

## Workshop Manual

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

**Manual gearbox 0AJ**

Edition 05.2014



## List of Workshop Manual Repair Groups

### Repair Group

- 00 - Technical data
- 30 - Clutch
- 34 - Controls, housing
- 35 - Gears, shafts
- 39 - Final drive - differential

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

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## 00 – Technical data

### 1 Identification of the gearbox

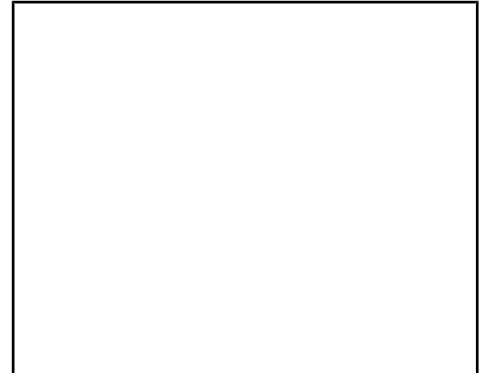
(SRL000697; Edition 05.2014)

⇒ [“1.1 Location on the gearbox”, page 1](#) .

⇒ [“1.2 Identification characters, aggregate assignment, ratios, capacities”, page 2](#) .

#### 1.1 Location on the gearbox

Identification characters and production date -arrow-



Identification characters and production date of the gearbox  
-arrow-

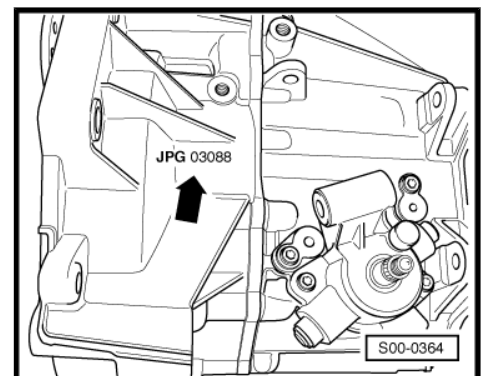
Example:	JPG	03	08	8
	Identification characters	Day	Month	Manufacturing year 2008

Additional data gives information about the manufacturing factory.



Note

*The gearbox identification characters also appear on the vehicle data stickers.*





## 1.2 Identification characters, aggregate assignment, ratios, capacities

⇒ [“1.2.1 Identification characters, aggregate assignment, ratios, filling capacities \(Octavia II\)”, page 2](#)

⇒ [“1.2.2 Identification characters, aggregate assignment, ratios, filling capacities \(Octavia III\)”, page 3](#)

⇒ [“1.2.3 Identification characters, aggregate assignment, ratios, filling capacities \(Superb II\)”, page 3](#)

⇒ [“1.2.4 Identification characters, aggregate assignment, ratios, filling capacities \(Yeti\)”, page 4](#)

### 1.2.1 Identification characters, aggregate assignment, ratios, filling capacities (Octavia II)

Manual gearbox		6 speed 0AJ		
Gearbox	Identification characters	KRG	LHY	LHY
	Manufactured from through h	11.2008 11.2008	11.2008 06.2011	02.2010 06.2011
Assignment	Engine	1.4 ltr./90 kW TSI		1.2 ltr./77 kW TSI
Ratio: Z <sub>2</sub> : Z <sub>1</sub>	Final drive	73 : 18 = 4,055		
Ratios	1. gear	47 : 13 = 3,615		
	2. gear	43 : 22 = 1,954		
	3. gear	41 : 32 = 1,281		
	4th gear	36 : 37 = 0,973		
	5th gear	35 : 45 = 0,777		
	6. gear	31 : 48 = 0,646		
	Reverse gear	35 : 24 x 24 : 11 = 3,182		
Filling capacity		2.2 litre		
Top-up		Filled for life, no top-up		
Specification		⇒ Electronic Catalogue of Original Parts		
Clutch control		hydraulic		
Clutch disc Ø		⇒ Electronic Catalogue of Original Parts		
Drive shaft flange Ø		100 mm		

Manual gearbox		6 speed 0AJ		
Gearbox	Identification characters	LNY	NBX	NBW
	Manufactured from through h	05.2011 06.2011	07.2011 04.2013	07.2011 04.2013
Assignment	Engine	1.4 ltr./90 kW TSI		1.2 ltr./77 kW TSI 1.4 ltr./90 kW TSI
Ratio: Z <sub>2</sub> : Z <sub>1</sub>	Final drive	73 : 18 = 4,055		
Ratios	1. gear	47 : 13 = 3,615		
	2. gear	43 : 22 = 1,954	37 : 19 = 1,947	
	3. gear	41 : 32 = 1,281		
	4th gear	36 : 37 = 0,973		
	5th gear	35 : 45 = 0,777		

Manual gearbox		6 speed 0AJ		
Gearbox	Identification characters	LNJ	NBX	NBW
	6. gear	31 : 48 = 0,646		
	Reverse gear	35 : 24 x 24 : 11 = 3,182		
Filling capacity		2.2 litre		
Top-up		Filled for life, no top-up		
Specification		⇒ Electronic Catalogue of Original Parts		
Clutch control		hydraulic		
Clutch disc Ø		⇒ Electronic Catalogue of Original Parts		
Drive shaft flange Ø		100 mm		

### 1.2.2 Identification characters, aggregate assignment, ratios, filling capacities (Octavia III)

Manual gearbox		6 speed 0AJ		
Gearbox	Identification characters	MYF	PRL	PRL
	Manufactured from through	11.2012 05.2014	05.2014	05.2014
Assignment	Engine	1.2 ltr./77 kW TSI		1.4 l/81 kW TSI G-TEC
Ratio: $Z_2 : Z_1$	Final drive	73 : 18 = 4,056		
Ratios	1. gear	47 : 13 = 3,615		
	2. gear	37 : 19 = 1,947		
	3. gear	41 : 32 = 1,281		
	4th gear	36 : 37 = 0,973		
	5th gear	35 : 45 = 0,777		
	6. gear	31 : 48 = 0,646		
	Reverse gear	35 : 24 x 24 : 11 = 3,182		
Filling capacity		2.2 litre		
Top-up		Filled for life, no top-up		
Specification		⇒ Electronic Catalogue of Original Parts		
Clutch control		hydraulic		
Clutch disc Ø		⇒ Electronic Catalogue of Original Parts		
Drive shaft flange Ø		100 mm		

### 1.2.3 Identification characters, aggregate assignment, ratios, filling capacities (Superb II)

Manual gearbox		6 speed 0AJ		
Identification characters		JPG	LHX	NBY
Manufactured from through		08.2008 10.2008	11.2008 06.2011	07.2011 05.2013
Assignment:	Engine	1.4 ltr./92 kW TSI		
Ratio:	Final drive	74 : 17 = 4,353		



Manual gearbox		6 speed 0AJ		
Identification characters		JPG	LHX	NBY
Z 2 : Z 1	1. gear	47 : 13 = 3,615		
	2. gear	43 : 22 = 1,954	37 : 19 = 1,947	
	3. gear	41 : 32 = 1,281		
	4th gear	36 : 37 = 0,973		
	5th gear	35 : 45 = 0,777		
	6. gear	31 : 48 = 0,646		
	Reverse gear	35 : 24 x 24 : 11 = 3,182		
Filling capacity		2.2 litre		
Top-up		Filled for life, no top-up		
Specification		⇒ Electronic Catalogue of Original Parts		
Clutch control		hydraulic		
Clutch disc Ø		⇒ Electronic Catalogue of Original Parts		
Drive shaft flange Ø		100 mm		

Manual gearbox		6 speed 0AJ		
Identification characters		NBX	PRG	
Manufactured from through		11.2011 05.2014	05.2014	
Assignment: Engine		1.4 ltr./92 kW TSI		
Ratio: Final drive		73 : 18 = 4,055		
Z 2 : Z 1	1. gear	47 : 13 = 3,615		
	2. gear	37 : 19 = 1,947		
	3. gear	41 : 32 = 1,281		
	4th gear	36 : 37 = 0,973		
	5th gear	35 : 45 = 0,777		
	6. gear	31 : 48 = 0,646		
Reverse gear		35 : 24 x 24 : 11 = 3,182		
Filling capacity		2.2 litre		
Top-up		Filled for life, no top-up		
Specification		⇒ Electronic Catalogue of Original Parts		
Clutch control		hydraulic		
Clutch disc Ø		⇒ Electronic Catalogue of Original Parts		
Drive shaft flange Ø		100 mm		

#### 1.2.4 Identification characters, aggregate assignment, ratios, filling capacities (Yeti)

Manual gearbox		6 speed 0AJ		
Gearbox	Identification characters	MHT	LHX	
	Manufactured from through	09.2009 09.2009	09.2009 06.2011	07.2010 04.2011
Assignment	Engine	1.2 ltr./77 kW TSI		1.4 ltr./90 kW TSI





Manual gearbox		6 speed 0AJ	
Gearbox	Identification characters	MHT	LHX
Ratio: $Z_2 : Z_1$	Final drive	74 : 17 = 4,353	
Ratios	1. gear	47 : 13 = 3,615	
	2. gear	43 : 22 = 1,954	
	3. gear	41 : 32 = 1,281	
	4th gear	36 : 37 = 0,973	
	5th gear	35 : 45 = 0,777	
	6. gear	31 : 48 = 0,646	
	Reverse gear	35 : 24 x 24 : 11 = 3,182	
Filling capacity	2.2 litres		
Top-up	Filled for life, no top-up		
Specification	⇒ Electronic Catalogue of Original Parts		
Clutch control	hydraulic		
Clutch disc $\emptyset$	⇒ Electronic Catalogue of Original Parts		
Drive shaft flange $\emptyset$	100 mm		

Manual gearbox		6 speed 0AJ	
Gearbox	Identification characters	NBY	NBX
	Manufactured from through	06.2011 05.2014	11.2011 05.2014
Assignment	Engine	1.2 ltr./77 kW TSI	1.4 ltr./90 kW TSI
Ratio: $Z_2 : Z_1$	Final drive	74 : 17 = 4,353	73 : 18 = 4,055
Ratios	1. gear	47 : 13 = 3,615	
	2. gear	37 : 19 = 1,947	
	3. gear	41 : 32 = 1,281	
	4th gear	36 : 37 = 0,973	
	5th gear	35 : 45 = 0,777	
	6. gear	31 : 48 = 0,646	
	Reverse gear	35 : 24 x 24 : 11 = 3,182	
Filling capacity	2.2 litre		
Top-up	Filled for life, no top-up		
Specification	⇒ Electronic Catalogue of Original Parts		
Clutch control	hydraulic		
Clutch disc $\emptyset$	⇒ Electronic Catalogue of Original Parts		
Drive shaft flange $\emptyset$	100 mm		

Manual gearbox		6 speed 0AJ		
Gearbox	Identification characters	PRH	PRG	
	Manufactured from through	05.2014	05.2014	
Assignment	Engine	1.2 ltr./77 kW TSI	1.4 ltr./90 kW TSI	



Manual gearbox		6 speed 0AJ		
Gearbox	Identification characters	PRH	PRG	
Ratio: Z <sub>2</sub> : Z <sub>1</sub>	Final drive	74 : 17 = 4,353	73 : 18 = 4,055	
Ratios	1. gear	47 : 13 = 3,615		
	2. gear	37 : 19 = 1,947		
	3. gear	41 : 32 = 1,281		
	4th gear	36 : 37 = 0,973		
	5th gear	35 : 45 = 0,777		
	6. gear	31 : 48 = 0,646		
	Reverse gear	35 : 24 x 24 : 11 = 3,182		
Filling capacity		2.2 litre		
Top-up		Filled for life, no top-up		
Specification		⇒ Electronic Catalogue of Original Parts		
Clutch control		hydraulic		
Clutch disc Ø		⇒ Electronic Catalogue of Original Parts		
Drive shaft flange Ø		100 mm		

## 2 Transmission System - Overview

⇒ ["2.1 Designation of components and transmission ratio", page 7](#)

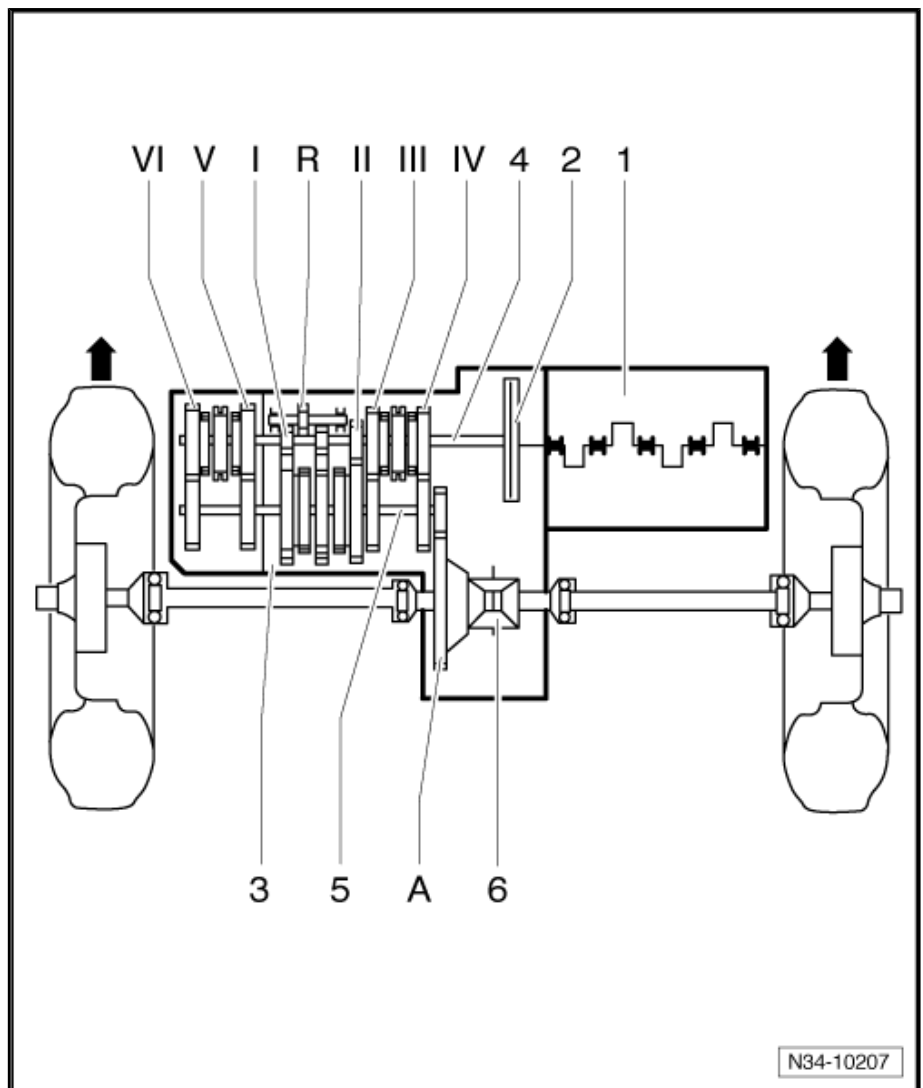
### 2.1 Designation of components and transmission ratio



Note

*The -arrows- point in the direction of travel.*

- 1 - Engine
- 2 - Clutch
- 3 - Manual gearbox
- 4 - Drive shaft
- 5 - Output shaft
- 6 - Differential gear
- I - 1. gear
- II - 2. gear
- III - 3. gear
- IV - 4. gear
- V - 5. gear
- VI - 6. gear
- R - Reverse gear
- A - Final drive



## 3 General repair information

⇒ ["3.1 Components", page 8](#)



### Note

- ◆ *Scrupulous care and cleanliness as well as the proper tools are essential requirements for carrying out proper and successful gearbox repairs. Obviously, the generally valid basic safety rules apply to repair work.*
- ◆ *A number of generally valid notes for individual repair operations - which are otherwise listed several times at numerous points in the workshop manual - are summarized under the term "components" ⇒ [page 8](#). They apply to this workshop manual.*

## 3.1 Components

### Gearbox

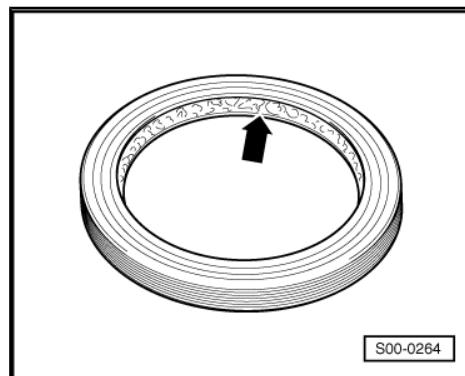
- ◆ When installing the manual gearbox, ensure the dowel sleeves are correctly located between the engine and gearbox.
- ◆ When assembling mounts as well as waxed components, the contact surfaces must be cleaned. Contact surfaces must be free of wax and grease.
- ◆ Bolts and other attachments should have a classification in the ⇒ Electronic Catalogue of Original Parts .
- ◆ When replacing the gearbox check the gear oil level ⇒ [page 153](#) .
- ◆ Capacities and specifications ⇒ [page 2](#) .

### Sealant

- ◆ Thoroughly clean the contact surfaces of the housing before applying the silicone sealant.
- ◆ Apply sealant AMV 188 200 03 evenly and not too thick.

### O-rings, gasket rings, gaskets

- ◆ Always replace O-rings, gasket 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 occurred 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 is turned towards the fluid to be sealed.
- ◆ 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 ⇒ [page 153](#) .



### Locking elements

- ◆ Do not over-tension the circlips, replace if necessary ⇒ Electronic Catalogue of Original Parts .
- ◆ Circlips must be positioned in the base of the groove.
- ◆ Replace roll pins. Fitting position: slot longitudinally to power flow.

#### Screws, nuts

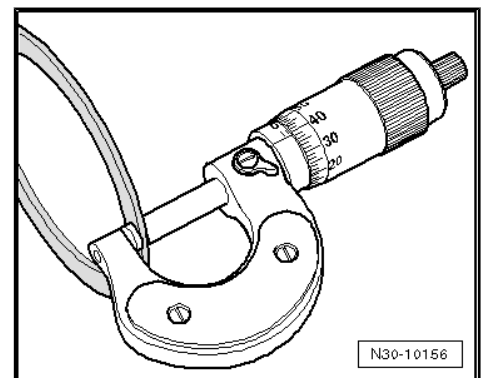
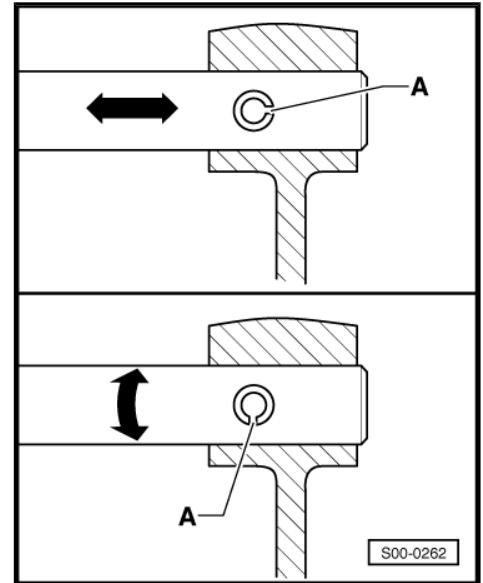
- ◆ Slacken and tighten screws or fixing nuts of covers and housings diagonally across in stages.
- ◆ Do not twist particularly sensitive parts - e.g. clutch pressure plates - and slacken and tighten diagonally across in stages.
- ◆ Tightening torques apply for non-oiled nuts and bolts.
- ◆ Always replace the self-locking screws and nuts ⇒ Electronic Catalogue of Original Parts .
- ◆ Clean the threaded holes into which self-locking screws or screws with locking agent were screwed in (using e.g. a screw-tap). Otherwise there is a risk that the bolts will shear at the next disassembling.
- ◆ 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.

#### Bearings

- ◆ New taper roller bearings are fitted as supplied and do not require any additional lubrication.
- ◆ Insert moist all bearings (except taper roller bearings) into the gearbox with gear oil.
- ◆ Before installing, heat the inner rings of the bearing on a heating plate or with the induction heater unit - VAS 6414- to approx. 100°C, when installing press in axial and play-free up to the stop.
- ◆ Do not mix up the outer and inner races of taper roller 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.

#### Shims

- ◆ Gauge shims at several points with a micrometer. Different tolerances allow to select the required thickness for each washer very precisely.
- ◆ Inspect for burrs and damage.
- ◆ Install only adjusting washers which are in perfect condition.





### Synchronizer rings

- ◆ These are not interchangeable. If re-using, allocate synchronizer rings to the same sliding gear.
- ◆ Inspect for wear, replace if necessary ⇒ Electronic Catalogue of Original Parts .
- ◆ Check grooves -arrow 1- on synchronizer ring -A-, or check the inside of the ring for flattened parts (grooves worn).
- ◆ When installing the intermediate ring -B-, check outer contact surface -arrow 2- and inner contact surface -arrow 3- for grooves, blue coloring (caused by overheating) and other damages.
- ◆ Insert with some gearbox fluid.

### Pinions

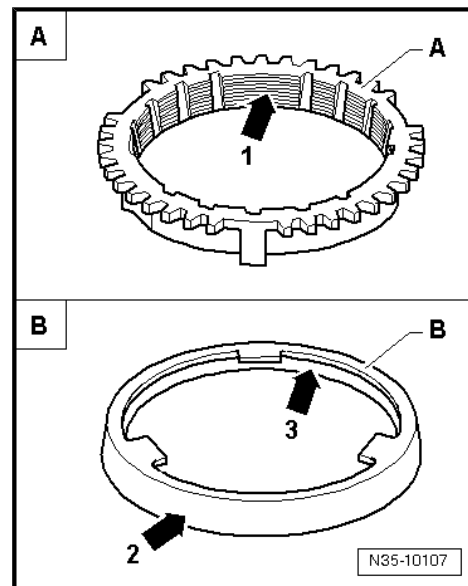
- ◆ Clean and heat on a heating plate or with the induction heater unit - VAS 6414- to approx. 100°C before pressing on.
- ◆ Check fitting position.

### Sliding gears

- ◆ Check 1st to 6th gear sliding gears after assembly for low axial play or for smooth operation.

### Clutch control

- ◆ When removing gearbox, remove slave cylinder without opening the line system.
- ◆ If the slave cylinder with connected hydraulic line is removed, do not depress the clutch pedal. Otherwise the piston is pressed out of the slave cylinder.
- ◆ Do not tilt the clutch pressure plate; release and tighten cross-wise in small stages.
- ◆ If the clutch pedal does not return to its initial position after the coupling procedure - clutch pedal in home position - the clutch control must be bled (further measures ⇒ [page 63](#) ).
- ◆ In order to reduce unpleasant odours if the clutch is burnt, thoroughly clean the clutch housing as well as the flywheel and the engine on the side of the gearbox.



## 30 – Clutch

### 1 Repairing clutch control

⇒ [“1.1 Overview”, page 11](#)

⇒ [“1.2 Summary of components - Foot controls”, page 13](#)

⇒ [“1.3 Summary of components - Hydraulics ”, page 16](#)

⇒ [“1.4 Removing and installing holder for knee airbag with crash strut for clutch pedal \(Yeti\)”, page 23 .](#)

⇒ [“1.5 Removing and installing bearing bush \(Octavia III\)”, page 23 .](#)

⇒ [“1.6 Removing and installing the over-centre helper spring”, page 24](#)

⇒ [“1.7 Removing and installing tension spring and over-centre helper spring \(Octavia III\)”, page 30 .](#)

⇒ [“1.8 Removing and installing the clutch pedal”, page 33](#)

⇒ [“1.9 Removing and installing bearing block for clutch pedal”, page 40](#)

⇒ [“1.10 Removing and installing the master cylinder”, page 51](#)

⇒ [“1.11 Removing and installing clutch position sender”, page 57](#)

⇒ [“1.12 Check hydraulic clutch control”, page 63 .](#)

⇒ [“1.13 Removing and installing the slave cylinder”, page 64](#)

⇒ [“1.14 Removing and installing cables for clutch control \(Octavia III\)”, page 74 .](#)

⇒ [“1.15 Bleeding the clutch control ”, page 76](#)

#### 1.1 Overview



##### Note

- ◆ *After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*
- ◆ *Grease all bearing and contact surfaces with grease - G 000 450 02- .*

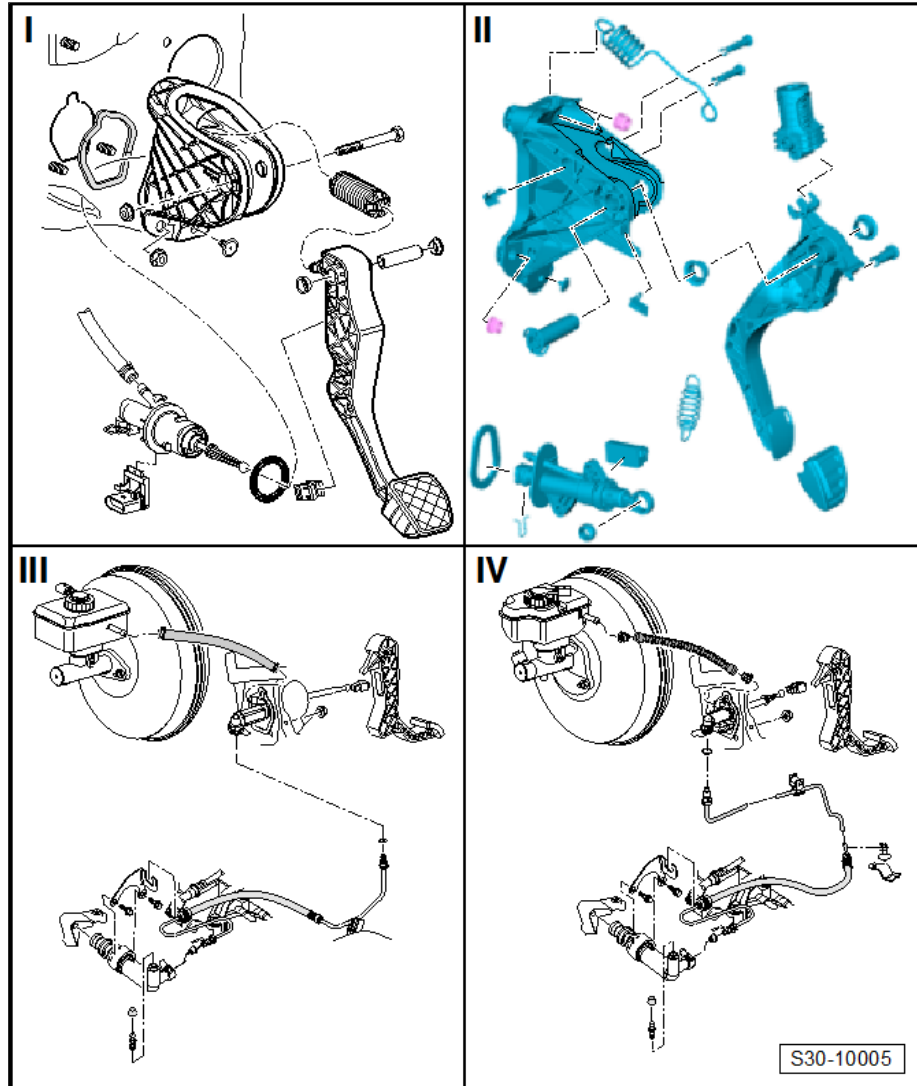


I - Summary of components -  
Foot controls (Octavia II. Superb II and Yeti) => [page 13](#)

II - Summary of components -  
Foot controls (Octavia III)  
=> [page 14](#)

III - Summary of components -  
Hydraulic (left-hand drive)  
=> [page 16](#)

IV - Summary of components -  
Hydraulic (right-hand drive)  
=> [page 16](#)





## 1.2 Summary of components - Foot controls

⇒ [“1.2.1 Summary of components - Foot controls \(Octavia II, Superb II and Yeti\)”, page 13](#)

⇒ [“1.2.2 Summary of components - Foot controls \(Octavia III\)”, page 14](#)

### 1.2.1 Summary of components - Foot controls (Octavia II, Superb II and Yeti)

#### 1 - Front wall

- with mount for bracket

#### 2 - Gasket

- replace ⇒ Electronic Catalogue of Original Parts
- between bracket and front wall
- self-adhesive
- glue to bracket

#### 3 - Bearing bracket

- for support of clutch pedal
- removing and installing ⇒ [page 40](#)

#### 4 - Screw

#### 5 - Over-centre helper spring

- removing and installing ⇒ [page 24](#)

#### 6 - Bushing

#### 7 - Bearing bolt

#### 8 - Clutch pedal

- removing and installing ⇒ [page 33](#)

#### 9 - Support

- removing and installing ⇒ [page 33](#)

#### 10 - Gasket

- replace ⇒ Electronic Catalogue of Original Parts
- between master cylinder and bracket

#### 11 - Master cylinder

- removing and installing ⇒ [page 51](#)
- test tightness ⇒ [page 63](#)

#### 12 - Clutch position sender - G476-

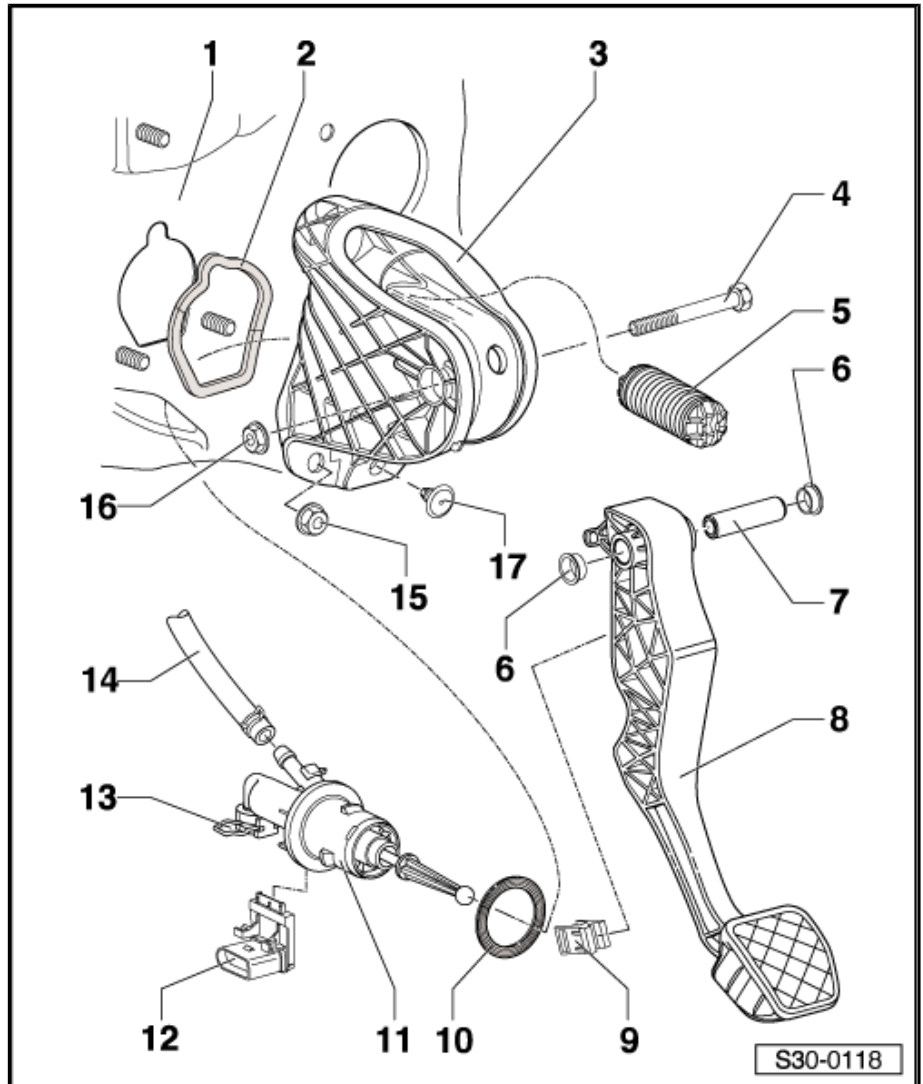
- removing and installing ⇒ [page 57](#)
- check ⇒ Vehicle diagnostic tester

#### 13 - Clip

- to remove and install the tube-hose line pull out retaining clip up to the stop

#### 14 - Tubing

- Plastic return hose ⇒ [page 16](#)





- Do not use hose clamp - MP7-602-
- test tightness => [page 63](#)

**15 - Self-locking nuts**

- for bracket on front wall
- 3 pieces
- after removing, replace => Electronic Catalogue of Original Parts
- 20 Nm

**16 - Nut**

- after removing, replace => Electronic Catalogue of Original Parts
- 20 Nm

**17 - Stop**

- for the clutch pedal

**1.2.2 Summary of components - Foot controls (Octavia III)**

**1 - Master cylinder**

- removing and installing  
=> [page 52](#)

