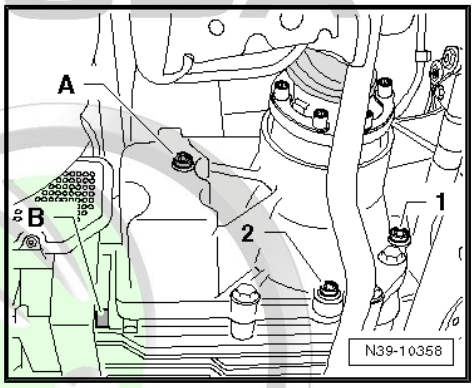
5.1.2 Checking the gear oil level in the rear final drive 0BR

Caution

The Haldex coupling is fitted into the rear rear final drive.

The rear final drive and the Haldex coupling have separate oil circulation systems.

Assign oil filler plug and oil drain plug



A - Filler screw (inspection plug) for high efficiency oil for Haldex coupling

B - Drain plug for high efficiency oil for Haldex coupling

1 - Filler screw for gearbox oil (inspection plug)

2 - Drain plug for gearbox oil

Inspection

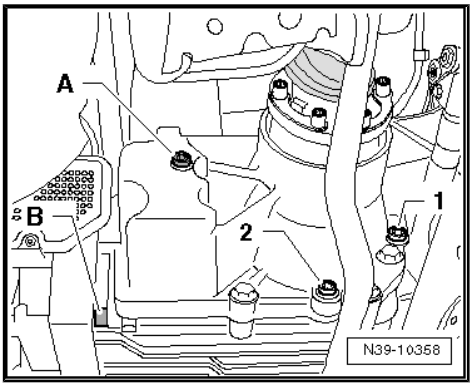
Special tools and workshop equipment required

- Catch pan
- Filling device for Haldex coupling 2 - VAS 6291- or -VAS 6291A-

• Vehicle on level ground.

– Place a catch pan under the rear final drive.

– Unscrew gearbox oil inspection plug -1-.



Note

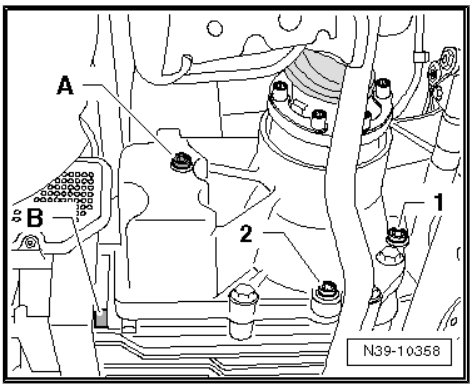
Do not unscrew the screws -2- (oil drain plug for rear final drive), -A- (oil filler plug for Haldex coupling) and -B- (oil drain plug for Haldex coupling).

Oil is at the correct level if the rear final drive is filled up to the lower edge of the oil filler hole.

– Screw in new gearbox oil inspection plug -1- and tighten to 15 Nm.

Refilling

– Place a catch pan under the rear final drive.



– Unscrew gearbox oil inspection plug -1-.
– Fill up with as much oil as possible using the filling device - VAS 6291- or -VAS 6291A- until it flows out between the adapter of the filling device and the final drive housing.
– Remove filling device and adapter. Some excess oil might still drain off.

Oil is at the correct level if the rear final drive is filled up to the lower edge of the oil filler hole.

– Screw in new gearbox oil inspection plug -1- and tighten to 15 Nm.

5.1.3 Checking the gear oil level in the rear final drive 0CQ

Caution

The Haldex coupling is fitted into the rear rear final drive.

The rear final drive and the Haldex coupling have separate oil circulation systems.

Inspection

Special tools and workshop equipment required

- Catch pan
- Filling device for Haldex coupling 2 - VAS 6291- or -VAS 6291A-

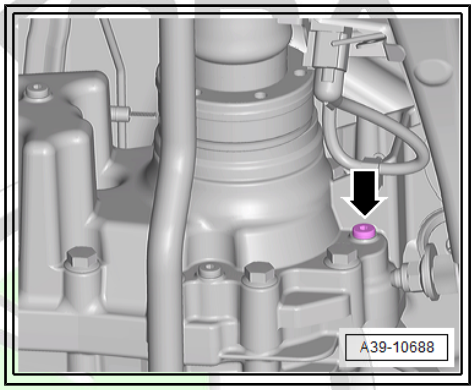
• Vehicle on level ground.

– Place catch pan - VAS 6208- under the final drive.

– Unscrew oil filler plug -arrow-.

Oil is at the correct level if the rear final drive is filled with oil up to the lower edge of the oil filler hole.

– Screw in new oil filler plug -arrow- and tighten.



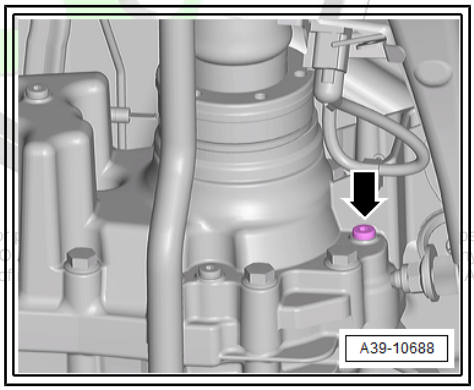
Refilling

– Fill in oil with filling device for Haldex 2 coupling - VAS 6291- until excess oil exits between the adapter of the filling device and the gearbox housing.

– Remove filling device and adapter; some excess oil may still exit.

Oil is at the correct level if the rear final drive is filled with oil up to the lower edge of the oil filler hole.

– Screw in new oil filler plug -arrow- and tighten.



Tightening torques

Component	Tightening torque
Oil filler plug for oils for final drive • Renew bolt.	19 Nm
Oil drain plug for oils for final drive • Renew bolt.	19 Nm

6 High-performance oil for Haldex coupling

⇒ "6.1 Check oil level in the Haldex coupling", page 117

⇒ "6.2 Change and refill high-performance oil for Haldex coupling", page 117

6.1 Check oil level in the Haldex coupling

Special tools and workshop equipment required

- Catch pan

Oil specification ⇒ Electronic Catalogue of Original Parts .

– Measure oil temperature ⇒ Vehicle diagnostic tester.

- The oil temperature must be between 20 and 40 °C.
- Vehicle on level ground.
- Final drive in fitting position.

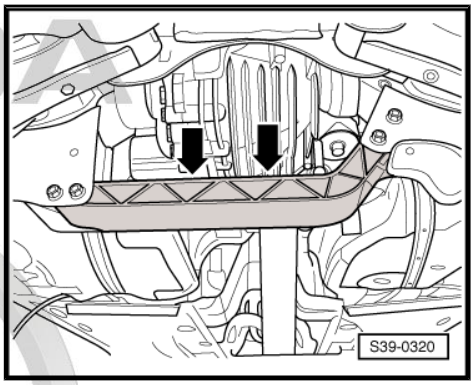
The oil temperature can be increased by warming up the engine.

– Place a catch pan under the rear final drive.

Vehicles with aluminium assembly carrier

Note

- *Always place a cloth on the cross member -arrows-.*
- *If the oil gets onto the cross member or into the recesses at the cross member, the oil must be removed immediately.*
- *There is no cross member on vehicles with steel assembly carrier.*



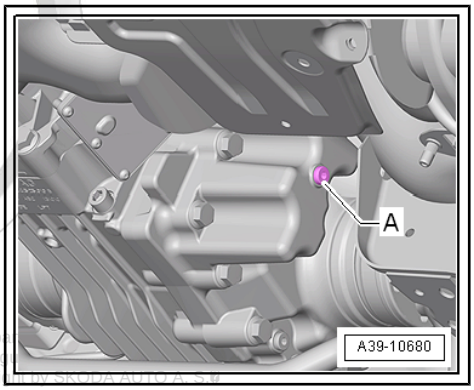
Continued for all vehicles

– Undo screw for oil check -A-.

Oil is at the correct level if the Haldex coupling is filled up to the lower edge of the oil filler hole or min. 3 mm below the lower edge of the oil filler hole.

– Top up high performance oil for Haldex coupling ⇒ page 117 .

– Screw in new drain plug -A- using a new sealing ring and tighten to 15 Nm.



6.2 Change and refill high-performance oil for Haldex coupling

Special tools and workshop equipment required

- Filling device for Haldex 2 - coupling - VAS 6291-
- Catch pan - VAS 6208-
- High-performance oil for Haldex coupling ⇒ Electronic Catalogue of Original Parts

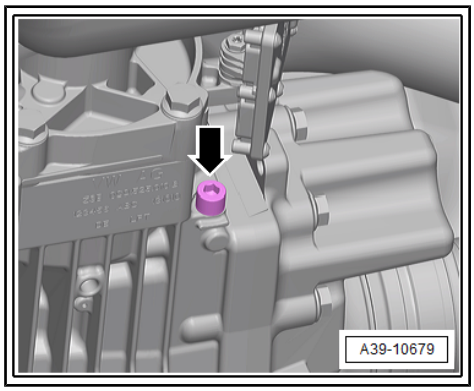
– Raise vehicle.

Drain oil

– Place a catch pan under the Haldex coupling.

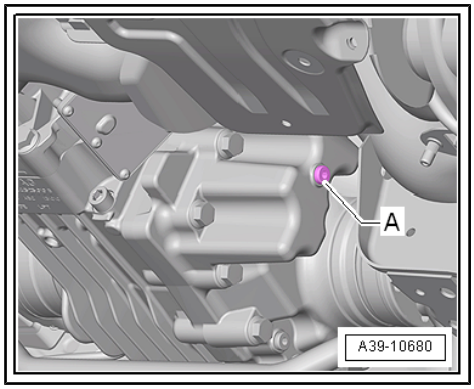
– Unscrew drain plug -arrow- and drain all oil from the Haldex coupling.

– Screw in drain plug using a sealing ring -arrow- and tighten to 40 Nm.



Replenish oil

– Unscrew oil filler plug -A-.



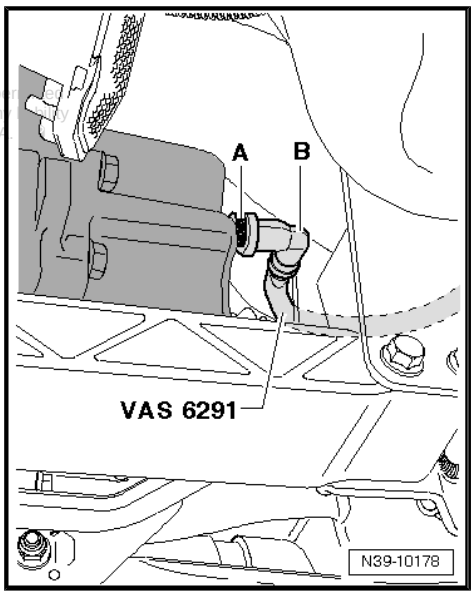
– Screw adapter -A- of filling device for Haldex 2 coupling - VAS 6291- fully into the filler hole.

– Place angular piece -B- in position on adapter -A- and secure.

– Route hose of filling device above drive shaft and pull out of the vehicle.

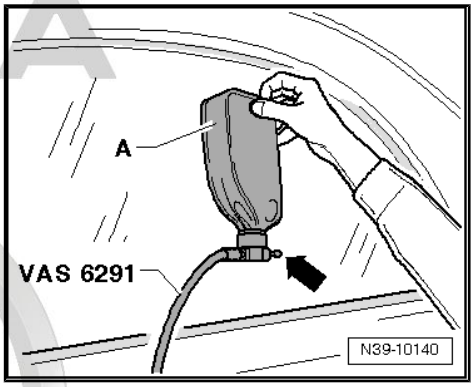
• The hose must not sag. It must come out above the left rear wheel.

– Lower the vehicle.



– Ensure that the the valve -arrow- is closed.
– Screw oil reservoir -A- onto filling device for Haldex 2 coupling - VAS 6291- .
– Open valve -arrow- and hold oil reservoir as shown in the figure.

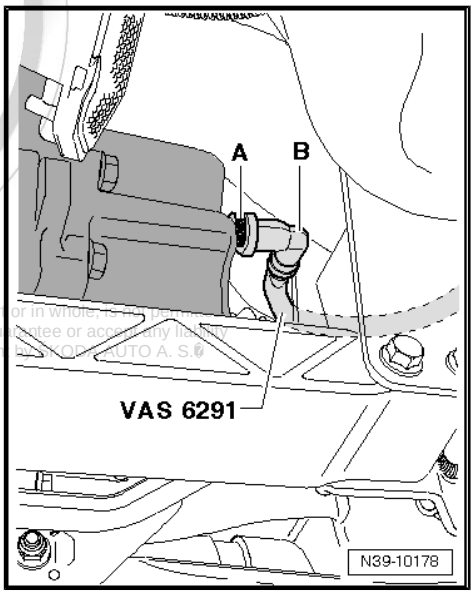
Then fill the Haldex coupling with oil.



Note

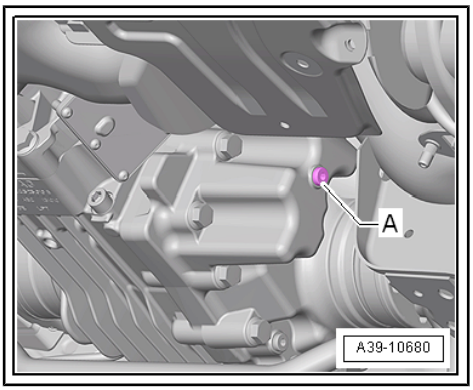
When the Haldex coupling is correctly filled, oil flows out at the adapter -A-.

– Raise vehicle.
– Place oil reservoir under the Haldex coupling (e.g. trolley) so that the excess oil flows back into the oil reservoir.
– If no more oil flows back, remove filling device for Haldex 2 coupling - VAS 6291- .
• The Haldex coupling is now filled to lower edge of oil filler hole.
– Check oil level in the Haldex coupling ⇒ page 117 .



If the oil level is OK:

– Screw in oil filler plug -A- and tighten to 15 Nm.



7 Haldex coupling

7.1 Summary of components - Haldex coupling

7.1.1 Summary of components - Haldex coupling 2nd generation

1 - Screw

- ❑ 4 pieces
- ❑ 50 Nm

2 - Haldex coupling

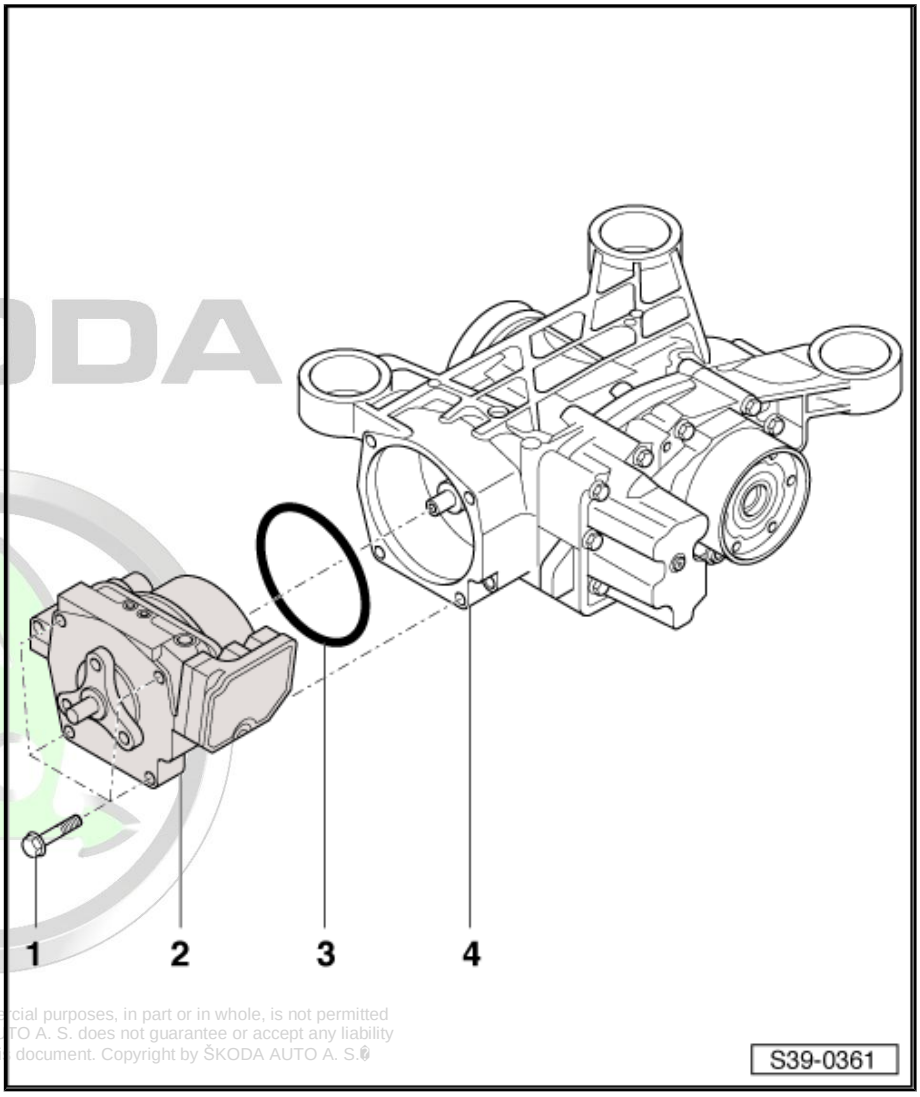
- ❑ with control unit
- ❑ wymontowanie i zamontowanie ⇒ page 136

3 - O-ring

- ❑ wymontowanie i zamontowanie ⇒ page 136
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts
- ❑ insert with high efficiency oil for Haldex couplings
- ❑ Oil specification ⇒ Electronic Catalogue of Original Parts