**2 - Bushing**

- removing and installing  
=> [page 23](#)
- is not lubricated

**3 - Clip**

- to remove and install the tube-hose line pull out retaining clip up to the stop

**4 - Gasket**

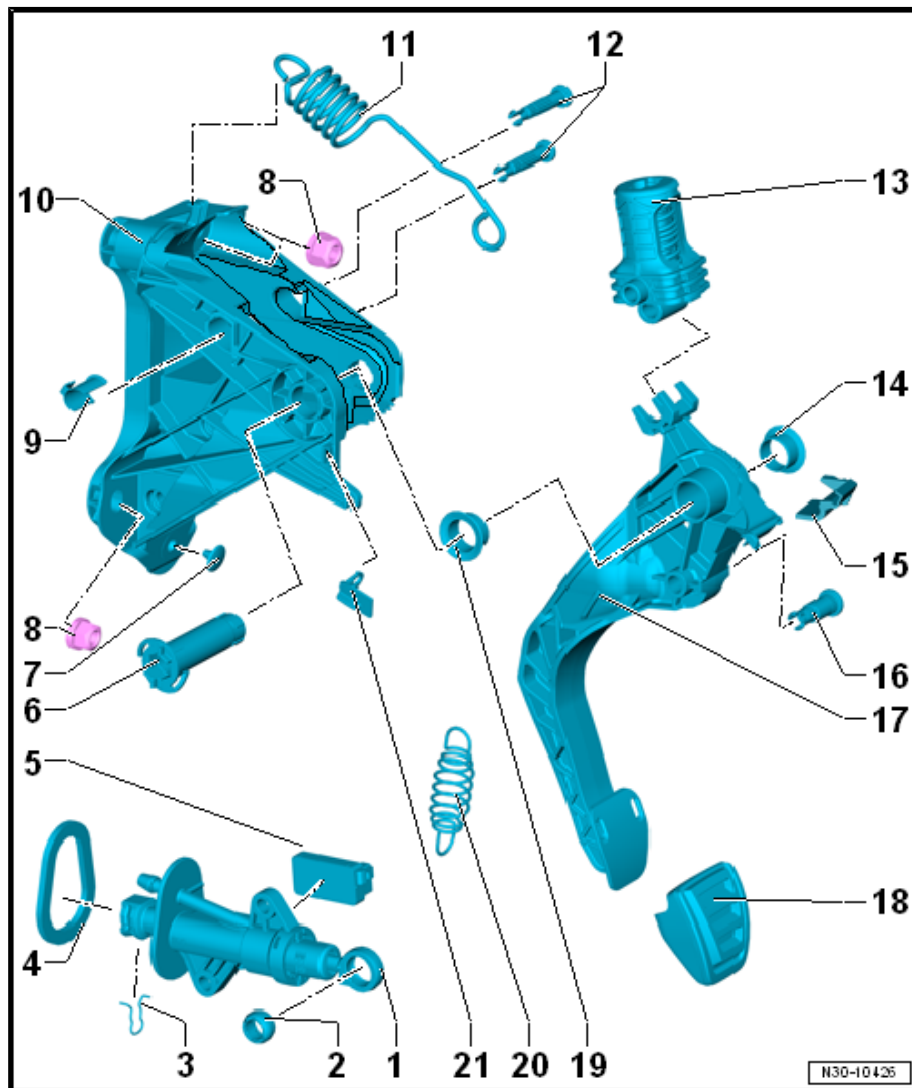
- Self-adhesive
- after removing the master cylinder, replace => Electronic Catalogue of Original Parts
- stick onto the master cylinder

**5 - Clutch position sender - G476-**

- check => Vehicle diagnostic tester in the operating mode Targeted fault finding
- Assignment => Electronic Catalogue of Original Parts
- removing and installing  
=> [page 59](#)

**6 - Carrier bolt**

- after removing, replace  
=> Electronic Catalogue of Original Parts
- is not lubricated





## 7 - Spring stop

### 8 - Hexagon nut

- Pillar to front wall
- 3 pieces
- self-locking
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 25 Nm

### 9 - Bearing shell

- 2 pieces
- is fitted on both sides
- fitted only with over-centre helper spring
- is not lubricated

### 10 - Bearing bracket

- for the clutch pedal
- removing and installing ⇒ [page 42](#)
- Drive in bushings into the bores for mounting bolts console/front wall mandrel - VW 207-

### 11 - Over-centre helper spring

- installed according to the type
- removing and installing ⇒ [page 26](#)
- Do not lubricate bearing on console

### 12 - Carrier bolt

- for master cylinder
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- is not lubricated

### 13 - Over-centre helper spring

- installed according to the type
- different versions, assignment ⇒ Electronic Catalogue of Original Parts
- removing and installing ⇒ [page 30](#)
- is not lubricated

### 14 - Bushing

### 15 - Sliding sleeve

- installed according to the type
- Bearing for over-centre helper spring
- is slid onto the clutch pedal
- Lubricate the bearing for over-centre helper spring with grease -G 052 567 A2- ⇒ Electronic Catalogue of Original Parts

### 16 - Carrier bolt

- of the tappet for master cylinder
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- is not lubricated

### 17 - Clutch pedal

- removing and installing ⇒ [page 35](#)
- is not lubricated

### 18 - Pedal rubber

### 19 - Bushing

- is not lubricated



**20 - Tension spring**

- for the clutch pedal
- installed according to the type
- removing and installing => [page 30](#)
- is not lubricated

**21 - Damping element**

- only fitted with tension spring
- is not lubricated

**1.3 Summary of components - Hydraulics**

=> ["1.3.1 Summary of components - Hydraulics - Left-hand drive \(Octavia II, Superb II and Yeti\)", page 16](#)

=> ["1.3.2 Summary of components - Hydraulics - Right-hand drive \(Octavia II, Superb II and Yeti\)", page 18](#)

=> ["1.3.3 Summary of components - Hydraulics \(Octavia III\)", page 21](#)

**1.3.1 Summary of components - Hydraulics - Left-hand drive (Octavia II, Superb II and Yeti)**

**1 - Brake fluid reservoir**

- test tightness  
=> [page 63](#)

**2 - Spring strap clamp**

- not fitted to all vehicles

**3 - Tubing**

- to the brake fluid reservoir
- out of rubber
- on certain vehicles out of plastic => [page 18](#)
- if the intake hose is made out of plastic, do not use hose clamp - MP7-602-
- test tightness  
=> [page 63](#)

**4 - Master cylinder**

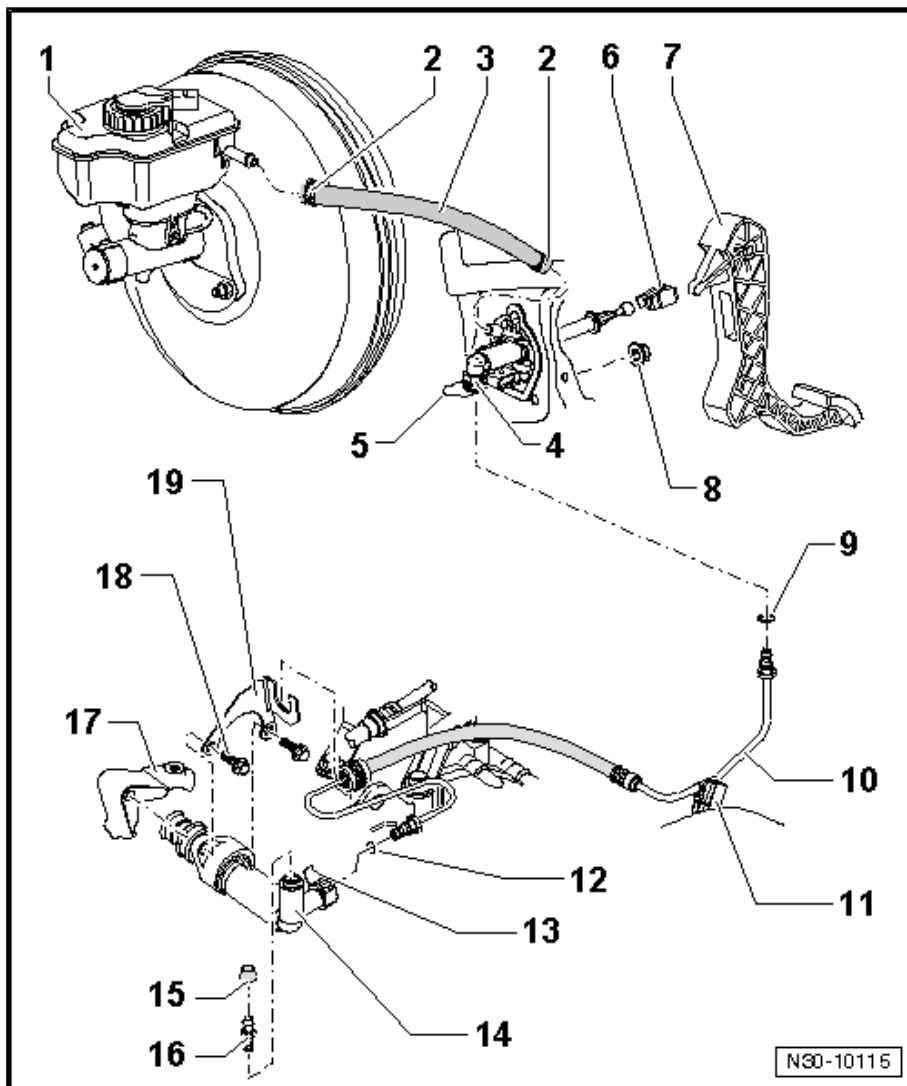
- removing and installing  
=> [page 51](#)
- test tightness  
=> [page 63](#)
- after installing, bleed the clutch control  
=> [page 76](#)

**5 - Clip**

- to remove and install the tube-hose line pull out retaining clip up to the stop

**6 - Support**

- for removing and instal-



ling, disconnect the  
master cylinder from the clutch pedal ⇒ [page 33](#)

#### 7 - Clutch pedal

- removing and installing ⇒ [page 33](#)

#### 8 - Self-locking nuts

- 3 pieces
- self-locking
- for bracket on front wall
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 20 Nm

#### 9 - Seal / O-ring

- pull onto line connection
- Insert with brake fluid
- Gasket rings/O-rings adapted to the material of the line connection ⇒ [page 18](#)
- Assignment ⇒ Electronic Catalogue of Original Parts
- test tightness ⇒ [page 63](#)

#### 10 - Tube-hose line

- Assignment ⇒ Electronic Catalogue of Original Parts
- Remove battery and battery tray for removing ⇒ Electrical System; Rep. gr. 27
- test tightness ⇒ [page 63](#)

#### 11 - Support

- Mount at the structure
- for tube-hose line pos. 10

#### 12 - Gasket ring/O-ring

- pull onto line connection
- insert with brake fluid
- Gasket rings/O-rings adapted to the material of the line connection ⇒ [page 18](#)
- Assignment ⇒ Electronic Catalogue of Original Parts
- test tightness ⇒ [page 63](#)

#### 13 - Clip

- to remove and install the tube-hose line pull out retaining clip up to the stop

#### 14 - Slave cylinder

- removing and installing ⇒ [page 64](#)
- test tightness ⇒ [page 63](#)
- after installing, bleed the clutch control ⇒ [page 76](#)

#### 15 - Dust cap

#### 16 - Vent valve

- Bleed the clutch control ⇒ [page 76](#)
- test tightness ⇒ [page 63](#)

#### 17 - Gearbox

#### 18 - Screw

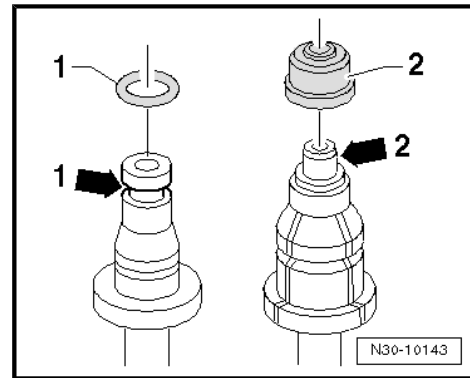
- 20 Nm

#### 19 - Support



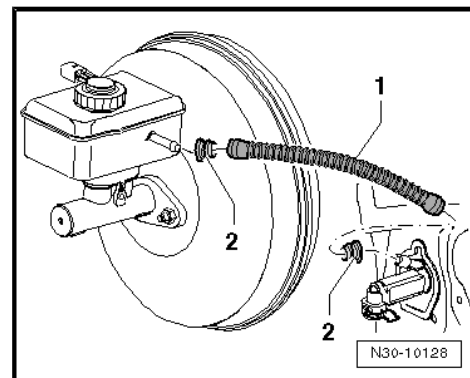
**Gasket rings/O-rings for tube-hose lines**

Pos.	Version of line connection
1	Line connection with circular slot -arrow 1-
2	Line connection with collar -arrow 2-



**Plastic return hose -1-**

- Gaskets -2- must be present in the return hose
- Do not use hose clamp - MP7-602-



**1.3.2 Summary of components - Hydraulics - Right-hand drive (Octavia II, Superb II and Yeti)**

### 1 - Brake fluid reservoir

- test tightness  
⇒ [page 63](#)

### 2 - Gasket

- for plastic return hose
- the gaskets must be located in the return hose

### 3 - Tubing

- to the brake fluid reservoir
- out of rubber
- on certain vehicles out of plastic ⇒ [page 18](#)
- if the intake hose is made out of plastic, do not use hose clamp - MP7-602-
- test tightness  
⇒ [page 63](#)

### 4 - Master cylinder

- removing and installing  
⇒ [page 51](#)
- test tightness  
⇒ [page 63](#)
- after installing, bleed the clutch control  
⇒ [page 76](#)

### 5 - Clip

- to remove and install the tube-hose line pull out retaining clip up to the stop

### 6 - Seal / O-ring

- pull onto line connection
- Insert with brake fluid
- Gasket rings/O-rings adapted to the material of the line connection ⇒ [page 18](#)
- Assignment ⇒ Electronic Catalogue of Original Parts
- test tightness ⇒ [page 63](#)

### 7 - Support

- for removing and installing, disconnect the master cylinder from the clutch pedal ⇒ [page 33](#)

### 8 - Clutch pedal

- removing and installing ⇒ [page 33](#)

### 9 - Self-locking nuts

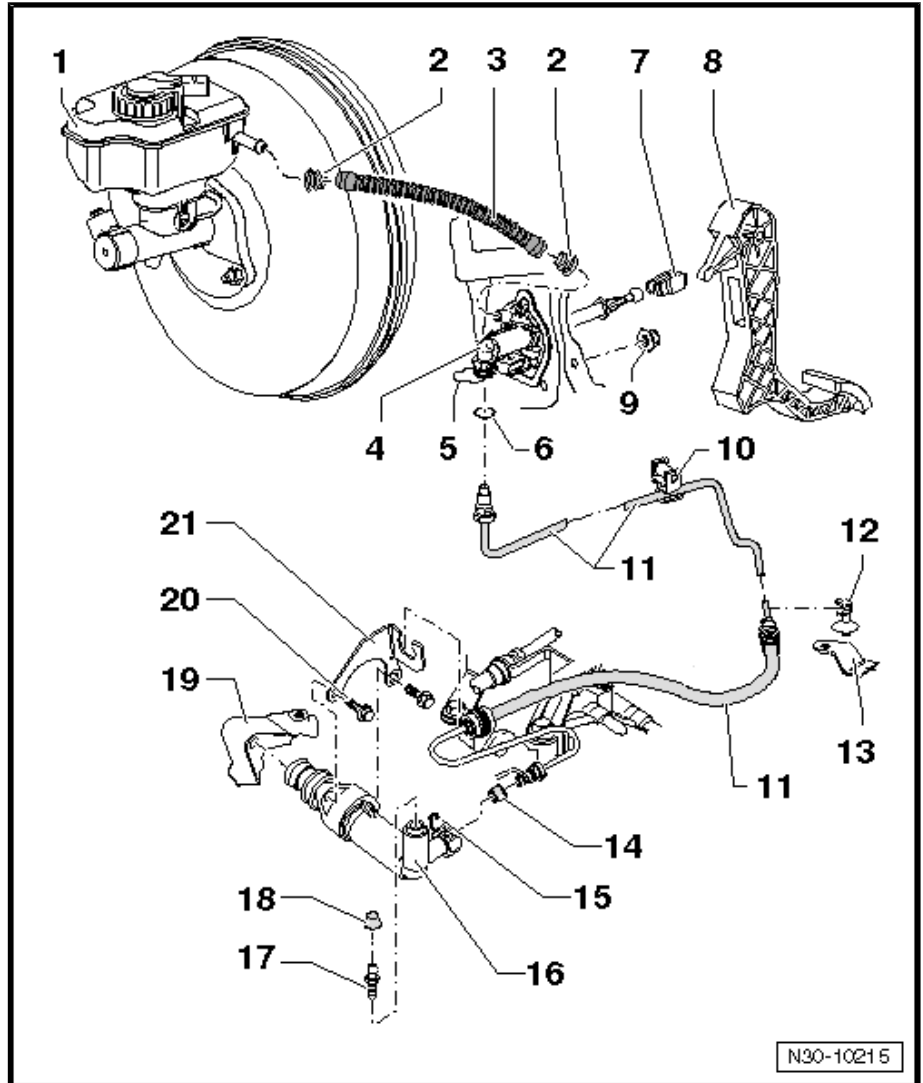
- 3 pieces
- for bracket on front wall
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 20 Nm

### 10 - Support

- Mounted at the structure

### 11 - Tube-hose line

- Assignment ⇒ Electronic Catalogue of Original Parts
- Remove battery and battery tray for removing ⇒ Electrical System; Rep. gr. 27





- test tightness ⇒ [page 63](#)

## 12 - Support

- attached to the bracket for ABS/EDL

## 13 - Support

- for ABS/EDL

## 14 - Gasket ring/O-ring

- pull onto line connection
- insert with brake fluid
- Gasket rings/O-rings adapted to the material of the line connection ⇒ [page 18](#)
- Assignment ⇒ Electronic Catalogue of Original Parts
- test tightness ⇒ [page 63](#)

## 15 - Clip

- to remove and install the tube-hose line pull out retaining clip up to the stop

## 16 - Slave cylinder

- removing and installing ⇒ [page 64](#)
- test tightness ⇒ [page 63](#)
- after installing, bleed the clutch control ⇒ [page 76](#)

## 17 - Vent valve

- Bleed the clutch control ⇒ [page 76](#)
- test tightness ⇒ [page 63](#)

## 18 - Dust cap

## 19 - Gearbox

## 20 - Screw

- 20 Nm

## 21 - Support



### 1.3.3 Summary of components - Hydraulics (Octavia III)

#### 1 - Hexagon bolt

- 20 Nm

#### 2 - Vent valve

- Bleed the clutch control  
⇒ [page 76](#)
- 4.5 Nm

#### 3 - Dust cap

#### 4 - Supply hose

#### 5 - Brake fluid reservoir

#### 6 - Gasket

- must be located on the return hose

#### 7 - Master cylinder

- removing and installing  
⇒ [page 51](#)

#### 8 - Clip

- to remove and install the tube-hose line pull out retaining clip up to the stop

#### 9 - Seal / O-ring

- Renew if damaged
- fit onto the line connection
- Insert with brake fluid
- Gasket rings/O-rings are adapted to the version of the line connection ⇒ [page 22](#)
- Assignment ⇒ Electronic Catalogue of Original Parts

#### 10 - Support

- for tube-hose line

#### 11 - Tube-hose line

- Assignment ⇒ Electronic Catalogue of Original Parts
- removing and installing ⇒ [page 74](#)

#### 12 - Seal / O-ring

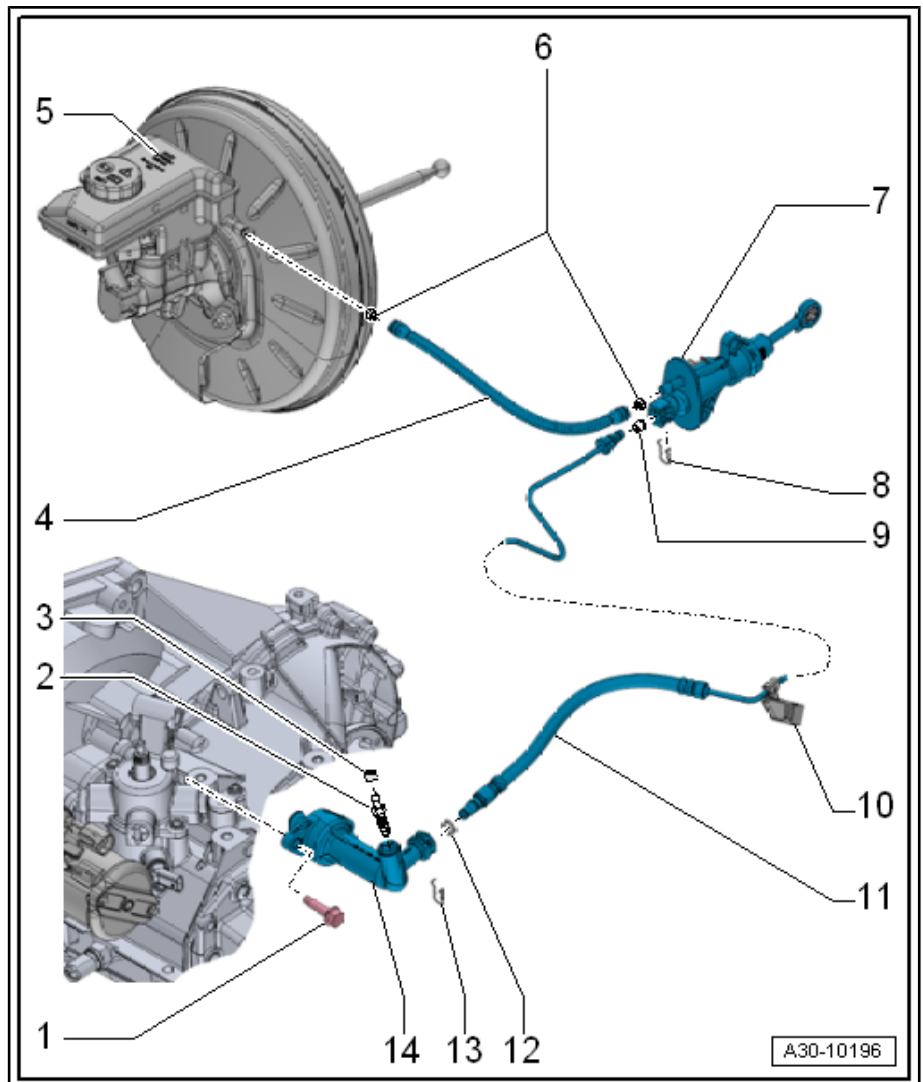
- Renew if damaged
- fit onto the line connection
- Insert with brake fluid
- Gasket rings/O-rings are adapted to the version of the line connection ⇒ [page 22](#)
- Assignment ⇒ Electronic Catalogue of Original Parts

#### 13 - Clip

- to remove and install the tube-hose line pull out retaining clip up to the stop

#### 14 - Slave cylinder

- removing and installing ⇒ [page 64](#)





**Disconnect the cables for the clutch control and connect**

**Separate**

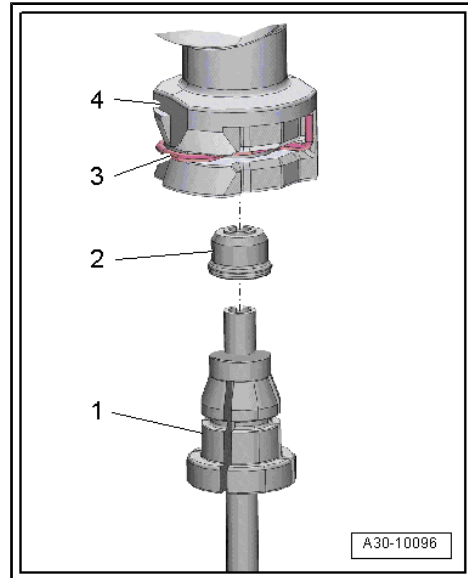
- Unlock the clip -3- with a screwdriver and disconnect the tube-hose line -1- from the connection -4-.

**Connect**



**Note**

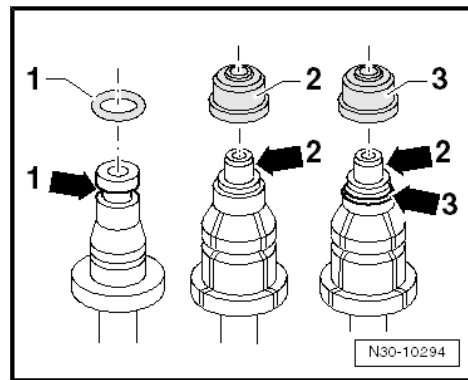
- ◆ An O-ring can also be installed instead of the gasket ring -2- ⇒ [page 22](#) .
- ◆ Replace damaged gasket ring -2-.
- Push in the tube-hose line -1- at the connection -4- until the clip -3- locks audibly into place.
- For testing pull on the tube-hose line.



**Gasket rings/O-rings for tube-hose lines and/or pipes**

Pos.	Version of line connection
1	Line connection with circumferential groove -arrow 1-
2	Line connection with shoulder -arrow 2-
3	Line connection with shoulder -arrow 2- and circumferential groove -arrow 3-

- In case of a line connection with round slot -arrow 1- and -arrow 3-, a gasket ring/O-ring must be inserted.



## 1.4 Removing and installing holder for knee airbag with crash strut for clutch pedal (Yeti)

### Holder for knee airbag with crash strut for clutch pedal - Summary of components

- 1 - Module carrier
- 2 - Holder for knee airbag with crash strut for brake pedal
- 3 - 9 Nm
- 4 - Knee airbag
- 5 - 7 Nm
- 6 - Strut for knee airbag
- 7 - Bolt for the left footwell vent on the driver side: 1.5 Nm
- 8 - Holder for knee airbag with crash strut for clutch pedal
- 9 - 9 Nm
- 10 - 9 Nm

### Removing

For the removal of the top screw (Pos. 10):

- Removing dash panel insert ⇒ Electrical System; Rep. gr. 90 .

For the removal of the bottom screw (position 9):

- Remove lower part of the dash panel insert on the driver's side ⇒ Body Work; Rep. gr. 70 .
- Release screw for footwell vent on driver's side (position 7).
- Remove knee airbag ⇒ Body Work; Rep. gr. 69 .
- Remove strut for knee airbag.
- Remove vehicle voltage control unit - J519- , relay carrier above and below the vehicle voltage control unit ⇒ Electrical System; Rep. gr. 97 and expose wiring looms.

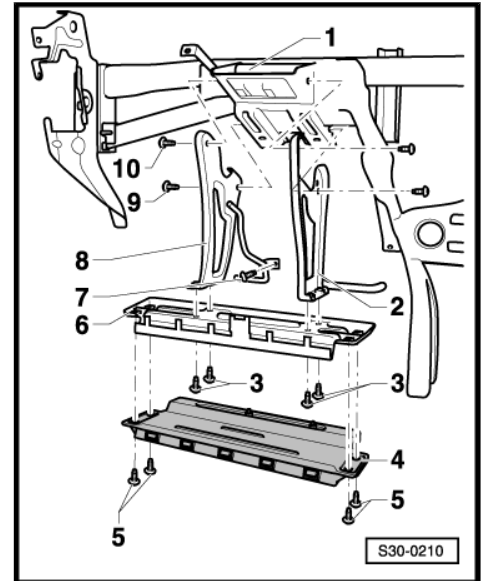
The hoses remain connected.

- Release bottom screw (position 9) and remove holder for knee airbag with crash strut for clutch pedal (position 8).

### Install

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

- Install vehicle voltage control unit with relay carriers ⇒ Electrical System; Rep. gr. 97 .
- Install knee airbag ⇒ Body Work; Rep. gr. 69 .
- Install lower part of the dash panel insert on the driver's side ⇒ Body Work; Rep. gr. 70 .

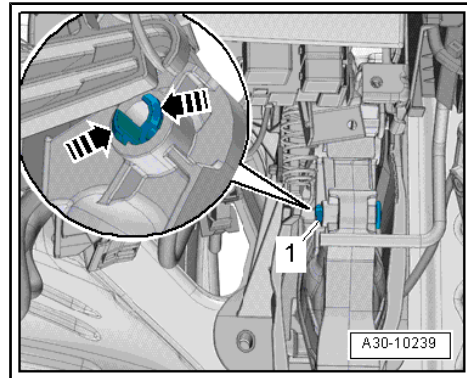


## 1.5 Removing and installing bearing bush (Octavia III)

### Removing

- Disconnect battery earth strap ⇒ Electrical System; Rep. gr. 27 .

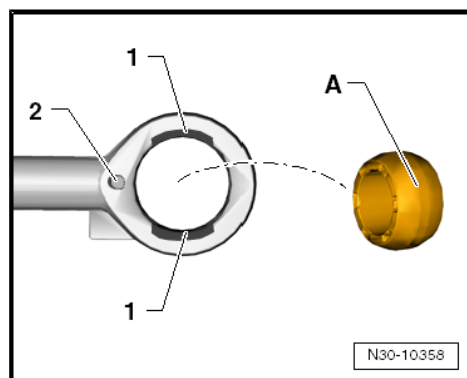
- Press the catches -arrows- together and remove the bolts -1- to the right.



- Turn the master cylinder tappet so that the recesses -1- and bolt -2- are visible.

The recesses -1- and bolts -2- are facing the same direction.

- Remove bearing bush -A- from recesses -1-.

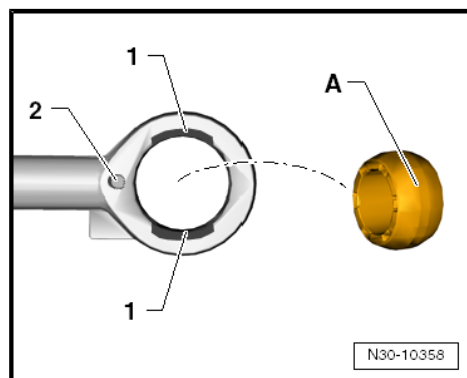


### Install

- Turn the master cylinder tappet so that the recesses -1- and bolt -2- are visible.

The recesses -1- and bolts -2- are facing the same direction.

- Insert the bearing bush -A- into the recesses -1- and turn in the tappet lug until flush.
- Connect the master cylinder tappet with the clutch pedal, to do so use a new carrier bolt => Electronic catalogue of original parts .
- Connect battery => Electrical System; Rep. gr. 27 .



## 1.6 Removing and installing the over-centre helper spring

=> ["1.6.1 Removing and installing over-centre helper spring \(Octavia II\)", page 24](#)

=> ["1.6.2 Removing and installing over-centre helper spring \(Octavia III\)", page 26](#)

=> ["1.6.3 Removing and installing over-centre helper spring \(Superb II\)", page 28](#)

=> ["1.6.4 Removing and installing over-centre helper spring \(Yeti\)", page 29](#)

### 1.6.1 Removing and installing over-centre helper spring (Octavia II)

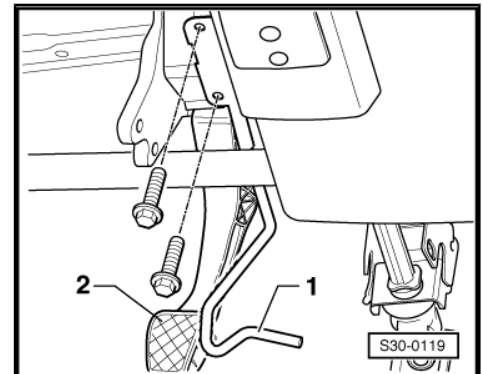
Special tools and workshop equipment required

- ◆ Release tool - T10178-

#### Removing

- Bracket for clutch pedal installed in the vehicle.

- Slide the driver seat to the rear.
- Remove lower part of the dash panel insert on the driver's side  
⇒ Body Work; Rep. gr. 70 .
- Unscrew crash strut -1- in front of the clutch pedal -2-.



- Unscrew clutch pedal -1- from bracket -3-, to this end release nut -2- and pull out screw -5-.

**i** Note

*The clutch pedal remains hanging on the actuating rod of the master cylinder.*

- Swivel clutch pedal slightly downwards and remove over-centre helper spring -4- from the bracket.

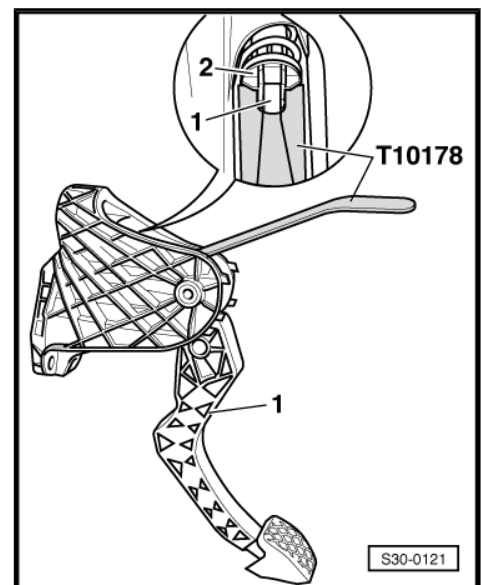
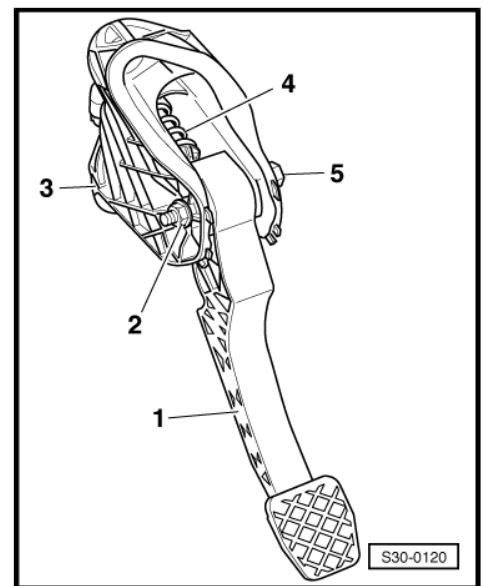
**Install**

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

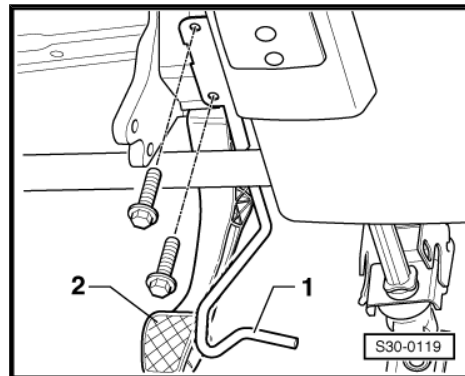
**i** Note

*Always replace self-locking nut ⇒ Electronic Catalogue of Original Parts .*

- Insert over-centre helper spring from above into the bracket and while doing so hold the the spring end in the fitting position using the release tool -T10178- .
- Insert bearing bolt of clutch pedal into the step bearing of the over-centre helper spring.
- Press on clutch pedal slightly, slide through screw and tighten self-locking nut.



- Screw on crash strut -1- in front of the clutch pedal -2-.
- Install lower part of the dash panel insert on the driver's side  
⇒ Body Work; Rep. gr. 70 .



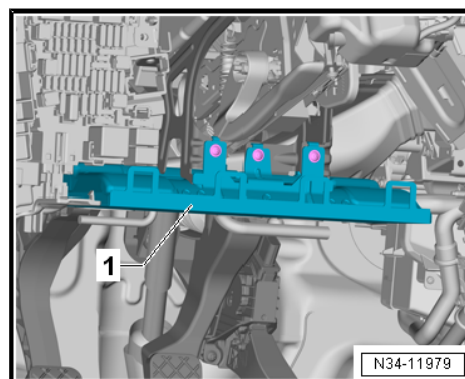
**Tightening torque**

Component	Nm
Clutch pedal to bearing bracket	⇒ page 13
Crash strut to bracket/steering column	9

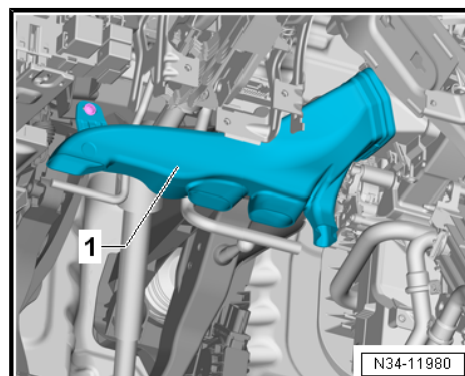
**1.6.2 Removing and installing over-centre helper spring (Octavia III)**

**Removing**

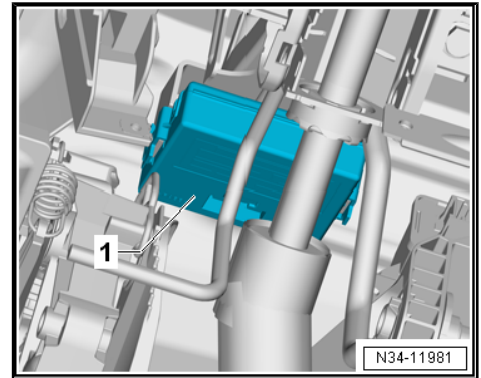
- Disconnect battery earth strap ⇒ Electrical System; Rep. gr. 27 .
- Remove the knee airbag -1- on the driver's side, if present ⇒ Body Work; Rep. gr. 69 .



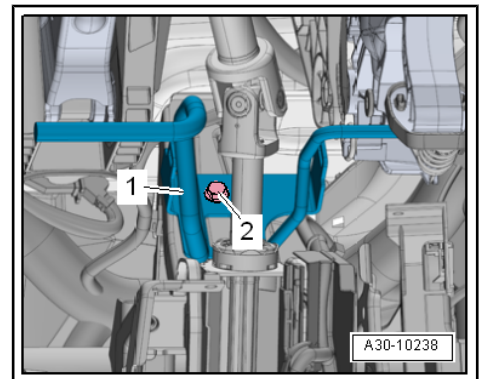
- Remove the footwell vent -1- on the driver's side ⇒ Heating, Air Conditioning; Rep. gr. 87 .



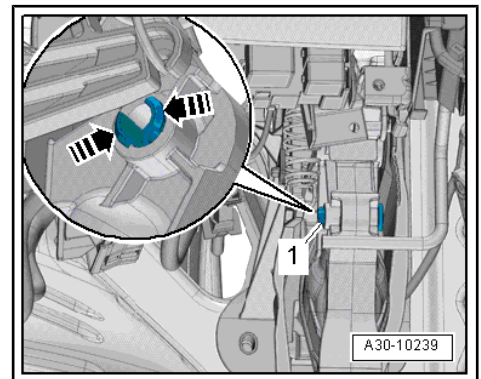
- Remove data bus diagnostic interface - J533- -1- from bracket  
=> Electrical System; Rep. gr. 97 and push it to the side.



- Unscrew screw -2-, unhook crash strut -1- aushängen and push it to the side.



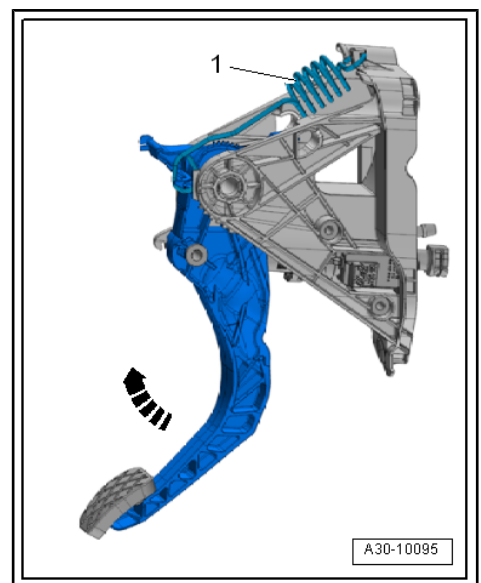
- Press the catches -arrows- and detach the carrier bolt -1- of the tappet for master cylinder to the right.



- Swivel the clutch pedal in -direction of arrow-, unhook and remove over-centre helper spring -1-.

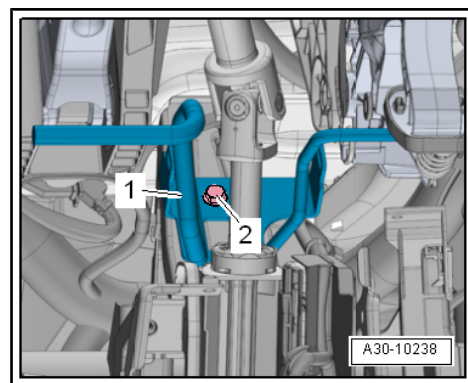
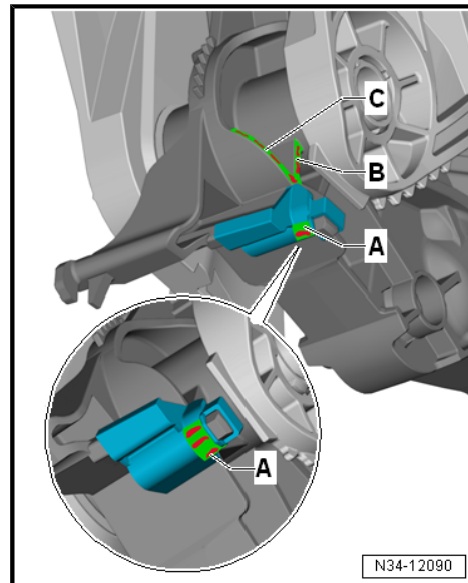
### Install

Installation is performed in the reverse order, while paying attention to the following:





- On the over-centre helper spring -1- (⇒ previous image) only coat the following areas of the clutch pedal with grease -G 052 567 A2- :
  - Sliding sleeve in areas of bearing -A- for over-centre helper spring
  - Peg -B-
  - Peg -C-
  - Grease -G 052 567 A2- ⇒ Electronic Catalogue of Original Parts
  - Swivel the clutch pedal in -direction of arrow- and suspend over-centre helper spring -1- (⇒ previous fig.).
  - Connect the tappet for master cylinder with the clutch pedal, to do so use the new carrier bolt ⇒ Electronic catalogue of original parts .
- 
- Insert crash strut -1- and tighten screw -2- ⇒ Body Work; Rep. gr. 70 .
  - Install data bus diagnostic interface - J533- ⇒ Electrical System; Rep. gr. 97 .
  - Install footwell vent driver's side ⇒ Heating, Air Conditioning; Rep. gr. 87 .
  - Install knee airbag driver's side, in case it was removed ⇒ Body Work; Rep. gr. 69 .
  - Connect battery ⇒ Electrical System; Rep. gr. 27 .



### 1.6.3 Removing and installing over-centre helper spring (Superb II)

#### Special tools and workshop equipment required

- ◆ Release tool - T10178-

#### Removing

- Push the driver seat as far as possible towards the rear and position the steering wheel in the highest position.
- Remove the storage area on the driver's side and the bottom plastic covering for the steering wheel ⇒ Body Work; Rep. gr. 70 .
- Removing the footwell vent ⇒ Heating and Air Conditioning; Rep. gr. 87 .
- If present, remove the crash strut or the knee airbag ⇒ Body work; Rep. gr. 69 .



- Unscrew clutch pedal -1- from bracket -3-, to this end release nut -2- and pull out screw -5-.

**i** Note

*The clutch pedal remains hanging on the actuating rod of the master cylinder.*

- Swivel clutch pedal slightly downwards and remove over-centre helper spring -4- from the bracket.

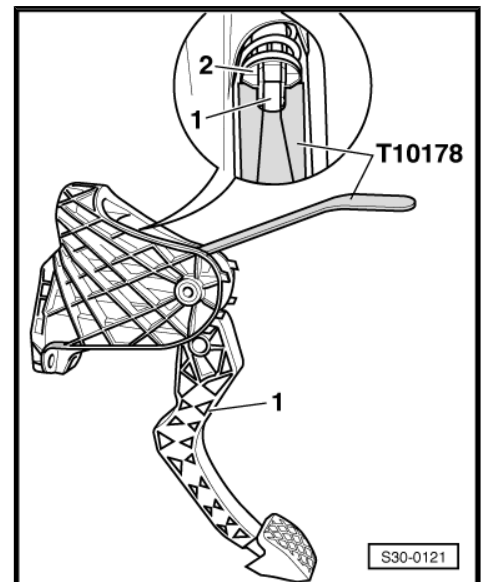
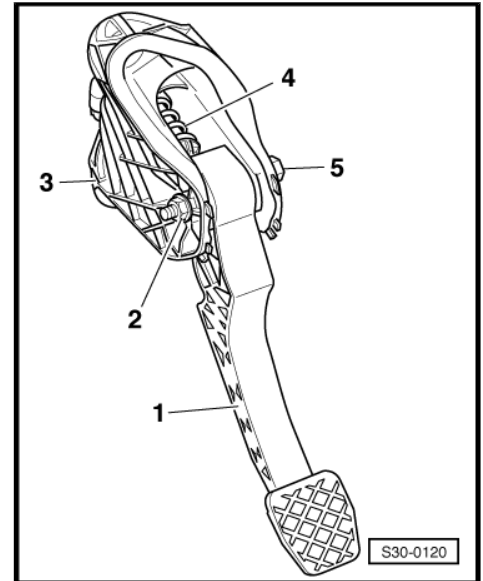
**Install**

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

**i** Note

*Replace self-locking nut.*

- Insert over-centre helper spring -2- from above into the bracket and while doing so hold the spring end in the fitting position using the release tool - T10178- .
- Insert bearing bolt of clutch pedal into the step bearing of the over-centre helper spring.
- Press on clutch pedal -1- slightly, slide through screw and tighten self-locking nut.
- Install the footwell vent ⇒ Heating and Air Conditioning; Rep. gr. 87 .
- If present, install the crash strut or the knee airbag ⇒ Body work; Rep. gr. 69 .
- Install the bottom part of the dash panel and the bottom plastic cover for the steering wheel ⇒ Body Work; Rep. gr. 70 .
- Install the storage area on the driver's side and the bottom plastic covering for the steering wheel ⇒ Body Work; Rep. gr. 70 .



**Tightening torques**

Component	Nm
Clutch pedal to bearing bracket	⇒ <a href="#">page 13</a>

### 1.6.4 Removing and installing over-centre helper spring (Yeti)

**Special tools and workshop equipment required**

- ◆ Release tool - T10178-

**Removing**

- Push the driver seat as far as possible towards the rear and position the steering wheel in the highest position.
- Remove holder for knee airbag with crash strut for clutch pedal ⇒ [page 23](#) .



- Remove the steering column from the steering gear ⇒ Chassis; Rep. gr. 48 .
- Unscrew clutch pedal -1- from bracket -3-, to this end release nut -2- and pull out screw -5-.



**Note**

The clutch pedal remains hanging on the actuating rod of the master cylinder.

- Swivel clutch pedal slightly downwards and remove over-centre helper spring -4- from the bracket.

**Install**

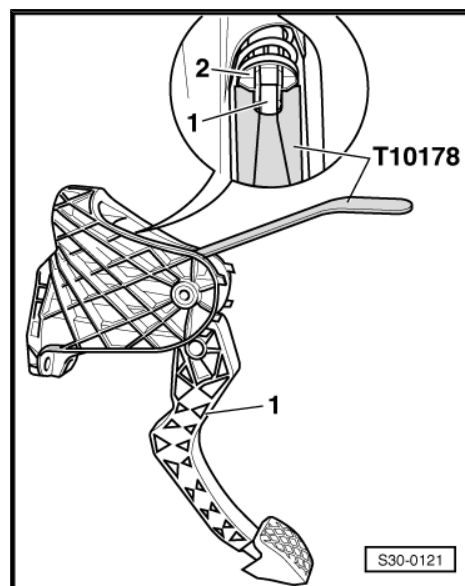
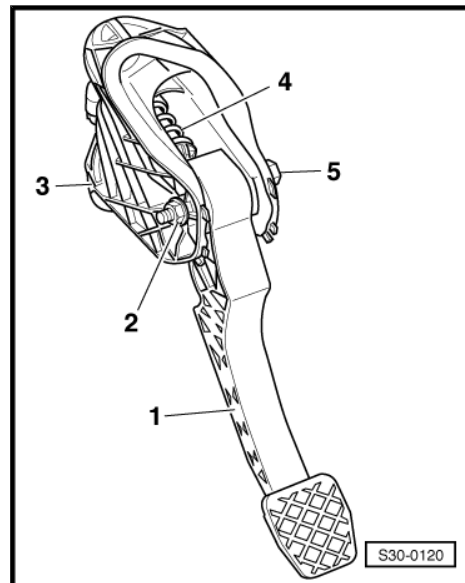
Installation is performed in the reverse order, pay attention to the following points:



**Note**

Replace self-locking nut.

- Insert over-centre helper spring -2- from above into the bracket and while doing so hold the spring end in the fitting position using the release tool - T10178- .
- Insert bearing bolt of clutch pedal into the step bearing of the over-centre helper spring.
- Press on clutch pedal -1- slightly, slide through screw and tighten self-locking nut.
- Secure the steering column to the steering gear with a new screw ⇒ Chassis; Rep. gr. 48 .
- Install holder for knee airbag with crash strut for clutch pedal ⇒ [page 23](#) .



**Tightening torques**

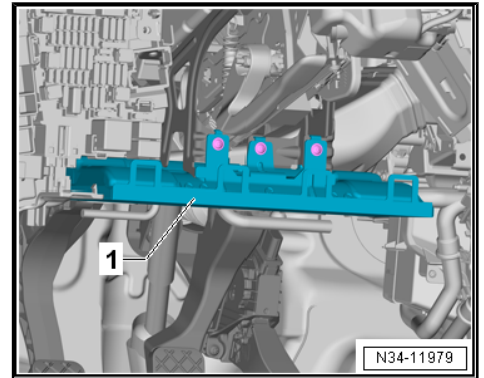
Component	Nm
Clutch pedal to bearing bracket	⇒ <a href="#">page 13</a>
Steering column to steering gear.	⇒ Chassis; Rep. gr. 48
Install holder for knee airbag with crash strut for clutch pedal	⇒ <a href="#">page 23</a>

**1.7 Removing and installing tension spring and over-centre helper spring (Octavia III)**

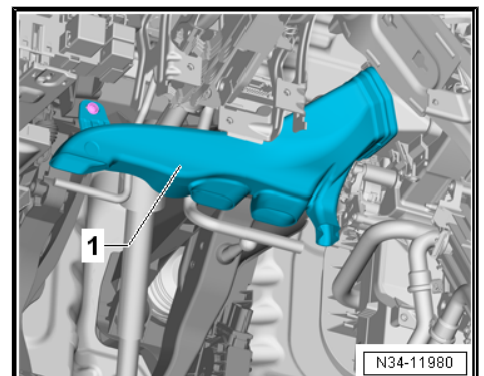
**Removing**

- Disconnect battery earth strap ⇒ Electrical System; Rep. gr. 27 .

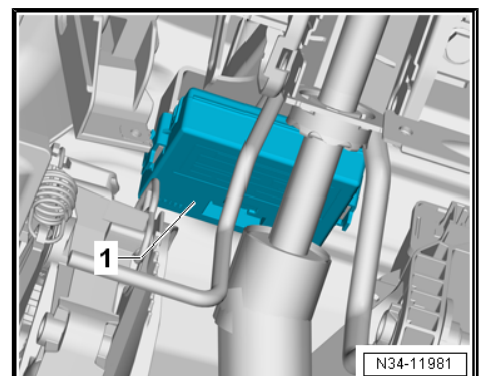
- If present, remove the knee airbag -1- on the driver's side ⇒ Body Work; Rep. gr. 69 .



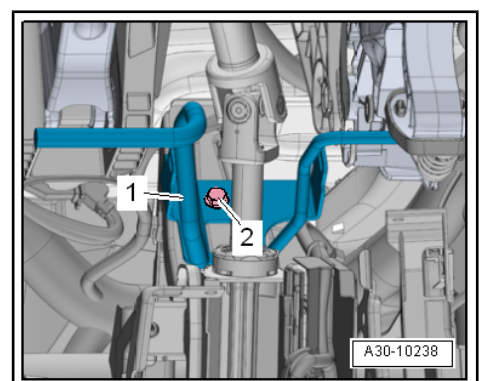
- Remove the footwell vent -1- on the driver's side ⇒ Heating, Air Conditioning; Rep. gr. 87 .



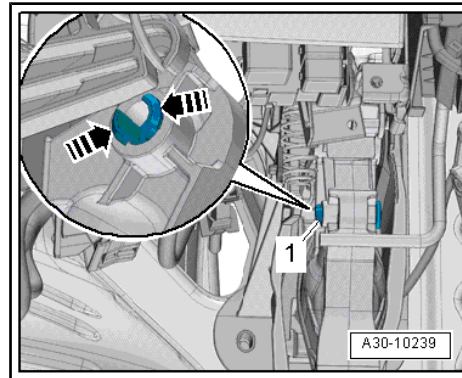
- Remove data bus diagnostic interface - J533- -1- from bracket ⇒ Electrical System; Rep. gr. 97 and push it to the side.



- Unscrew screw -2-, unhook crash strut -1- aushängen and push it to the side.



- Press the catches -arrows- and detach the carrier bolt -1- of the tappet for master cylinder to the right.

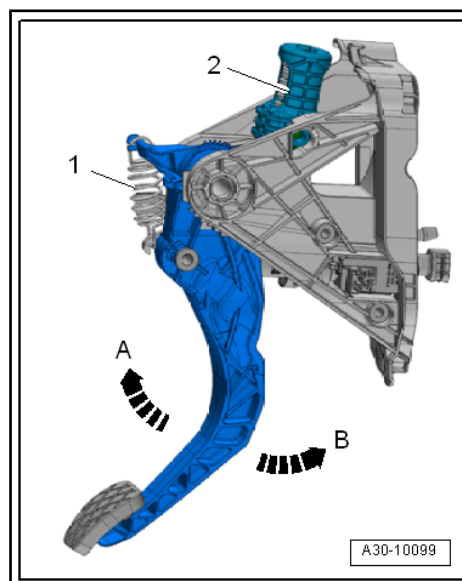


- If present, unhook the tension spring -1- and remove, while doing so pull the clutch pedal in -direction of arrow A-.
- Pull the clutch pedal in -direction of arrow A-, unhook the over-centre helper spring -2- and remove.

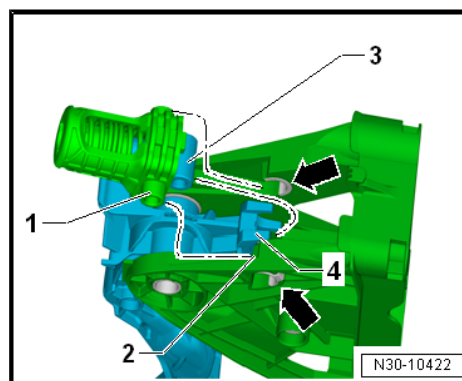
### Install

Installation is performed in the reverse order, while paying attention to the following:

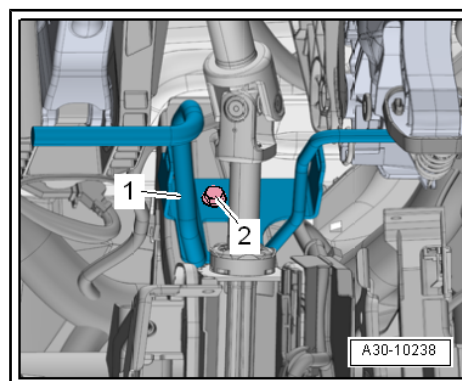
- The bearing shells -arrows- of the bolts -1- are installed.
- Pull the clutch pedal in -direction of arrow A- (⇒ previous figure) into the passenger compartment.



- Insert the bolt -1- into the mount -2- of the carrier.
- Insert the bearing -3- into the mount -4- for the clutch pedal.
- Press the clutch pedal in -direction of arrow B- (⇒ previous figure), until the over-centre helper spring engages in direction of carrier.
- Connect the tappet for master cylinder with the clutch pedal, to do so use the new carrier bolt ⇒ Electronic catalogue of original parts .



- Insert crash strut -1- and tighten screw -2- ⇒ Body Work; Rep. gr. 70 .
- Install data bus diagnostic interface - J533- ⇒ Electrical System; Rep. gr. 97 .
- Install footwell vent driver's side ⇒ Heating, Air Conditioning; Rep. gr. 87 .
- Install knee airbag driver's side, in case it was removed ⇒ Body Work; Rep. gr. 69 .
- Connect battery ⇒ Electrical System; Rep. gr. 27 .



## 1.8 Removing and installing the clutch pedal

⇒ [“1.8.1 Removing and installing clutch pedal \(Octavia II\)”, page 33](#)

⇒ [“1.8.2 Removing and installing clutch pedal \(Octavia III\)”, page 35](#)

⇒ [“1.8.3 Removing and installing clutch pedal \(Superb II\)”, page 36](#)

⇒ [“1.8.4 Removing and installing clutch pedal \(Yeti\)”, page 38](#)

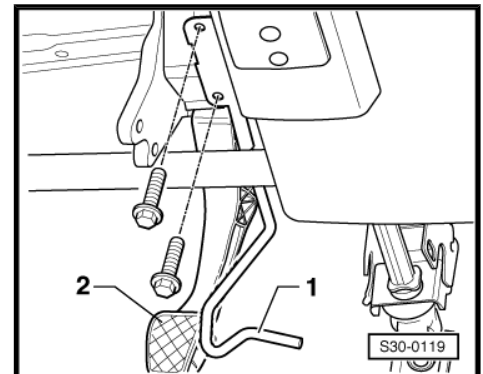
### 1.8.1 Removing and installing clutch pedal (Octavia II)

#### Special tools and workshop equipment required

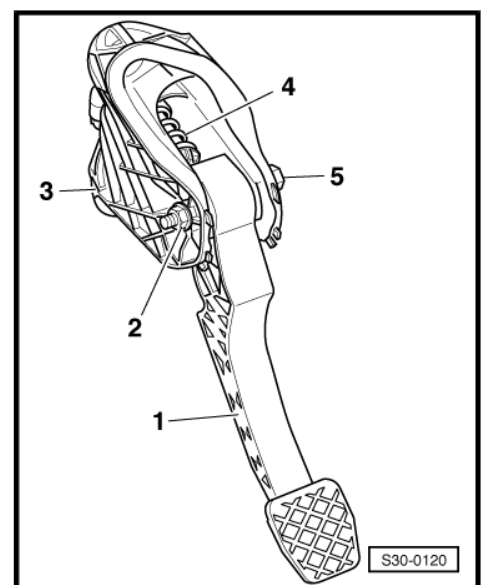
- ◆ Pliers - T10005-
- ◆ Release tool - T10178-

#### Removing

- Bracket for clutch pedal installed in the vehicle.
- Slide the driver seat to the rear.
- Remove lower part of the dash panel insert on the driver's side  
⇒ Body Work; Rep. gr. 70 .
- Unscrew crash strut -1- in front of the clutch pedal -2-.



- Unscrew clutch pedal -1- from bracket -3-, to this end release nut -2- and pull out screw -5-.
- Swivel clutch pedal slightly forwards and remove over-centre helper spring -4- from the bracket.





- Release support of actuating rod of master cylinder with pliers -T10005- .
- Remove clutch pedal.

**Install**

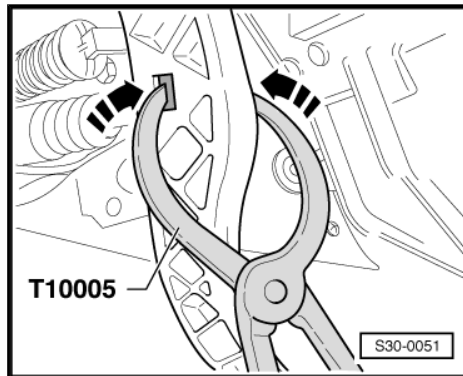
Installation is performed in the reverse order, pay attention to the following points:



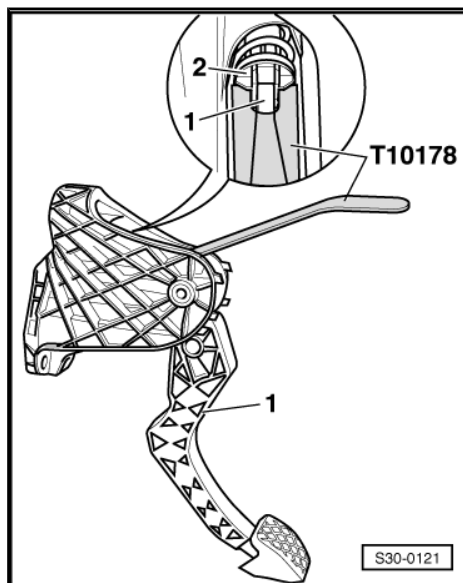
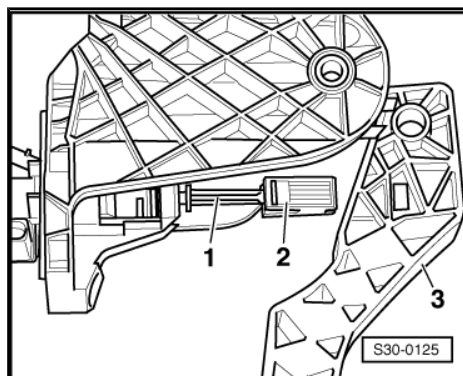
**Note**

Always replace self-locking nut ⇒ *Electronic Catalogue of Original Parts* .

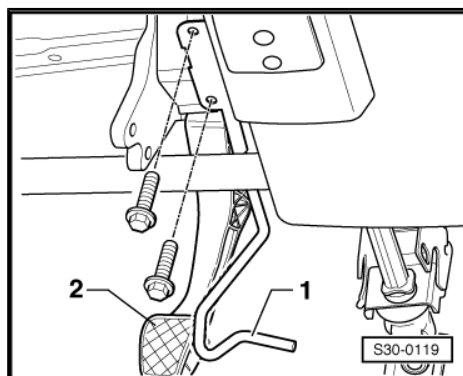
- Attach support -2- to the actuator rod -1- of the master cylinder.
- Press support into the clutch pedal until it audibly clicks into place.



- Insert over-centre helper spring from above into the bracket and while doing so hold the the spring end in the fitting position using the release tool -T10178- .
- Insert bearing bolt of clutch pedal into the step bearing of the over-centre helper spring.
- Press on clutch pedal slightly, slide through screw and tighten self-locking nut.



- Screw on crash strut -1- in front of the clutch pedal -2-.
- Install lower part of the dash panel insert on the driver's side ⇒ *Body Work*; Rep. gr. 70 .



## Tightening torque

Component	Nm
Clutch pedal to bearing bracket	⇒ <a href="#">page 13</a>
Crash strut to bracket/steering column	9

## 1.8.2 Removing and installing clutch pedal (Octavia III)

### Removing

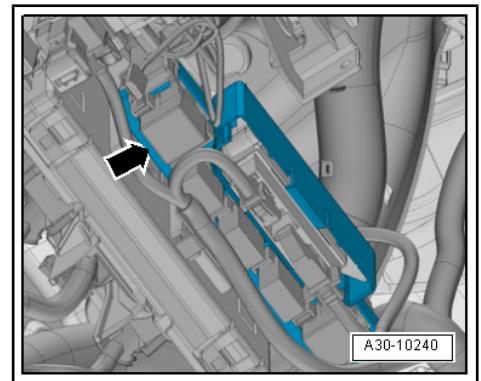
- Disconnect battery earth strap ⇒ Electrical System; Rep. gr. 27 .
- Remove the mount -arrow- with the parking aid control unit - J446- ⇒ Electrical System; Rep. gr. 94 (if installed in the area of the carrier) and push it to the side.

### Right-hand drive with Climatronic system

- Removing right temperature flap control motor - V159- ⇒ Heating, Air conditioning; Rep. gr. 87 .

### Continued for all versions

- Removing over-centre helper spring from carrier ⇒ [page 24](#) , or removing over-centre helper spring from carrier ⇒ [page 30](#) .

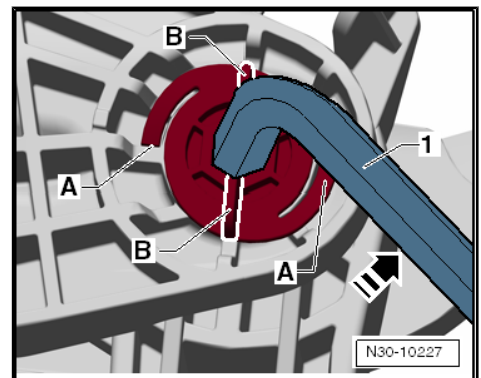


### Remove the bearing bolt for the clutch pedal as follows:

- 1- - Socket wrench (SW 14)
- For this purpose, turn the bearing bolt for the clutch pedal towards the left -in direction of arrow-.