4 - Final drive

- ❑ wymontowanie i zamontowanie ⇒ page 77



7.1.2 Summary of components - Haldex coupling IV. generation

1 - Screw

- ❑ 50 Nm

2 - Haldex coupling

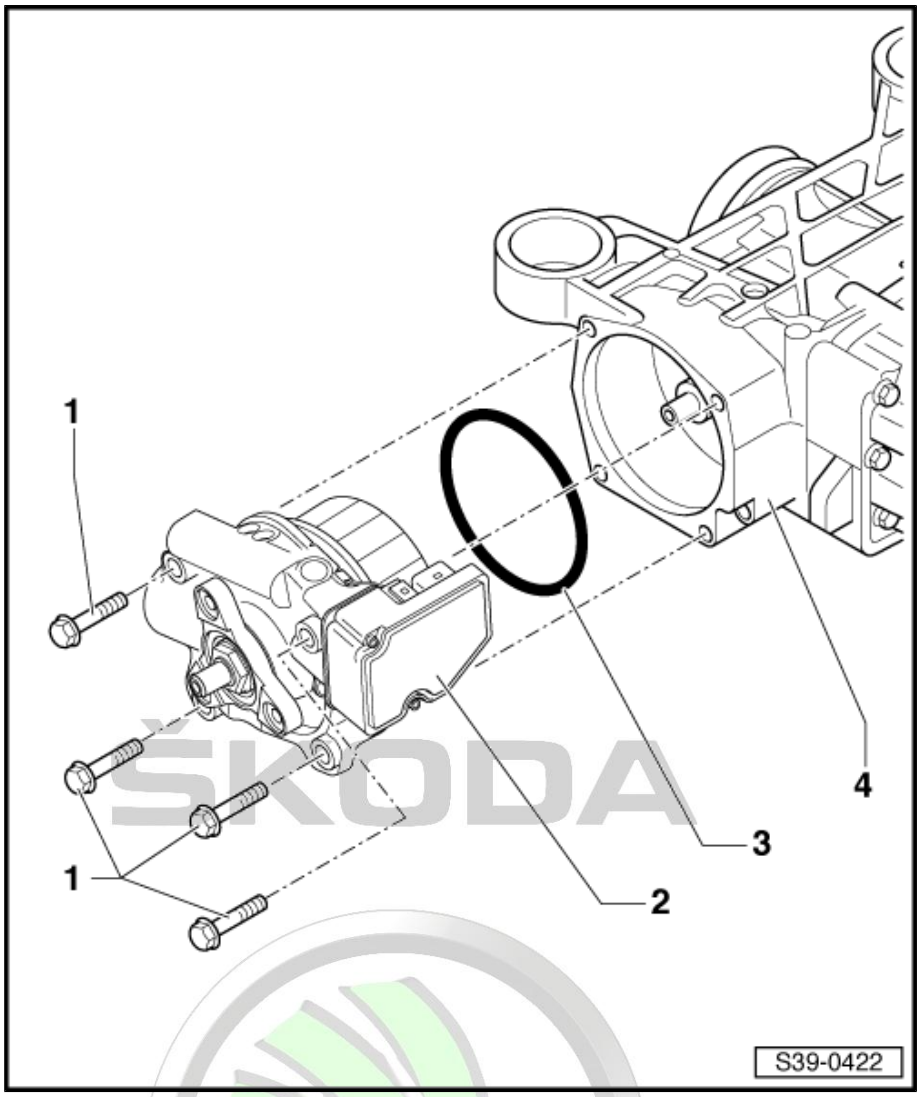
- ❑ with control unit
- ❑ wymontowanie i zamontowanie ⇒ page 136

3 - O-ring

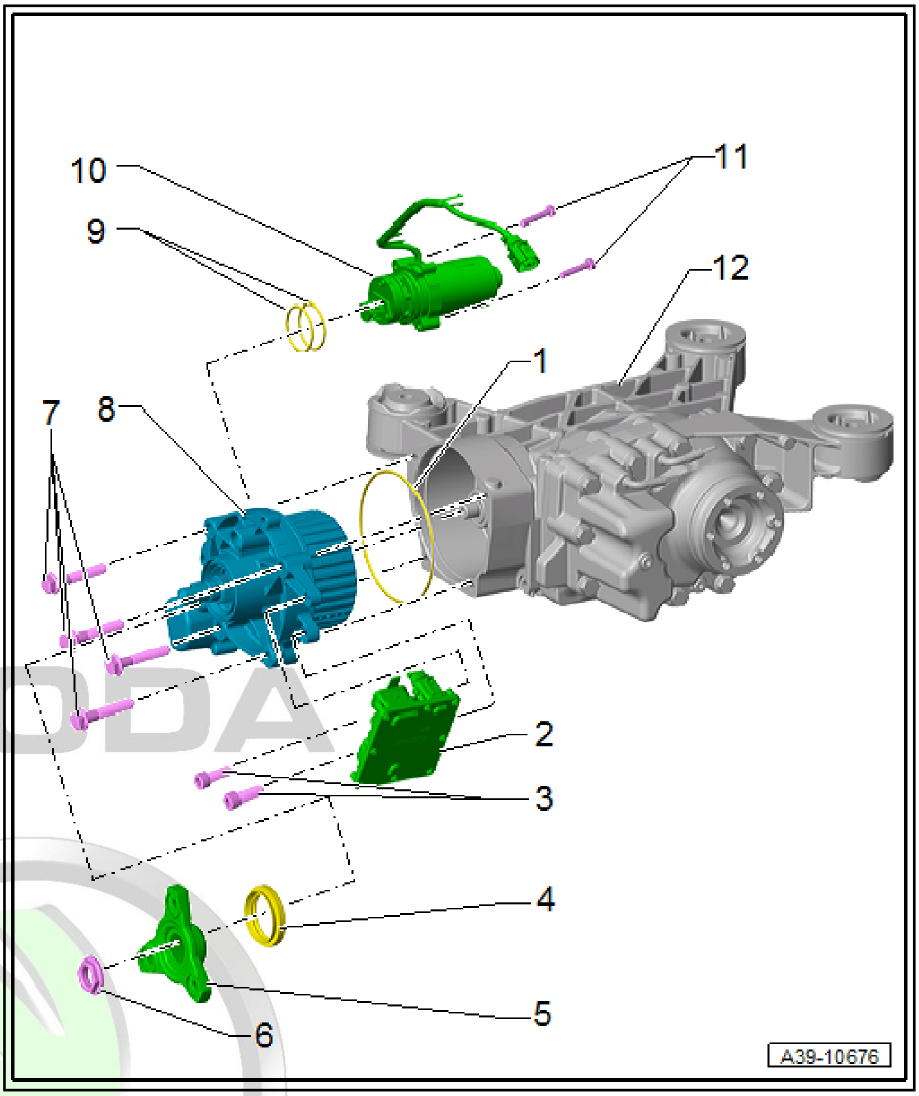
- ❑ wymontowanie i zamontowanie ⇒ page 136
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts
- ❑ insert with high efficiency oil for Haldex couplings
- ❑ Oil specification ⇒ Electronic Catalogue of Original Parts

4 - Final drive

- ❑ wymontowanie i zamontowanie ⇒ page 77



7.1.3 Summary of components - Haldex coupling V generation



1 - O-ring

- ❑ replace after each removal
- ❑ coat with high efficiency oil for Haldex couplings before inserting

2 - Four-wheel drive control unit - J492-

- ❑ wymontowanie i zamontowanie ⇒ page 161

3 - Screw

- ❑ 2 pieces
- ❑ 9.5 Nm

4 - Sealing ring

- ❑ for propshaft flange
- ❑ Renew. ⇒ page 108 .

5 - Propshaft flange

- ❑ wymontowanie i zamontowanie ⇒ page 108

6 - Nut

- ❑ replace after each removal
- ❑ secure with locking agent - D 000 600-
- ❑ 210 Nm

7 - Screw

- ❑ 4 pieces
- ❑ 50 Nm

8 - housing for Haldex coupling

- ❑ Removing and installing Haldex coupling ⇒ page 136

9 - O-ring

- ❑ 2 pieces
- ❑ ∅ 43.5 mm
- ❑ for pump for Haldex coupling - V181-
- ❑ replace
- ❑ coat with high efficiency oil for Haldex couplings before inserting

10 - Pump for Haldex coupling - V181-

- ❑ wymontowanie i zamontowanie ⇒ page 130

11 - Screw

- ❑ 2 pieces
- ❑ 9.5 Nm

12 - Rear final drive

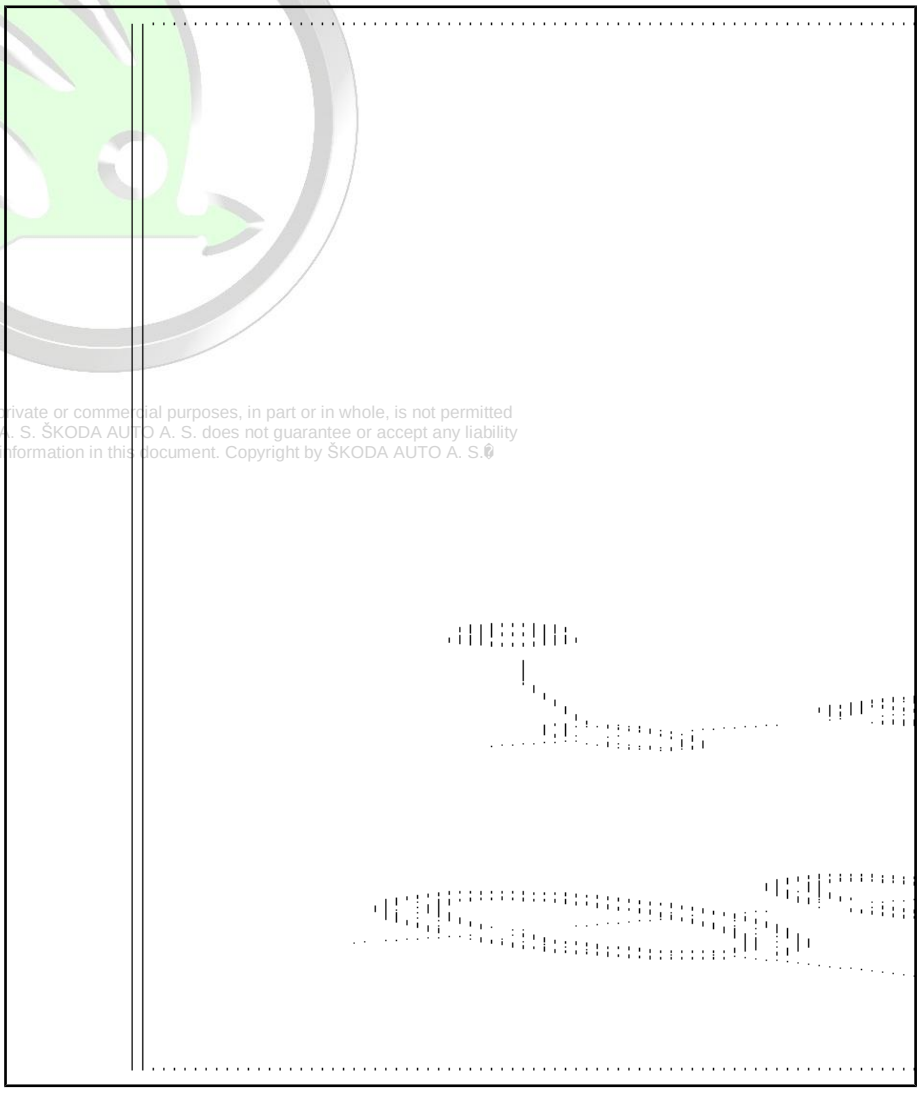
- ❑ wymontowanie i zamontowanie ⇒ page 77

7.2 Summary of components - control unit

⇒ "7.2.1 Summary of components- four-wheel drive control unit J492 Haldex coupling of 2nd generation", page 124

⇒ "7.2.2 Summary of components- Four-wheel drive control unit J492 Haldex coupling of IV generation 2nd generation", page 126

7.2.1 Summary of components- four-wheel drive control unit - J492- Haldex coupling of 2nd generation



1 - Four-wheel drive control unit - J492-

- ❑ is calibrated with the valve for control of the opening degree of the coupling - N373- pos. 4
- ❑ always replace together with the valve for control of the opening degree of the coupling - N373- Pos. 4
- ❑ wymontowanie i zamontowanie ⇒ page 161

2 - 6 Nm

3 - Cover

- ❑ with vulcanized gasket
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

4 - valve for control of the opening degree of the coupling - N373-

- ❑ is calibrated with the four-wheel drive control unit - J492-
- ❑ always replace together with the four-wheel drive control unit - J492- Pos. 1

5 - Sealing ring

- ❑ Diameter 12 mm
- ❑ for valve for control of the opening degree of the coupling - N373-
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

6 - Sealing ring

- ❑ Diameter 11 mm
- ❑ for valve for control of the opening degree of the coupling - N373-
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

7 - Sealing ring

- ❑ in the housing of the Haldex coupling
- ❑ moisten with high efficiency oil for Haldex coupling and insert

- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

8 - Sealing ring

- ❑ for pressure sensor
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

9 - Pressure sensor

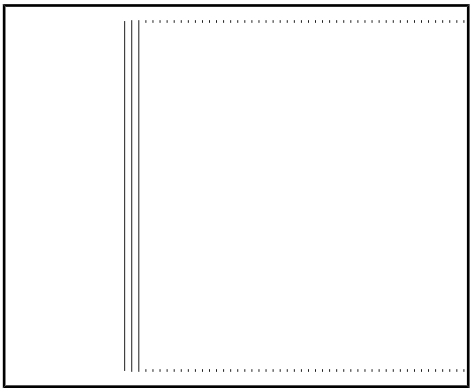
- ❑ can be re-used when replacing the control unit

10 - Disc spring

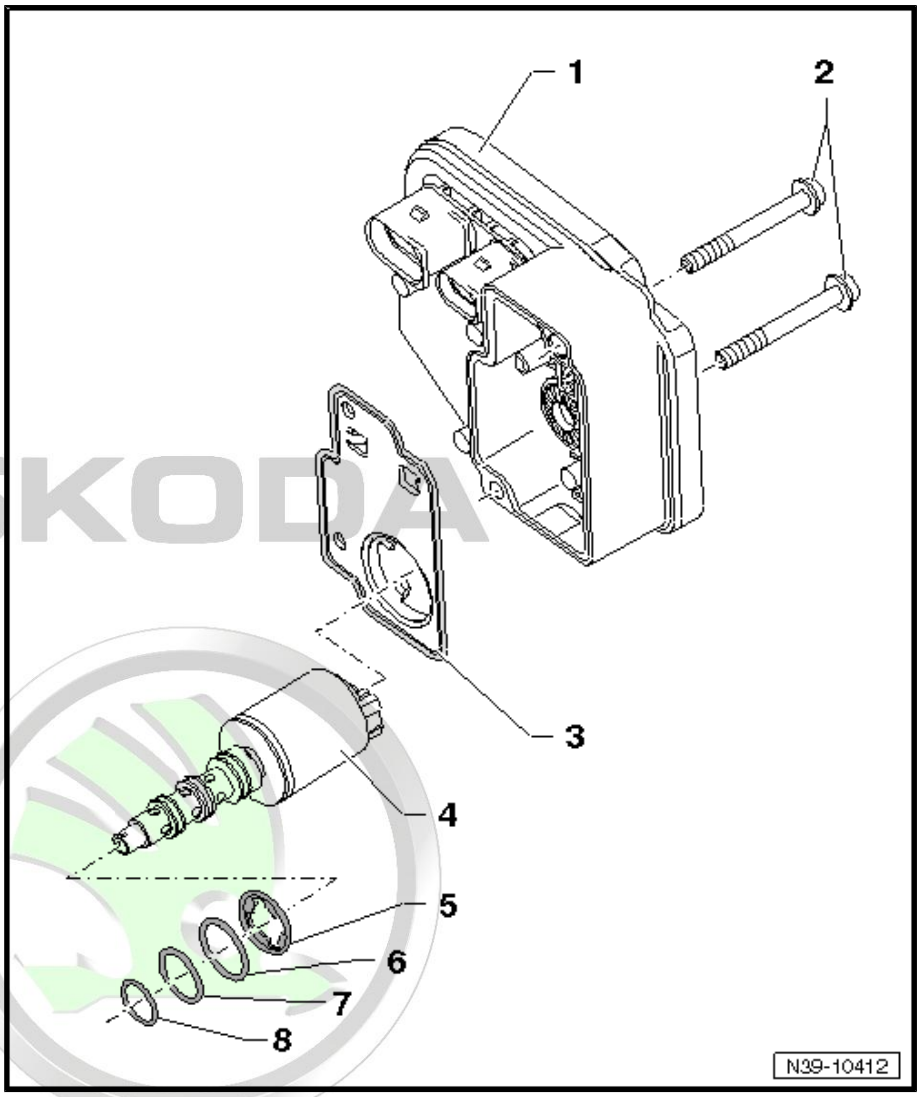
- ❑ położenie montażowe ⇒ page 125

Fitting position of the disc spring

The marking -arrow- on the curved side of the disc spring -2- points in the fitting position upwards and towards the pressure sensor -1-.



7.2.2 Summary of components- Four-wheel drive control unit - J492- Haldex coupling of IV generation 2nd generation



1 - Four-wheel drive control unit - J492-

- ❑ is calibrated with the valve for control of the opening degree of the coupling - N373- pos. 4
- ❑ always replace together with the valve for control of the opening degree of the coupling - N373- Pos. 4
- ❑ wymontowanie i zamontowanie ⇒ page 164

2 - Screw

- ❑ 6 Nm

3 - Cover

- ❑ with vulcanized gasket
- ❑ remains glued on the control unit or on the housing of the Haldex coupling during removal
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

4 - valve for control of the opening degree of the coupling - N373-

- ❑ is calibrated with the four-wheel drive control unit - J492-
- ❑ always replace together with the four-wheel drive control unit - J492- Pos. 1
- ❑ wymontowanie i zamontowanie ⇒ page 164

5 - Sealing ring

- ❑ pay attention to correct fit of the centering lips in the groove
- ❑ for valve for control of the opening degree of the coupling - N373-
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

6 - Sealing ring

- ❑ Inner diameter 12 mm
- ❑ for valve for control of the opening degree of the coupling - N373-
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

7 - Sealing ring

- ❑ Inner diameter 11 mm
- ❑ for valve for control of the opening degree of the coupling - N373-
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

8 - Sealing ring

- ❑ Inner diameter 10 mm
- ❑ for valve for control of the opening degree of the coupling - N373-
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ replace after each disassembly ⇒ electronic catalogue of original parts

7.3 Functional test

⇒ "7.3.1 Functional test for opened Haldex coupling of 2nd generation", page 127

⇒ "7.3.2 Functional test for closed Haldex coupling of 2nd generation", page 128

⇒ "7.3.3 Functional tests Haldex coupling, IV generation 2nd generation", page 128

⇒ "7.3.4 Functional tests Haldex coupling, V generation", page 129

Note

Before repairing the Haldex coupling, try to determine the origin of the damage as accurately as possible using the ⇒ Vehicle diagnostic tester in the functions "Targeted fault finding", "Vehicle self-diagnosis" and "Measuring method".

7.3.1 Functional test for opened Haldex coupling of 2nd generation

Test conditions

- ♦ Oil level of the Haldex coupling is O.K.
- ♦ Check oil level in the Haldex coupling ⇒ page 117
- ♦ Correct engine control unit and ABS control unit installed (check coding and identification number on control units).