### The catches -A- are thereby destroyed.

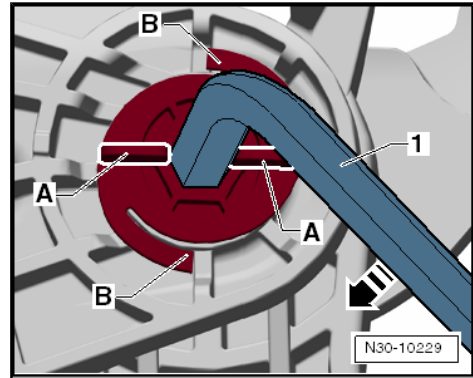
- Then the studs -B- are positioned horizontally.
- Slightly move the clutch pedal in order to pull out the bearing bolt.



## Install

Installation is performed in the reverse order, while paying attention to the following:

- 1- - Socket wrench (SW 14)
  - Replace bearing bolt after removal.
  - Slightly press on the clutch pedal and insert a new bearing bolt ⇒ Electronic catalogue of original parts .
  - It is important that the studs -A- are positioned horizontally.
  - Turn the bearing bolt to the right in -direction of arrow-.
  - The catches -B- must click audibly into place.
  - Then the studs -A- are positioned vertically.
  - Installing over-centre helper spring at carrier ⇒ [page 24](#) or installing over-centre helper spring at carrier ⇒ [page 30](#) .

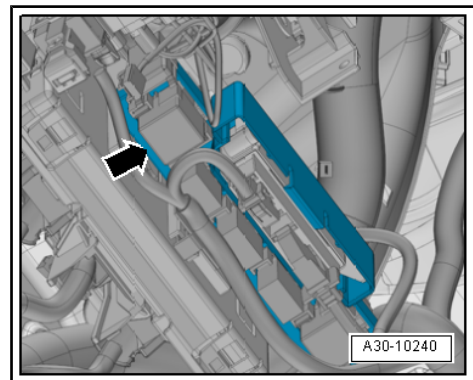


### Right-hand drive with Climatronic system

- Installing right temperature flap control motor - V159- ⇒ Heating, Air conditioning; Rep. gr. 87 .

### Continued for all versions

- If present, install the mount -arrow- with the parking aid control unit - J446- ⇒ Electrical System; Rep. gr. 94 .
- Connect battery ⇒ Electrical System; Rep. gr. 27 .



## 1.8.3 Removing and installing clutch pedal (Superb II)

### Special tools and workshop equipment required

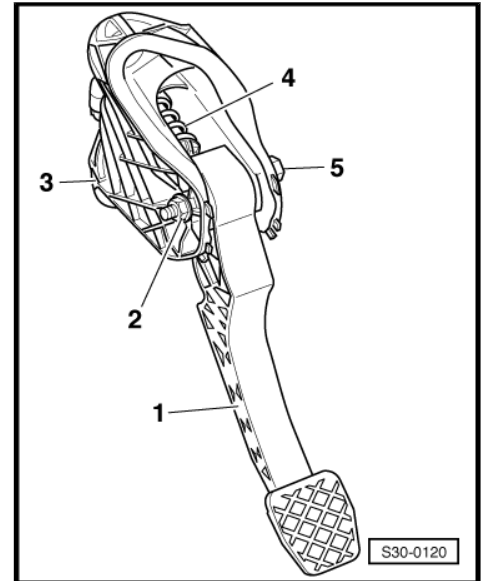
- ◆ Pliers - T10005-
- ◆ Release tool - T10178-

### Removing

- Push the driver seat as far as possible towards the rear and position the steering wheel in the highest position.
- Remove the storage area on the driver's side and the bottom plastic covering for the steering wheel ⇒ Body Work; Rep. gr. 70 .
- Removing the footwell vent ⇒ Heating and Air Conditioning; Rep. gr. 87 .
- If present, remove the crash strut or the knee airbag ⇒ Body work; Rep. gr. 69 .



- Unscrew clutch pedal -1- from bracket -3-, to this end release nut -2- and pull out screw -5-.
- Swivel clutch pedal slightly forwards and remove over-centre helper spring -4- from the bracket.

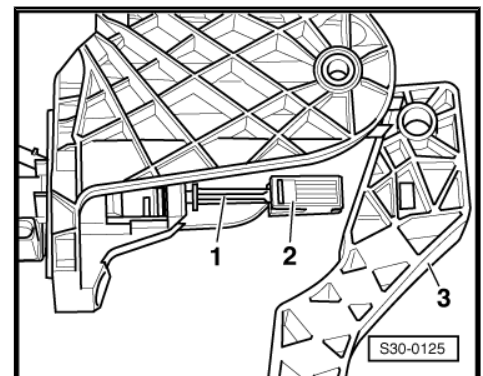
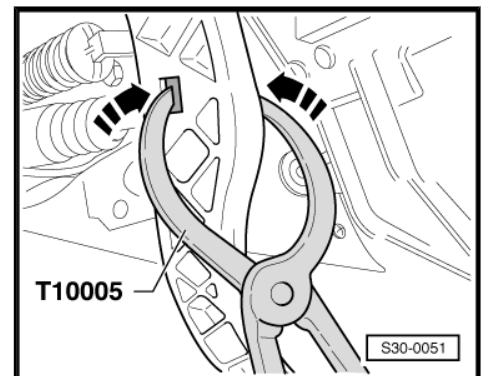


- Release support of actuating rod of master cylinder with the pliers - T10005- .
- Remove clutch pedal.

#### Install

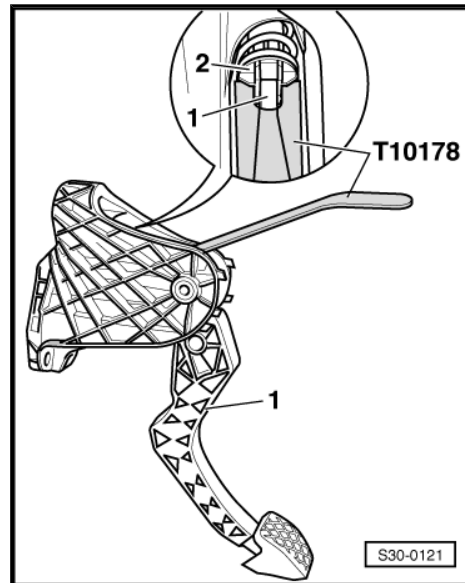
Installation is performed in the reverse order, pay attention to the following points:

- Attach support -2- to the actuator rod -1- of the master cylinder.
- Press support into the clutch pedal until it audibly clicks into place.





- Insert over-centre helper spring from above into the bracket and while doing so hold the the spring end in the fitting position using the release tool - T10178- .
- Insert bearing bolt of clutch pedal into the step bearing of the over-centre helper spring.
- Press on clutch pedal slightly, slide through screw and tighten self-locking nut.
- Install the footwell vent => Heating and Air Conditioning; Rep. gr. 87 .
- If present, install the crash strut or the knee airbag => Body work; Rep. gr. 69 .
- Install the storage area on the driver's side and the bottom plastic covering for the steering wheel => Body Work; Rep. gr. 70 .



**Tightening torques**

Component	Nm
Clutch pedal to bearing bracket	=> <a href="#">page 13</a>

**1.8.4 Removing and installing clutch pedal (Yeti)**

**Special tools and workshop equipment required**

- ◆ Pliers - T10005-
- ◆ Release tool - T10178-

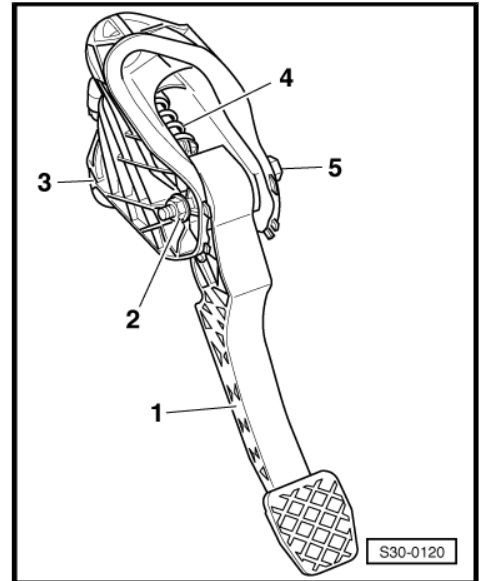
**Removing**

- Push the driver seat as far as possible towards the rear and position the steering wheel in the highest position.
- Remove holder for knee airbag with crash strut for clutch pedal => [page 23](#) .
- Remove the steering column from the steering gear => Chassis; Rep. gr. 48 .

- Unscrew clutch pedal -1- from bracket -3-, to this end release nut -2- and pull out screw -5-.

**i** Note

- Swivel clutch pedal slightly downwards and remove over-centre helper spring -4- from the bracket.

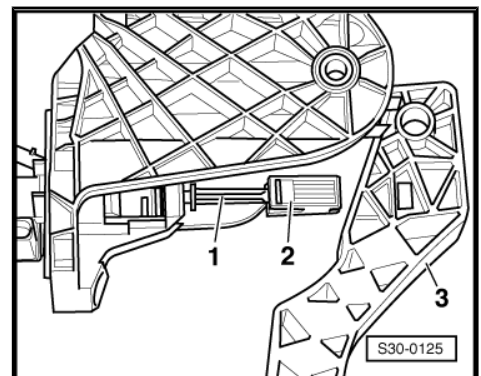
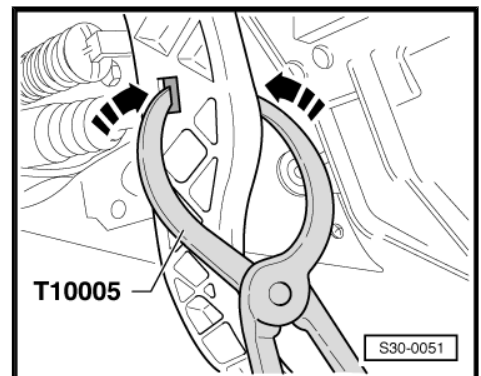


- Release support of actuating rod of master cylinder with the pliers - T10005- .
- Remove clutch pedal.

**Install**

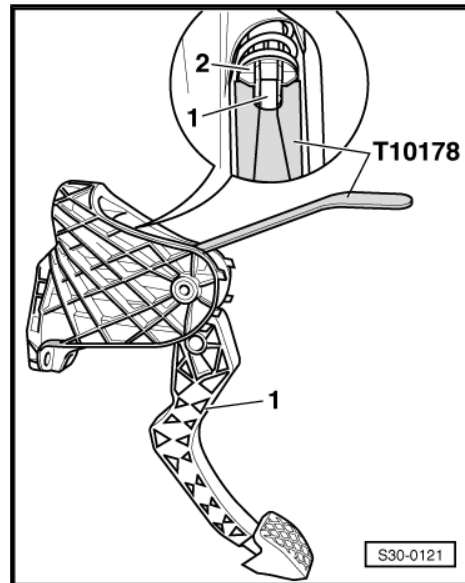
Installation is performed in the reverse order, pay attention to the following points:

- Attach support -2- to the actuator rod -1- of the master cylinder.
- Press support into the clutch pedal until it audibly clicks into place.





- Insert over-centre helper spring from above into the bracket and while doing so hold the the spring end in the fitting position using the release tool - T10178- .
- Insert bearing bolt of clutch pedal into the step bearing of the over-centre helper spring.
- Press on clutch pedal slightly, slide through screw and tighten self-locking nut.
- Secure the steering column to the steering gear with a new screw => Chassis; Rep. gr. 48 .
- Install holder for knee airbag with crash strut for clutch pedal => [page 23](#) .



**Tightening torques**

Component	Nm
Clutch pedal to bearing bracket	=> <a href="#">page 13</a>
Steering column to steering gear.	=> Chassis; Rep. gr. 48
Install holder for knee airbag with crash strut for clutch pedal	=> <a href="#">page 23</a>

**1.9 Removing and installing bearing block for clutch pedal**

=> ["1.9.1 Removing and installing bearing bracket for clutch pedal \(Octavia II\)", page 40](#)

=> ["1.9.2 Removing and installing bearing bracket for clutch pedal \(Octavia III\)", page 42](#)

=> ["1.9.3 Removing and installing bearing bracket for clutch pedal \(Superb II\)", page 46](#)

=> ["1.9.4 Removing and installing bearing block for clutch pedal \(Yeti\)", page 48](#)

**1.9.1 Removing and installing bearing bracket for clutch pedal (Octavia II)**

**Special tools and workshop equipment required**

- ◆ Hose clamp - MP7-602 (3094)-

**Removing**



**Note**

*After the battery earth strap is disconnected and connected, carry out additional operations => Electrical System; Rep. gr. 27 .*

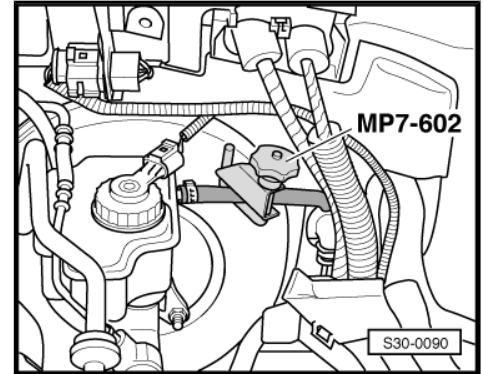
- Disconnect the battery-earth strap with the ignition off => Electrical System; Rep. gr. 27 .
- Remove air filter => Engine; Rep. gr. 24 .

- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .

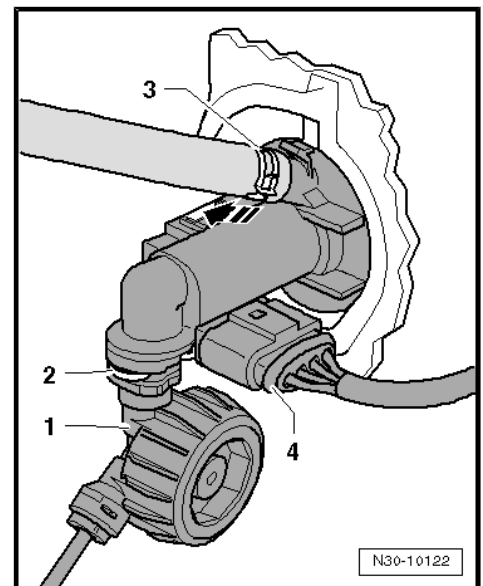
 **Note**

*When performing the following work, make sure that no brake fluid comes into contact with the frame side rail or the gearbox. If this is the case, these points must be cleaned thoroughly.*

- Pinch off return hose to master cylinder with hose clamp - MP7-602 (3094)- (if the return hose is made out of plastic, do not use the hose clamp - MP7-602- , otherwise the return hose can get damaged).



- Remove return hose -3- from the master cylinder (remove plastic return hose -3- at master cylinder and close in a suitable manner).
- Unlock locking clip -2- with a screwdriver and detach tube-hose line -1- at master cylinder.
- Unclip clutch position sender - G476- at master cylinder -arrow- and remove with attached connector -4-.

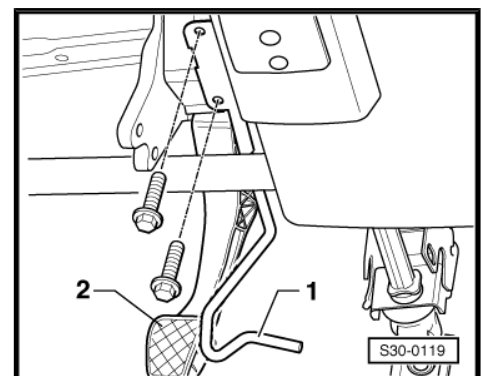


 **Note**

*When working in the footwell, protect the floor carpet with cloths from escaping brake fluid.*

- Remove lower part of the dash panel insert on the driver's side ⇒ Body Work; Rep. gr. 70 .

- Unscrew crash strut -1- in front of the clutch pedal -2-.





- Unscrew nuts -2-.
- Remove bracket -1-.

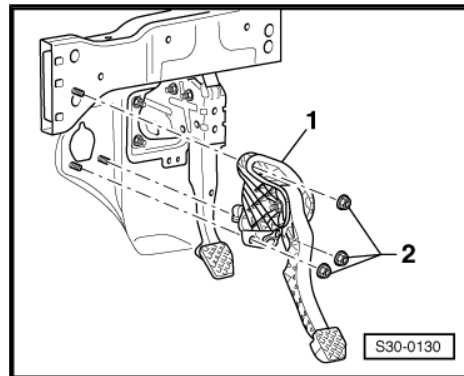
**Install**

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



**Note**

- ◆ Replace gasket ring ⇒ *Electronic Catalogue of Original Parts* .
- ◆ Secure all hose connections with hose clamps which comply with the series design ⇒ *Electronic Catalogue of Original Parts* .



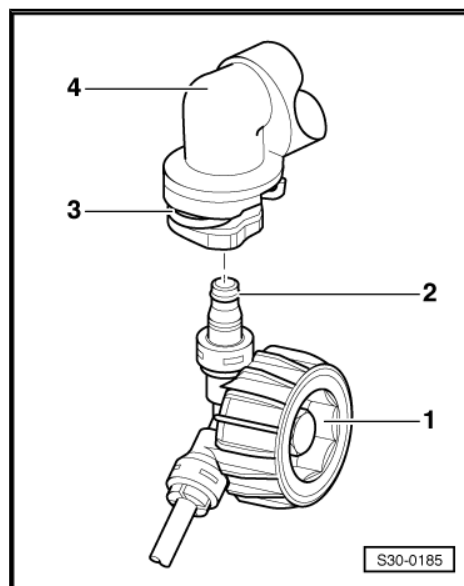
- Press in tube-hose line -1- with new gasket ring -2- onto the connection of the master cylinder -4-, until the locking clip -3- is heard to click into position.
- For testing pull on the tube-hose line.
- Bleed clutch mechanism ⇒ [page 76](#) .
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .
- Install air filter ⇒ Engine; Rep. gr. 24 .



**Note**

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ *Electrical System; Rep. gr. 27* .

- Connect earth strap of battery ⇒ Electrical System; Rep. gr. 27 .



**Tightening torque**

Component	Nm
Bearing bracket	⇒ <a href="#">page 13</a>
Crash strut to bracket/steering column	9

**1.9.2 Removing and installing bearing bracket for clutch pedal (Octavia III)**

**Special tools and workshop equipment required**

- ◆ Hose clamp - MP7-602 (3094)-
- ◆ Closing tool - T10249-

**Removing**

- Remove the complete air filter housing if the cables for the clutch control are not accessible ⇒ Engine; Rep. gr. 24 .
- Disconnect battery earth strap ⇒ Electrical System; Rep. gr. 27 .

**Left-hand drive**

- Remove battery ⇒ Electrical System; Rep. gr. 27 .

## Right-hand drive

A heat-protection matting is installed in combination with certain engines. The appearance may differ from the figure.

- Remove heat-protection matting. Pay attention to the positions -1...4-.

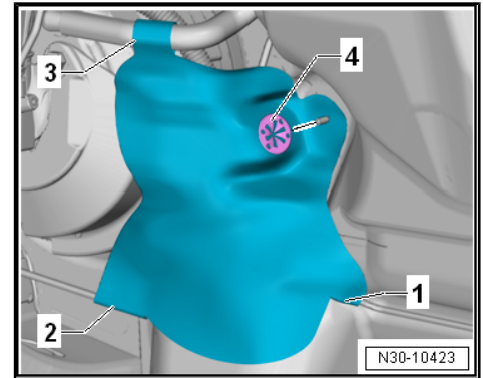
Continued for all versions



### Caution

*There is a danger that the brake fluid may drip out.*

- ◆ *During the following work, ensure that no brake fluid lands on longitudinal member or gearbox. If this is the case, clean the affected area thoroughly.*
- ◆ *Lay a lint-free cloth under master cylinder.*

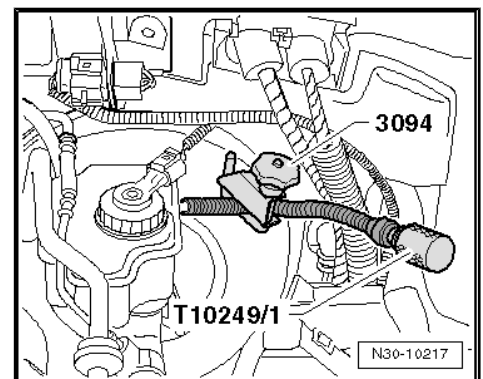
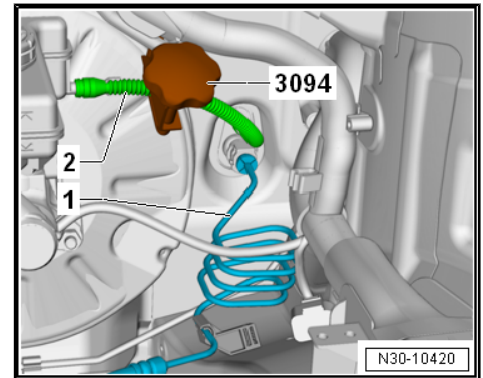


- Disconnect return hose -2- to master cylinder with hose clamp - MP7-602 (3094)-



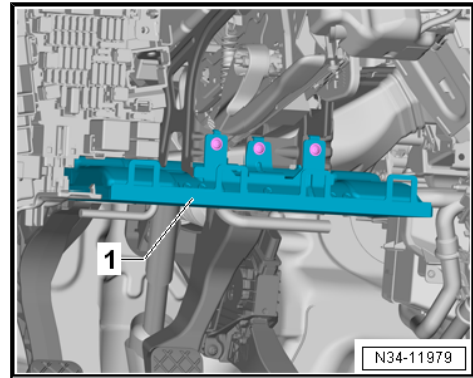
### Note

- ◆ *If the return hose with hose clamp - MP7-602 (3094)- is disconnected, it will forever be deformed.*
- ◆ *However the return hose is not defective.*
- ◆ *After removing the hose clamp - MP7-602 (3094)- , it may be necessary to bring the return hose back into its initial position.*
- Pull out the clip -3- at the tube-hose line up to the stop and detach the tube-hose line.
- Close the openings.
- Detach the tube-hose line -2- from the master cylinder and close with the closing tool - T10249/1- .
- Push the driver seat as far as possible towards the rear.
- Push steering wheel as far as possible towards the top, while doing so use the entire adjustment range of the steering column.

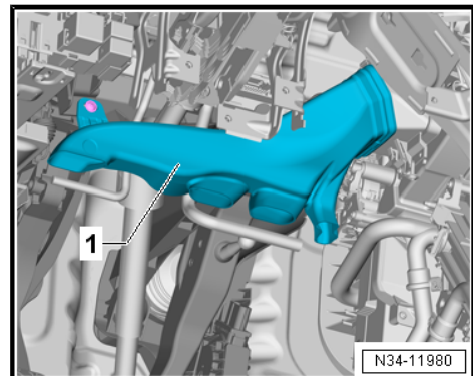




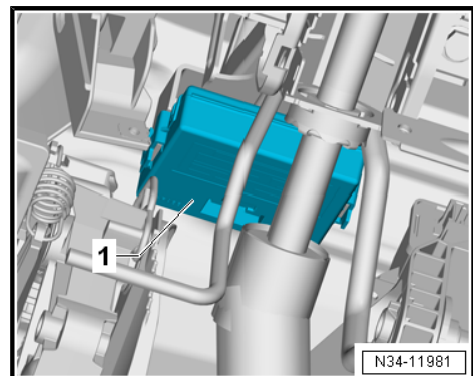
- If present, remove the knee airbag -1- on the driver's side ⇒ Body Work; Rep. gr. 69 .



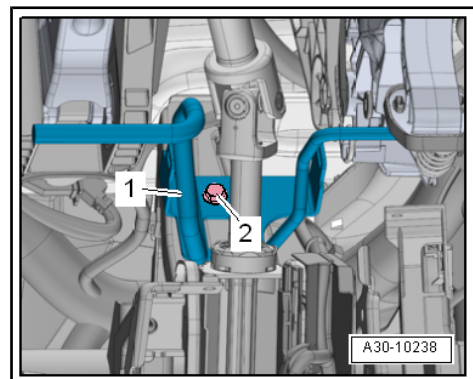
- Remove the footwell vent -1- on the driver's side ⇒ Heating, Air Conditioning; Rep. gr. 87 .



- Remove data bus diagnostic interface - J533- -1- from bracket ⇒ Electrical System; Rep. gr. 97 and push it to the side.



- Unscrew screw -2-, unhook crash strut -1- aushängen and push it to the side.

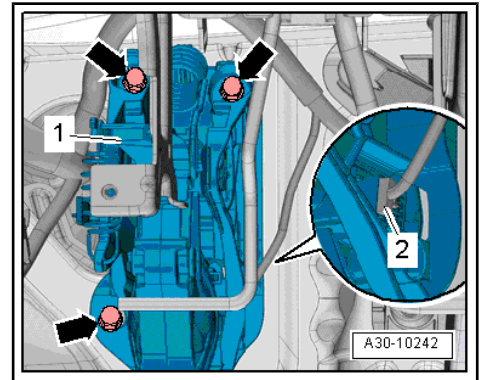




**i Note**

*When working in the footwell, protect the underbody cover with cloths from escaping brake fluid.*

- Disconnect the plug connection -2- at the clutch position sender - G476- .
- Unscrew nuts -arrows- and remove carrier -1-.



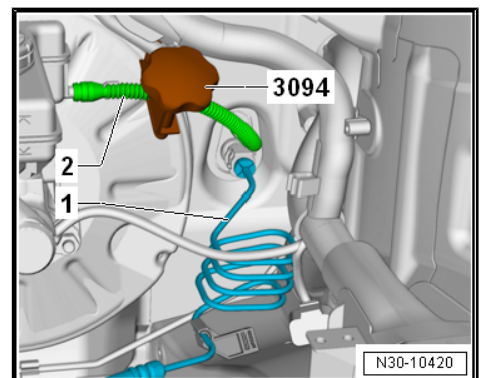
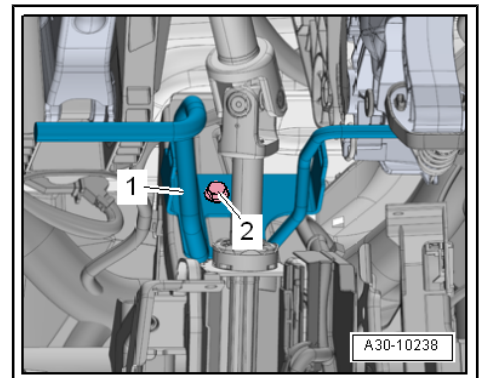
**Install**

Installation is performed in the reverse order, while paying attention to the following:

**i Note**

*Replace self-locking nuts each time they are removed.*

- Insert crash strut -1- and tighten screw -2- ⇒ Body Work; Rep. gr. 70 .
- Install data bus diagnostic interface - J533- ⇒ Electrical System; Rep. gr. 97 .
- Install footwell vent driver's side ⇒ Heating, Air Conditioning; Rep. gr. 87 .
- Install knee airbag driver's side, in case it was removed ⇒ Body Work; Rep. gr. 69 .
- Connect tube-hose line -1- with connector ⇒ [page 22](#)
- Fit return hose -2- on master cylinder.
- After removing the hose clamp - MP7-602 (3094)- , it may be necessary to bring the return hose back into its initial position.



**Right-hand drive**

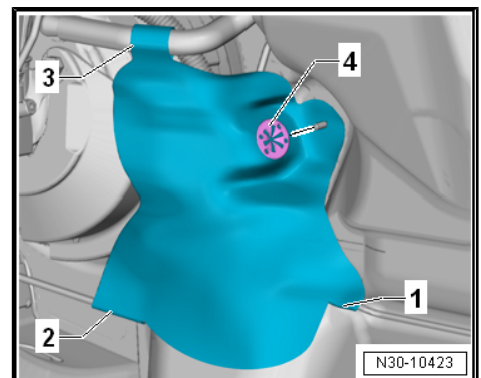
- If present, coil the heat-protection matting in the sequence -1, 2 and 3- around the cable.
- Secure the heat-protection matting with the circlip -4-.

**Continued for all versions**

- Bleed clutch mechanism ⇒ [page 76](#) .
- Install battery ⇒ Electrical System; Rep. gr. 27 .

**Tightening torques**

- ◆ Bearing bracket for clutch pedal on front wall ⇒ [page 13](#) .



### 1.9.3 Removing and installing bearing bracket for clutch pedal (Superb II)

Special tools and workshop equipment required

- ◆ Pliers - T10005-

Removing



Note

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .



Note

When performing the following work, make sure that no brake fluid comes into contact with the frame side rail or the gearbox. If this is the case, these points must be cleaned thoroughly.

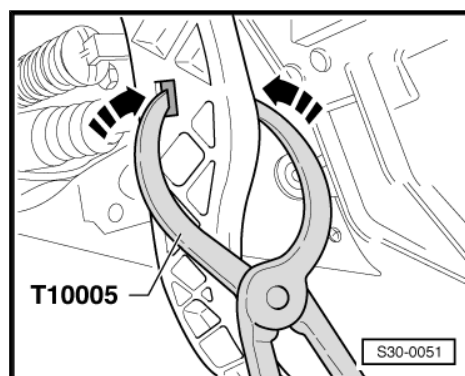
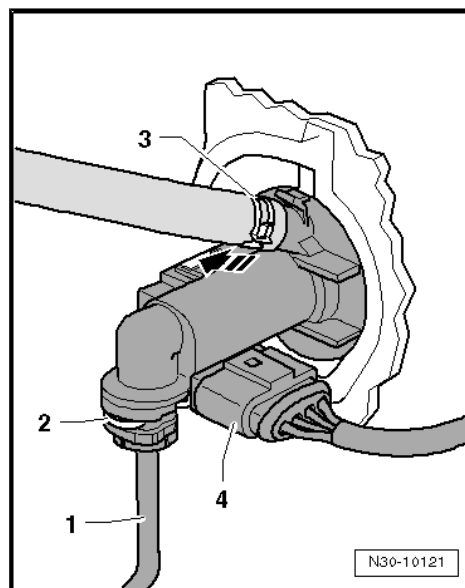
- Remove the plastic return hose -3- at master cylinder and close with a suitable tool (do not use hose clamp - MP7-602- , otherwise the return hose -3- can get damaged).
- Unlock locking clip -2- with a screwdriver and detach tube-hose line -1- at master cylinder.
- Unclip clutch position sender - G476- at master cylinder -arrow- and remove with attached connector -4-.



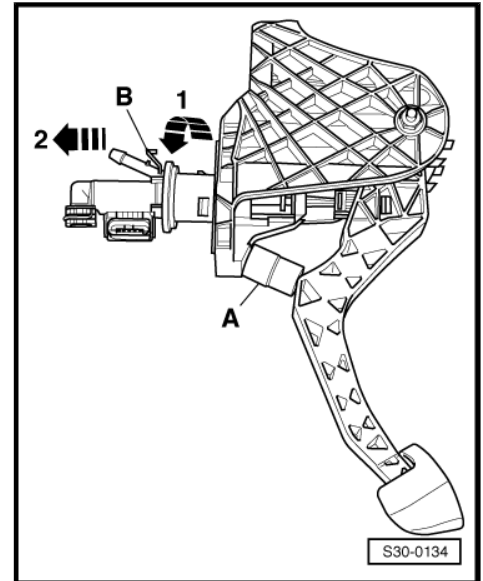
Note

When working in the footwell, protect the floor carpet with cloths from escaping brake fluid.

- Remove the storage area on the driver's side and the bottom plastic covering for the steering wheel ⇒ Body Work; Rep. gr. 70 .
- Removing the footwell vent ⇒ Heating and Air Conditioning; Rep. gr. 87 .
- If present, remove the crash strut or the knee airbag ⇒ Body work; Rep. gr. 69 .
- Release support of actuating rod of master cylinder with the pliers - T10005- .



- Release release pin -B- and pull master cylinder out of bracket -arrow 1- and -arrow 2-.



- Unscrew nuts -2-.
- Remove bracket -1-.

#### Install

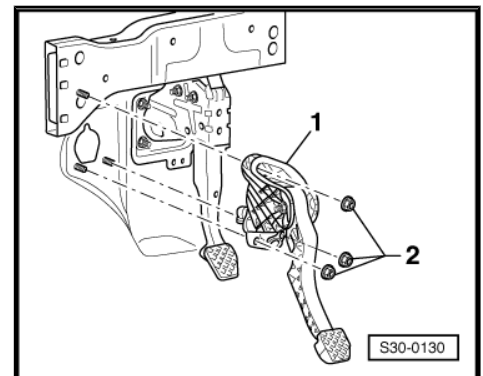
Installation is performed in the reverse order, pay attention to the following points:



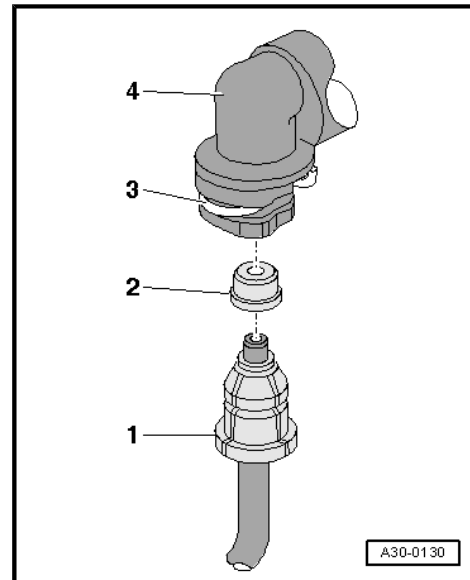
#### Note

- ◆ Replace self-locking nuts.
- ◆ Replace gasket rings.

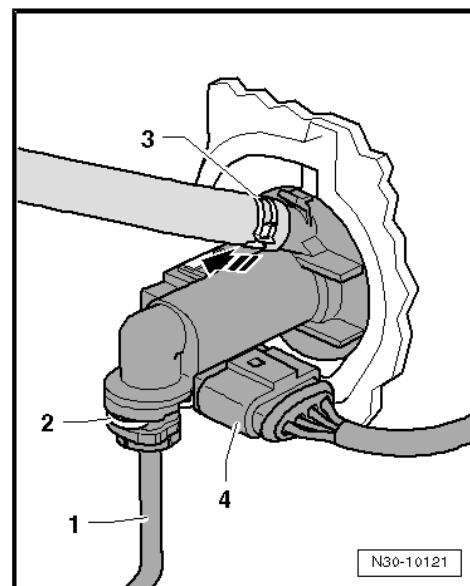
- Install the footwell vent ⇒ Heating and Air Conditioning; Rep. gr. 87 .
- If present, install the crash strut or the knee airbag ⇒ Body work; Rep. gr. 69 .
- Install the storage area on the driver's side and the bottom plastic covering for the steering wheel ⇒ Body Work; Rep. gr. 70 .



- Fit tube-hose line -1- with gasket ring -2- onto the connection of the master cylinder -4-, until the locking clip -3- is heard to click into position.
- Check that it locks in place correctly by pulling on the line -1-.



- Connect the plastic return hose -3- at the master cylinder and connect the clutch position sender - G476- -4- at the master cylinder.
- Bleed clutch mechanism ⇒ [page 76](#) .
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .
- Install air filter ⇒ Engine; Rep. gr. 24 .



#### Tightening torques

Component	Nm
Bracket to body	⇒ <a href="#">page 13</a>

### 1.9.4 Removing and installing bearing block for clutch pedal (Yeti)

#### Special tools and workshop equipment required

- ◆ Closing tool - T10249-

#### Removing



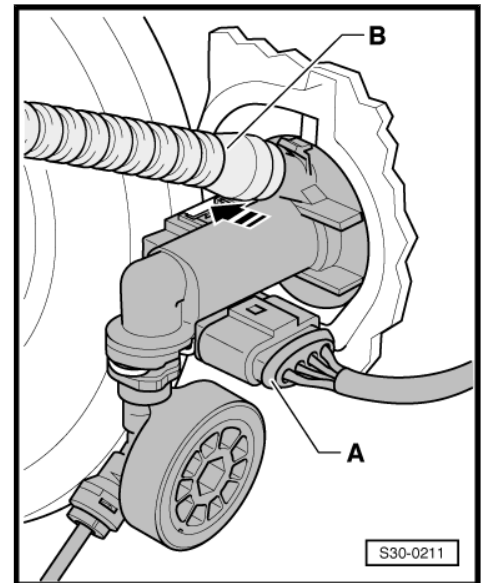
#### Note

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

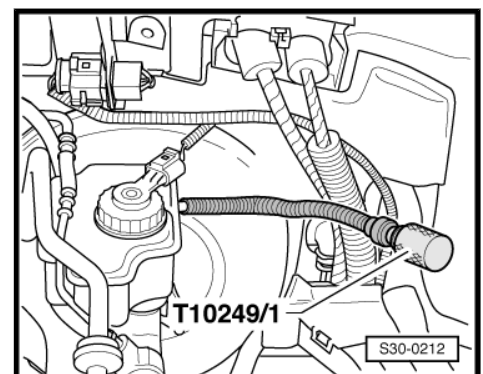
- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .

 **Note**

- ◆ *When performing the following work, make sure that no brake fluid comes into contact with the frame side rail or the gearbox. If this is the case, these points must be cleaned thoroughly.*
- ◆ *Lay a cloth under the master cylinder.*
- Unclip clutch position sender - G476- at master cylinder -arrow- and remove with attached connector -A-.
- Carefully detach return hose -B- at master cylinder, to do so hold the hose end.



- Subsequently close the return hose e.g. using a closing tool - T10249/1- or with another suitable tool.



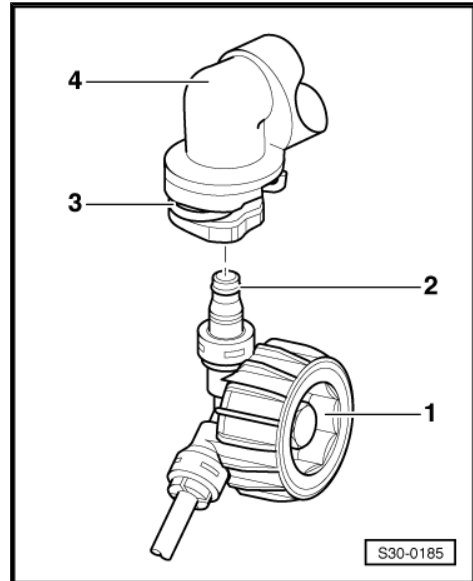


- Unlock locking clip -3- with a screwdriver and detach plastic line -1- with gasket ring -2- from master cylinder -4-.
- Remove holder for knee airbag with crash strut for clutch pedal ⇒ [page 23](#) .



**Note**

When working in the footwell, protect the floor carpet with cloths from escaping brake fluid.



- Unscrew the nuts -2-.
- Remove bracket -1-.

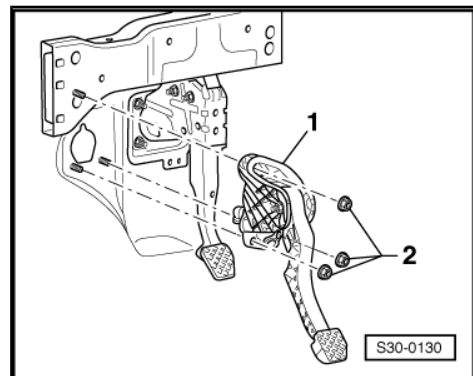
**Install**

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



**Note**

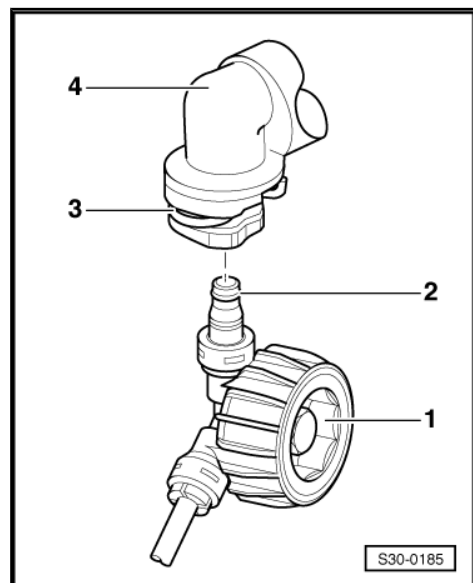
- ◆ Replace self-locking nuts.
- ◆ Replace damaged gasket rings.
- Install holder for knee airbag with crash strut for clutch pedal ⇒ [page 23](#) .
- Fit the plastic line -1- with gasket ring -2- onto the connection of the master cylinder -4-, until the locking clip -3- is heard to click into position.
- Check that it locks in place correctly by pulling on the line -1-.
- Bleed clutch mechanism ⇒ [page 76](#) .
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .
- Install air filter ⇒ Engine; Rep. gr. 24 .



**Note**

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

- Connect earth strap of battery ⇒ Electrical System; Rep. gr. 27 .



**Tightening torques**

Component	Nm
Bracket to body	⇒ <a href="#">page 13</a>

Component	Nm
Install holder for knee airbag with crash strut for clutch pedal	⇒ <a href="#">page 23</a>

## 1.10 Removing and installing the master cylinder

⇒ [“1.10.1 Removing and installing master cylinder \(Octavia II\)”, page 51](#)

⇒ [“1.10.2 Removing and installing master cylinder \(Octavia III\)”, page 52](#)

⇒ [“1.10.3 Removing and installing master cylinder \(Superb II\)”, page 53](#)

⇒ [“1.10.4 Removing and installing master cylinder \(Yeti\)”, page 56](#)

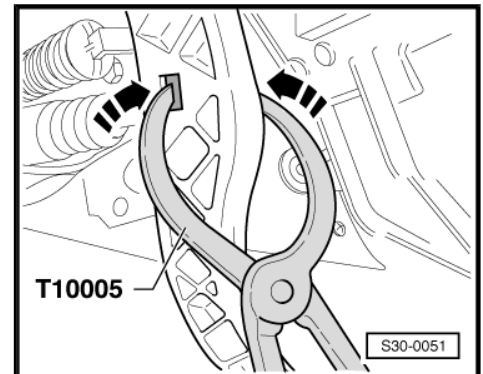
### 1.10.1 Removing and installing master cylinder (Octavia II)

#### Special tools and workshop equipment required

- ◆ Pliers - T10005-

#### Removing

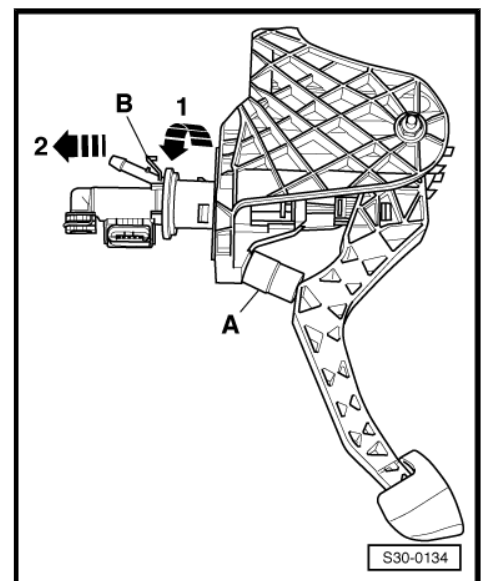
- Removing bracket ⇒ [page 40](#) .
- Release support of actuating rod of master cylinder with the pliers - T10005- .



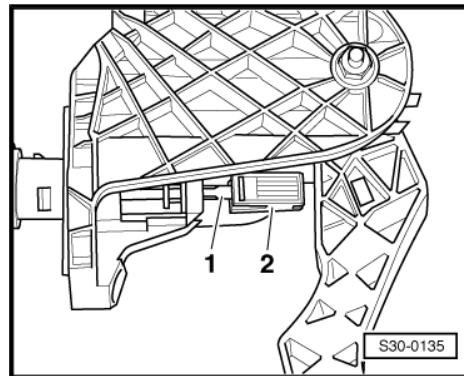
- Place a spacer -A- between clutch pedal and stop and press clutch pedal forwards.
- ◆ Length of spacer = approx. 40 mm
- Release release pin -B- and pull master cylinder out of bracket -arrow 1- and -arrow 2-.

#### Install

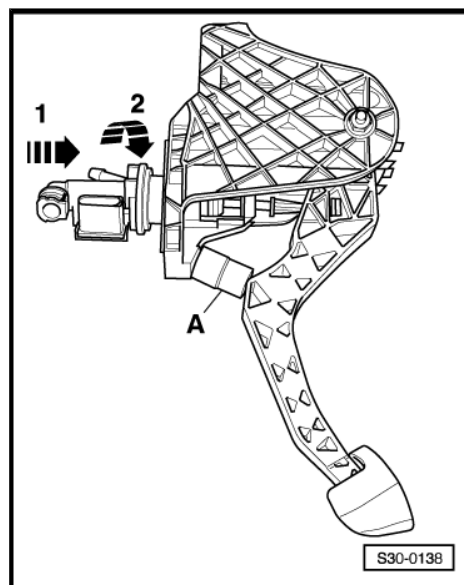
- Move clutch pedal up to the stop into home position.



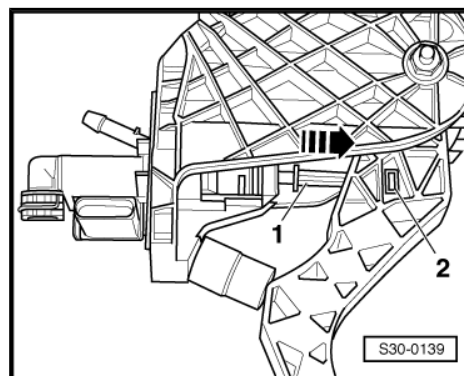
- Attach support -2- to the actuator rod -1- of the master cylinder.



- Place a spacer -A- between clutch pedal and stop and press clutch pedal forwards.
- ◆ Length of spacer = approx. 40 mm
- Lock master cylinder at bracket -arrow 1- and -arrow 2-.



- Press actuating rod -1- of master cylinder into direction of arrow, until the support -2- locks audibly into the clutch pedal.
- Installing bracket ⇒ [page 40](#) .



## 1.10.2 Removing and installing master cylinder (Octavia III)

### Removing



#### Note

- ◆ *Before the master cylinder must be replaced due to a fault, first of all carry out the test in the [Targeted fault finding](#) ⇒ Vehicle diagnostic tester.*
- ◆ *When working in the footwell, protect the underbody cover with cloths from escaping brake fluid.*
- Remove bearing bracket for clutch pedal ⇒ [page 40](#) .



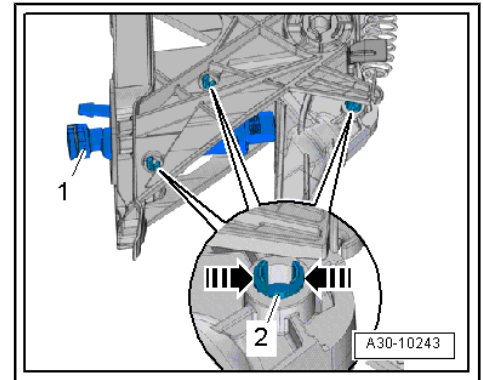
- Remove clutch position sender - G476- ⇒ [page 57](#) .
- Unlock catches -arrows- and push out carrier bolt -2-.
- Remove master cylinder -1-.

#### Install

Installation is performed in the reverse order, while paying attention to the following:

After removing, replace carrier bolt ⇒ Electronic Catalogue of Original Parts .

- Install bearing bracket for clutch pedal ⇒ [page 40](#) .
- Install clutch position sender - G476- ⇒ [page 57](#) .



### 1.10.3 Removing and installing master cylinder (Superb II)

#### Special tools and workshop equipment required

- ◆ Pliers - T10005-

#### Removing



#### Note

*After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*

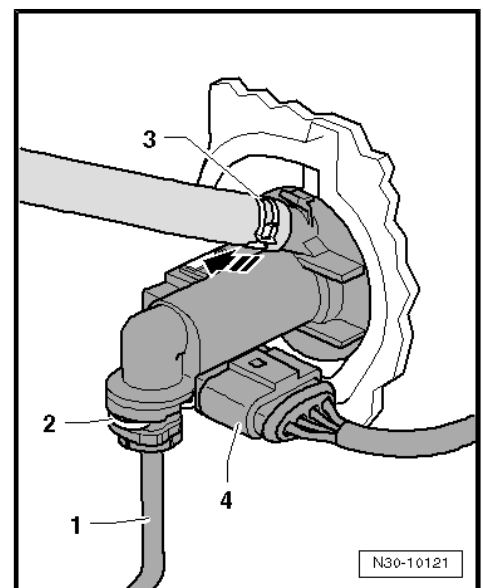
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .



#### Note

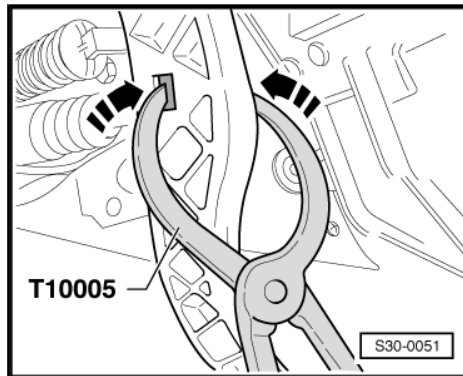
*When performing the following work, make sure that no brake fluid comes into contact with the frame side rail or the gearbox. If this is the case, these points must be cleaned thoroughly.*

- Remove the plastic return hose -3- at master cylinder and close with a suitable tool (do not use hose clamp - MP7-602- , otherwise the return hose -3- can get damaged).
- Unlock locking clip -2- with a screwdriver and detach tube-hose line -1- at master cylinder.
- Unclip clutch position sender - G476- at master cylinder -arrow- and remove with attached connector -4-.





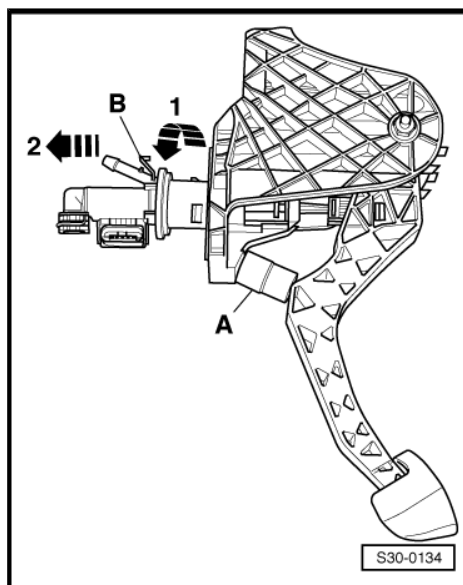
- Release support of actuating rod of master cylinder with the pliers - T10005- .



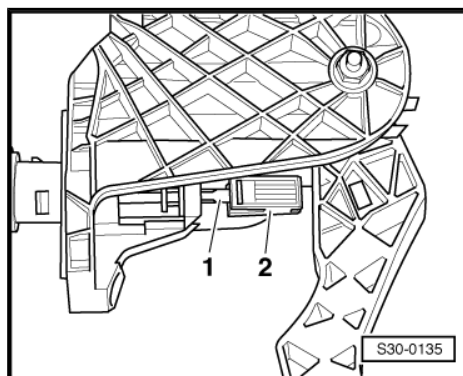
- Release release pin -B- and pull master cylinder out of bracket -arrow 1- and -arrow 2-.

**Install**

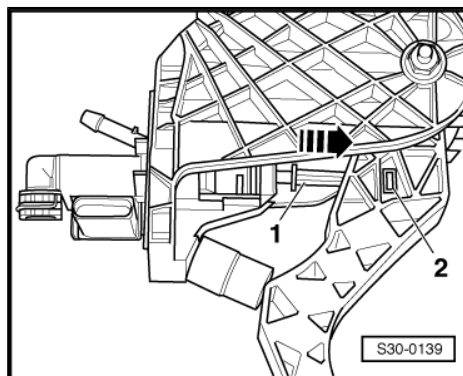
- Move clutch pedal up to the stop into home position.



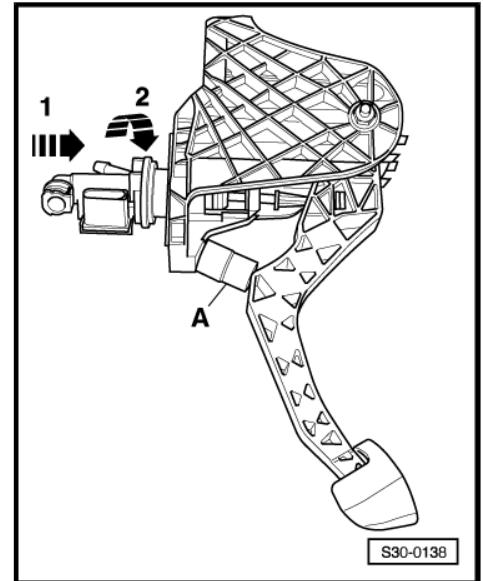
- Attach support -2- to the actuator rod -1- of the master cylinder.



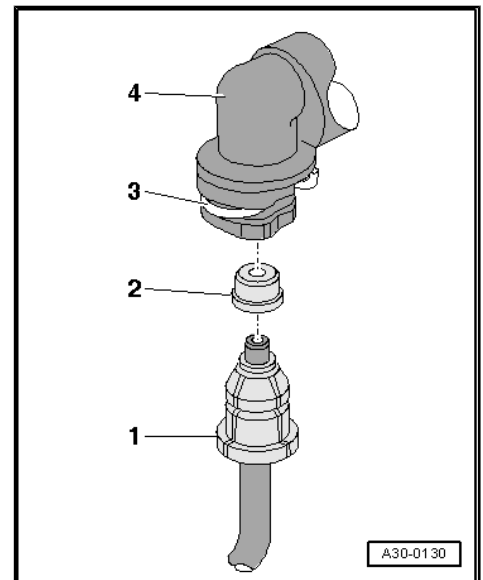
- Press actuating rod -1- of master cylinder into direction of arrow, until the support -2- locks audibly into the clutch pedal (second mechanic).



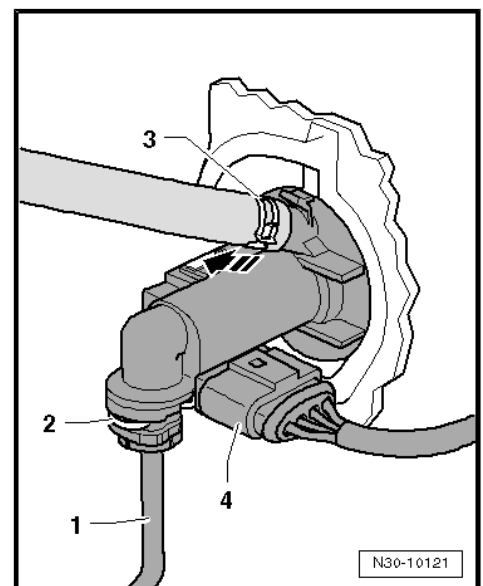
- Lock master cylinder at bracket -arrow 1- and -arrow 2-.



- Fit tube-hose line -1- with gasket ring -2- onto the connection of the master cylinder -4-, until the locking clip -3- is heard to click into position.
- Check that it locks in place correctly by pulling on the line -1-.



- Connect the plastic return hose -3- at the master cylinder and connect the clutch position sender - G476- -4- at the master cylinder.
- Bleed clutch mechanism ⇒ [page 76](#) .
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .
- Install air filter ⇒ Engine; Rep. gr. 24 .



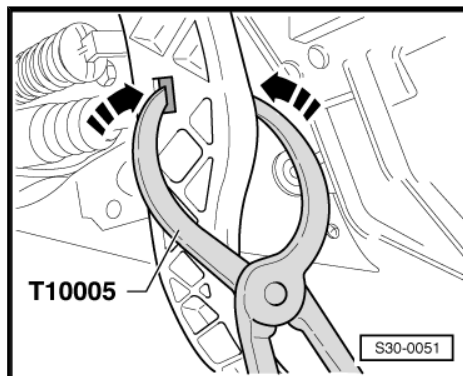
## 1.10.4 Removing and installing master cylinder (Yeti)

### Special tools and workshop equipment required

- ◆ Pliers - T10005-

### Removing

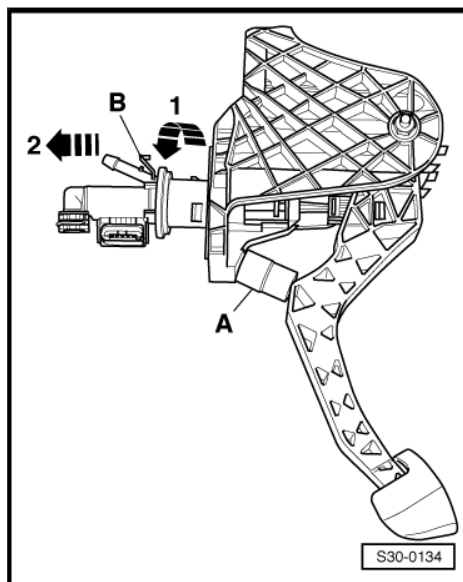
- Removing bracket ⇒ [page 40](#) .
- Release support of actuating rod of master cylinder with the pliers - T10005- .



- Place a spacer -A- between clutch pedal and stop and press clutch pedal forwards.

- ◆ Length of spacer: 40 mm

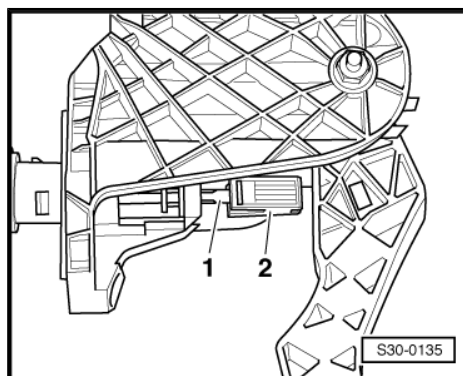
- Release release pin -B- and pull master cylinder out of bracket -arrow 1- and -arrow 2-.



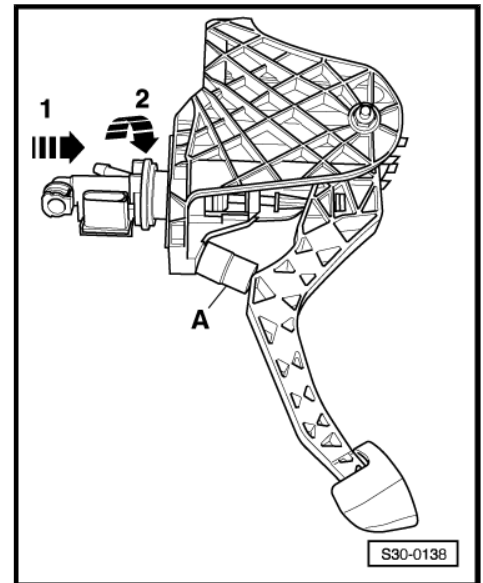
### Install

- Move clutch pedal up to the stop into home position.

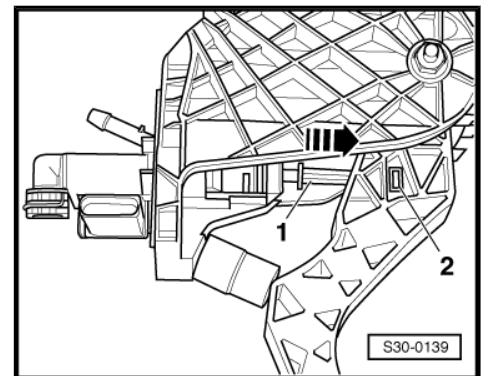
- Attach support -2- to the actuator rod -1- of the master cylinder.



- Place a spacer -A- between clutch pedal and stop and press clutch pedal into operating position.
- ◆ Length of spacer: approx. 40 mm
- Lock master cylinder at bracket -arrow 1- and -arrow 2-.



- Press actuating rod -1- of master cylinder -into direction of arrow-, until the support -2- locks audibly into the clutch pedal.
- Installing bracket ⇒ [page 40](#) .



## 1.11 Removing and installing clutch position sender

⇒ [“1.11.1 Removing and installing clutch position sender G476 \(Octavia II\)”, page 57](#)

⇒ [“1.11.2 Removing and installing clutch position sender G476 \(Octavia III\)”, page 59](#)

⇒ [“1.11.3 Removing and installing clutch position sender G476 \(Superb II\)”, page 60](#)

⇒ [“1.11.4 Removing and installing clutch position sender G476 \(Yeti\)”, page 61](#)

### 1.11.1 Removing and installing clutch position sender - G476- (Octavia II)

Special tools and workshop equipment required

- ◆ Hose clamp - MP7-602 (3094)-

Removing



Note

*After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*



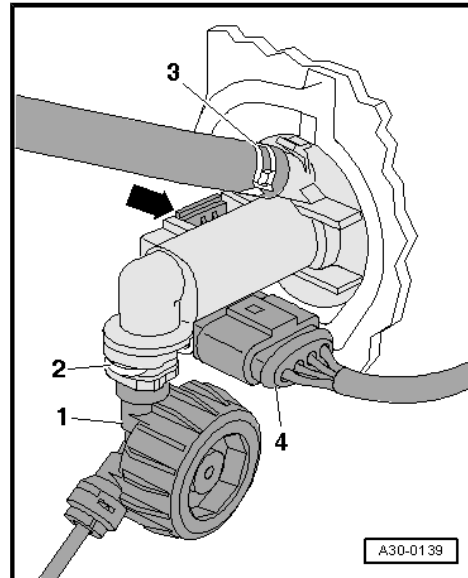
- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Remove battery, battery cover and battery tray ⇒ Electrical System; Rep. gr. 27 .

If the round piece of the tube-hoseline -1- is directly installed underneath the master cylinder, this line must be removed.

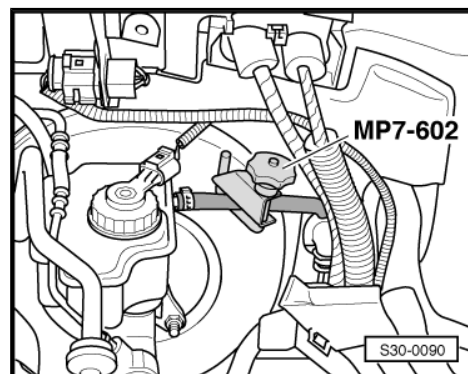


**Note**

*When performing the following work, make sure that no brake fluid comes into contact with the frame side rail or the gearbox. If this is the case, these points must be cleaned thoroughly.*



- Pinch off return hose to master cylinder with hose clamp - MP7-602 (3094)- (if the return hose is made out of plastic, do not use the hose clamp - MP7-602- , otherwise the return hose can get damaged).



- Remove return hose -3- at master cylinder (remove plastic return hose -3- at master cylinder and close in a suitable manner).
- Unlock locking clip -2- with a screwdriver and detach tube-hose line -1- at master cylinder.
- Unclip clutch position sender - G476- at master cylinder -arrow- and remove with attached connector -4-.

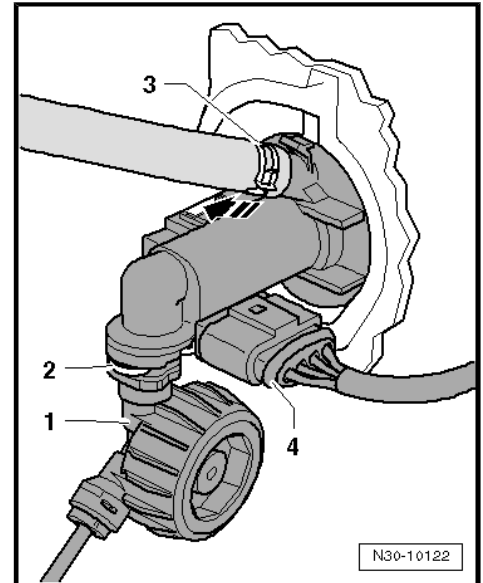
### Install

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



#### Note

- ◆ Replace gasket ring ⇒ *Electronic Catalogue of Original Parts*.
- ◆ Secure all hose connections with hose clamps which comply with the series design ⇒ *Electronic Catalogue of Original Parts*.



If the tube-hose line was removed:

- After installing the tube-hose line, pull on this line for checking.
- Bleed clutch mechanism ⇒ [page 76](#).
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27.
- Install air filter ⇒ Engine; Rep. gr. 24.



#### Note

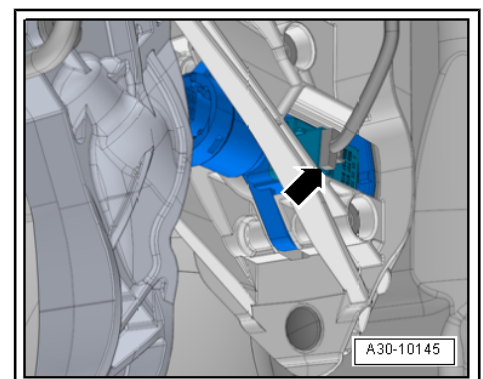
After the battery earth strap is disconnected and connected, carry out additional operations ⇒ *Electrical System; Rep. gr. 27*.

- Connect earth strap of battery ⇒ Electrical System; Rep. gr. 27.

## 1.11.2 Removing and installing clutch position sender - G476- (Octavia III)

### Removing

- Push the driver seat as far as possible towards the rear.
- Disconnect the plug connection -arrow- at the clutch position sender - G476-.