– Raise vehicle ⇒ Maintenance ; Booklet .

Note

For safety reasons, the vehicle must be placed on the lifting platform in such a way that the wheels have no contact with the ground. Proceed carefully when inspecting.

– Actuate clutch pedal.

– Start engine.

– 1. gear and drive off slowly.

Now all 4 wheels must turn.

– Apply handbrake.

The rear wheels must come to a standstill, while the front wheels continue to turn.

- If the rear wheels do not turn:

The Haldex coupling is open, the function is O.K.

- If the rear wheels turn:

The Haldex coupling is closed. Possible cause of fault:

- Main pressure regulating valve can clamp.
- Mechanical fault of the Haldex coupling.
- Four-wheel drive control unit - J492- on rear final drive is defective.
- Handbrake warning switch - F9- is defective.

7.3.2 Functional test for closed Haldex coupling of 2nd generation

Test conditions

- Oil level of the Haldex coupling is O.K.
- Check oil level in the Haldex coupling ⇒ page 117
- Correct engine control unit and ABS control unit installed (check coding and identification number on control units).

– Raise vehicle ⇒ Maintenance ; Booklet Octavia II .

Note

For safety reasons, the vehicle must be placed on the lifting platform in such a way that the wheels have no contact with the ground. Proceed carefully when inspecting.

– Actuate clutch pedal.
– Start engine.
– 2. gear.
– Pull on the handbrake and slowly apply the clutch.

The engine must now stall.

- If the engine has stalled:

The Haldex coupling is closed, the function is O.K.

- If the engine has not stalled:

The Haldex coupling is open. Possible cause of fault:

- Main pressure regulating valve can clamp.
- Mechanical fault of the Haldex coupling.
- Four-wheel drive control unit - J492- on rear final drive is defective.

7.3.3 Functional tests Haldex coupling, IV generation 2nd generation

Special tools and workshop equipment required

- Vehicle Diagnosis, Measurement and Information System - VAS-

Note

- *The Haldex coupling is tested on the lift platform using the vehicle diagnosis, measurement and information system - VAS- .*
- *For safety reasons, the vehicle must be placed on the lifting platform in such a way that the wheels have no contact with the ground. Proceed carefully when inspecting.*

Functional test

– Connect the vehicle diagnosis, measurement and information system - VAS- to the diagnostic connection once the ignition is switched off.

– Chose the appropriate vehicle.

– `Inspect operation of Haldex coupling` .

– Follow the instructions on the tester.

7.3.4 Functional tests Haldex coupling, V generation

Note

The Haldex coupling is checked during a test drive with the ⇒ Vehicle diagnostic tester.

WARNING

To prevent accidents during measurement and test drives, observe the safety measures ⇒ page 10 .

– Perform function ⇒ Vehicle diagnostic tester, `guided functions` .

– Start actuator diagnosis and follow the instructions on the tester.

7.4 removing and installing oil filter

⇒ "7.4.1 Removing and installing oil filter for Haldex coupling of II generation", page 129

7.4.1 Removing and installing oil filter for Haldex coupling of II generation

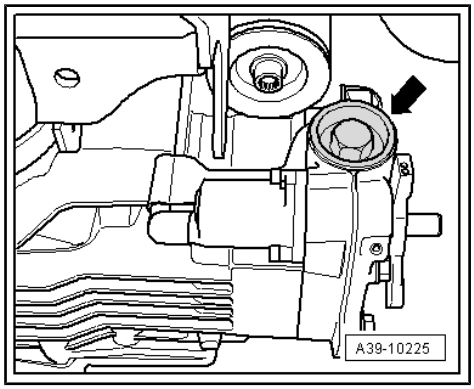
Special tools and workshop equipment required

- Catch pan

Note

On vehicles with Haldex coupling, 4th generation, the oil filter is not replaced.

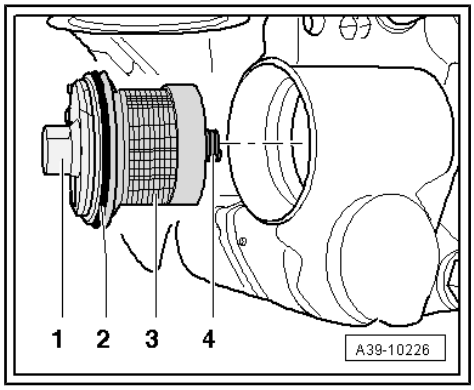
Removing



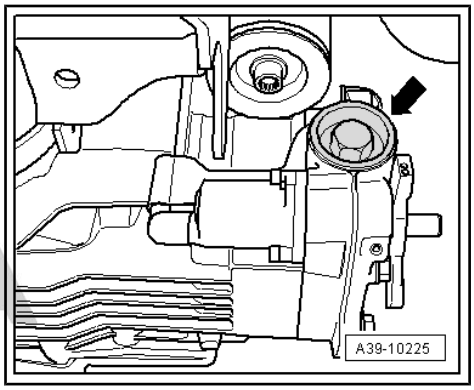
– Place a catch pan under the rear final drive.
– Unscrew cap -arrow-.
– Pull out oil filter unit.

Install

Installation is performed in the reverse order, pay attention to the following points:



– Install O-ring -2- onto the oil filter carrier -1-.
– Insert connecting spring -4- into the oil filter -3-.



– Screw in screw cap -arrow- with a new O-ring and tighten to tightening torque ⇒ page 151 .
– Check oil level in the Haldex coupling ⇒ page 117 .

7.5 Removing and installing pump for Haldex coupling

⇒ “7.5.1 Removing and installing pump for Haldex coupling of II generation”, page 130

⇒ “7.5.2 Removing and installing pump for Haldex coupling of IV generation 2nd generation”, page 132

⇒ “7.5.3 Removing and installing pump for Haldex coupling, V generation”, page 134

7.5.1 Removing and installing pump for Haldex coupling of II generation

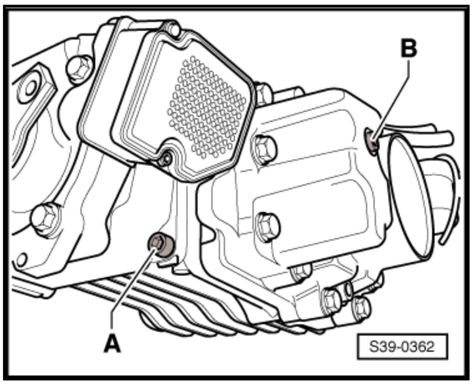
Special tools and workshop equipment required

♦ Catch pan

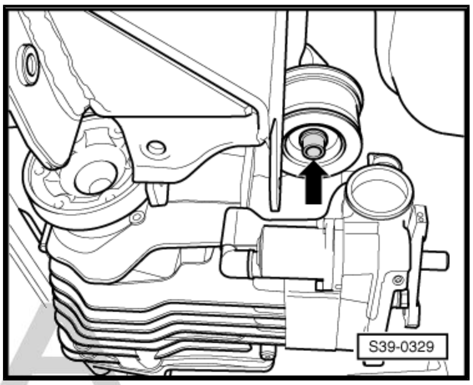
Removing

– Switch off ignition.
– Place catch pan under the final drive.

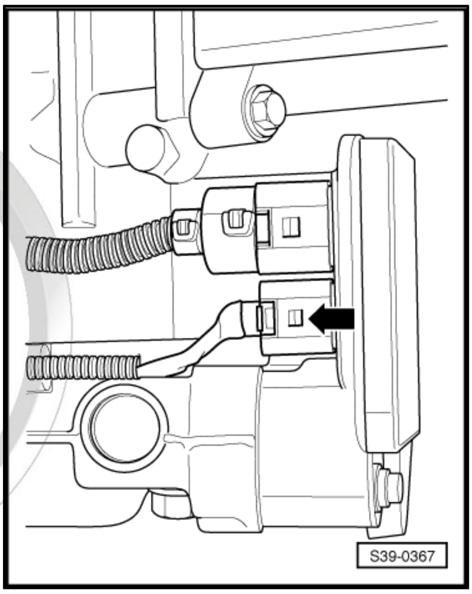
– Release oil check screw -B-.
– Unscrew oil drain plug -A- and completely drain high efficiency oil for Haldex coupling .
– Screw in new oil drain plug -A- using a new sealing ring and tighten to 30 Nm.



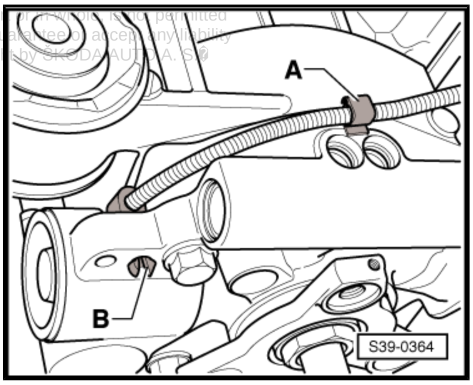
– Slightly lower the final drive, to do so the fixing screw must be released by approx. 7 turns at the front bracket of the final drive.



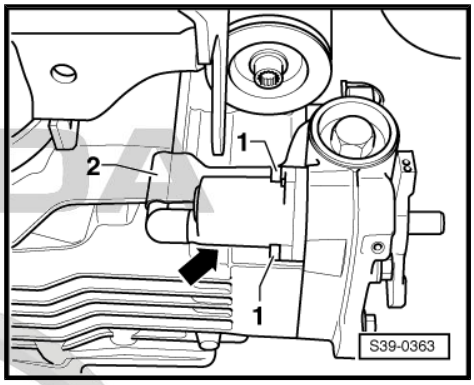
– Disconnect plug -arrow- for the pump from the control unit.



– Pull out wiring loom together with the holder -A- from the housing and expose.
– Compress catch pegs -B- and push as far as possible into the housing hole.



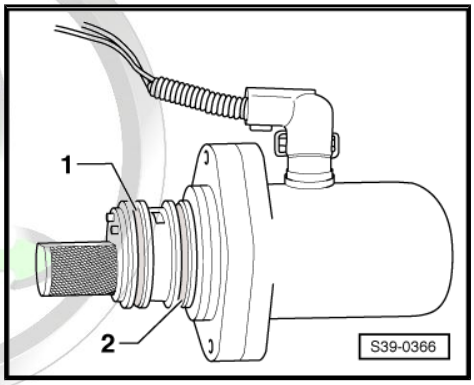
– Screw out the fixing screws of the pump -1-.
– Pull the pump -arrow- together with the cable protection -2- out of the housing for the Haldex coupling.



Install

Installation is performed in the reverse order, pay attention to the following points:

– Replace O-ring -1- and -2- ⇒ Electronic Catalogue of Original Parts .
– Coat O-rings -1- and -2- thinly with high efficiency oil for Haldex couplings .
– Fill up with high efficiency oil for Haldex coupling and check oil level in the Haldex coupling ⇒ page 117 .



Tightening torques

Component	Nm
Pump to Haldex coupling	6
Oil check screw[2)]	15
Oil drain plug[2)]	40
Rear final drive to assembly carrier [1]	⇒ Chassis; Rep. gr. 42

[1)] Replace screws ⇒ Electronic Catalogue of Original Parts .

[2)] Replace screw with sealing ring ⇒ Electronic Catalogue of Original Parts .

7.5.2 Removing and installing pump for Haldex coupling of IV generation 2nd generation

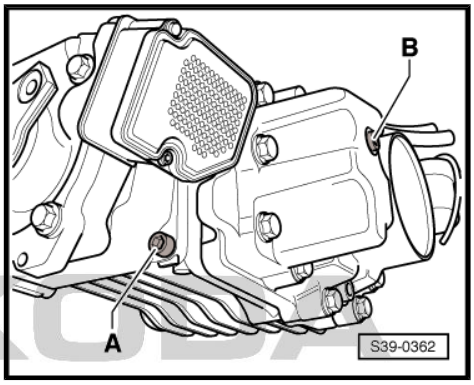
Special tools and workshop equipment required

♦ Catch pan

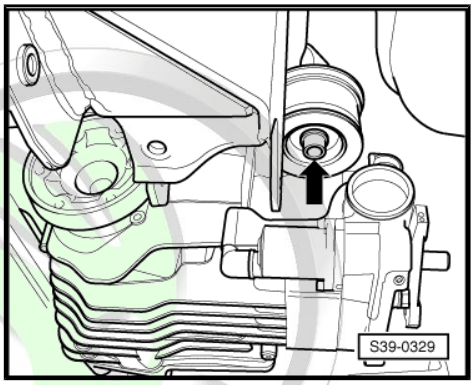
Removing

– Switch off ignition.
– Place catch pan under the final drive.

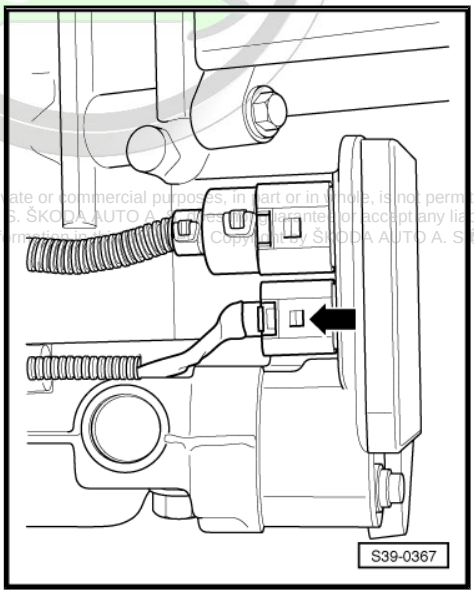
– Release oil check screw -B-.
– Unscrew oil drain plug -A- and completely drain high efficiency oil for Haldex coupling .
– Screw in new oil drain plug -A- and tighten to the prescribed tightening torque.



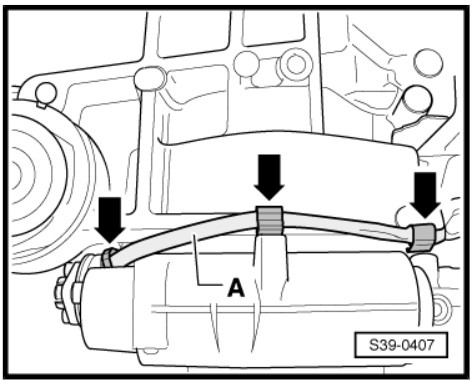
– Slightly lower the final drive, to do so the fixing screw -arrow- must be released by approx. 5 turns at the front bracket of the final drive.



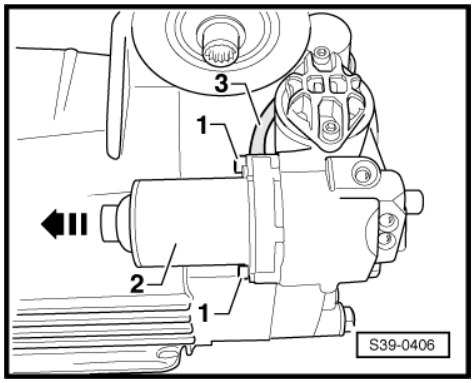
– Disconnect plug -arrow- for the pump from the control unit.



– Unclip the wiring loom -A- from the holders -arrows- and expose.



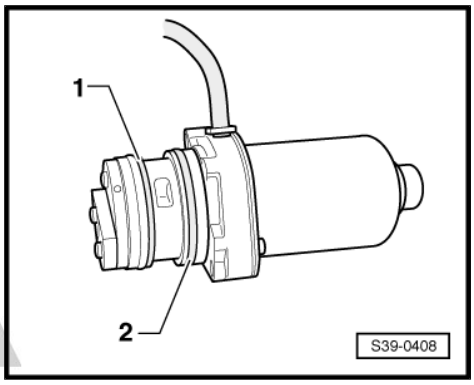
– Screw out the fixing screws -1- of the pump for Haldex coupling - V181- -2-.
– Pull the pump for Haldex coupling - V181- out of the housing for the Haldex coupling in -direction of arrow-, to do so guide through the wiring loom -3-.



Install

Installation is performed in the reverse order, pay attention to the following points:

– Replace O-ring -1- and -2- ⇒ Electronic Catalogue of Original Parts .
– Coat O-rings -1- and -2- thinly with high efficiency oil for Haldex coupling .
– Fill up with high efficiency oil for Haldex coupling and check oil level in the Haldex coupling ⇒ page 117 .



Tightening torques

Component	Nm
Pump to Haldex coupling	6
Oil check screw[2)]	15
Oil drain plug[2)]	40
Rear final drive to assembly carrier[1]	⇒ Chassis; Rep. gr. 42

[1)] Replace screws ⇒ Electronic Catalogue of Original Parts .

[2)] Replace screw with sealing ring ⇒ Electronic Catalogue of Original Parts .

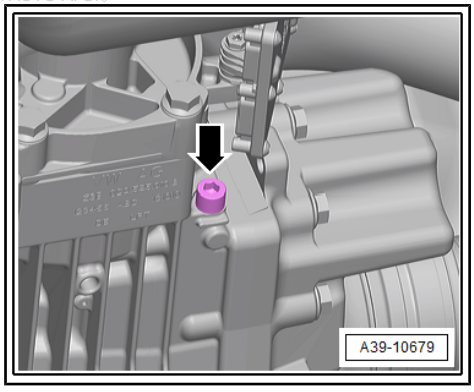
7.5.3 Removing and installing pump for Haldex coupling, V generation

Special tools and workshop equipment required

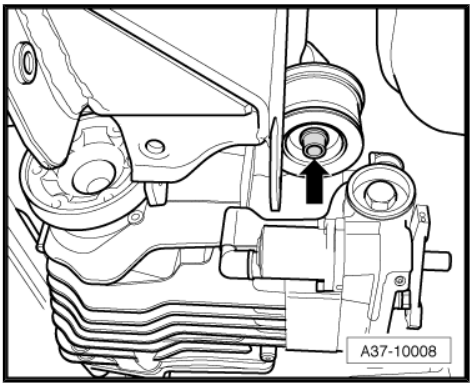
♦ Used oil collector and extractor - V.A.G 1782-

Removing

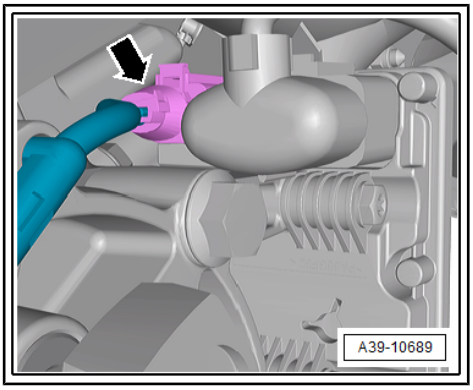
– Switch off ignition.
– Place old oil collecting and suction equipment - V.A.G 1782- under the separation point.
– Unscrew drain plug -arrow- and drain all high efficiency oil for Haldex couplings .
– Screw in new drain plug -arrow- with a new gasket ring.