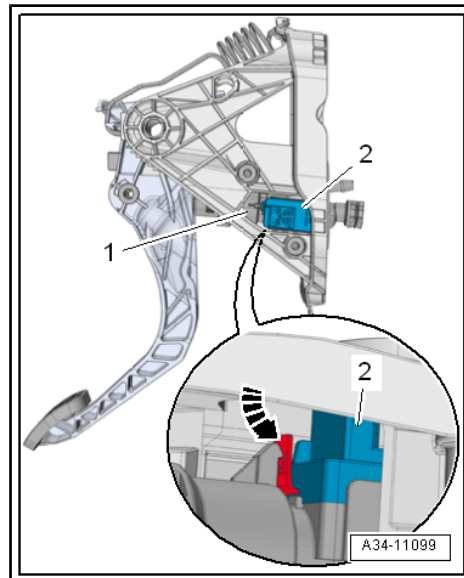


- Unlock catch -arrow- of clutch position sender - G476- -2- at master cylinder -1- and remove.

**Install**

Installation is performed in the reverse order, while paying attention to the following:

- The catch -arrow- at the clutch position sender - G476- must not be damaged.
- The clutch position sender - G476- must click audibly into place.



**1.11.3 Removing and installing clutch position sender - G476- (Superb II)**

**Removing**



**Note**

*After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*

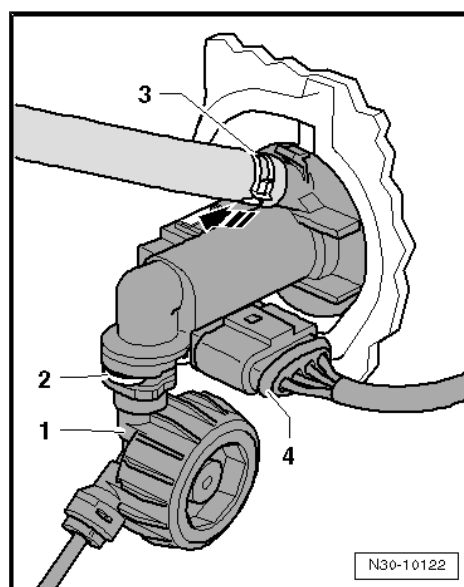
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .

**If the tube-hose line -1- is installed with a round component directly below the master cylinder, the tube-hose line must be removed.**



**Note**

*When performing the following work, make sure that no brake fluid comes into contact with the frame side rail or the gearbox. If this is the case, these points must be cleaned thoroughly.*





- Remove the plastic return hose -3- at master cylinder and close with a suitable tool (do not use hose clamp - MP7-602- , otherwise the return hose -3- can get damaged).
- Unlock locking clip -2- with a screwdriver and pull out of the master cylinder up to the stop.
- Pull the tube-hose line -1- out of the master cylinder and close.

#### All vehicles

- Separate electrical plug connections -4-.
- Clip off clutch position sender - G476- at master cylinder -arrow- and remove.

#### Install

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



#### Note

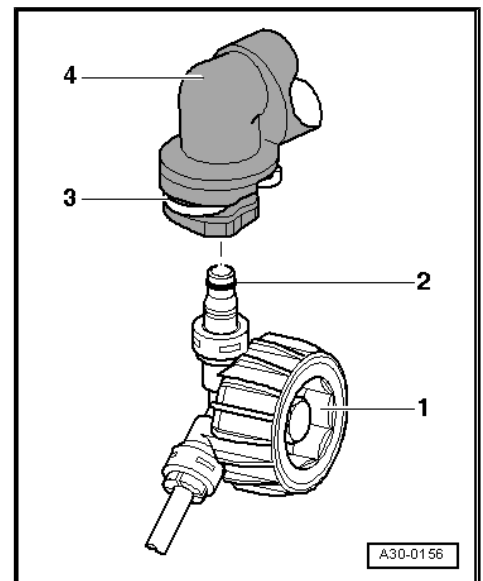
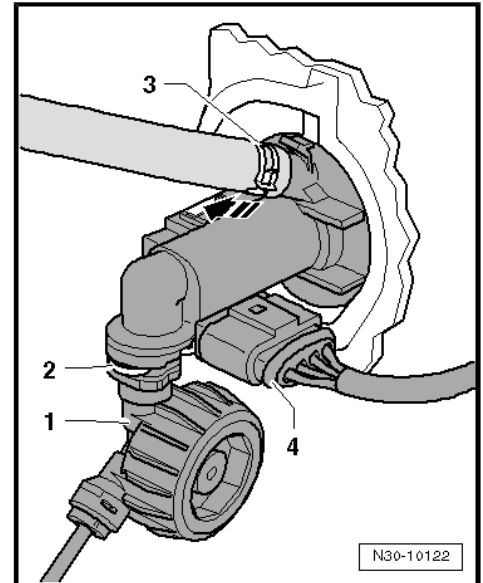
Assign all the components via the ⇒ *Electronic Catalogue of Original Parts* .

#### If the tube-hose line was removed from the master cylinder:

- Fit tube-hose line -1- with gasket ring -2- onto the connection of the master cylinder -4-, until the locking clip -3- is heard to click into position.
- Check that it locks in place correctly by pulling on the line -1-.
- Bleed clutch mechanism ⇒ [page 76](#) .

#### All vehicles

- Install the battery tray and battery ⇒ *Electrical System; Rep. gr. 27* .
- Install air filter ⇒ *Engine; Rep. gr. 24* .



### 1.11.4 Removing and installing clutch position sender - G476- (Yeti)

#### Removing



#### Note

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ *Electrical System; Rep. gr. 27* .

- Disconnect the battery-earth strap with the ignition off ⇒ *Electrical System; Rep. gr. 27* .
- Remove air filter ⇒ *Engine; Rep. gr. 24* .
- Remove battery, battery cover and battery tray ⇒ *Electrical System; Rep. gr. 27* .



- Unclip clutch position sender - G476- at master cylinder -arrow- and remove with attached connector -A-.
- Disconnect electrical plug connection -A-.

### Install

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

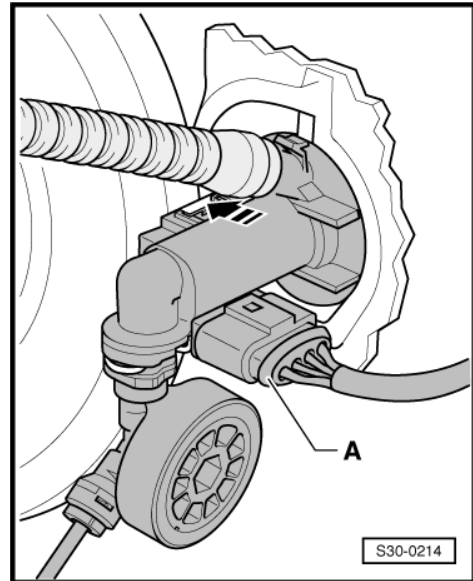
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .
- Install air filter ⇒ Engine; Rep. gr. 24 .



### Note

*After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*

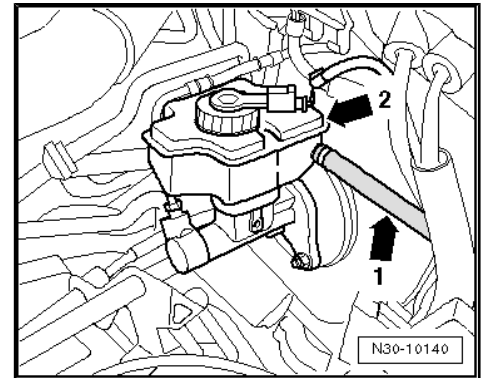
- Connect earth strap of battery ⇒ Electrical System; Rep. gr. 27 .



## 1.12 Check hydraulic clutch control

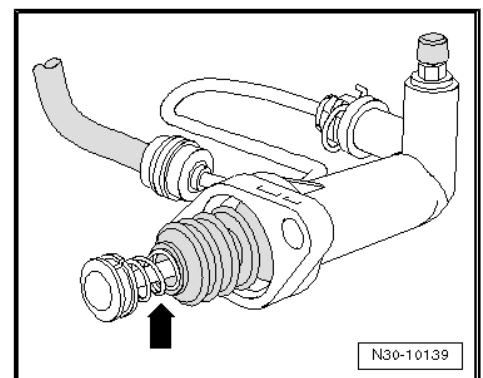
### Note

- ◆ *If the slave cylinder must be replaced due to the predetermined fault, first of all check the hydraulic clutch control.*
- ◆ *If the slave cylinder with the connected tube-hose line is removed from the gearbox, do no longer depress the clutch pedal. Otherwise, the piston can be pressed out of the slave cylinder and thus be destroyed.*
- ◆ *The clutch hydraulic is connected to one of the chambers -arrow 2- of the brake fluid reservoir by the return hose -arrow 1-.*
- ◆ *If there is little or no brake fluid in this chamber, there is a leak in the system.*
- ◆ *Symptoms of an external leak are, amongst others, traces of brake fluid on or below the gearbox, as well as on the noise insulation under the gearbox.*
- ◆ *In case of leakage, the corresponding component must be replaced ⇒ Electronic Catalogue of Original Parts .*
- ◆ *Check the correct routing of the tube-hose line between the master and slave cylinder. The line must not be kinked or trapped.*
- ◆ *The brake pedal return must not be obstructed by moved or additional covers (floor coverings).*



### Inspect the complete hydraulic system for leaks.

- Carry out a visual inspection of the following components of the hydraulic clutch control for leaks:
  - ◆ Check brake fluid level in the brake fluid reservoir.
  - ◆ Return hose between brake fluid reservoir and master cylinder.
  - ◆ Master cylinder.
  - ◆ Tube-hose line between master cylinder and slave cylinder.
  - ◆ Connection points (plug and screw connections) also in a non-visible area.
  - ◆ Slave cylinder.
- Remove the slave cylinder (do not open the line system) and check if no brake fluid drips out of the bellows, to do so remove the bellows from the rod -arrow-.
- If necessary. bleed the clutch control ⇒ [page 76](#) .
- Then depress the clutch pedal carefully, at the same time hold the pedal in five different positions for approx. 20s over the entire distance the pedal has to travel and check that the pedal does not fall through on its own while being held (in five positions). While doing so, a second mechanic must check if fluid is leaking from the other components of the hydraulic clutch control ⇒ [page 63](#) .





## 1.13 Removing and installing the slave cylinder

⇒ [“1.13.1 Removing and installing slave cylinder \(Octavia II\)”](#),  
[page 64](#)

⇒ [“1.13.2 Removing and installing master cylinder \(Octavia III\)”](#),  
[page 67](#)

⇒ [“1.13.3 Removing and installing slave cylinder \(Superb II\)”](#),  
[page 68](#)

⇒ [“1.13.4 Removing and installing slave cylinder \(Yeti\)”](#),  
[page 71](#)

### 1.13.1 Removing and installing slave cylinder (Octavia II)

#### Special tools and workshop equipment required

- ◆ Hose clamp - MP7-602 (3094)-
- ◆ Grease for plug serration of clutch disc - G 000 100-



#### Note

- ◆ *If the slave cylinder must be replaced due to the predetermined fault, first of all check the hydraulic clutch control ⇒ [page 63](#) .*
- ◆ *If the slave cylinder with the connected tube-hose line is removed from the gearbox, do no longer depress the clutch pedal. Otherwise, the piston can be pressed out of the slave cylinder and thus be destroyed.*
- ◆ *When performing the following work, make sure no brake fluid comes into contact with the gearbox. If this is the case, these points must be cleaned thoroughly.*

#### Removing

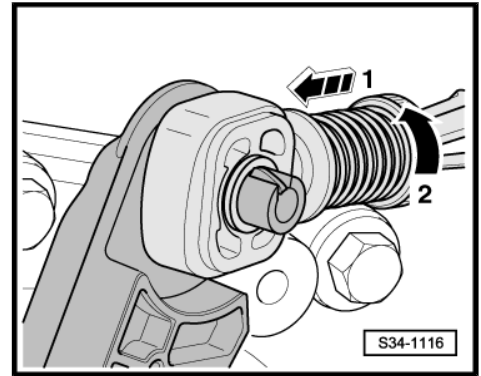


#### Note

*After the battery earth strap is disconnected and connected, carry out additional operations ⇒ [Electrical System](#); [Rep. gr. 27](#) .*

- Disconnect the battery-earth strap with the ignition off ⇒ [Electrical System](#); [Rep. gr. 27](#) .
- Remove air filter ⇒ [Engine](#); [Rep. gr. 24](#) .
- Remove battery and battery tray ⇒ [Electrical System](#); [Rep. gr. 27](#) .
- In order to avoid damage to the selector cable, the cable lock must be separated from the selector cable before removal.

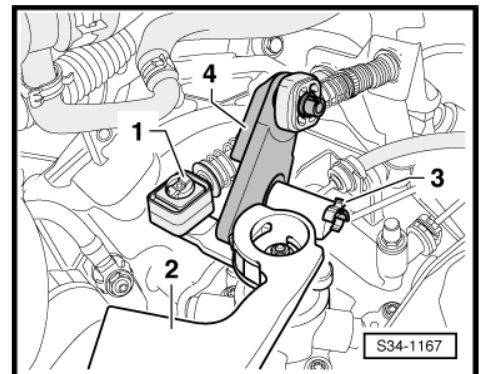
- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.



- Remove lock washer -1- for shift cable from gearbox shift lever -2-.
- Pull off shift cable from the stud of the gearbox shift lever.

**The relay lever -4- is secured with a clip -3- in the cover**

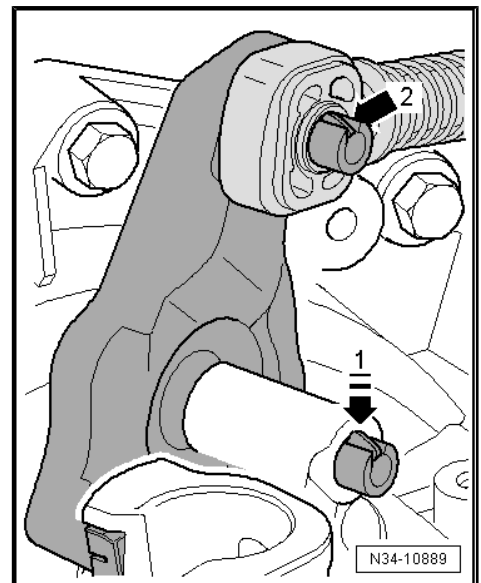
- Unclip -3- out of the hole of the relay lever and pull out relay lever -4- together with the cable lock out of the cover.



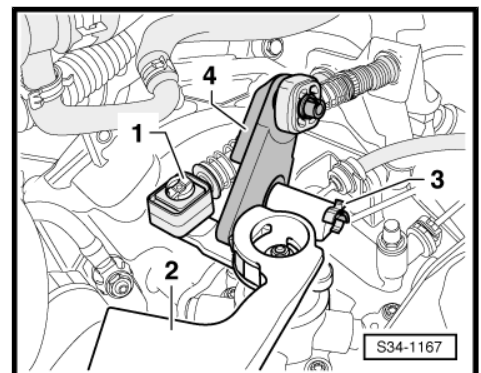
**The relay lever is secured with a catch -arrow 1- in the cover**

- Carefully press down the catch -arrow 1- up to the stop.
- Afterwards move relay lever in its bearing point back and forward (direction of operation). To do so, carefully pull out the relay lever together with the cable lock -arrow 2-.

**Continued for all vehicles**



- Remove the gearbox shift lever -2- from the gearshift shaft.





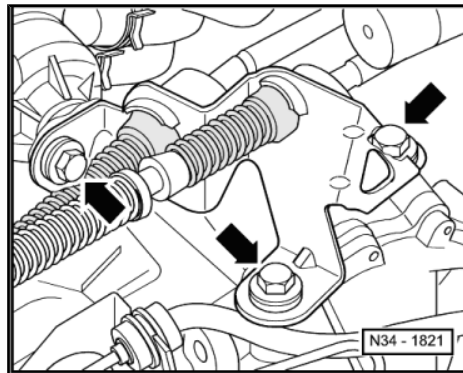
- Disconnect the Bowden cable support from gearbox -arrows-.
- Then tie up shift cable and selector cable.
- Place a non-fluffing cloth under the slave cylinder.



**Note**

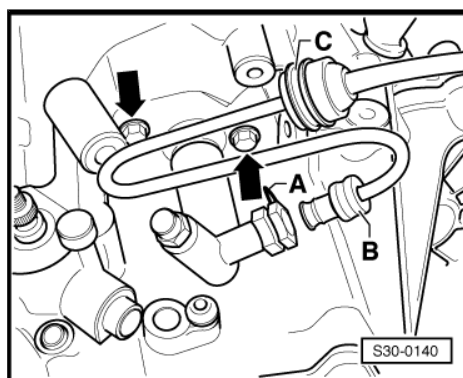
*Make sure no brake fluid comes into contact with the gearbox. If this is the case, this point must be cleaned thoroughly.*

- Pinch off the tube-hose line to the master cylinder with the hose clamp - MP7-602 (3094)- (if the tube-hose line to the master cylinder is made out of plastic, do not use the hose clamp - MP7-602- and after pulling out the slave cylinder, only close this line in a suitable manner).
- Pull retaining clip -A- for tube-hose line out of the slave cylinder up to the stop.
- Pull tube-hose line out of the support -C-.
- Pull tube-hose line -B- out of the slave cylinder and close openings.
- Unscrew the screws -arrows- for the slave cylinder and remove the slave cylinder.



**Note**

*Do not depress the clutch pedal.*



**Install**

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

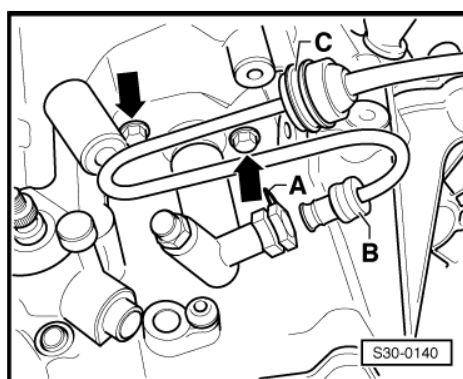
- Grease tappet head with grease for plug serration of clutch disc - G 000 100- .
- Install slave cylinder and tighten screws -arrows- to the given tightening torque.
- Insert tube-hose line -B- into the slave cylinder up to the stop.
- Press in retaining clip -A- up to the stop and make sure the tube-hose line locks into position.
- Press tube-hose line into the support -C- at the gearbox.
- After installing the slave cylinder bleed the clutch control ⇒ [page 76](#) .

Assembling gearshift mechanism ⇒ [page 118](#) .

Setting the shift mechanism ⇒ [page 122](#) .

- Install air filter ⇒ Engine; Rep. gr. 24 .
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .



## Tightening torque

Component	Nm
Slave cylinder to gearbox	⇒ <a href="#">page 78</a>
Gearbox shift lever to gearshift shaft	⇒ <a href="#">page 98</a>
Cable support to gearbox	⇒ <a href="#">page 98</a>

## 1.13.2 Removing and installing master cylinder (Octavia III)

### Special tools and workshop equipment required

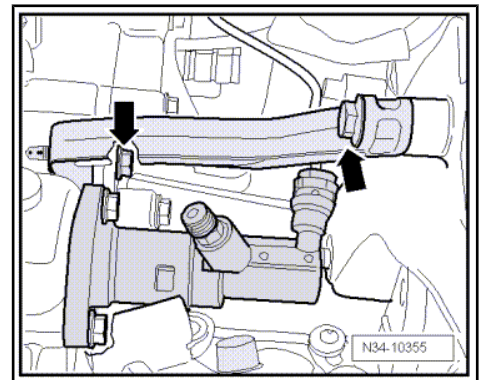
- ◆ Hose clamp - MP7-602 (3094)-
- ◆ Grease - G 000 100-

### Removing



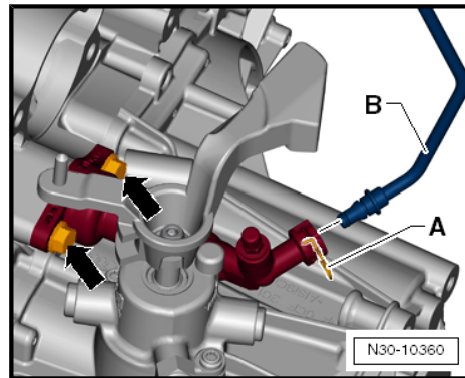
#### Note

- ◆ *Before the master cylinder must be replaced due to a fault, first of all carry out the test in the [Targeted fault finding](#) ⇒ Vehicle diagnostic tester.*
  - ◆ *If the slave cylinder with the tube-hose line is removed from the gearbox, do no longer depress the clutch pedal. Otherwise, the piston can be pressed out of the slave cylinder and thus be destroyed.*
- Disconnect battery earth strap ⇒ Electrical System; Rep. gr. 27 .
  - Then remove the gearbox support -arrows-.





- Place a non-fluffing cloth under the slave cylinder.
- Unlock the clip -A- with a screwdriver and disconnect the tube-hose line -B- from the connection.
- Pull pipe/hose line -B- out from slave cylinder and seal hose.
- Unscrew screws -arrows- and remove slave cylinder.



**Caution**

*There is a risk of contamination through escaping brake fluid.*

- ◆ *If the tube-hose line is disconnected from the connection, do no longer depress the clutch pedal.*

**Install**

Installation is performed in the reverse order, while paying attention to the following:



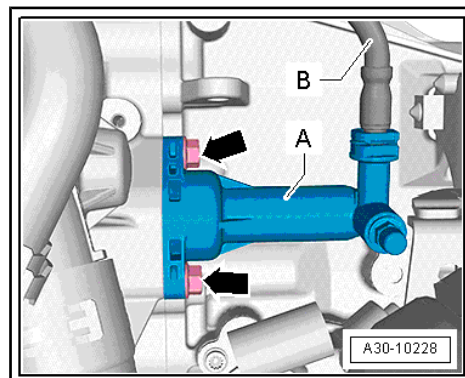
**Note**

- ◆ *Grease all bearing points and contact surfaces with grease.*
- ◆ *Assignment grease => Electronic Catalogue of Original Parts .*

- Fit slave cylinder -A- and tighten screws -arrows-.
- Connect tube-hose line -B-. => [page 22](#)
- Bleed clutch mechanism => [page 76](#) .
- Connect battery => Electrical System; Rep. gr. 27 .

**Tightening torques**

Component	Nm
Slave cylinder to gear-box	<a href="#">=&gt; page 78</a>
Gearbox support bracket to gearbox console and gearbox ◆ Use new bolts	20 Nm + 90°



### 1.13.3 Removing and installing slave cylinder (Superb II)

**Special tools and workshop equipment required**

- ◆ Hose clamp - MP7-602 (3094)-
- ◆ Grease for plug serration of clutch disc - G 000 100-



 Note

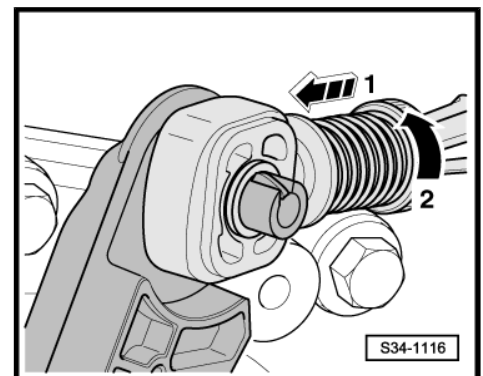
- ◆ If the slave cylinder must be replaced due to the predetermined fault, first of all check the hydraulic clutch control ⇒ [page 63](#) .
- ◆ If the slave cylinder with the connected tube-hose line is removed from the gearbox, do no longer depress the clutch pedal. Otherwise, the piston can be pressed out of the slave cylinder and thus be destroyed.
- ◆ When performing the following work, make sure no brake fluid comes into contact with the gearbox. If this is the case, these points must be cleaned thoroughly.

## Removing

 Note

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ *Electrical System; Rep. gr. 27* .

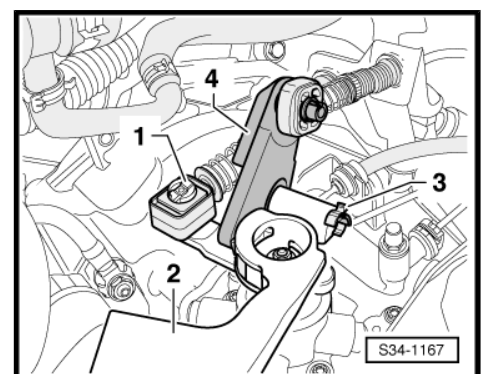
- Disconnect the battery-earth strap with the ignition off ⇒ *Electrical System; Rep. gr. 27* .
- Remove battery and battery tray ⇒ *Electrical System; Rep. gr. 27* .
- Remove air filter ⇒ *Engine; Rep. gr. 24* .
- In order to avoid damage to the selector cable, the cable lock must be separated from the selector cable before removal.
- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.



- Remove circlip -1- for shift cable from gearbox shift lever -2-.
- Pull off shift cable from the stud of the gearbox shift lever.

**The relay lever -4- is secured with a clip -3- in the cover**

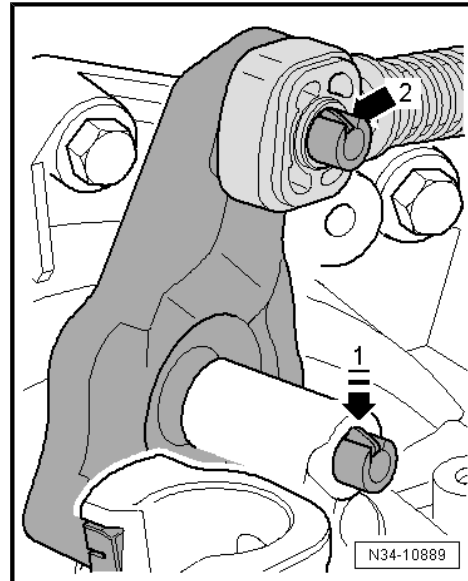
- Unclip -3- out of the hole of the relay lever and pull out relay lever -4- together with the cable lock out of the cover.





**The relay lever is secured with a catch -arrow 1- in the cover**

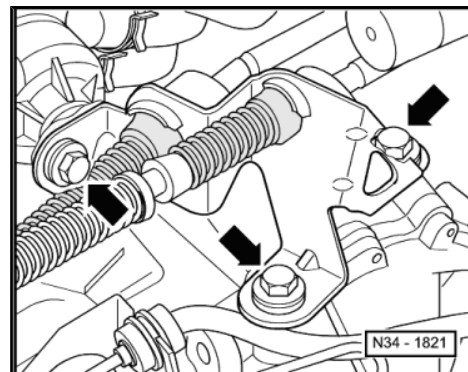
- Carefully press down the catch -arrow 1- up to the stop.
- Afterwards move relay lever in its bearing point back and forward (direction of operation). To do so, carefully pull out the relay lever together with the cable lock -arrow 2-.



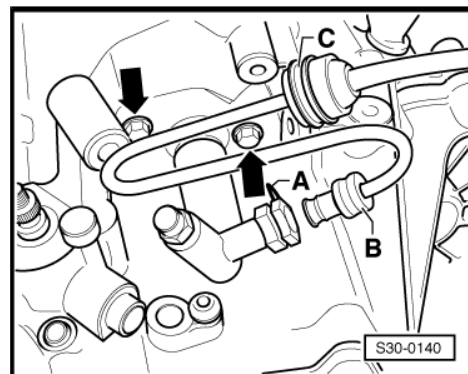
**Continued for all vehicles**

- Remove the gearshift lever from the gearshift shaft.

- Disconnect the Bowden cable support from gearbox -arrows-.
- Tie up shift cable and selector cable.
- Place a non-fluffing cloth under the slave cylinder.



- Pull retaining clip -A- for tube-hose line out of the slave cylinder up to the stop.
- Pull tube-hose line out of the support -C-.
- Pull tube-hose line -B- out of the slave cylinder and close openings.
- Unscrew the screws -arrows- for the slave cylinder and remove the slave cylinder.

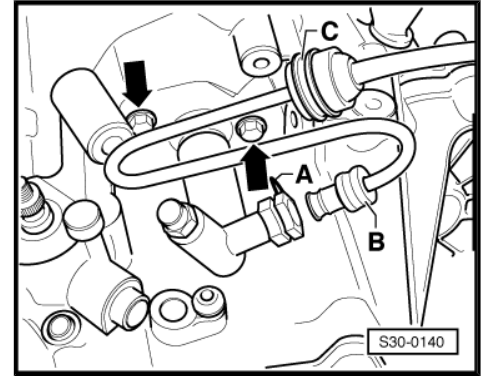


**Install**

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

- Grease tappet head with grease for plug serration of clutch disc - G 000 100- .

- Install slave cylinder and tighten screws -arrows- to the given tightening torque.
- Insert tube-hose line -B- into the slave cylinder up to the stop.
- Press in retaining clip -A- up to the stop and make sure the tube-hose line locks into position.
- Press tube-hose line into the support -C- at the gearbox.
- After installing the slave cylinder bleed the clutch control ⇒ [page 76](#) .



Assembling gearshift mechanism ⇒ [page 118](#) .

Setting the shift mechanism ⇒ [page 122](#) .

- Install air filter ⇒ Engine; Rep. gr. 24 .
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

### Tightening torques

Component	Nm
Slave cylinder to gearbox	⇒ <a href="#">page 78</a>
Gearbox shift lever to gearshift shaft	⇒ <a href="#">page 98</a>
Cable support to gearbox	⇒ <a href="#">page 98</a>

## 1.13.4 Removing and installing slave cylinder (Yeti)

### Special tools and workshop equipment required

- ◆ Hose clamp - MP7-602 (3094)-
- ◆ Grease for plug serration of clutch disc - G 000 100-



### Note

- ◆ *If the slave cylinder must be replaced due to the predetermined fault, first of all check the hydraulic clutch control ⇒ [page 63](#) .*
- ◆ *If the slave cylinder with the connected tube-hose line is removed from the gearbox, do no longer depress the clutch pedal. Otherwise, the piston can be pressed out of the slave cylinder and thus be destroyed.*
- ◆ *When performing the following work, make sure no brake fluid comes into contact with the gearbox. If this is the case, these points must be cleaned thoroughly.*

### Removing

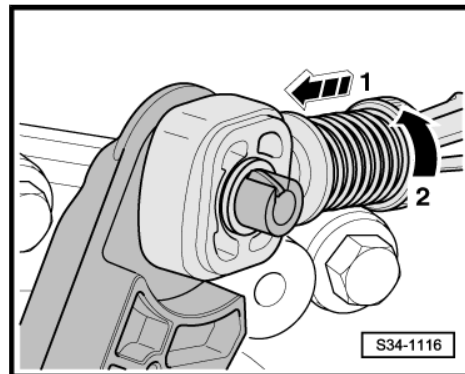


### Note

*After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*

- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .

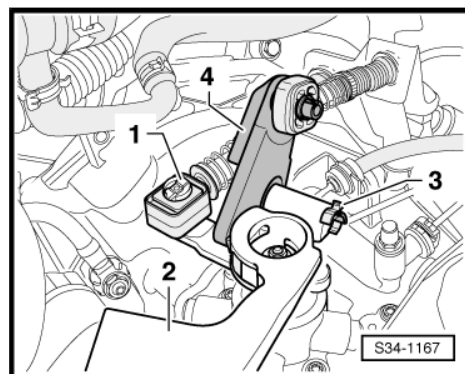
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .
- In order to avoid damage to the selector cable, the cable lock must be separated from the selector cable before removal.
- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.



- Remove circlip -1- for shift cable from gearbox shift lever -2-.
- Pull off shift cable from the stud of the gearbox shift lever.

**The relay lever -4- is secured with a clip -3- in the cover**

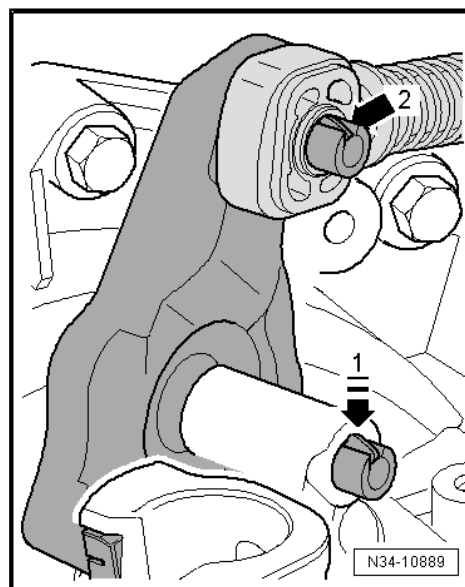
- Unclip -3- out of the hole of the relay lever and pull out relay lever -4- together with the cable lock out of the cover.



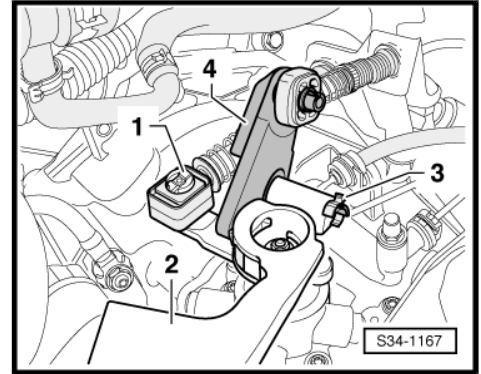
**The relay lever is secured with a catch -arrow 1- in the cover**

- Carefully press down the catch -arrow 1- up to the stop.
- Afterwards move relay lever in its bearing point back and forward (direction of operation). To do so, carefully pull out the relay lever together with the cable lock -arrow 2-.

**Continued for all vehicles**



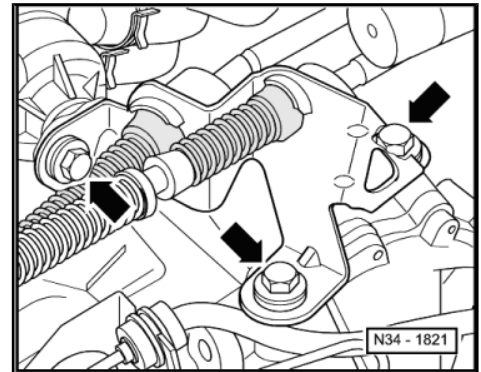
- Remove the gearbox shift lever -2- from the gearshift shaft.



- Disconnect the Bowden cable support from gearbox -arrows-.
- Tie up shift cable and selector cable.
- Place a non-fluffing cloth under the slave cylinder.

**i** Note

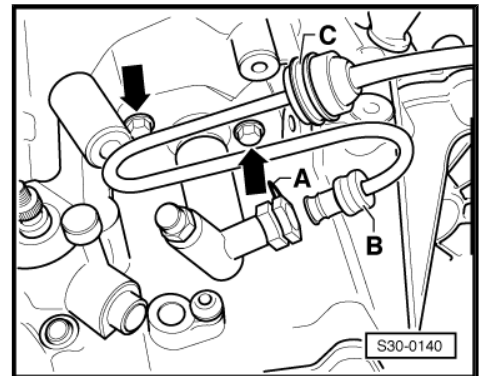
*Make sure no brake fluid comes into contact with the gearbox. If this is the case, this point must be cleaned thoroughly.*



- Pinch off the tube-hose line to the master cylinder with the hose clamp - MP7-602 (3094)- (if the tube-hose line to the master cylinder is made out of plastic, do not use the hose clamp - MP7-602- and after pulling out the slave cylinder, only close this line in a suitable manner).
- Pull retaining clip -A- for tube-hose line out of the slave cylinder up to the stop.
- Pull tube-hose line out of the support -C-.
- Pull tube-hose line -B- out of the slave cylinder and close openings.
- Unscrew the screws -arrows- for the slave cylinder and remove the slave cylinder.

**i** Note

*Do not depress the clutch pedal.*

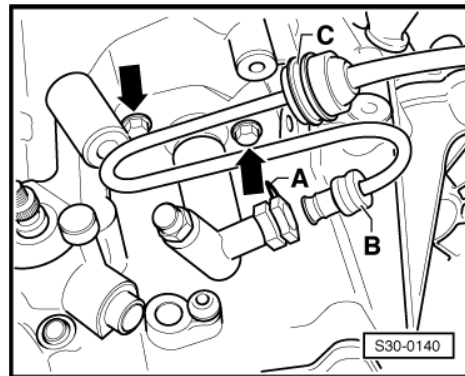


**Install**

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

- Grease tappet head with grease for plug serration of clutch disc - G 000 100- .

- Install slave cylinder and tighten screws -arrows- to the given tightening torque.
- Insert tube-hose line -B- into the slave cylinder up to the stop.
- Press in retaining clip -A- up to the stop and make sure the tube-hose line locks into position.
- Press tube-hose line into the support -C- at the gearbox.
- After installing the slave cylinder bleed the clutch control ⇒ [page 76](#) .



Assembling gearshift mechanism ⇒ [page 118](#) .

Setting the shift mechanism ⇒ [page 122](#) .

- Install air filter ⇒ Engine; Rep. gr. 24 .
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

### Tightening torques

Component	Nm
Slave cylinder to gearbox	⇒ <a href="#">page 78</a>
Gearbox shift lever to gearshift shaft	⇒ <a href="#">page 98</a>
Cable support to gearbox	⇒ <a href="#">page 98</a>

## 1.14 Removing and installing cables for clutch control (Octavia III)

### Special tools and workshop equipment required

- ◆ Hose clamp - MP7-602 (3094)-

### Removing

- Remove the complete air filter housing if the cables for the clutch control are not accessible ⇒ Engine; Rep. gr. 24 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .

### Right-hand drive

A heat-protection matting is installed in combination with certain engines. The appearance may differ from the figure.

- Remove heat-protection matting. Pay attention to the positions -1...4-.

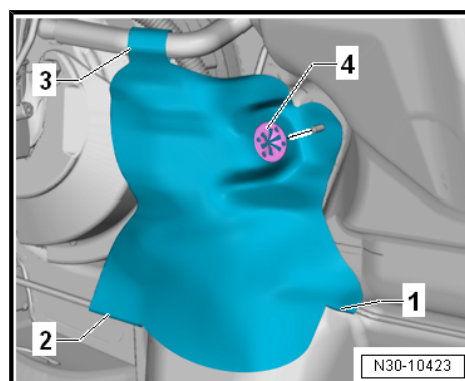
### Continued for all versions



#### Caution

*There is a danger that the brake fluid may drip out.*

- ◆ *During the following work, ensure that no brake fluid lands on longitudinal member or gearbox. If this is the case, clean the affected area thoroughly.*
- ◆ *Lay a lint-free cloth under master cylinder.*



- Disconnect return hose -2- to master cylinder with hose clamp - MP7-602 (3094)-

**i** Note

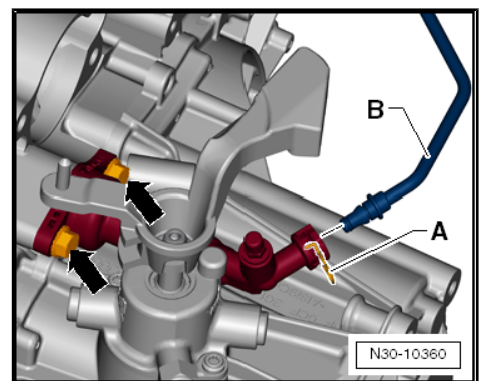
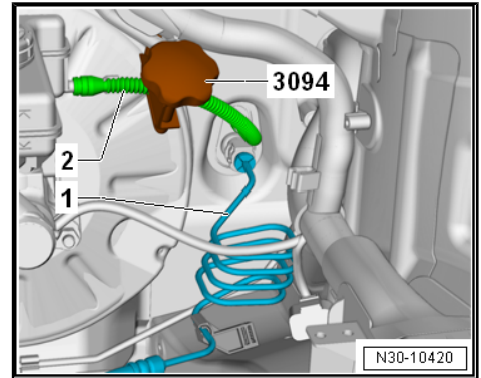
- ◆ If the return hose with hose clamp - MP7-602 (3094)- is disconnected, it will forever be deformed.
- ◆ However the return hose is not defective.
- ◆ After removing the hose clamp - MP7-602 (3094)-, it may be necessary to bring the return hose back into its initial position.

- Pull the clip at the tube-hose line out of the master cylinder up to the stop and detach the tube-hose line.
- Close the openings.
- Pull out the clip -A- up to the stop and detach the tube-hose line -B- to the master cylinder.
- Close the openings.

**i** Note

Ignore -arrows-.

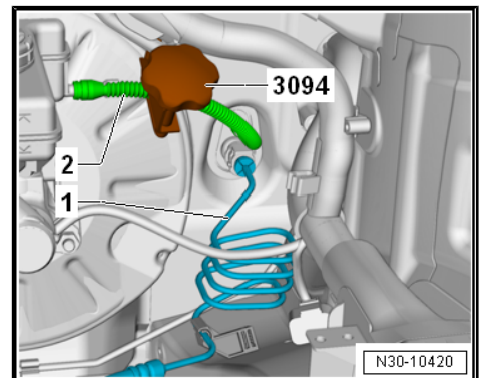
- Close the open lines and connections, if necessary with a clean plug from the plug set for engine - VAS 6122- .
- Loosen tube-hose line and remove.



**Install**

Installation is performed in the reverse order, while paying attention to the following:

- Connect the tube-hose line -1- with connectors at the master cylinder and at the slave cylinder.
- Test line by tugging on it.
- After removing the hose clamp - MP7-602 (3094)-, it may be necessary to bring the return hose -2- back into its initial position.

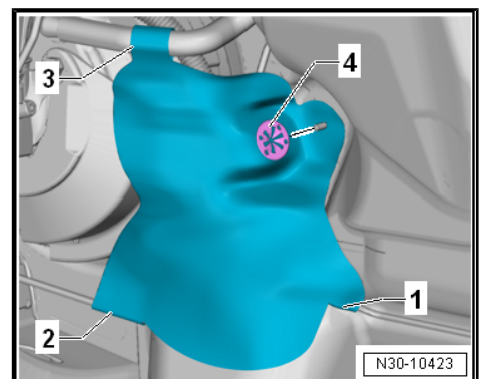


**Right-hand drive**

- If present, coil the heat-protection matting in the sequence -1, 2 and 3- around the cable.
- Secure the heat-protection matting with the circlip -4-.

**Continued for all versions**

- Bleed the clutch control ⇒ [page 76](#)
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .



## 1.15 Bleeding the clutch control

⇒ "1.15.1 Bleeding the clutch control (Octavia II, Superb II) and Yeti)", page 76

⇒ "1.15.2 Bleeding the clutch control (Octavia III)", page 76

### 1.15.1 Bleeding the clutch control (Octavia II, Superb II) and Yeti)

**Special tools and workshop equipment required**

- ◆ Brake filling and bleeding device - VAS 5234-



**Note**

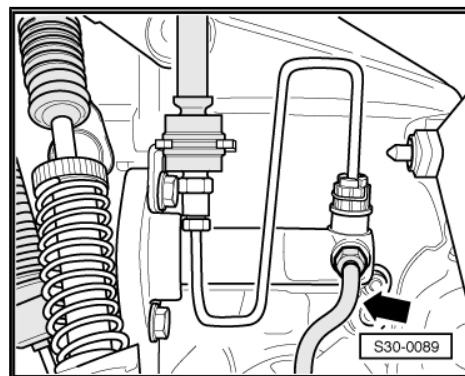
- ◆ *When performing the following work, make sure that no brake fluid comes into contact with the frame side rail or the gearbox.*
- ◆ *A pre-filling of the system is not necessary!*

Brake fluid specification ⇒ Chassis; Rep. gr. 00 .

- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Connect the brake filling and bleeding device .

To bleed, use the bleeder hose -arrow-.

- Connect bleeder hose -arrow- with the drip bottle of the brake bleeding device.
- Fit the bleeder hose -arrow- onto the vent valve.
- Activate system with a pressure of 0.2 MPa (2 bar).
- Open bleeder valve.
- Allow approx. 100 cm<sup>3</sup> of brake fluid to flow out until no more air bubbles are visible.
- Close bleeder valve.
- Activate pedal forcefully from stop to stop between 10 and 15 times.
- Activate system with a pressure of 0.2 MPa (2 bar).
- Open bleeder valve.
- Allow approx. 50 cm<sup>3</sup> more brake fluid to flow out.
- Close bleeder valve.
- After completing the bleeding procedure activate the clutch pedal repeatedly.
- Install air filter ⇒ Engine; Rep. gr. 24 .



### 1.15.2 Bleeding the clutch control (Octavia III)

**Special tools and workshop equipment required**

- ◆ Brake filling and bleeding device , e. g. -VAS 5234-





### Note

- ◆ *The system must be bled after performing work on the hydraulic clutch control.*
- ◆ *When performing the following work, make sure no brake fluid comes into contact with the gearbox.*
- ◆ *A pre-filling of the system is not necessary!*
- ◆ *Before bleeding, fill brake fluid reservoir up to "Max" marking with brake fluid.*
- ◆ *Clutch pedal in home position, not operated.*
- ◆ *Specification of brake fluid ⇒ Electronic catalogue of original parts .*

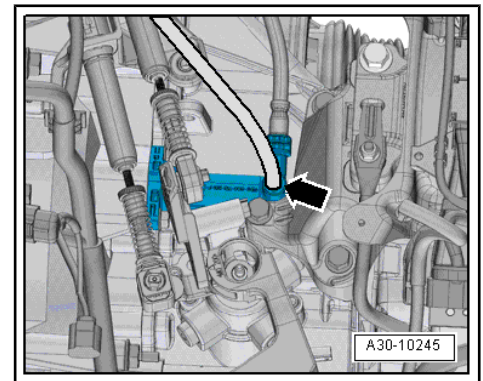
- If the vent valve is not accessible, remove the complete air filter housing (-arrow- in the illustration below) ⇒ Engine; Rep. gr. 24 .
- Put the clutch pedal in home position.
- Remove cap from vent valve -arrow-.
- Connect the brake filling and bleeding device - VAS 5234- or -V.A.G 1869- .
- Fit on bleeder hose and connect to pressure hose of drip bottle.

To bleed system, use 670 mm bleeder hose - V.A.G 1238/B3- if necessary.

- Switch on brake filling and bleeding device .
  - Working pressure: 2.0 bar
- Open bleeder valve.
- Allow about 100 cm<sup>3</sup> of brake fluid to flow out.
- Close bleeder valve.
- Rapidly operate clutch pedal from stop to stop 10 to 15 times.
- Open bleeder valve.
- Allow approx. 50 cm<sup>3</sup> more brake fluid to flow out.
- Close bleeder valve.
- Switch off brake filling and bleeding device and release all of the pressure from the device.
- Depress clutch pedal several times after completion of bleeding process.
- At the same time check the operation of the clutch control.

### Tightening torque

- ◆ Vent valve ⇒ [page 21](#) .



## 2 Clutch release mechanism

⇒ ["2.1 Assembly overview - clutch release mechanism"](#),  
[page 78](#)

⇒ ["2.2 Repairing clutch control"](#), [page 79](#)

### 2.1 Assembly overview - clutch release mechanism

#### 1 - Release bearing

- Do not wash the bearing, just wipe clean
- replace noisy bearings ⇒ Electronic Catalogue of Original Parts
- removing and installing ⇒ [page 79](#)
- remove and install together with the clutch release lever Pos. 3 and guide bushing Pos. 5 ⇒ [page 79](#)

#### 2 - Screw

- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 5 Nm + 90°

#### 3 - Clutch release lever

- remove and install together with the release bearing Pos. 1 and guide bushing Pos. 5 ⇒ [page 79](#)
- Original grease must be removed from the contact surface of the clutch release lever
- grease contact surface on the ball stud with grease - G 000 100-

#### 4 - Retaining spring

- attach to clutch release lever

#### 5 - Guide bushing

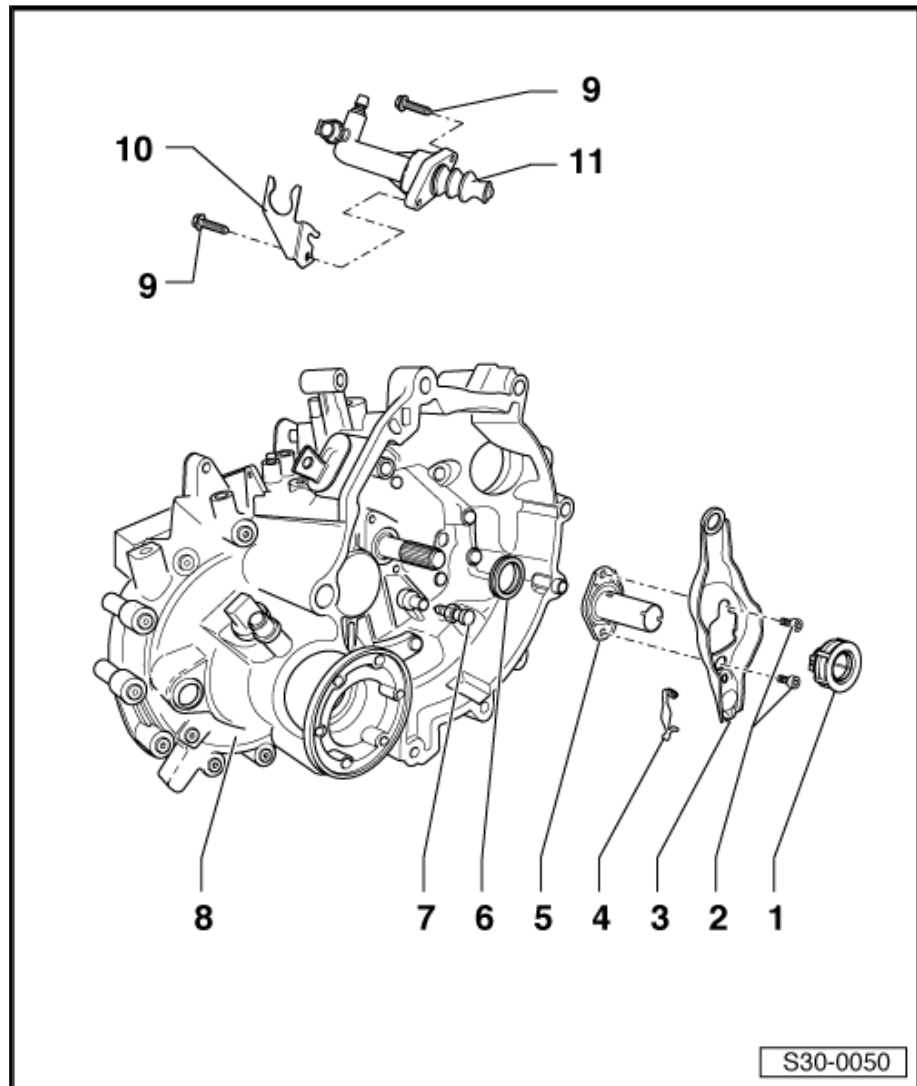
- for release bearing
- removing and installing ⇒ [page 79](#)
- remove and install together with the clutch release lever Pos. 3 and release bearing Pos. 1 ⇒ [page 79](#)
- grease guide bushing in the area of the release lever with grease - G 000 100-

#### 6 - Gasket ring for drive shaft

- removing and installing ⇒ [page 190](#)
- replace ⇒ Electronic Catalogue of Original Parts

#### 7 - Ball pin

- Original grease must be removed from the contact surface of the clutch release lever
- grease with grease for plug serration of clutch disc - G 000 100-
- 20 Nm



## 8 - Gearbox

### 9 - Screw

- 20 Nm

### 10 - Support

### 11 - Slave cylinder

- removing and installing => [page 64](#)
- Grease tappet head with grease for plug serration of clutch disc - G 000 100-

## 2.2 Repairing clutch control

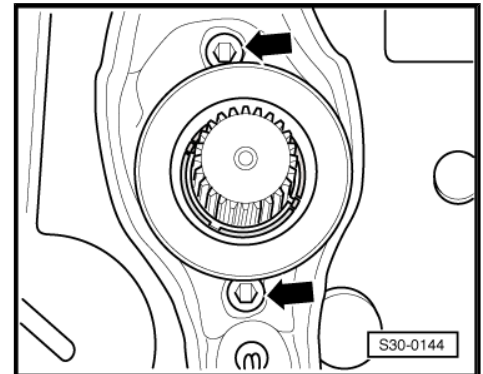
### Special tools and workshop equipment required

- ◆ Grease for plug serration of clutch disc - G 000 100-

### Remove and install the clutch release lever together with the release bearing and guide bushing

- Release screws -arrows-.
- Separate the clutch release lever together with the release bearing and guide bushing from the drive shaft and ball stud.

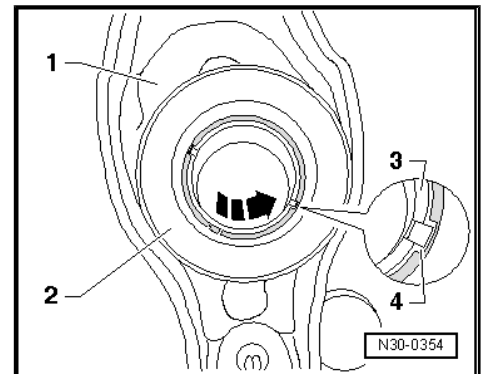
Installation is carried out in the reverse order.



### Removing and installing the guide bushing

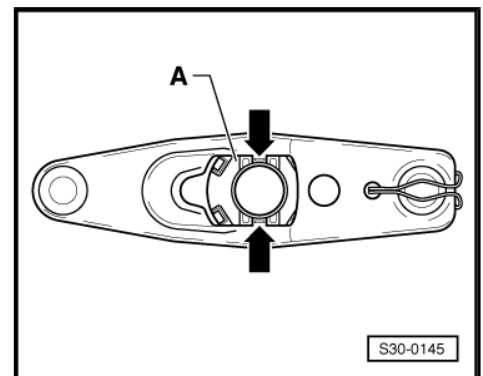
- Rotate the guide bushing -3- opposite the release bearing -2- 90° in the direction of the arrow until the catch pegs of the guide bushing fit into the slots -4- of the clutch release bearing.
- In this position remove the guide bushing from the release bearing.

Installation is carried out in the reverse order.



### Removing and installing the release bearing

- Press the catch pegs -arrows- together and remove the release bearing -A- from the clutch release lever.
- To install, press the release bearing -A- into the clutch release lever until the catch pegs -arrows- lock into position.



### 3 Repairing clutch

⇒ [“3.1 Summary of components - repairing the clutch”, page 80](#)

⇒ [“3.2 Removing and installing clutch”, page 80](#)

⇒ [“3.3 Fault finding power transmission - problems with the clutch and clutch control”, page 84](#)

#### 3.1 Summary of components - repairing the clutch

##### 1 - Flywheel

- make sure the centering pins are correctly fitted
- The locating face for the clutch lining must be free from grooves, oil and grease
- Removing and Installing  
⇒ Engine; Rep. gr. 13

##### 2 - Clutch disc

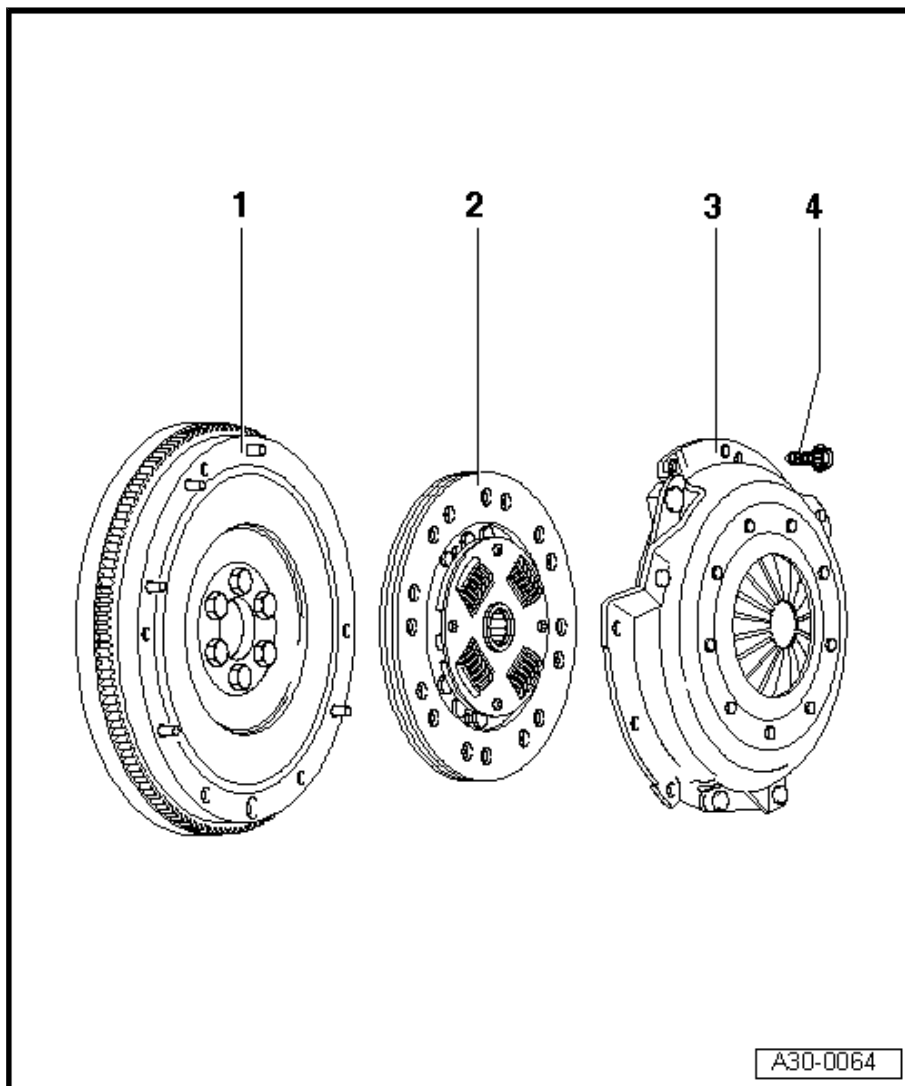
- Assignment ⇒ Electronic Catalogue of Original Parts
- Fitting position: The spring cage points towards the pressure plate
- the logo “gearbox side” always points towards the pressure plate and the gearbox  
⇒ [page 82](#)
- center ⇒ [page 80](#)
- slightly grease the serration

##### 3 - Pressure plate

- removing and installing  
⇒ [page 80](#)
- Check the extremities of the membrane spring  
⇒ [page 82](#)
- Check feather joints and riveted joints  
⇒ [page 83](#)

##### 4 - Screw

- assign via ⇒ Electronic Catalogue of Original Parts
- release or tighten gradually and crosswise.
- Tightening torque:
  - ◆ M6 = 13 Nm
  - ◆ M7 = 20 Nm



#### 3.2 Removing and installing clutch

Special tools and workshop equipment required

- ◆ Counterholder - MP1-223 (3067)-
- ◆ Centering mandrel - T10086-
- ◆ Grease for plug serration of clutch disc - G 000 100-




Note

- ◆ *Before replacing the clutch disc and pressure plate fault finding power transmission - observe complaints of the clutch and clutch control ⇒ [page 84](#) .*
- ◆ *Check whether the dowel sleeves for centering the gearbox are present in the cylinder block, insert if necessary.*
- ◆ *If the dowel sleeves are not present, this can result in difficulties to shift, clutch problems and if necessary noises from gearbox (gear rattling).*
- ◆ *Replace the clutch discs and pressure plates if the riveting is damaged or loose.*
- ◆ *Assign the clutch disc and pressure plate via the ⇒ [Electronic catalogue of original parts](#) and in accordance with the engine identification characters.*
- ◆ *Clean the drive shaft serration and hub serration on used clutch discs. Remove corrosion and only apply a very thin layer of grease for plug serration of clutch disc - G 000 100- on the drive shaft serration.*
- ◆ *Subsequently move the clutch disc up and down on the drive shaft until the hub fits smoothly on the shaft.*
- ◆ *Remove all excess grease.*
- ◆ *The pressure plates are protected against corrosion and are greased. Only clean the thrust surface as otherwise the life of the clutch may be considerably reduced.*



**Removing**

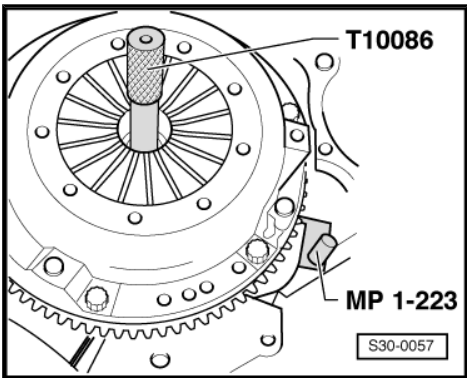
- Removing the gearbox ➤ [page 128](#) .



**Caution**

*In order to avoid a deformation of the pressure plate when removing it (this leads to jerking during start-up), the pressure plate must be loosened as follows:*

- Insert counterholder - MP1-223 (3067)- to slacken and tighten the bolts.
- Release bolts in small stages crosswise.
- Remove pressure plate and clutch disc.



**Install**

- Fit the pressure plate onto the centering pins of the flywheel.



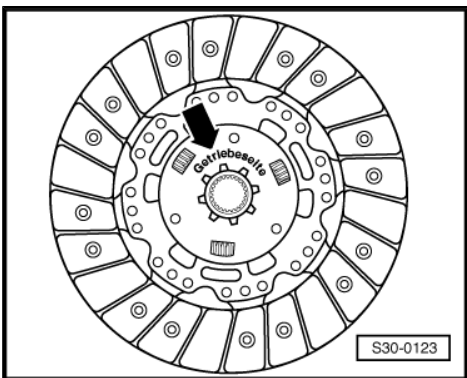
**Note**

*The thrust surface of the pressure plate and the clutch disc lining must fully rest against the flywheel before the screws are inserted.*

- Screw in all the screws by hand uniformly, until the bolt head rests against the pressure plate.
- Tighten the screws in small stages crosswise (tightening torque ➤ [page 80](#) ), so as not to damage the centering holes on the pressure plate and the centering pins of the flywheel.
- Installing the gearbox ➤ [page 128](#)

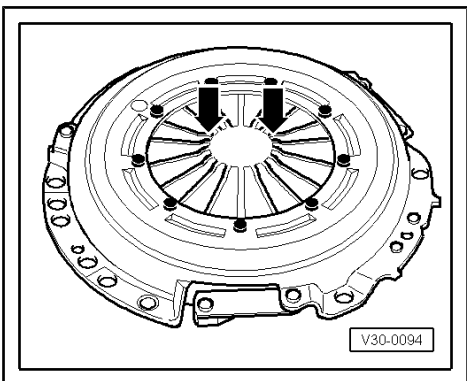
**Fitting location of clutch disc**

- Legend “side of gearbox” points to the gearbox.



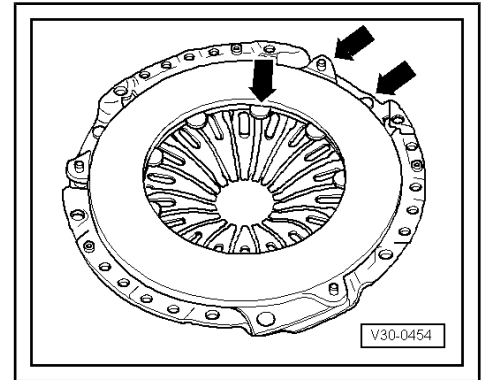
**Check the extremities of the membrane spring**

- Wear is allowed up to half the membrane spring thickness -arrows-.



### Check feather joints and riveted joints

- Check the feather joints between pressure plate and cover for cracks as well as the riveted joints for firm seating -arrows-.



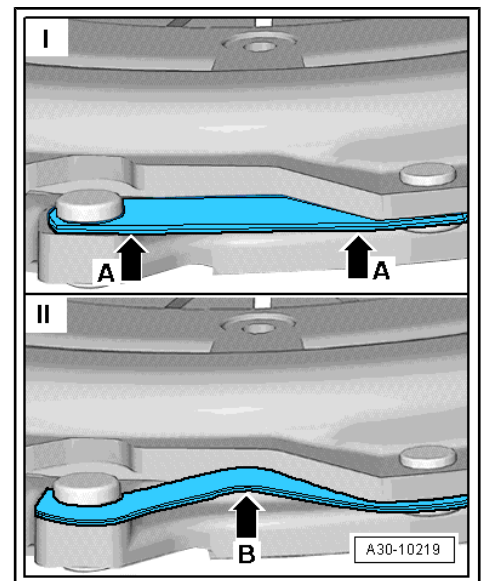
### Check springs and riveted joints

I - Tension springs o.k.

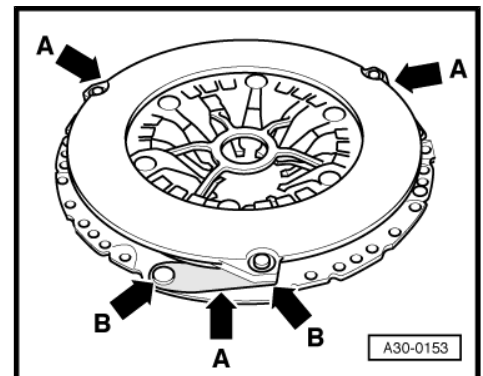
- slight bends in the external area -arrow A- are part of the standard condition

II - Tension springs damaged

- Clutch plates with strongly bent or broken feather joints -arrow B- must be replaced.
- Check springs -arrows A- for damage and riveted joints -arrows B- for firm seating.
- Clutch plates with strongly bent or broken feather joints or loose riveted connections must be replaced.