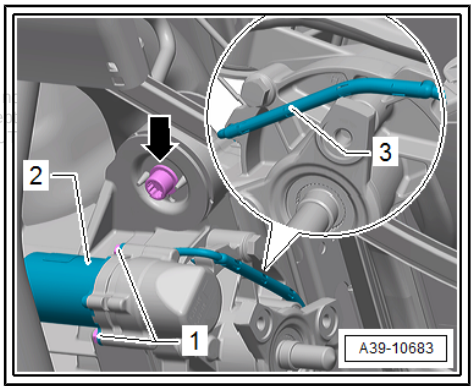
– Slightly lower the final drive; to do so, unscrew the fixing screw -arrow- from the front bracket of the final drive by approx. 7 turns.



– Disconnect the plug -arrow- of the pump for Haldex coupling from four-wheel drive control unit .



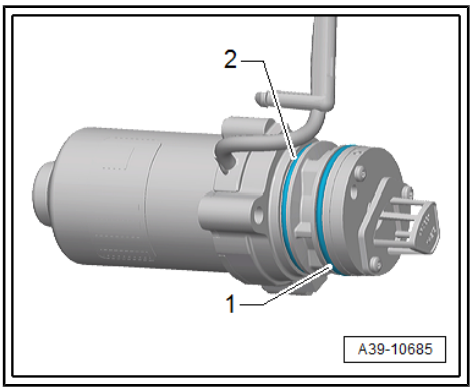
– Unclip electrical wiring harness -3- of the pump for Haldex coupling from the housing and expose.
– Hand-tighten the mounting screw -arrow- on the front bracket of the rear final drive.
– Place old oil collecting and suction equipment - V.A.G 1782- under the separation point.
– Unscrew screws -1- of the pump for Haldex coupling .
– Pump for Haldex coupling -2- draw from the Haldex housing.



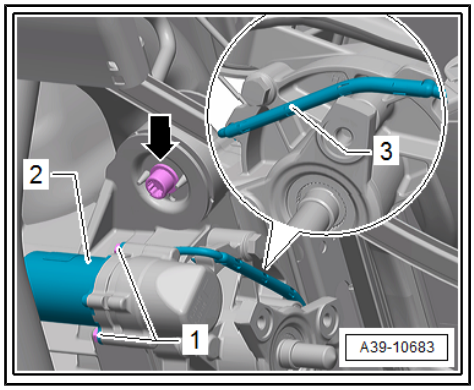
Install

Installation is performed in the reverse order, pay attention to the following points:

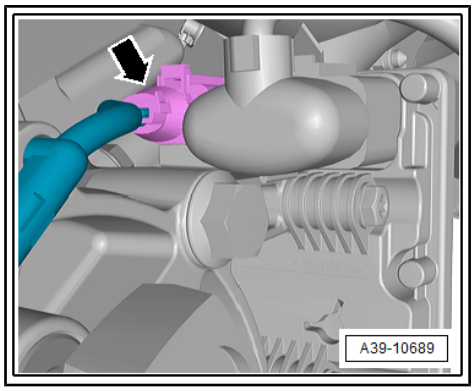
– Replace O-rings -1- and -2-.
– Coat O-rings -1- and -2- thinly with high efficiency oil for Haldex coupling .



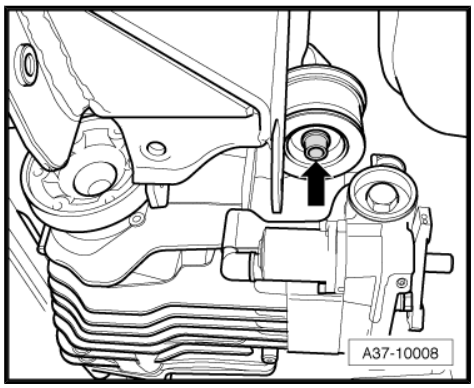
– Push pump for Haldex coupling -2- up to the stop in the Haldex housing. Observe the correct routing of the electrical wiring harness -3-.
– Tighten screws -1-.
– Unscrew the fixing screw -arrow- from the front bracket of the final drive by approx. 7 turns.



– Connect the plug -arrow- of the pump for Haldex coupling to four-wheel drive control unit .



– Secure rear final drive with new bolts -arrow- to the rear assembly carrier.
– Fill up with high efficiency oil for Haldex couplings and check oil level in the Haldex coupling ⇒ page 117 .



Tightening torques

- Pump for Haldex coupling to Haldex coupling ⇒ page 123 .
- Rear final drive to rear assembly carrier ⇒ page 75 .
- Drain plug and filler plug for high efficiency oil for Haldex coupling ⇒ page 117 .

7.6 Removing and installing Haldex coupling

⇒ “7.6.1 Removing and installing the Haldex coupling of the 2nd generation”, page 136

⇒ “7.6.2 Disassembling and assembling the Haldex coupling, IV generation 2nd generation”, page 141

⇒ “7.6.3 Removing and installing Haldex coupling of V generation”, page 146

7.6.1 Removing and installing the Haldex coupling of the 2nd generation

Special tools and workshop equipment required

- Guide bars - T10093-
- Engine/gearbox jack , e.g. -V.A.G 1383A-
- Catch pan
- Counterholder - T10172-

♦ Adapter - T10172/5-

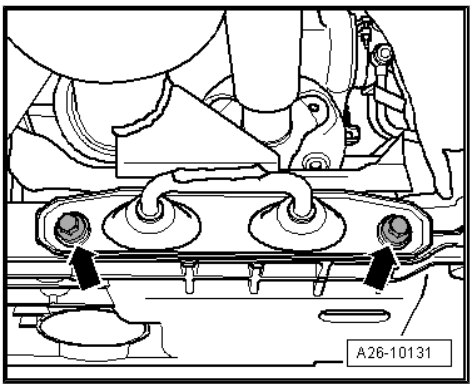
• Rear final drive is installed.

Removing

– Raise vehicle.

– Separate exhaust system at the clamping sleeve and remove bracket for the exhaust system from the assembly carrier ⇒ Engine; Rep. gr. 26 .

– Tie up pre-exhaust pipe.



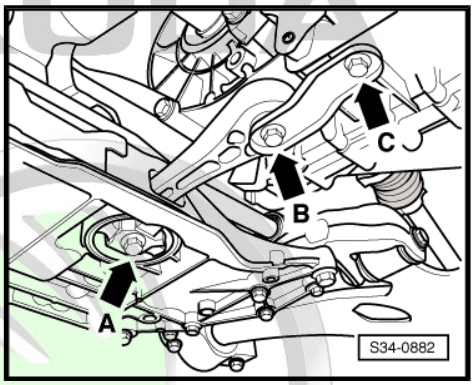
Caution

The decoupling elements in the exhaust pipe should not be bent by more than 10° - risk of damage.

– Remove the rear part of the exhaust system as from the clamping sleeve ⇒ Engine; Rep. gr. 26 .

– Remove the heat shield below the propshaft.

– Remove pendulum support from gearbox, to do so release the bolts -B-and arrow -C-.

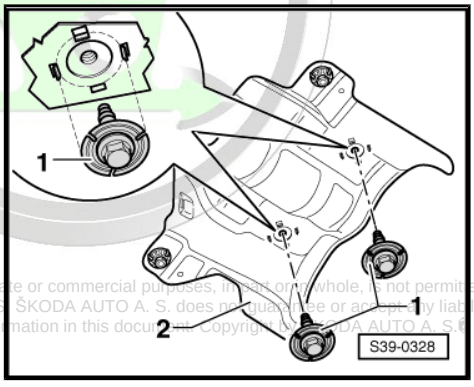


Note

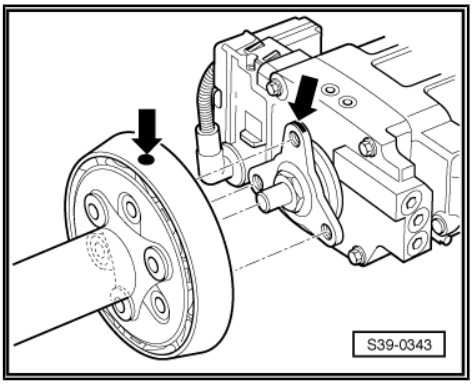
Do not release screw -A-.

– Remove the heat shield -2- below the propshaft, to do so release the screws -1-.

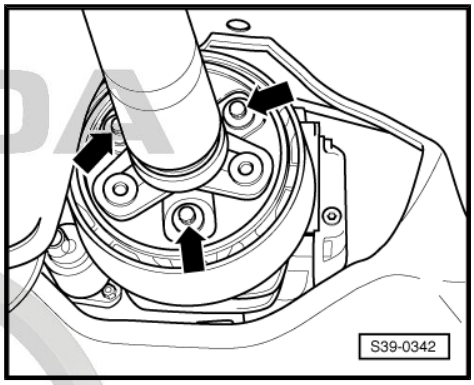
– After removing the heat shield screw on again by hand the intermediate bearing of the propshaft with the screws -1-.



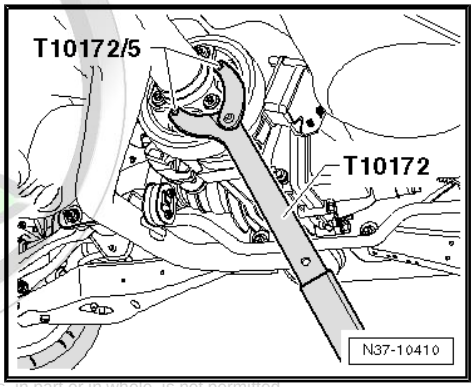
– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.



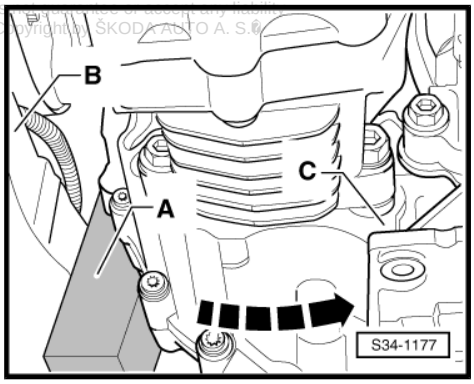
– Unscrew propshaft with flexible disk and oscillation damper from rear final drive -arrows-.



When loosening and tightening, counterhold the propshaft on the rear final drive.

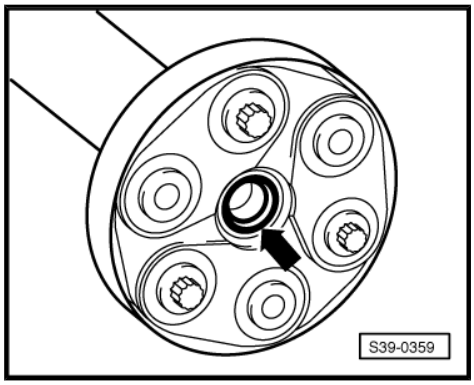


– Have a 2nd mechanic press the engine/gearbox unit forwards in the -direction of arrow- and place a suitable block of wood -A- (around 50 mm thick) between the assembly carrier -B- and gearbox -C-.
– While doing so, remove the propshaft from the flange at the Haldex coupling (centering stud) on the rear final drive.

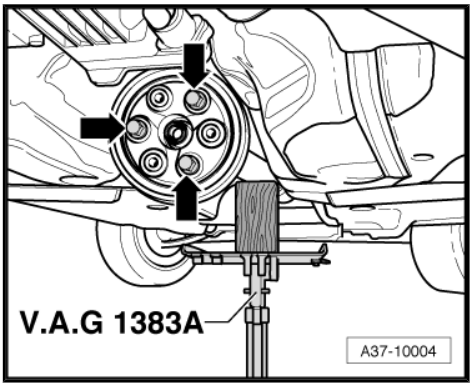


Note

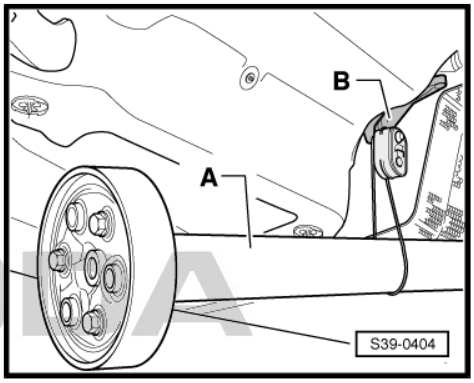
Do not tilt propshaft when removing, pull off horizontally from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.



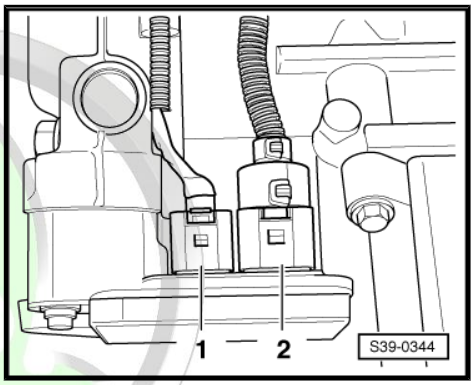
– Support propshaft with engine/gearbox jack , e.g. -V.A.G 1383A - .



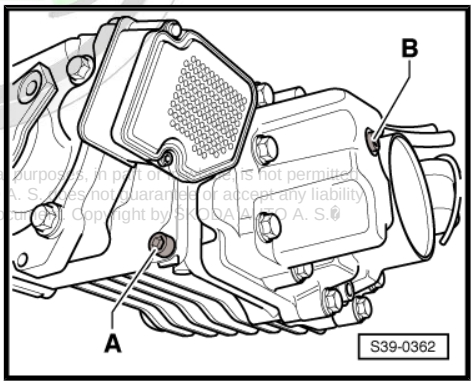
– Tie up the rear part of the propshaft -A- for the suspension -B- of the exhaust gas system.



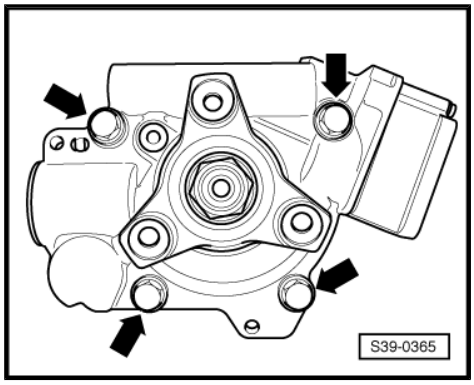
– Disconnect plug connection -2-.
– Place catch pan under the final drive.



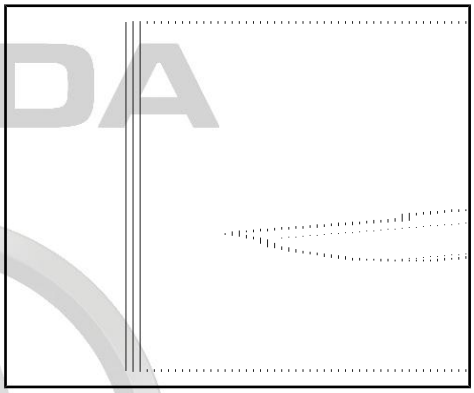
– Release oil check screw -B-.
– Unscrew oil drain plug -A- and completely drain high efficiency oil for Haldex coupling .
– Screw in new oil drain plug -A- using a new sealing ring and tighten to tightening torque.



– Release fixing screws -arrows- and pull Haldex coupling out of the rear final drive.



– Remove the previously installed O-ring -arrow- from the Haldex coupling.



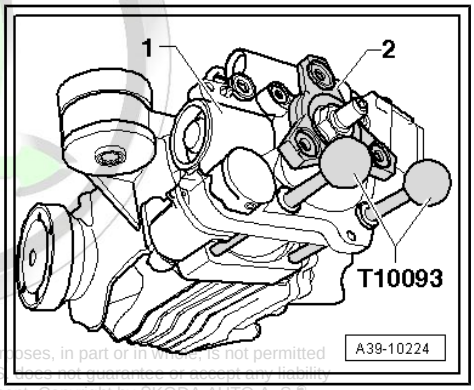
Install

Installation is performed in the reverse order, pay attention to the following points:

– Insert a new O-ring and lightly oil with high-performance oil for Haldex coupling .

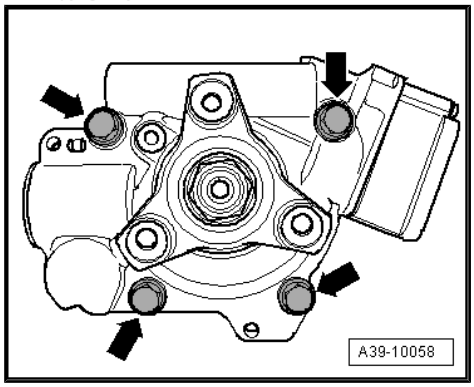
– Insert Haldex coupling -1- into the rear final drive. Screw in guide bars - T10093- for precise guidance.

– Turn at flange/propshaft -2- and insert Haldex coupling up to the stop.

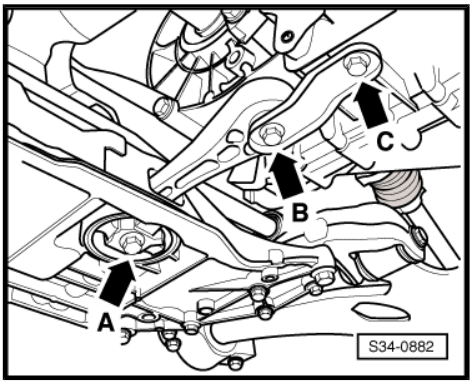


– Unscrew guide bars - T10093- and tighten screws -arrows- to specified tightening torque.

– Install propshaft at rear final drive ⇒ page 24 .

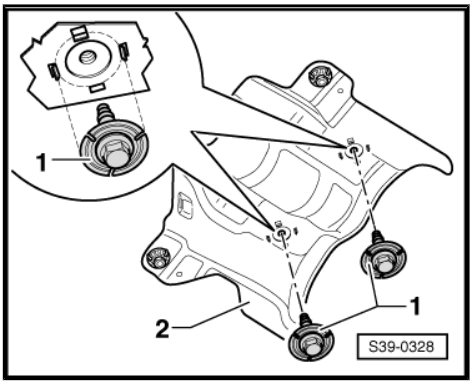


– Tighten the pendulum support with new screws -B- and -C- on the gearbox. Tightening torques ⇒ Engine; Rep. gr. 10 .
– Align intermediate bearing free of stress and tighten. Tightening torque ⇒ page 47 .



When screwing the heat shield -2- with the intermediate bearing make sure that the screws -1- are within the four centering tabs.

– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .
– Fill up with high efficiency oil for Haldex coupling and check oil level in the Haldex coupling ⇒ page 117 .



Tightening torques

Component	Nm
Oil check screw[1)]	15
Oil drain plug[1)]	40
Propshaft to rear final drive	⇒ page 17
Haldex coupling to rear final drive	⇒ page 120

[1)] Replace screw with sealing ring ⇒ Electronic Catalogue of Original Parts .

7.6.2 Disassembling and assembling the Haldex coupling, IV generation 2nd generation

Special tools and workshop equipment required

- Guide bars - T10093-
- Engine/gearbox jack , e.g. -V.A.G 1383A-
- Catch pan
- Counterholder - T10172-
- Adapter - T10172/5-
- Rear final drive is installed.

Removing

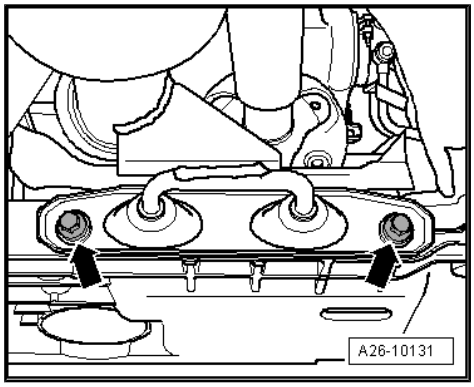
– Raise vehicle.

– Separate exhaust system at the clamping sleeve and remove bracket for the exhaust system from the assembly carrier ⇒ Engine; Rep. gr. 26 .

– Tie up pre-exhaust pipe.

Caution

The decoupling elements in the exhaust pipe should not be bent by more than 10° - risk of damage.



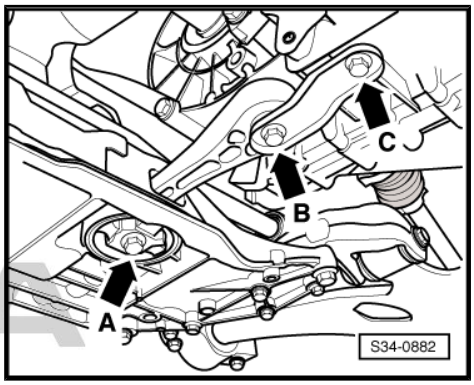
– Remove the rear part of the exhaust system as from the clamping sleeve ⇒ Engine; Rep. gr. 26 .

– Remove the heat shield below the propshaft.

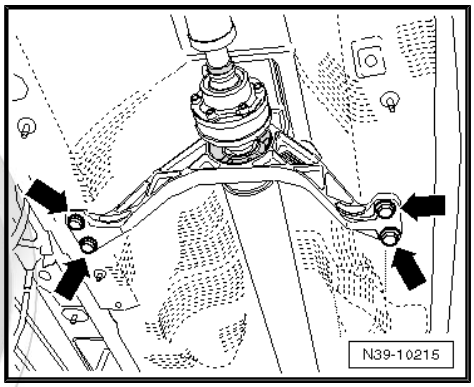
– Remove pendulum support from gearbox, to do so release the bolts -B-and arrow -C-.

Note

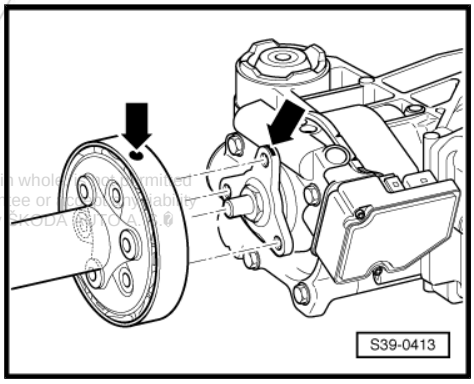
Do not release screw -A-.



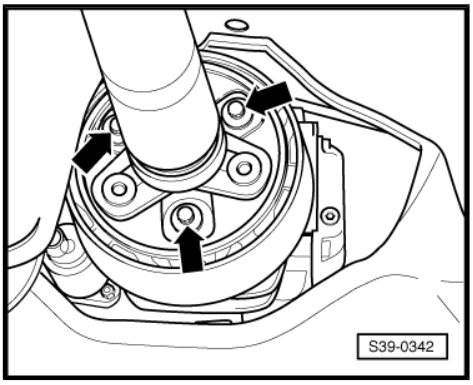
– Slacken the intermediate bearing of the propshaft from the body by approx. 4 turns -arrows-.



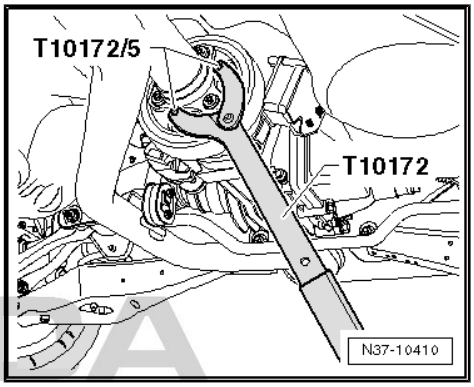
– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.



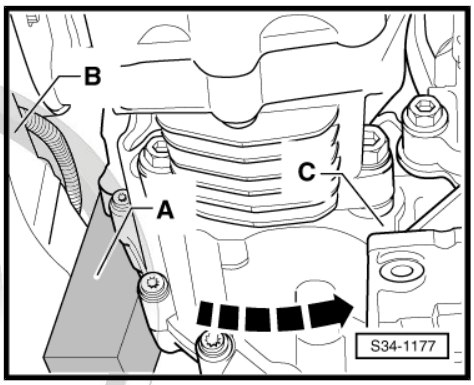
– Unscrew propshaft with flexible disk and oscillation damper from rear final drive -arrows-.



When loosening and tightening, counterhold the propshaft on the rear final drive.

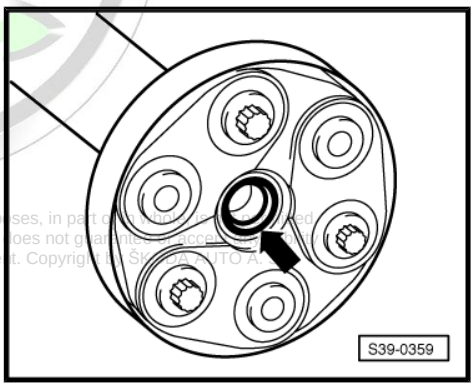


– Have a 2nd mechanic press the engine/gearbox unit forwards in the -direction of arrow- and place a suitable block of wood -A- (around 50 mm thick) between the assembly carrier -B- and gearbox -C-.
– While doing so, remove the propshaft from the flange at the Haldex coupling (centering stud) on the rear final drive.

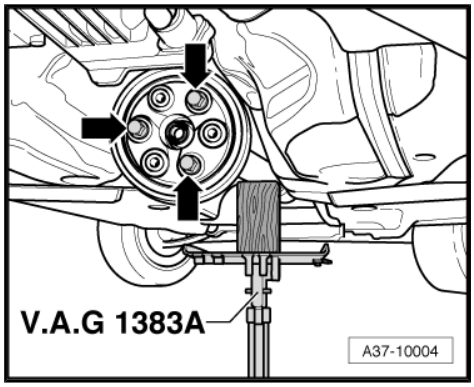


Note

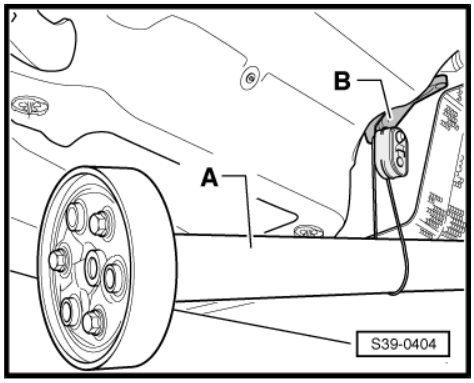
Do not tilt propshaft when removing, pull off horizontally from centering stud of rear final drive. The gasket ring/centering bushing -arrow- must not be damaged, otherwise the propshaft has to be replaced.



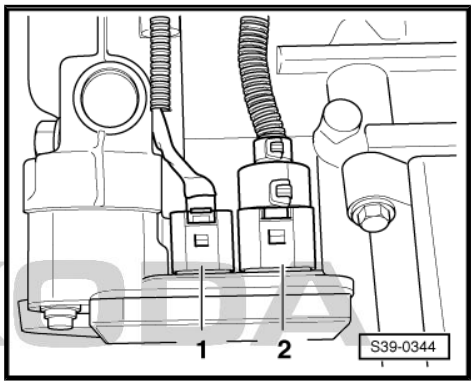
– Support propshaft with engine/gearbox jack , e.g. -V.A.G 1383A - .



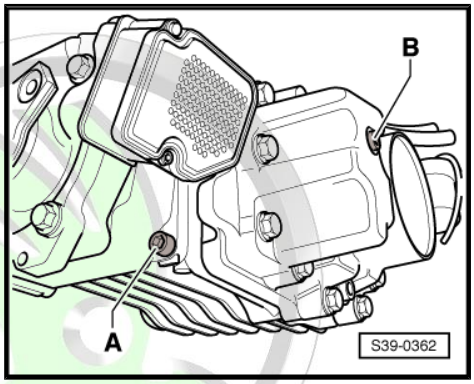
– Tie up the rear part of the propshaft -A- for the suspension -B- of the exhaust gas system.



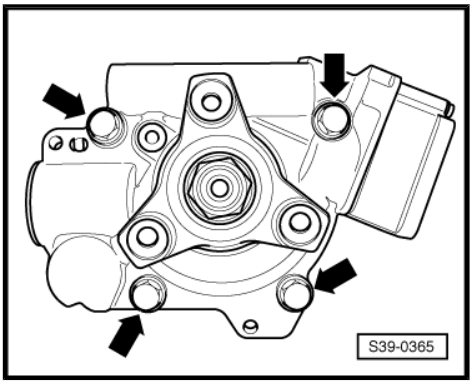
– Disconnect plug connection -2-.
– Place catch pan under the final drive.



– Release oil check screw -B-.
– Unscrew oil drain plug -A- and completely drain high efficiency oil for Haldex coupling .
– Screw in new oil drain plug -A- using a new sealing ring and tighten to tightening torque.



– Release fixing screws -arrows- and pull Haldex coupling out of the rear final drive.

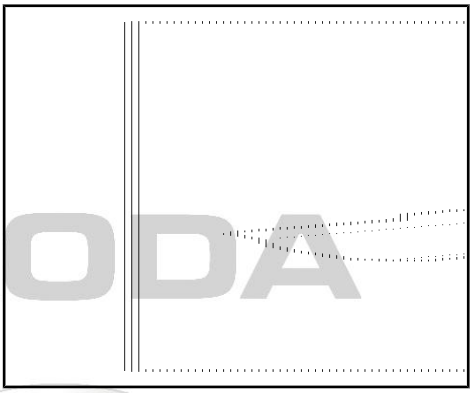


– Remove the previously installed O-ring -arrow- from the Haldex coupling.

Install

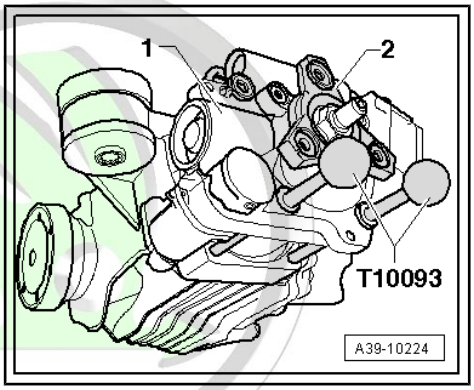
Installation is performed in the reverse order, pay attention to the following points:

– Insert a new O-ring and lightly oil with high-performance oil for Haldex coupling .



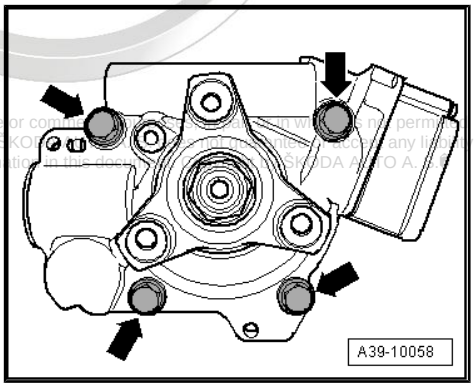
– Insert Haldex coupling -1- into the rear final drive. Screw in guide bars - T10093- for precise guidance.

– Turn at flange/propshaft -2- and insert Haldex coupling up to the stop.

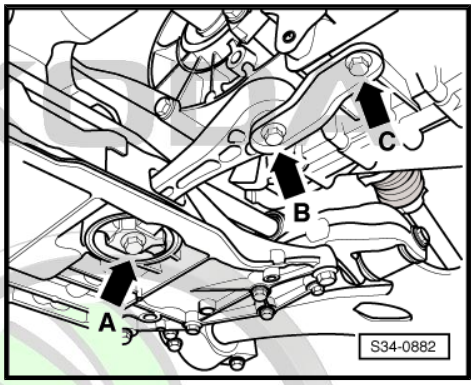


– Unscrew guide bars - T10093- and tighten screws -arrows- to specified tightening torque.

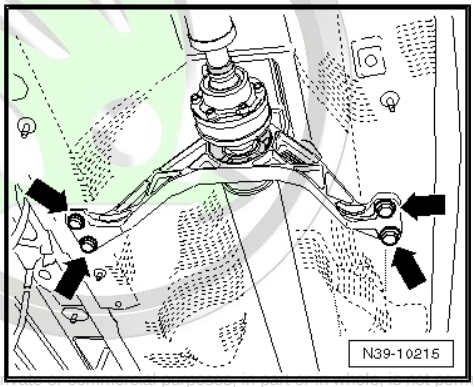
– Install propshaft at rear final drive ⇒ page 24 .



– Tighten the pendulum support with new screws -B- and -C- on the gearbox. Tightening torques ⇒ Engine; Rep. gr. 10 .



– Align intermediate bearing free of stress and tighten. Tightening torque ⇒ page 47 .
– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .
– Fill up with high efficiency oil for Haldex coupling and check oil level in the Haldex coupling ⇒ page 117 .



Tightening torques

Component	Nm
Oil check screw[1)]	15
Oil drain plug[1)]	40
Propshaft to rear final drive	⇒ page 17
Haldex coupling to rear final drive	⇒ page 120

[1)] Replace screw with sealing ring ⇒ Electronic Catalogue of Original Parts .

7.6.3 Removing and installing Haldex coupling of V generation

Rear final drive is installed.

Special tools and workshop equipment required

- Guide bars - T10093-
- counterholder - T10172- with adapters - T10172/5-
- Used oil collector and extractor - V.A.G 1782-

Caution

Risk of damage to the decoupling element of the exhaust system.

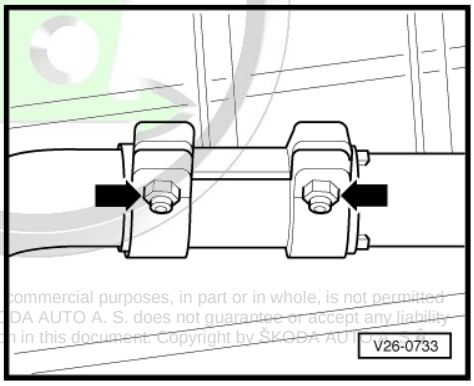
- *The decoupling element should not be bent by more than 10° - risk of damage.*
- *Do not load the decoupling element with tensile stress.*
- *Do not damage wire mesh on decoupling element.*

Removing

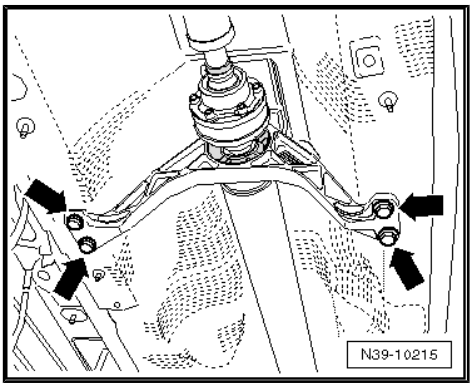
– Loosen nuts of clamping sleeve -arrow- and slide it backwards.

– Tie pre-exhaust pipe to the underfloor.

– Remove middle and rear part of exhaust system ⇒ Engine; Rep. gr. 26 .

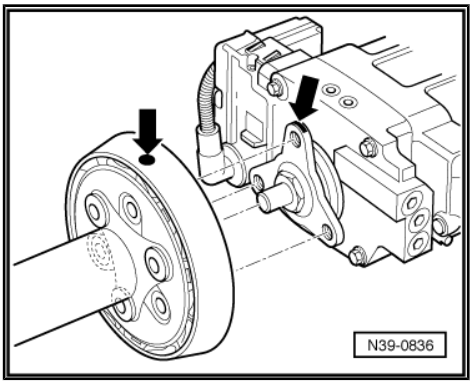


– Only loosen screws -arrows- for guide bearing of propshaft, do not remove.

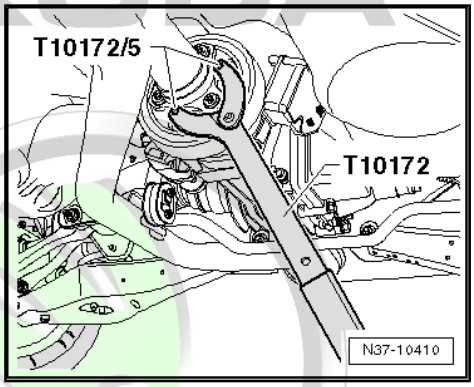


– Check if there are assembly markings (coloured points) on the flexible disk and on the propshaft flange on the rear final drive -arrows-.

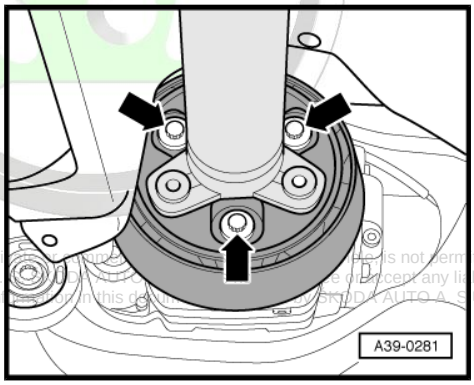
– If there are no markings, mark the mutual positions of the flexible disk and the propshaft flange on the rear final drive.



– When loosening and tightening the screws for the propshaft, hold the rear final drive with counterholder - T10172- with adapters - T10172/5- .



– Unscrew screws -arrows- of the screw connections of the propshaft/rear final drive.

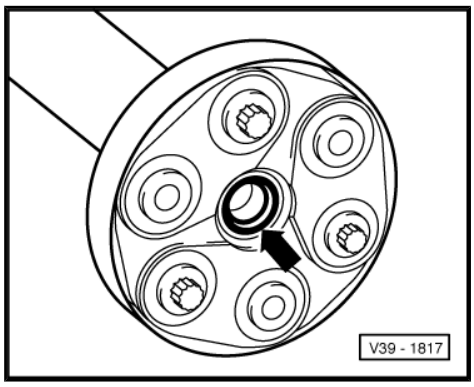


– Pull off the propshaft from the centering stud on the rear final drive, pressing the prop slightly forward.

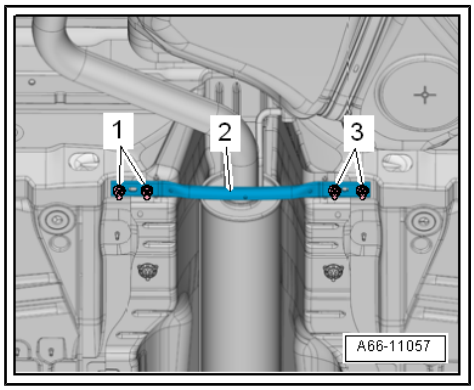
Caution

Risk of damage to the gasket ring -arrow- on the flange of the propshaft.

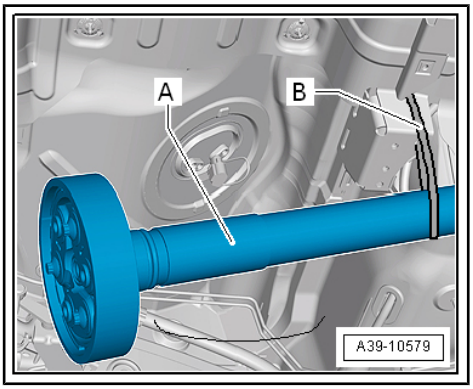
- ***Pull off propshaft horizontally from centering stud.***



– Remove rear tunnel bridge -2- ⇒ Body work; Rep. gr. 66 .



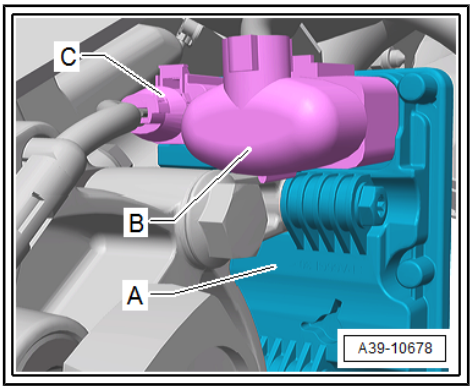
– Then tie rear end of propshaft -A-, e.g. with wire -B- to body.



– Disconnect plug -B- from four-wheel drive control unit - J492- -A-.

Note

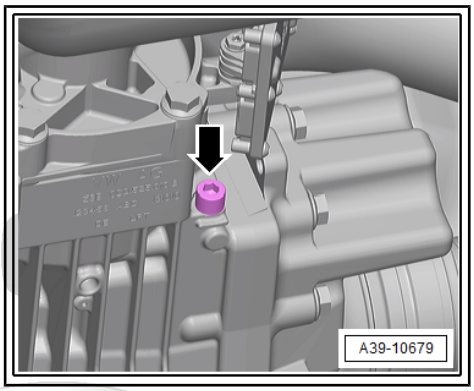
Do not disconnect plug connection -C-.



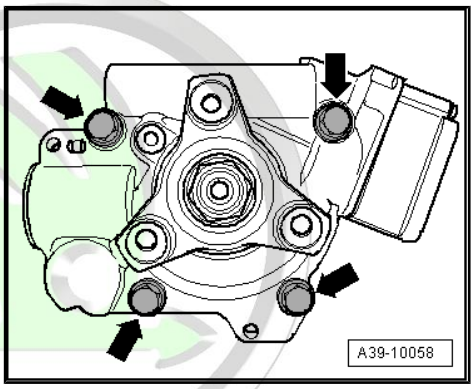
– Place old oil collecting and suction equipment - V.A.G 1782- under the Haldex coupling.

– Unscrew drain plug -arrow- and drain all high efficiency oil for Haldex couplings .

– Screw in new drain plug -arrow- with a new gasket ring.



– Release fixing screws -arrows- and pull Haldex coupling out of the rear final drive.

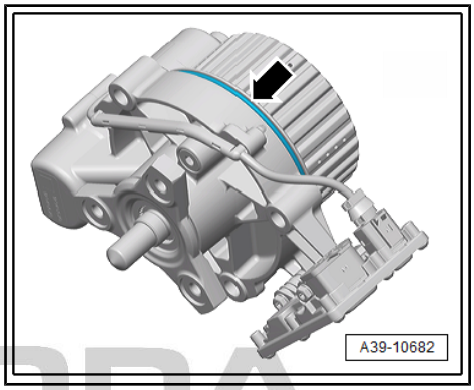


Install

Installation is performed in the reverse order, pay attention to the following points:

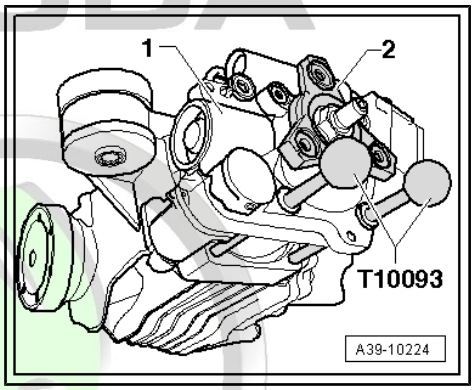
– Remove the previous O-ring -arrow- from the Haldex coupling.

– Insert new O-ring -arrow- and lightly oil with high efficiency oil for Haldex couplings .

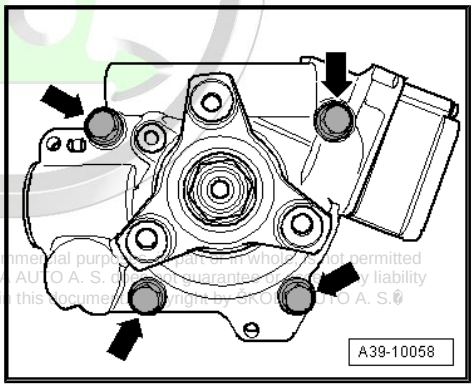


– Insert Haldex coupling -1- into the rear final drive. Screw in guide rods - T10093- due to precise guidance.

– Turn cardan shaft flange -2- and push in Haldex coupling as far as the stop.



– Tighten screws -arrows-.



– Connect plug -B- to four-wheel drive control unit - J492- -A-.

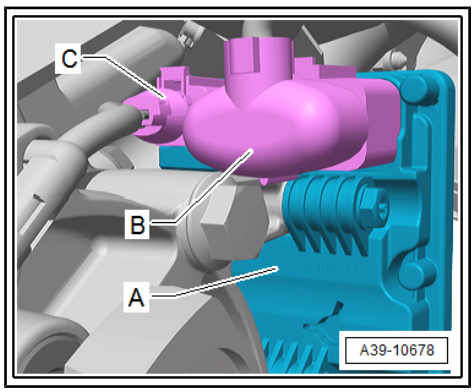
Plug connection -C- must also be connected.

– Install propshaft to rear final drive ⇒ page 24 .

– Align guide bearing in elongated holes so that propshaft and guide bearing are free of stress.

– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .

– Fill up with high efficiency oil for Haldex couplings and check oil level in the Haldex coupling ⇒ page 117 .



Tightening torques

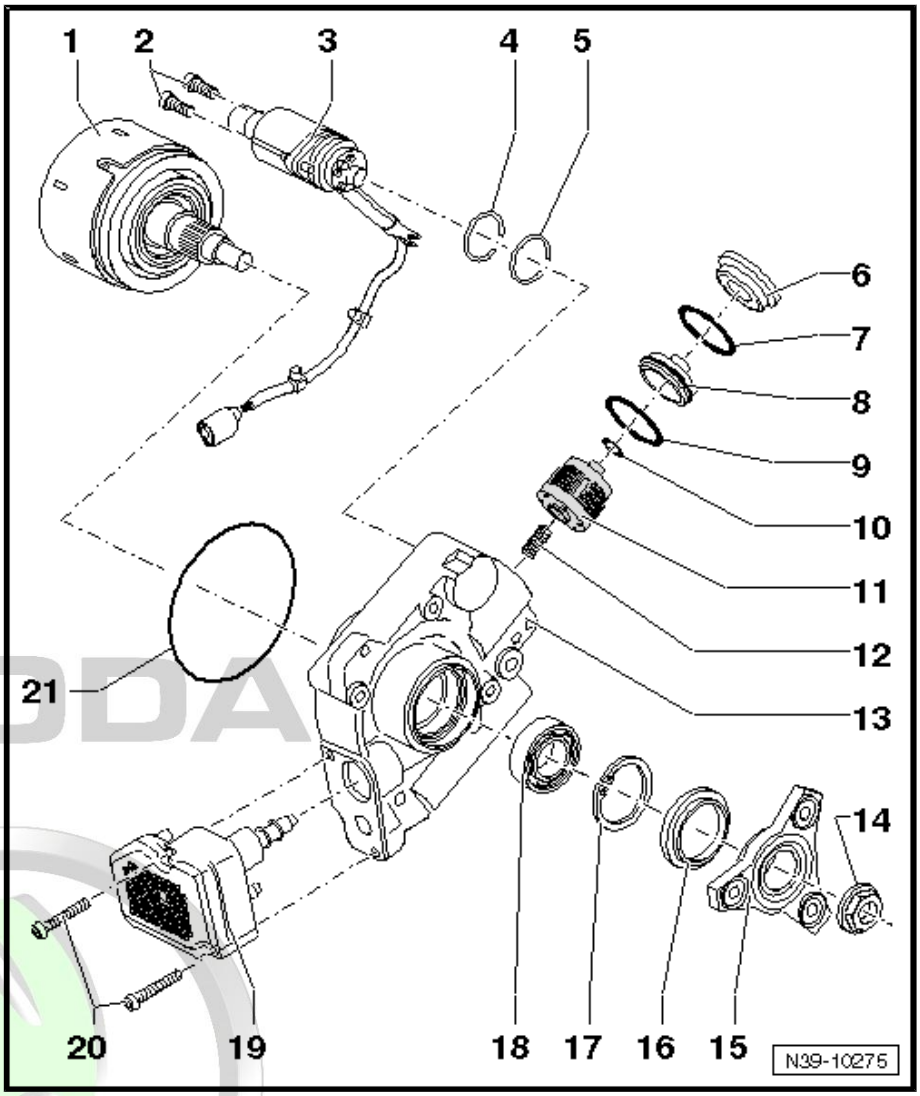
- Haldex coupling on final drive ⇒ page 120 .
- Fill and drain plug for Haldex coupling ⇒ page 117 .

7.7 Disassembling and assembling coupling

⇒ “7.7.1 Disassembling and assembling the Haldex coupling, II generation”, page 151

⇒ “7.7.2 Disassembling and assembling the Haldex coupling, IV generation generation”, page 159

7.7.1 Disassembling and assembling the Haldex coupling, II generation



1 - Plate clutch

- ❑ Structure of the plate clutch ⇒ page 153
- ❑ wymontowanie i zamontowanie ⇒ page 153

2 - Screw

- ❑ 6 Nm

3 - Pump for Haldex coupling - V181-

- ❑ wymontowanie i zamontowanie ⇒ page 130

4 - O-ring

- ❑ Diameter 32 mm
- ❑ for pump for Haldex coupling - V181-
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ always replace ⇒ Electronic Catalogue of Original Parts

5 - O-ring

- ❑ Diameter 30 mm
- ❑ for pump for Haldex coupling - V181-
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ always replace ⇒ Electronic Catalogue of Original Parts

6 - Screw cap

- ❑ 35 Nm

7 - O-ring

- ❑ for cap
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ always replace ⇒ Electronic Catalogue of Original Parts

8 - Oil filter holder

9 - O-ring

- ❑ for oil filter carrier
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ always replace ⇒ Electronic Catalogue of Original Parts

10 - O-ring

- ❑ for the oil filter
- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ always replace ⇒ Electronic Catalogue of Original Parts

11 - Oil filter

- ❑ for Haldex coupling
- ❑ wymontowanie i zamontowanie ⇒ page 129

12 - Retaining spring

13 - housing for Haldex coupling

- ❑ removing and installing complete Haldex coupling ⇒ page 136

14 - Nut

- ❑ 210 Nm
- ❑ replace ⇒ Electronic Catalogue of Original Parts
- ❑ secure with locking agent - D 000 600-

15 - Propshaft flange

- ❑ wymontowanie i zamontowanie ⇒ page 108

16 - Gasket ring for propshaft flange

Renew. ⇒ page 108 .

17 - Circlip

18 - Grooved ball bearing

- ❑ wymontowanie i zamontowanie ⇒ page 153

19 - Four-wheel drive control unit - J492-

- ❑ with control valve of opening degree of coupling - N373-
- ❑ with oil level and oil temperature sender - G437-
- ❑ wymontowanie i zamontowanie ⇒ page 161

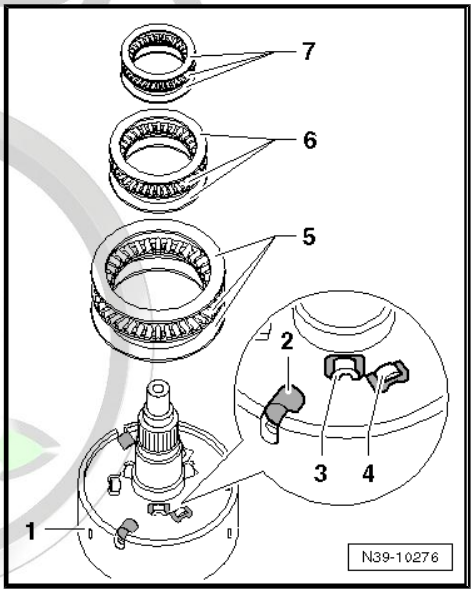
20 - Screw

- ❑ 6 Nm

21 - O-ring

- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ always replace ⇒ Electronic Catalogue of Original Parts

Structure of the plate clutch



1 - Plate clutch

Plates cannot be removed.

2 - Outer rollers

3 pieces

3 - Castors

3 pieces

Fitting position: Roller points to the outside.

4 - Castors

3 pieces

Fitting position: Roller points to the inside.

5 - Axial needle bearing

The thick washer points to the plate clutch -1-.

6 - Axial needle bearing

The thick washer points to the plate clutch -1-.

7 - Axial needle bearing

The thick washer points to the plate clutch -1-.

Replace grooved ball bearing

Special tools and workshop equipment required

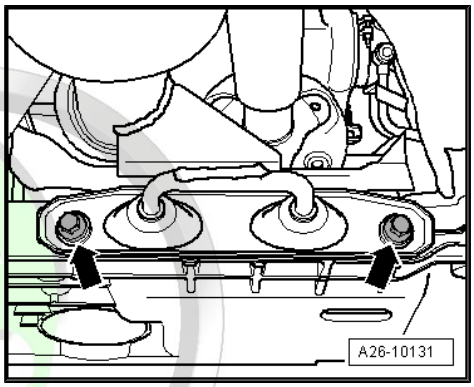
- Pressure plate - MP3-407 (VW 402)-
- Thrust piece - MP3-408 (VW 412)-
- Pipe section - MP3-409 (VW 418 A)-
- Thrust piece - MP3-411 (VW 454)-
- Ejection lever - MP3-418 (VW 681)-
- Thrust piece - MP3-453 (VW 431)-
- Thrust piece - T10019-
- Assembly device - T10030-
- Tensioning strap - T10038-
- Locking agent - T30004 (3415)-
- Knock-in bushing - T30034 (41 - 501)-
- Pipe - T30055 (3296)-
- Engine/gearbox jack - V.A.G 1383 A-
- Puller , e.g. -Kukko 12/1-
- Two-arm extractor , e.g. -Kukko 20/10-
- Catch pan
- Locking agent - D 000 600-
- Counterholder - T10172-
- Adapter - T10172/5-
- Allan screw M8 x 15
- Bolt M10 x 25

Removing

– Raise vehicle.

– Separate exhaust system at the clamping sleeve and remove bracket for the exhaust system from the assembly carrier ⇒ Engine; Rep. gr. 26 .

– Tie up pre-exhaust pipe.



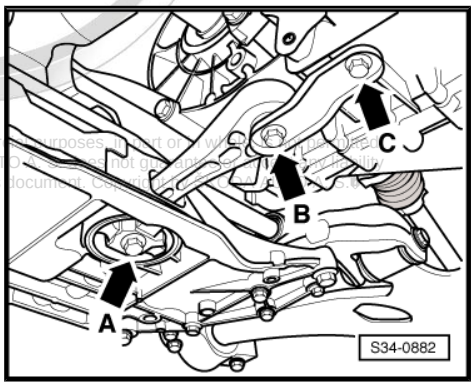
Note

The decoupling elements in the exhaust pipe should not be bent by more than 10° - risk of damage.

– Remove the rear part of the exhaust system as from the clamping sleeve ⇒ Engine; Rep. gr. 26 .

– Remove the heat shield below the propshaft.

– Remove pendulum support from gearbox, to do so release the bolts -arrow B- and -arrow C-.

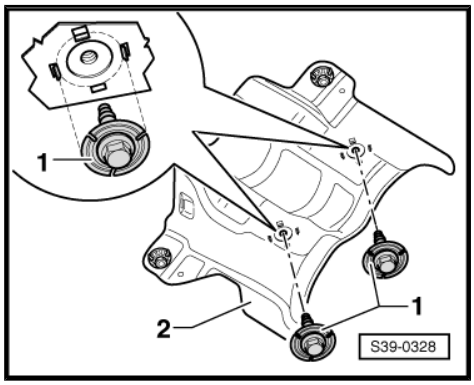


Note

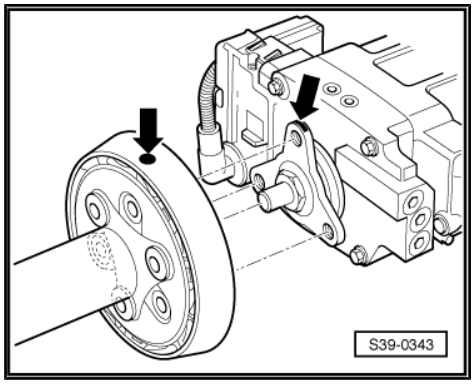
Do not release screw -arrow A-.

– Remove the heat shield -2- below the propshaft, to do so release the screws -1-.

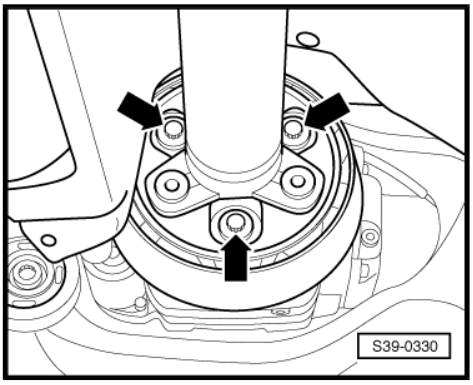
– After removing the heat shield screw on again the intermediate bearing of the propshaft -arrow- with the screws -1- by hand until the intermediate bearing can be moved.



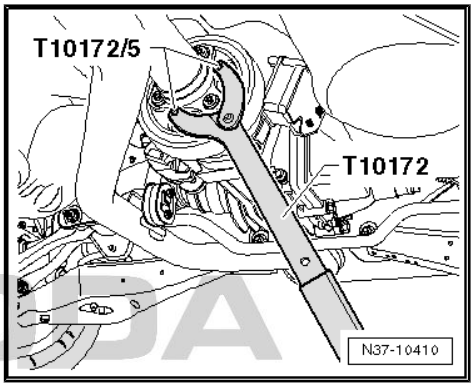
– Check if a marking (colour point) is present on the flexible disk/ oscillation damper and at the flange on the Haldex coupling -arrows-. If not, mark the position of the flexible disk and the flange on the Haldex coupling to each other -arrows-.



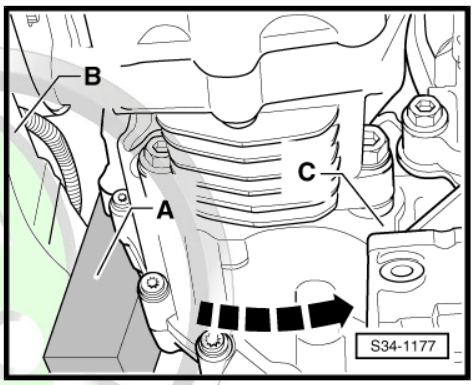
– Unscrew propshaft with flexible disk and oscillation damper from rear final drive -arrows-.



When loosening and tightening, counterhold the propshaft on the rear final drive.

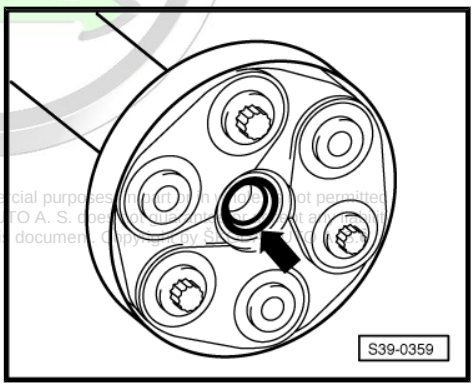


– Subsequently push the engine/gearbox unit to the front with a 2nd mechanic -direction of arrow- and insert a suitable wooden wedge -A- (approx. 50 mm thick) between the assembly carrier -B- and the gearbox -C-.
– While doing so, remove the propshaft from the flange at the Haldex coupling (centering stud) on the rear final drive.

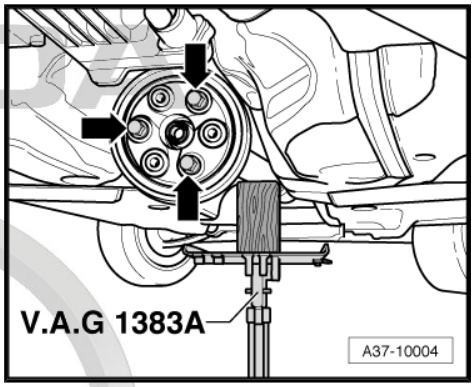


Note

Do not tilt propshaft when removing, pull off horizontally from centering stud of final drive towards the rear. The gasket ring in the centering bush -arrow- must not be damaged, otherwise the propshaft must be replaced.



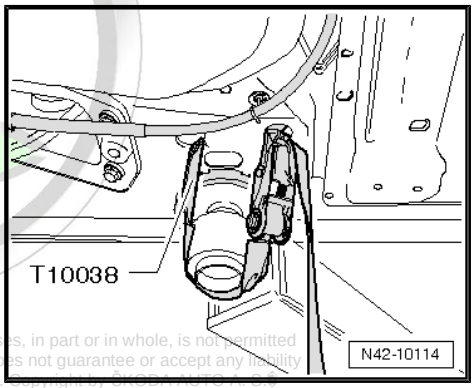
– Support propshaft.



– Lash the vehicle securely to the lift platform using tensioning straps - T10038- .

WARNING

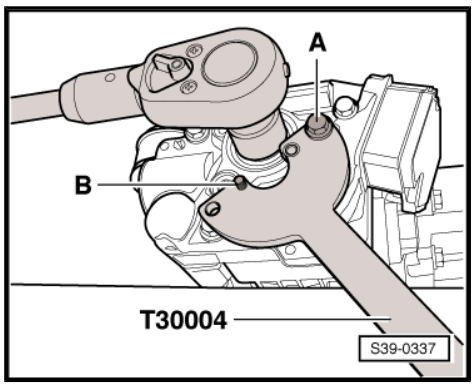
If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.



– Unscrew hexagon nut at flange of Haldex coupling.

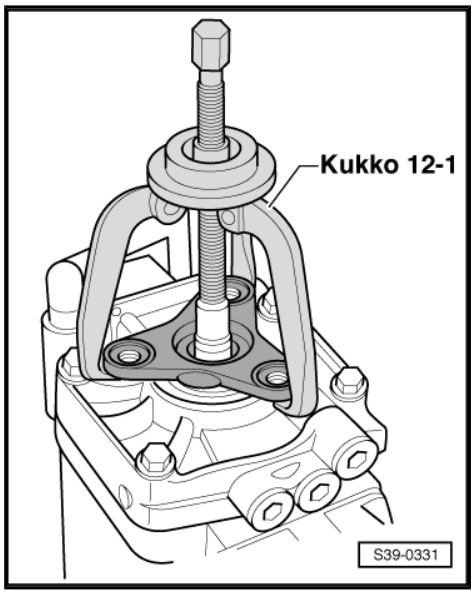
-A- Screw M10 x 25

-B- Allen screw M8 x 15 (is screwed in from the reverse side into the counterholder - T30004-)

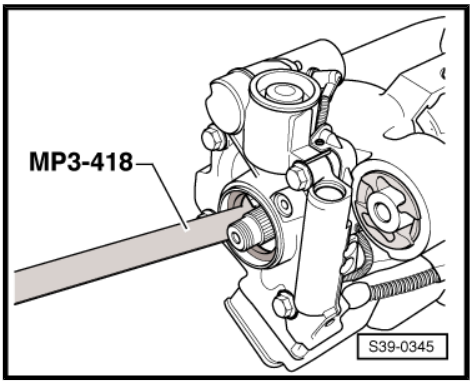


– Disconnect flange for Haldex coupling. If there is any resistance, use the three arm puller , e. g. -Kukko 12/1- ,.

– Place a catch pan under the rear final drive.

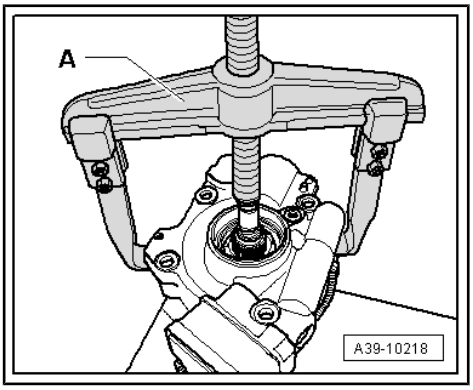


– Pull out gasket ring with ejection lever - MP3-418- .

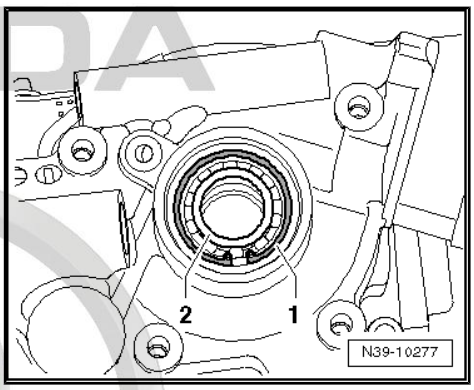


– Remove Haldex coupling ⇒ page 136 .
– Lay Haldex coupling onto a clean work bench.
– Remove housing for Haldex coupling.

-A- Two-arm extractor , e.g. -Kukko 20/10-

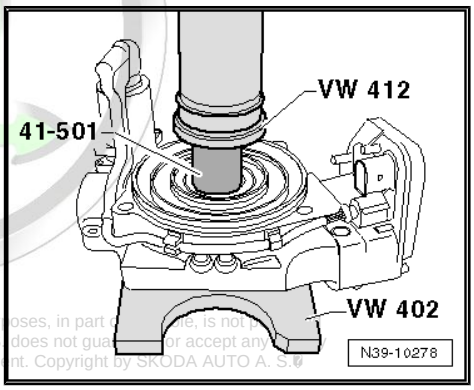


– Install circlip -1- for grooved ball bearing -2-.

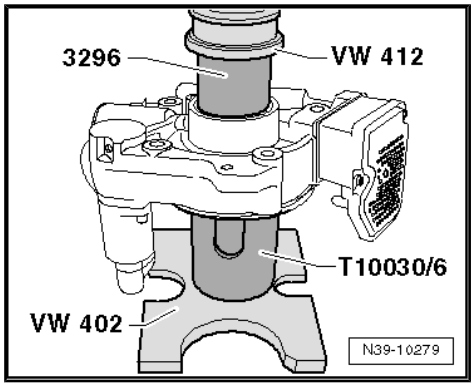


– Press off grooved ball bearing.

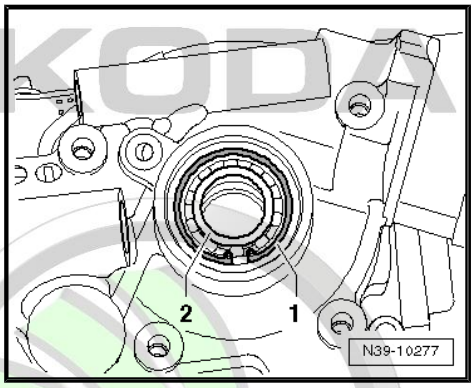
Install



– Press on new grooved ball bearing up to the stop.



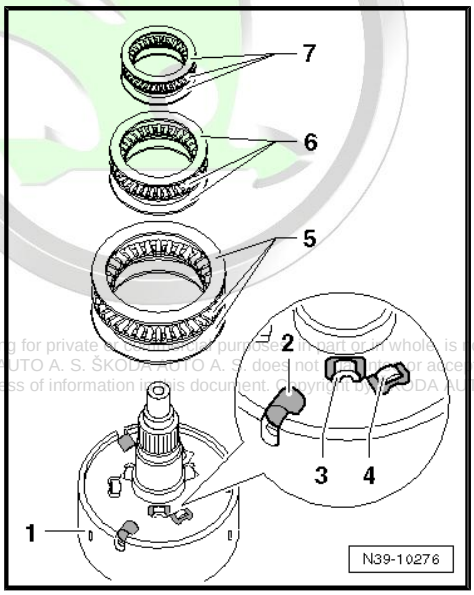
– Insert circlip -1-.
– Warm up grooved ball bearing -2- e.g. with a hot-air blower to approx. 80°C.



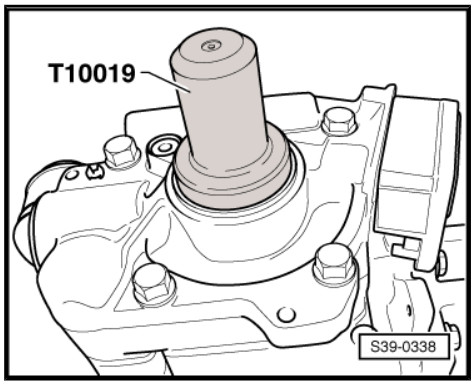
– Centre the axial needle bearing -5…7- onto the plate clutch -1-.
– Place the housing for the Haldex coupling onto the plate clutch -1- by hand.

Note

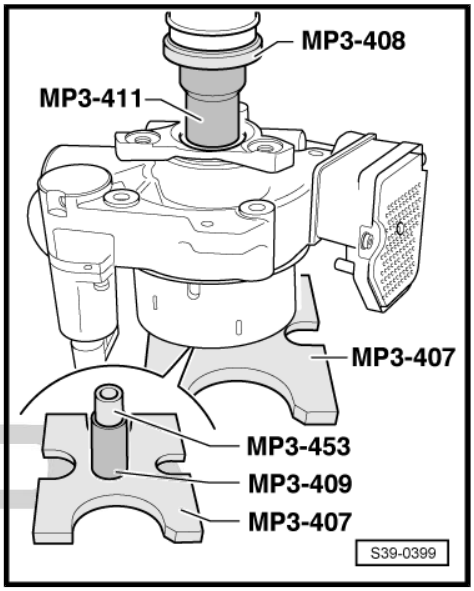
The axial needle bearings -5…7- must not change their centered position when placing on the housing.



– Before installing, slightly oil new gasket ring on the outside diameter and between the sealing lips with high efficiency oil for Haldex coupling .
– Drive in new gasket ring with pressure plate - T10019- up to the stop. Do not tilt the gasket ring during this process.



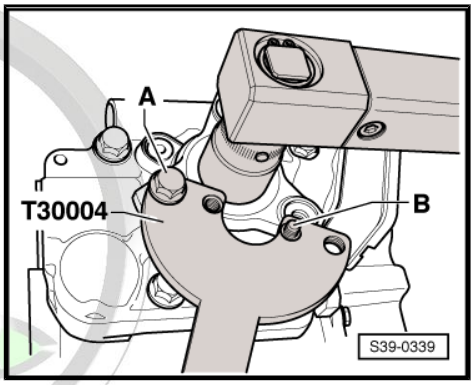
– Press on cardan shaft flange.



– Insert new hexagon nut with locking agent - D 000 600- and tighten. Tightening torque ⇒ Item 14 (page 152) Pos. 14.

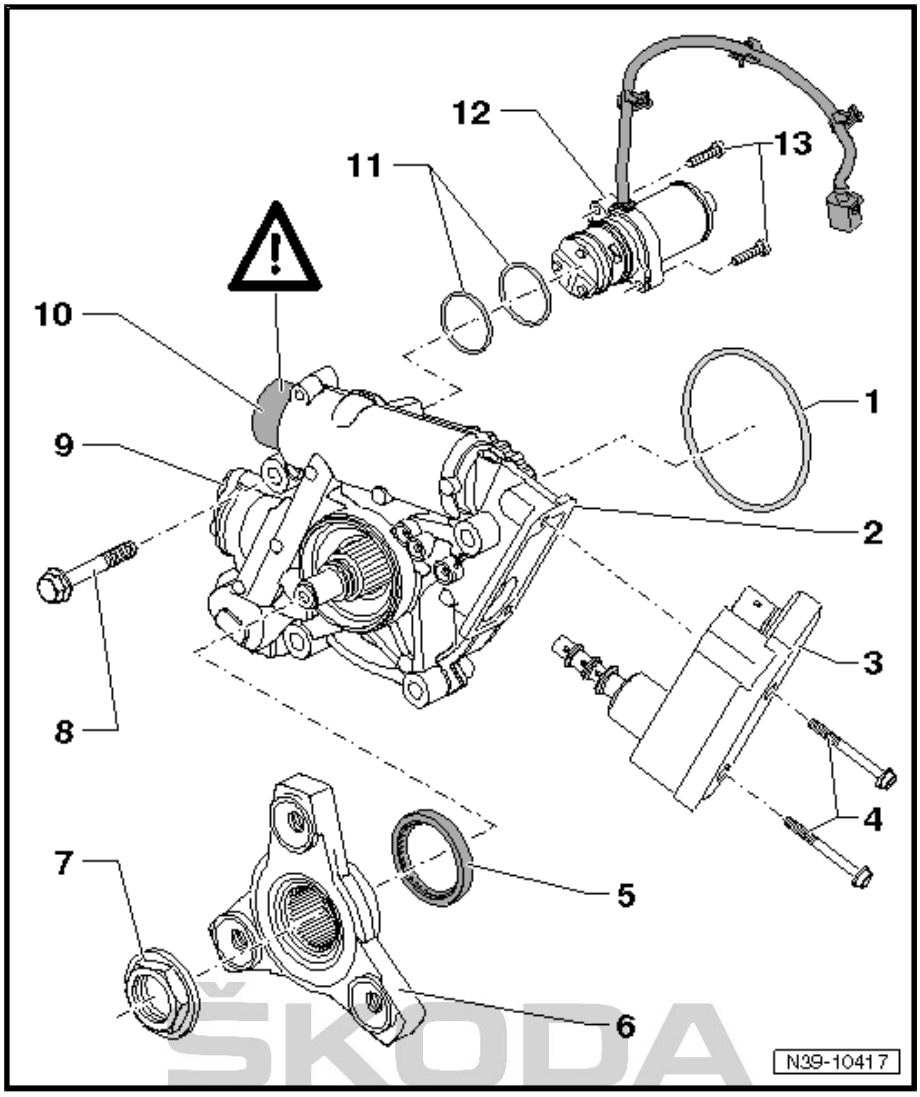
A - Screws M10 x 20

B - Allen screw M8 x 15 (is screwed into the counterholder - T30004 (3415)- from the reverse side)



– Install Haldex coupling ⇒ page 136 .
– Install propshaft at rear final drive ⇒ page 24 .
– Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .
– Fill up with high efficiency oil for Haldex coupling and check oil level in the Haldex coupling ⇒ page 117 .

7.7.2 Disassembling and assembling the Haldex coupling, IV generation generation



1 - O-ring

- ❑ moisten with high efficiency oil for Haldex coupling and insert
- ❑ always replace ⇒ Electronic Catalogue of Original Parts

2 - housing for Haldex coupling

- ❑ Removing and installing Haldex coupling ⇒ page 141

3 - Four-wheel drive control unit - J492-

- ❑ with control valve of opening degree of coupling - N373-
- ❑ wymontowanie i zamontowanie ⇒ page 164

4 - Screw

- ❑ 6 Nm

5 - Gasket ring for propshaft flange

- ❑ wymontowanie i zamontowanie ⇒ page 108

6 - Propshaft flange

- ❑ wymontowanie i zamontowanie ⇒ page 108

7 - Nut, 210 Nm

- ❑ replace ⇒ Electronic Catalogue of Original Parts
- ❑ secure with locking agent - D 000 600-

8 - Screw

- ❑ 50 Nm
- ❑ 4 pieces
- ❑ for housing of Haldex coupling Pos. 2 to rear final drive

9 - Cover

- ❑ for oil filter housing
- ❑ Oil filter change is not necessary

10 - Cover

- ❑ for pressure tank

WARNING

The cover must never be opened, risk of injuries!

11 - O-ring

- ❑ 2 pieces
- ❑ Diameter 34 mm
- ❑ for pump for Haldex coupling - V181-
- ❑ moisten with high efficiency oil for Haldex coupling and insert

❑ always replace ⇒ Electronic Catalogue of Original Parts

12 - Pump for Haldex coupling - V181-

❑ wymontowanie i zamontowanie ⇒ page 132

13 - Screw

❑ 6 Nm

7.8 Removing and installing control unit

⇒ "7.8.1 Removing and installing control unit for Haldex coupling of 2nd generation", page 161

⇒ "7.8.2 Removing and installing control unit for Haldex coupling of IV generation 2nd generation", page 164

⇒ "7.8.3 Removing and installing pump for Haldex coupling, V generation", page 166

7.8.1 Removing and installing control unit for Haldex coupling of 2nd generation

Special tools and workshop equipment required

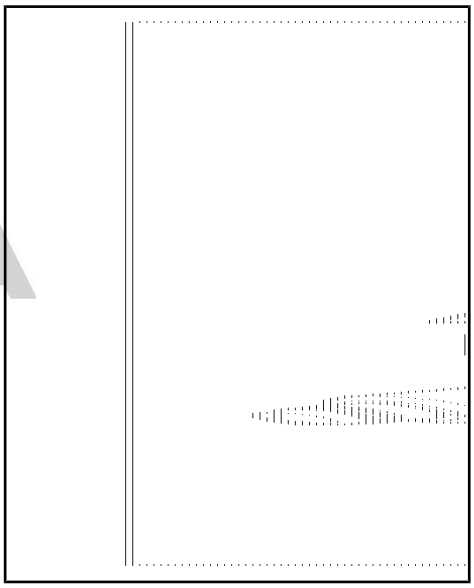
♦ Catch pan

Removing

Note

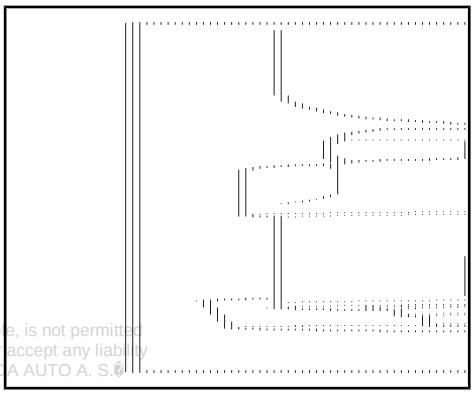
When removing the control unit -1-, the cover -2- and the disc spring -5- are removed together. The pressure sensor -4- and the valve -3- are removed separately.

– Switch off ignition.



– Separate plug connections -1- and -2- at the top of the control unit.

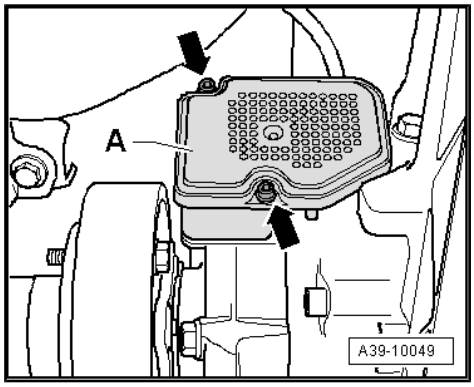
– Place catch pan under the final drive.



– Release screws -arrows-.

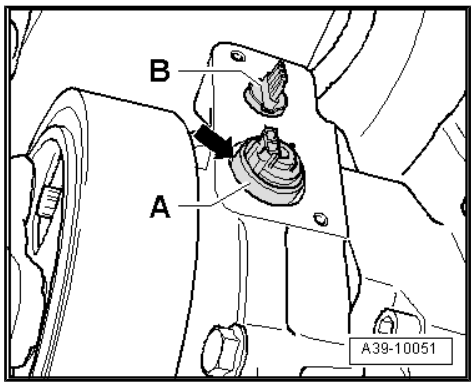
Ensure that no parts fall down when removing the control unit.

– Carefully remove the control unit -A-.

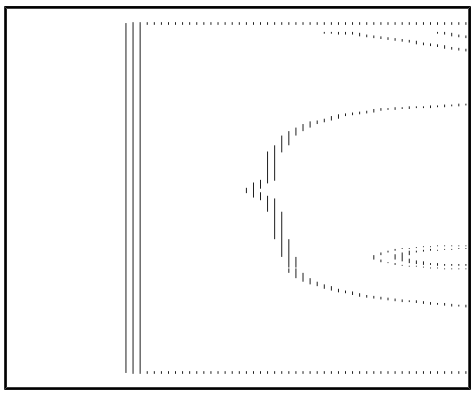


– Carefully grasp the valve for control of opening degree of coupling - N373- -A- at the metal housing -arrow- using pliers and pull out.

– Pull out pressure sensor -B-.



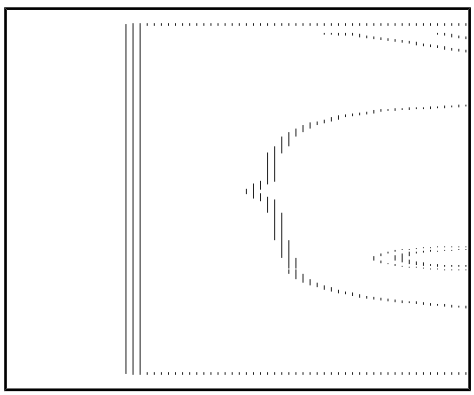
– Pull gasket ring for control valve for opening degree of coupling - N373- -arrow- out of the housing.



Install

Installation is performed in the reverse order, pay attention to the following points:

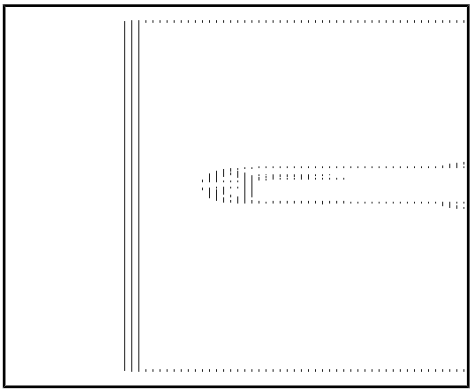
– Moisten new gasket ring for control valve of opening degree of coupling - N373- -arrow- with high efficiency oil for Haldex coupling and insert into the housing.



– Replace gasket rings -1- and -2- ⇒ Electronic Catalogue of Original Parts .

Pay attention to the different diameters:

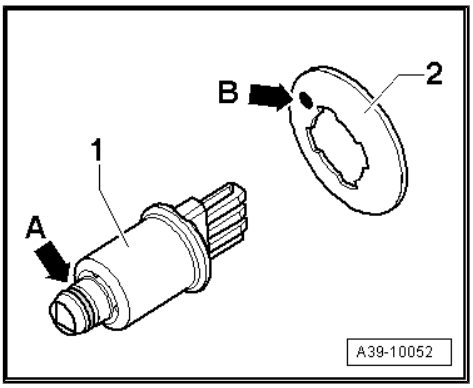
- Inside diameter of gasket ring -1- is 11 mm
- Inside diameter of gasket ring -2- is 12 mm



– Replace O-ring -arrow A- at pressure sensor.

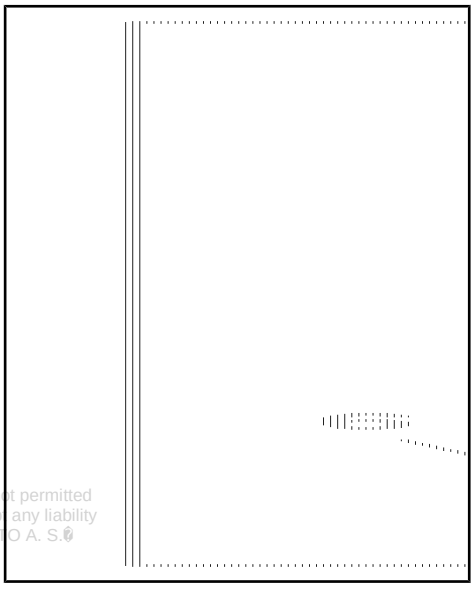
Note

The marking -arrow B- on the curved side of the disc spring -2- points in the fitting position upwards and towards the pressure sensor -1-.

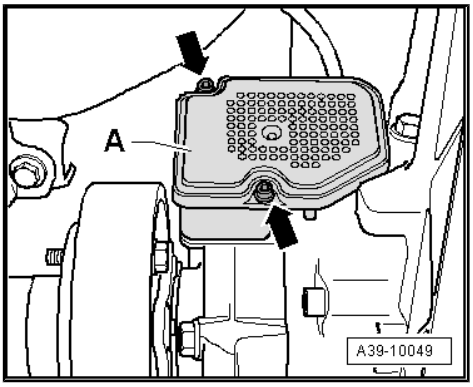


– Fit disc spring -2- with the curved side onto the pressure sensor -1-.

– Fit new cover -5- onto the control unit -6-.
– Insert pressure sensor -4- with disc spring into the new cover -5- and press onto the plug connection. The curved side of the disc spring points towards the pressure sensor.
– Coat new gasket ring from pressure sensor -4- with high efficiency oil for Haldex coupling .
– Insert valve -1- into the new cover -5- and the control unit -6-. Press valve -1- onto the plug connection.
– Coat new gasket rings -2- and -3- with high efficiency oil for Haldex coupling .



– Carefully fit on control unit -A- and tighten screws -arrows- to tightening torque.
– Check oil level in the Haldex coupling ⇒ page 117 .



Tightening torque

Component	Nm
Four-wheel drive control unit - J492-	⇒ “7.2.1 Summary of components- four-wheel drive control unit J492 Haldex coupling of 2nd generation”, page 124

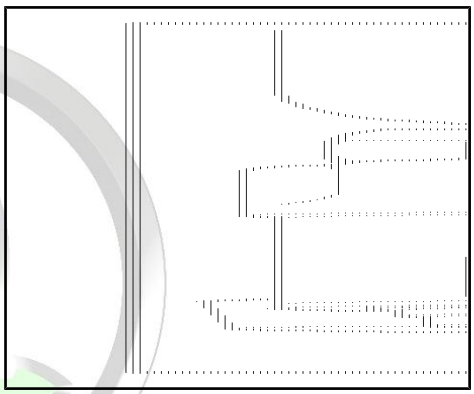
7.8.2 Removing and installing control unit for Haldex coupling of IV generation 2nd generation

Removing

– Switch off ignition.

– Separate plug connections -1- and -2- at the top of the control unit.

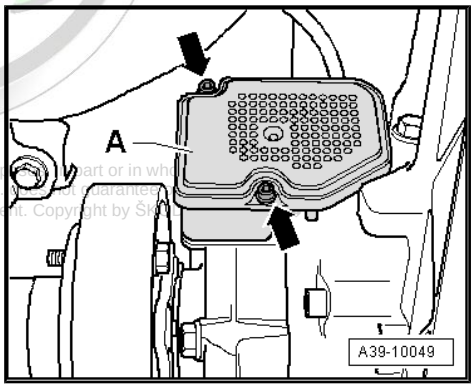
– Place catch pan under the final drive.



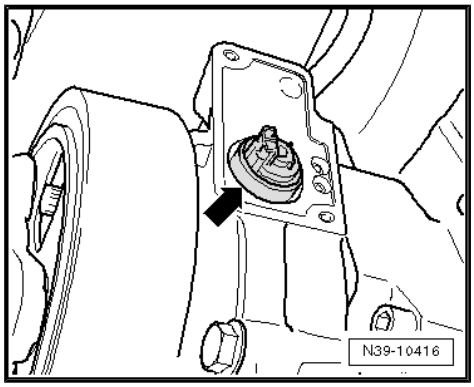
– Release screws -arrows-.

Ensure that no parts fall down when removing the control unit.

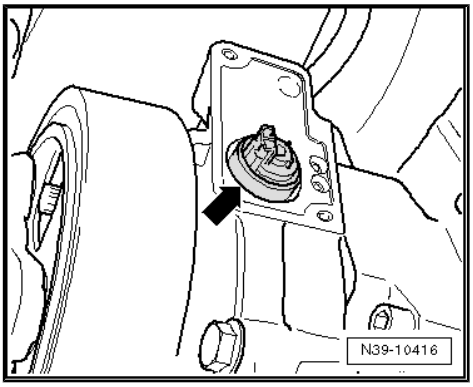
– Carefully remove the control unit -A-.



– If necessary remove the cover ⇒ Item 3 (page 126) from the housing of the Haldex coupling, while doing so hold the valve -arrow-.



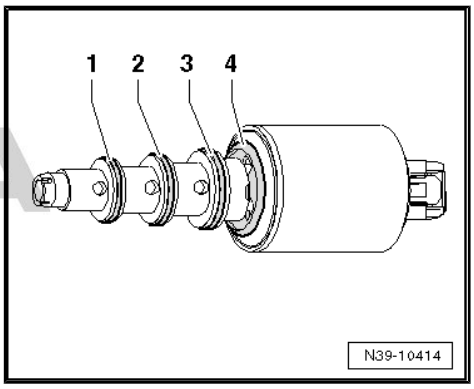
– Cover the control valve for opening degree of coupling - N373- -arrow- with a cloth. Carefully grip the valve body -arrow- with pliers and pull out the valve.



Install

Installation is performed in the reverse order, pay attention to the following points:

– Replace gasket rings -1...4- ⇒ Electronic Catalogue of Original Parts .

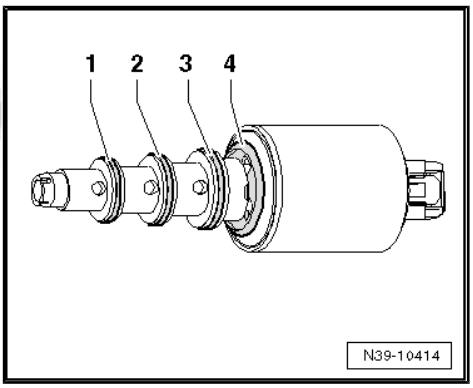


Note

The valve gasket rings have different inner diameters.

- Inside diameter of gasket ring -1- is 10 mm
- Inside diameter of gasket ring -2- is 11 mm
- Inside diameter of gasket ring -3- is 12 mm
- Gasket ring at valve body -4-

– First moisten the gasket ring -1- with high efficiency oil for Haldex coupling and position onto the control valve for opening degree of coupling - N373- .

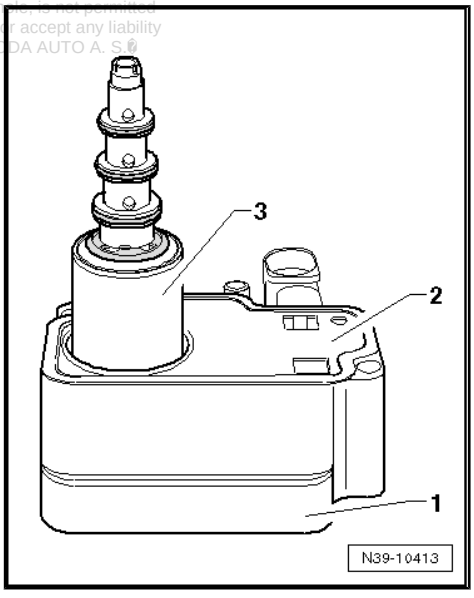


Afterwards, fit gasket rings -2 … 4-.

Note

Press the centering lips (4 pieces) of the gasket ring -4- into the groove on the valve.

– Fit new cover -2- onto the control unit -1-.



Note

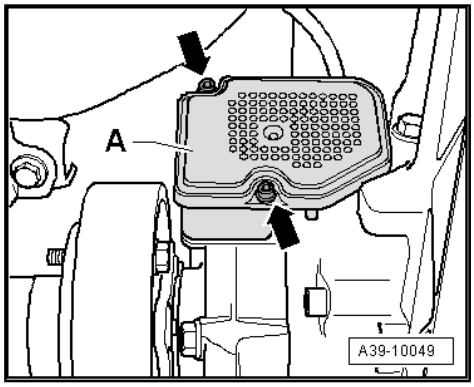
The cover only fits in one position.

– Insert the control valve for opening degree of coupling - N373- into the control unit -1-.

Note

The valve only fits in one position.

– Carefully fit on control unit -A- and tighten screws -arrows- to tightening torque.
– Check oil level in the Haldex coupling ⇒ page 117 .



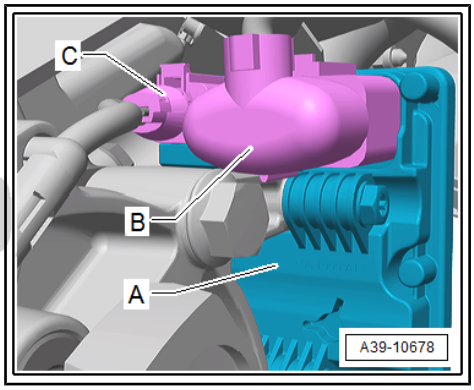
Tightening torque

Component	Nm
Four-wheel drive control unit - J492-	⇒ “7.2.2 Summary of components- Four-wheel drive control unit J492 Haldex coupling of IV generation 2nd generation”, page 126

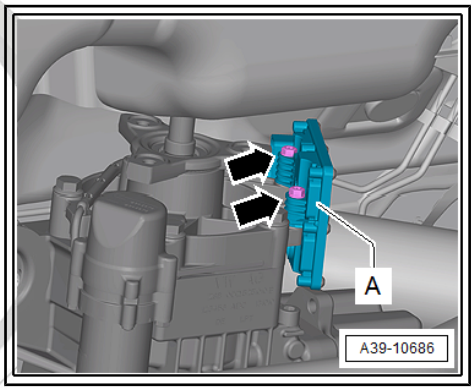
7.8.3 Removing and installing pump for Haldex coupling, V generation

Removing

– Disconnect plug connections -B- and -C- from four-wheel drive control unit - J492- -A-.



– Unscrew mounting screws -arrows- for four-wheel drive control unit - J492- and remove the control unit -A-.



Install

Installation is carried out in the reverse order.

Tightening torque

Component	Nm
Four-wheel drive control unit - J492-	⇒ “7.1.3 Summary of components - Haldex coupling V generation”, page 123