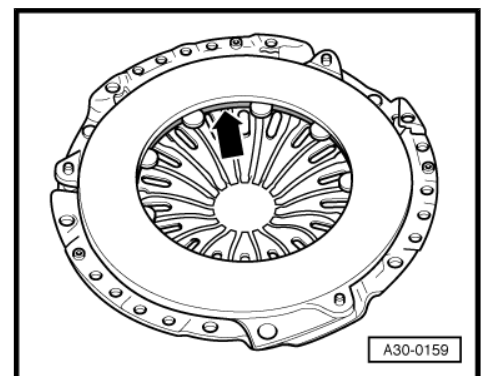


- Check whether the riveted joints -arrows B- are fixed on all springs -arrows A-.
- Bring all screws to the end position, clockwise in sequence.
- Replace the clutch plates with loose riveted joints -arrow B-.



### Check metal plate ring

- Check metal plate ring in the clutch plate -arrow- for damage.
- Replace the clutch plates with the broken metal plate ring.





### 3.3 Fault finding power transmission - problems with the clutch and clutch control



**Note**

Check hydraulic clutch control ⇒ [page 63](#) .

Before each clutch repair, examine and reconstruct the complaint of the customer. During this procedure, it must be determined if indeed there is a fault of the clutch or if the cause is only an incorrect setting of the shift mechanism.

Fault	Fault description	Measure
Clutch pedal does not return to initial position.	◆ Air in line system.	– Vent air from the line system; top up with brake fluid.
	◆ Line system, master or slave cylinder leaking.	– Replace defective part, vent air from the line system; top up with brake fluid.
	◆ Release bearing on the guide bushing is tilted, seized.	– Replace guide bushing and release bearing.
	◆ Membrane spring of the pressure plate broken.	– Replace pressure plate.

Fault	Fault description	Measure
Actuating force on the clutch pedal too high.	◆ Over-centre helper spring defective.	– Replace over-centre helper spring.
	◆ Clutch release force increased due to wear of clutch linings.	– Inform customer (higher release force with increased wear). – Replace clutch disc, when the distance base/rivet is below 0.1 mm.
	◆ Release bearing on the guide bushing is tilted, seized.	– Replace defective components.
	◆ Pressure plate with wrong spring identification.	– Assign pressure plate via the ⇒ Electronic catalogue of original parts .
	◆ Mechanical fault of the pressure plate/clutch disc.	– Replace defective components.
	◆ Clutch disc on the serration sluggish/jams.	– Check serration of the hub for damage (burrs), if necessary replace clutch disc. – Clean the hub and the drive shaft serration from corrosion and residues of lubricant and grease with grease for plug serration of clutch disc - G 000 100- . Move clutch disc back and forth, remove excess grease.





Fault	Fault description	Measure
Noises when operating the clutch.	◆ Release bearing defective, guide of clutch release bearing not in order, contact surface drained off.	<ul style="list-style-type: none"> <li>- Always replace noisy release bearings.</li> <li>- Replace guide bushings if damaged.</li> </ul>
	◆ The contact surface of the pressure plate is defective (the tips of the membrane spring are bent, broken). Release bearing is off-center.	<ul style="list-style-type: none"> <li>- Replace pressure plate.</li> <li>- Check release bearing, guide bushing, replace if necessary.</li> <li>- Check position of release lever.</li> <li>- Check dowel sleeves.</li> </ul>
	◆ Centre displacement of engine/gearbox.	<ul style="list-style-type: none"> <li>- Check dowel sleeves.</li> </ul>
	◆ Clutch disc installed the wrong way up.	<ul style="list-style-type: none"> <li>- Correct installation.</li> </ul>
	◆ Wrong clutch disc installed.	<ul style="list-style-type: none"> <li>- Assign clutch disc via the ⇒ Electronic catalogue of original parts .</li> </ul>

Fault	Fault description	Measure
Rattling, scratching occurs when the forward or reverse gear is engaged, gears shift jams, is sluggish, shifting is not possible, clutch without operation.	◆ Air in the system, clutch does not separate fully.	<ul style="list-style-type: none"> <li>- Bleed and check system, top up with brake fluid.</li> </ul>
	◆ Master/slave cylinder, line is leaking.	<ul style="list-style-type: none"> <li>- Replace defective component, top up with brake fluid, bleed system.</li> </ul>
	◆ The travel of the clutch pedal is not sufficient (carpet, foot mat under the foot controls), clutch is not fully depressed.	<ul style="list-style-type: none"> <li>- Inform customer.</li> </ul>
	◆ Pressure plate uneven due to incorrect installation, clutch disc warped due to improper handling.	<ul style="list-style-type: none"> <li>- Inspect parts, if necessary replace, observe position of the centering pins.</li> <li>- If scratching still occurs, check the serration of the clutch disc on the drive shaft for ease of movement, if necessary repair the gearbox.</li> </ul>
	◆ Tips of membrane spring broken or bent (assembly fault, release bearing moves off-center).	<ul style="list-style-type: none"> <li>- Replace pressure plate.</li> <li>- Check release bearing, guide bushing, replace if necessary.</li> <li>- Check dowel sleeves.</li> </ul>
	◆ Clutch disc too thick.	<ul style="list-style-type: none"> <li>- Assign clutch disc via the ⇒ Electronic catalogue of original parts .</li> </ul>
	◆ Lining glued to the flywheel (long immobilization time, high humidity).	<ul style="list-style-type: none"> <li>- Slightly rub down friction surfaces of the clutch linings or replace completely the severely corroded parts.</li> </ul>



Fault	Fault description	Measure
	<ul style="list-style-type: none"> <li>◆ Clutch disc on the serration sluggish/jams. Corroded hub, damaged during assembly. Hub profile knocked out on one side.</li> </ul>	<ul style="list-style-type: none"> <li>– Check serration of the hub for damage, if necessary replace clutch disc.</li> <li>– Remove corrosion and traces of grease from hub and shaft. Grease shaft with grease for plug serration of clutch disc - G 000 100- .</li> <li>– Move clutch disc back and forth, remove excess grease.</li> <li>– Check position of dowel sleeves on knocked out hub profile.</li> <li>– Check release bearing, guide bushing and pressure plate, replace if necessary.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Lifting of pressure plate too low (wrong pressure plate installed).</li> </ul>	<ul style="list-style-type: none"> <li>– Assign pressure plate via the ⇒ Electronic catalogue of original parts .</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Displacement of engine/gearbox too large (dowel sleeves missing), support panel of clutch plate bent through this.</li> </ul>	<ul style="list-style-type: none"> <li>– Insert dowel sleeves before gearbox has been fitted.</li> <li>– Check clutch disc and pressure plate for damage, if necessary replace.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Linings spalled off because of too high revs (shift back during too high speed).</li> <li>◆ When starting, linings are spalled off through slipping for too long a time.</li> </ul>	<ul style="list-style-type: none"> <li>– Replace clutch disc. Inform customer.</li> </ul>

Fault	Fault description	Measure
Load alteration shocks when pushing the accelerator pedal down sharply and when the engine speed drops suddenly.	<ul style="list-style-type: none"> <li>◆ Assembly bracket too soft.</li> </ul>	<ul style="list-style-type: none"> <li>– Inform customer. Assign hanger via the ⇒ Electronic Catalogue of Original Parts replace if necessary.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Irregular engine running.</li> </ul>	<ul style="list-style-type: none"> <li>– Check engine setting, correct.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Clutch disc with predamper is built in against gear rattling.</li> </ul>	<ul style="list-style-type: none"> <li>– Inform customer.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Centre displacement of engine/gearbox.</li> </ul>	<ul style="list-style-type: none"> <li>– Test dowel sleeves, replace if necessary.</li> </ul>

Fault	Fault description	Measure
Clutch slips through, no or bad pre-drive.	<ul style="list-style-type: none"> <li>◆ Wrong clutch disc, wrong pressure plate installed.</li> </ul>	<ul style="list-style-type: none"> <li>– Assign the clutch disc and pressure plate via the ⇒ Electronic catalogue of original parts .</li> </ul>



Fault	Fault description	Measure
	<ul style="list-style-type: none"> <li>◆ Clutch disc is worn out, burnt, pressure plate overheated, scoring, pressure plate warped through incorrect assembly, contact pressure of the pressure plate too low, driving error, natural wear.</li> </ul>	<ul style="list-style-type: none"> <li>– Replace clutch disc.</li> <li>– Replace pressure plate.</li> <li>– Inform customer.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Clutch disc, pressure plate, flywheel oily. Shaft seals of engine or gearbox defective. Grease on the contact surface through excess greasing of the hub.</li> </ul>	<ul style="list-style-type: none"> <li>– Replace clutch disc.</li> <li>– Clean contact surfaces of pressure plate and flywheel.</li> <li>– Replace shaft seal, remove excess grease from the drive shaft.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Clutch disc installed the wrong way up.</li> </ul>	<ul style="list-style-type: none"> <li>– Correct installation, check clutch disc, replace if necessary.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Flywheel depth too large or excess removal at the base of the thrust surface.</li> </ul>	<ul style="list-style-type: none"> <li>– Assign the sealing flange via the ⇒ electronic catalogue of original parts .</li> <li>– Inspect clutch disc, pressure plate, replace if necessary.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Slave cylinder leaking.</li> </ul>	<ul style="list-style-type: none"> <li>– Replace slave cylinder.</li> </ul>

Fault	Fault description	Measure
Clutch grabbing, unit shaking.	<ul style="list-style-type: none"> <li>◆ Air in the system.</li> </ul>	<ul style="list-style-type: none"> <li>– Bleed system, check brake fluid level, check system for tightness.</li> <li>– Replace defective part.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Engine does not run clean.</li> </ul>	<ul style="list-style-type: none"> <li>– Check engine setting, correct.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Driving error, starting speed is too low.</li> </ul>	<ul style="list-style-type: none"> <li>– Inform customer.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Wrong clutch disc installed.</li> </ul>	<ul style="list-style-type: none"> <li>– Assign clutch disc via the ⇒ Electronic catalogue of original parts .</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Assembly bearing too soft, knocked out.</li> </ul>	<ul style="list-style-type: none"> <li>– Assign the assembly bracket via the ⇒ Electronic catalogue of original parts .</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Clutch lining oily, contact surface of pressure plate and flywheel oily (oil leakage from the clutch housing).</li> </ul>	<ul style="list-style-type: none"> <li>– Check radial shaft seal of the drive shaft for clutch or check crankshaft, if necessary replace.</li> <li>– Replace clutch disc, clean pressure plate and flywheel.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Release bearing on the guide bushing is tilted, seized (presses on one side onto the membrane springs of the pressure plate).</li> </ul>	<ul style="list-style-type: none"> <li>– Replace release bearing and guide bushing.</li> <li>– Check control element and bearing for control elements.</li> </ul>



Fault	Fault description	Measure
	<ul style="list-style-type: none"> <li>◆ The contact surface of the pressure plate lifts off only unilaterally due to the tilted release bearing.</li> <li>◆ Housing of the pressure plate warped when installed. Contact surface of the pressure plate lifts off only unilaterally.</li> </ul>	<ul style="list-style-type: none"> <li>– Check the contact surface of the clutch lining at the flywheel, check pressure plate and membrane spring, replace pressure plate if necessary.</li> <li>– Replace release bearing and guide bushing.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Drive shaft too heavily greased (traces of grease on the clutch disc, pressure plate and flywheel).</li> </ul>	<ul style="list-style-type: none"> <li>– Remove grease from pressure plate and flywheel, replace if damaged (traces of wear, traces of overheating, grooves).</li> <li>– Remove traces of grease from hub and shaft, grease shaft with grease for plug serration of clutch disc - G 000 100- .</li> <li>– Move clutch disc back and forth, remove excess grease.</li> </ul>

Fault	Fault description	Measure
Acoustic knock »klack« when clutch is released.	<ul style="list-style-type: none"> <li>◆ Carrier earth/drive shaft is accelerated when clutch is released suddenly. The drive shaft serration of the pinions in mesh knocks; for clutch discs with predamper the noise increases as the predamper reaches the stop.</li> </ul>	<ul style="list-style-type: none"> <li>– Inform customer.</li> </ul>

Fault	Fault description	Measure
Noise when gearbox in neutral position.	<ul style="list-style-type: none"> <li>◆ Torsional damper spring broken.</li> </ul>	<ul style="list-style-type: none"> <li>– Replace clutch disc.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Clutch disc without predamper installed (idle rattling).</li> </ul>	<ul style="list-style-type: none"> <li>– Assign clutch disc via the → Electronic catalogue of original parts .</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Pressure plate warped, broken, imbalance.</li> </ul>	<ul style="list-style-type: none"> <li>– Replace pressure plate.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Irregular engine running.</li> </ul>	<ul style="list-style-type: none"> <li>– Check engine setting, correct if necessary.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Displacement of engine/gearbox too large (dowel sleeves missing).</li> </ul>	<ul style="list-style-type: none"> <li>– Insert dowel sleeves before gearbox has been fitted.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Intermediate plate rubs on the flywheel.</li> </ul>	<ul style="list-style-type: none"> <li>– Insert intermediate plate on sealing flange and push onto the dowel sleeves.</li> </ul>

## 34 – Controls, housing

### 1 Repairing shift mechanism

⇒ [“1.1 Fitting location of shift mechanism”, page 89](#) .

⇒ [“1.2 Summary of components for clutch”, page 91](#)

⇒ [“1.3 Summary of components - Gearshift knob with shift lever collar”, page 92](#)

⇒ [“1.4 Summary of components - Gearshift mechanism”, page 96](#)

⇒ [“1.5 Summary of components - Control cables”, page 98](#)

⇒ [“1.6 Removing and installing gearshift knob with shift lever collar”, page 101](#)

⇒ [“1.7 Removing and installing selector mechanism”, page 104](#)

⇒ [“1.8 Disassembling and assembling shift mechanism housing”, page 115](#) .

⇒ [“1.9 Removing and installing the cable lock from the relay lever”, page 118](#)

⇒ [“1.10 Removing and installing shift cable and selector cable”, page 121](#) .

⇒ [“1.11 Setting the shift mechanism”, page 122](#)

#### 1.1 Fitting location of shift mechanism

-Arrow A- Shift movement

-Arrow B- Selector movement



A - Shift cable

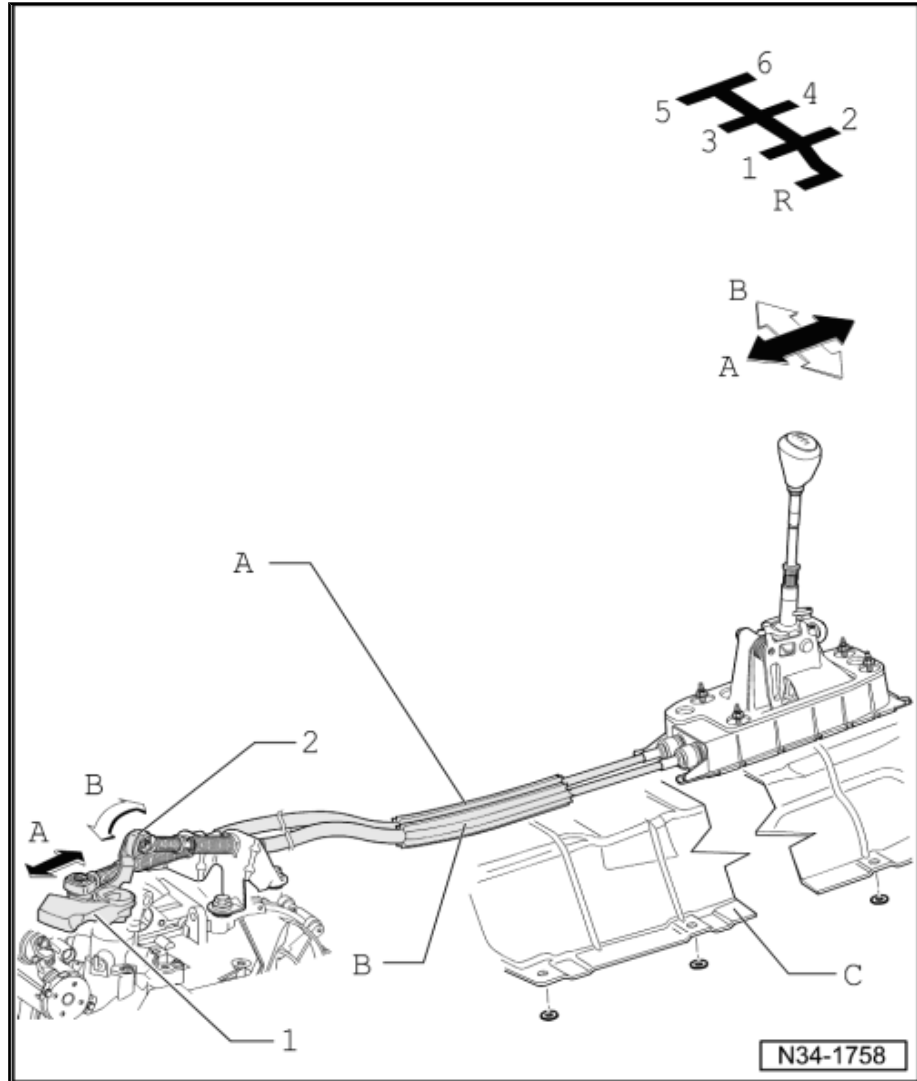
B - Selector cable

C - Heat shield

- take off before removing the shift mechanism

1 - Gearshift lever

2 - Reversing lever



## 1.2 Summary of components for clutch

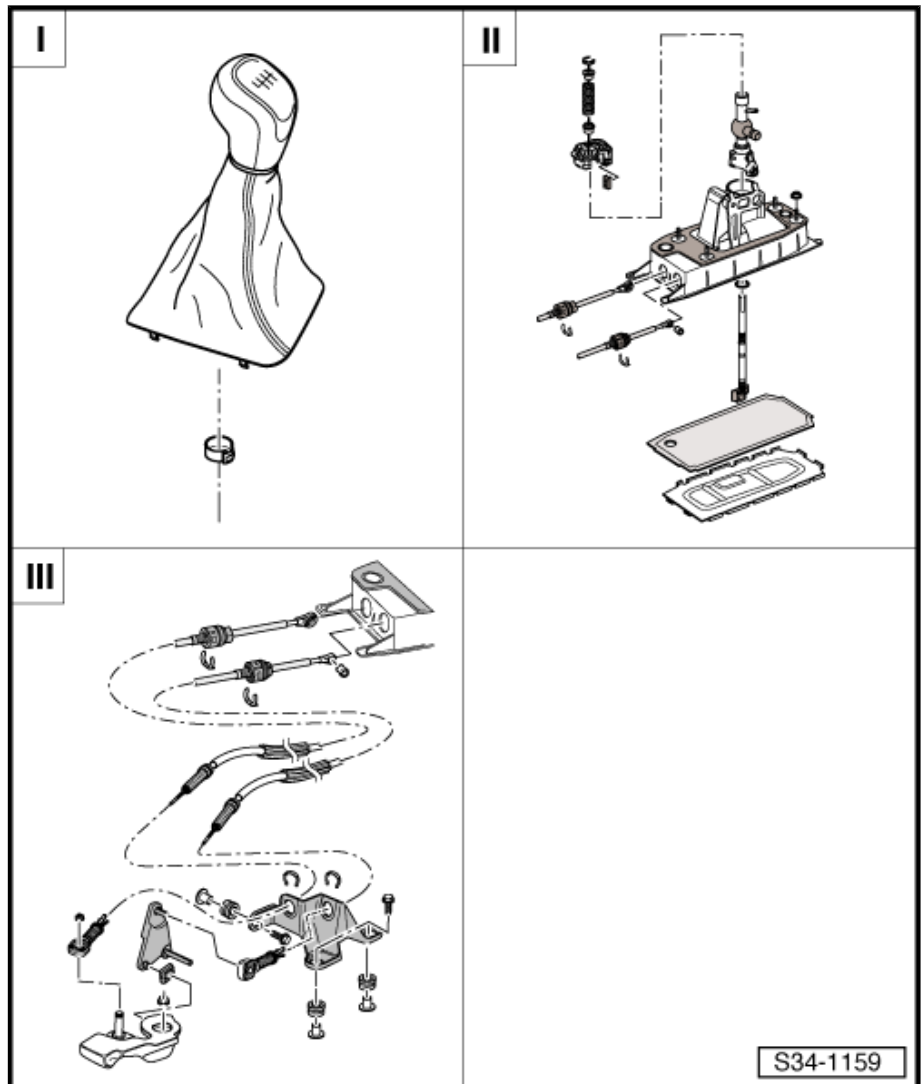
### Note

- ◆ After the battery earth strap is disconnected and connected, carry out additional operations ⇒ *Electrical System; Rep. gr. 27.*
- ◆ Remove shift mechanism for replacing control cables ⇒ [page 115](#).
- ◆ Do not kink the control cables.

I - Montageübersicht - Schaltknopf mit Schalthebelmanschette - ⇒ [page 92](#).

II - Montageübersicht - Schaltbetätigung - ⇒ [page 96](#)

III - Montageübersicht - Betätigungsseilzüge - ⇒ [page 98](#)





## 1.3 Summary of components - Gearshift knob with shift lever collar

⇒ [“1.3.1 Summary of components - gearshift knob with collar \(Octavia II\)”, page 92](#)

⇒ [“1.3.2 Summary of components - gearshift knob with shift lever collar \(Octavia III\)”, page 93](#)

⇒ [“1.3.3 Summary of components - gearshift knob with collar \(Superb II\)”, page 94](#)

⇒ [“1.3.4 Summary of components - Gearshift knob with collar \(Yeti\)”, page 95](#)

### 1.3.1 Summary of components - gearshift knob with collar (Octavia II)

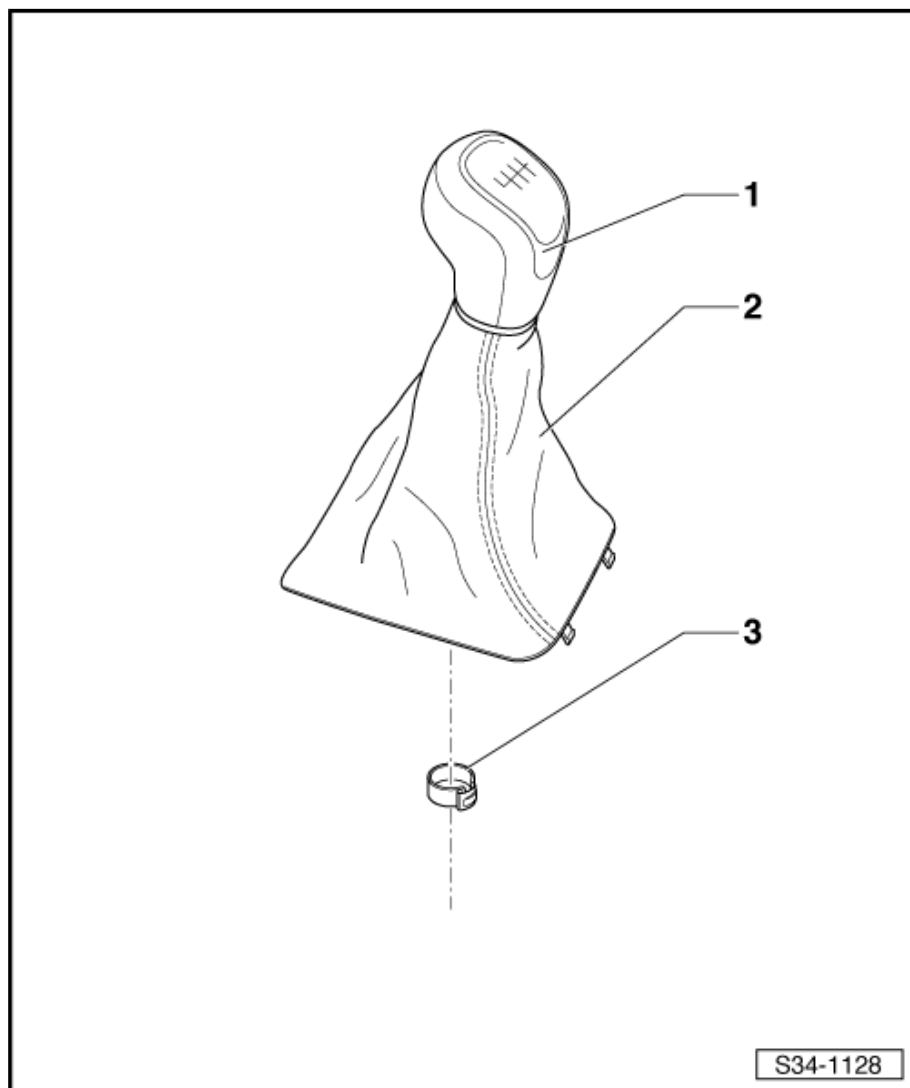
#### 1 - Gearshift knob

- with collar
- The gearshift knob and collar can be separated from each other (when separating, the catch ring is damaged)
- Plaque of gearshift lever can only be separated from the gearshift knob e.g. with a screwdriver.
- removing and installing ⇒ [page 101](#)
- Assignment ⇒ Electronic Catalogue of Original Parts

#### 2 - Collar

#### 3 - Open warm-type clamp

- for securing the gearshift knob to the gearshift lever
- always replace ⇒ Electronic Catalogue of Original Parts



S34-1128



## 1.3.2 Summary of components - gearshift knob with shift lever collar (Octavia III)

### 1 - Gearshift knob

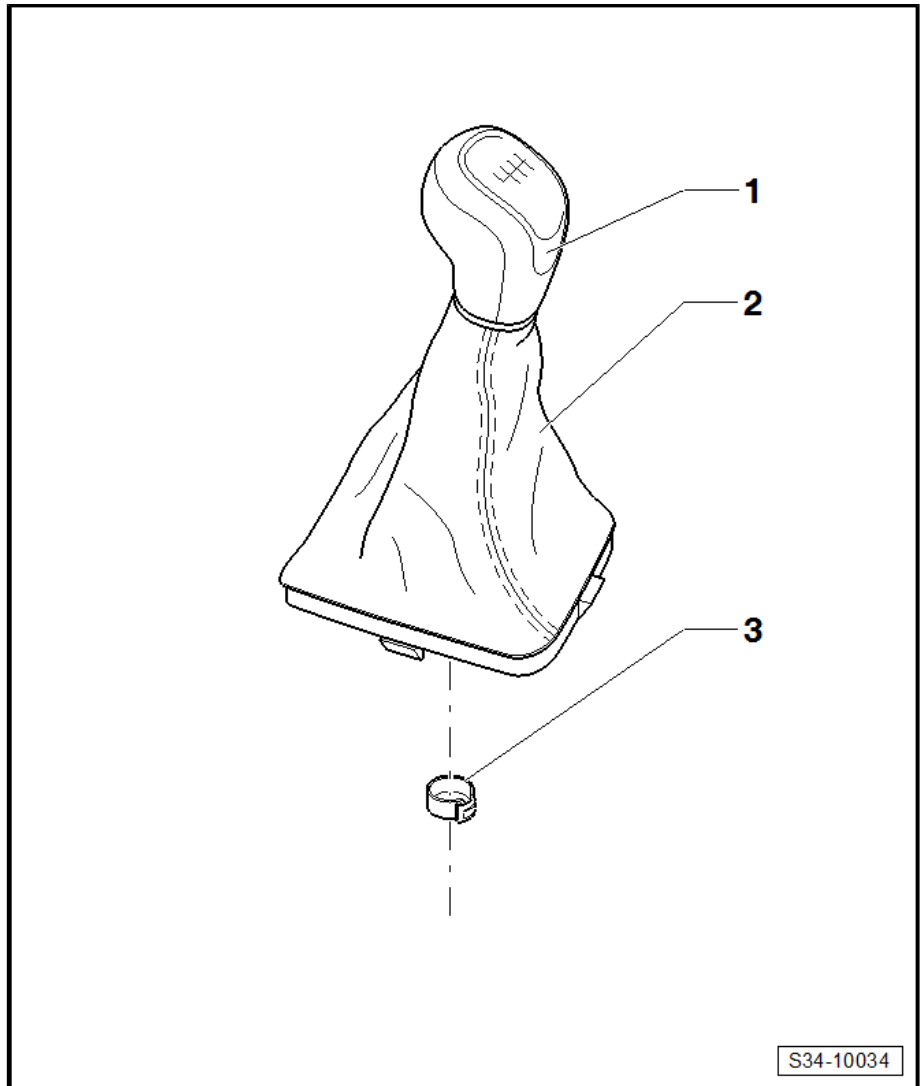
- with collar
- The gearshift knob and collar cannot be separated
- removing and installing ⇒ [page 101](#)
- Plaque of gearshift lever can only be separated from the gearshift knob e.g. with a screwdriver.
- Assignment ⇒ Electronic Catalogue of Original Parts
- always replace together ⇒ Electronic Catalogue of Original Parts

### 2 - Collar

- with frame

### 3 - Open warm-type clamp

- For securing gear knob to gear lever
- always replace ⇒ Electronic Catalogue of Original Parts



S34-10034



### 1.3.3 Summary of components - gearshift knob with collar (Superb II)

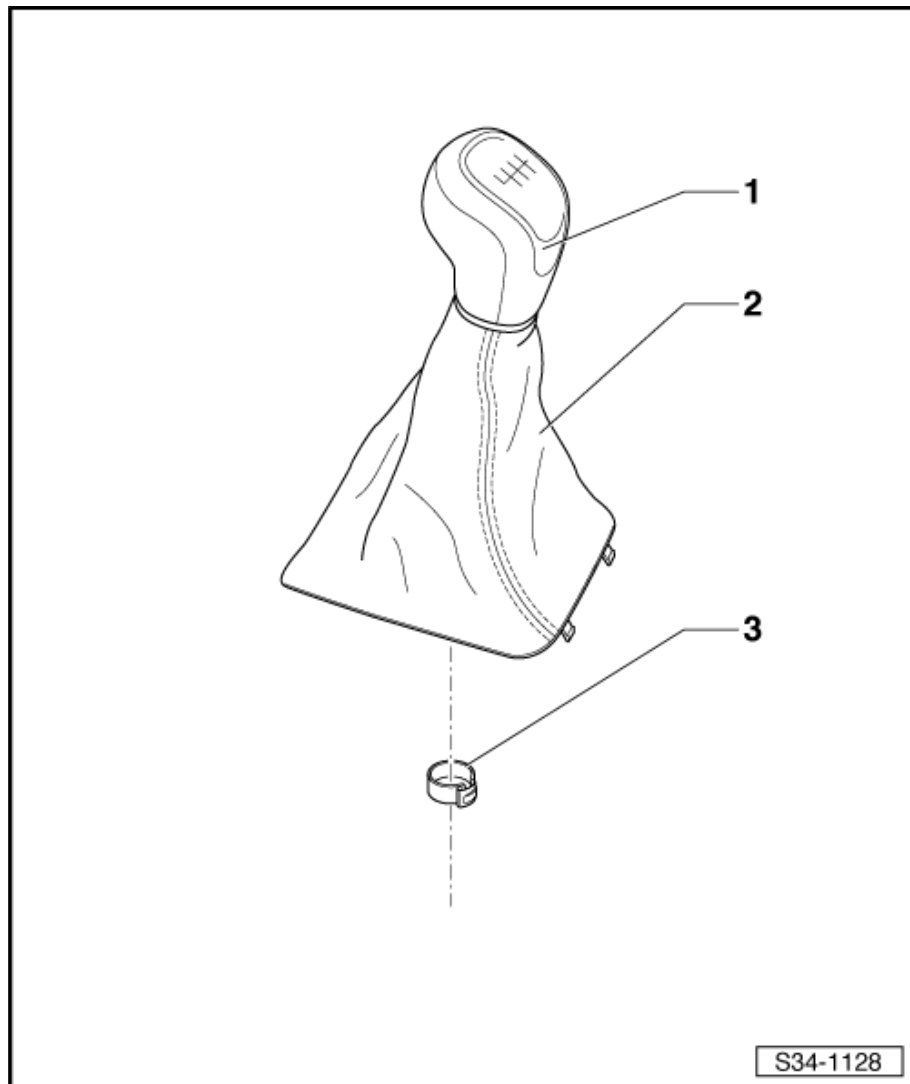
#### 1 - Gearshift knob

- with collar
- the gearshift knob and collar cannot be separated
- Plaque of gearshift lever can only be separated from the gearshift knob e.g. with a screwdriver.
- removing and installing ⇒ [page 102](#)
- Assignment ⇒ Electronic Catalogue of Original Parts
- always replace together ⇒ Electronic Catalogue of Original Parts

#### 2 - Collar

#### 3 - Open warm-type clamp

- for securing the gearshift knob to the gearshift lever
- always replace ⇒ Electronic Catalogue of Original Parts



S34-1128

### 1.3.4 Summary of components - Gearshift knob with collar (Yeti)

#### 1 - Gearshift knob

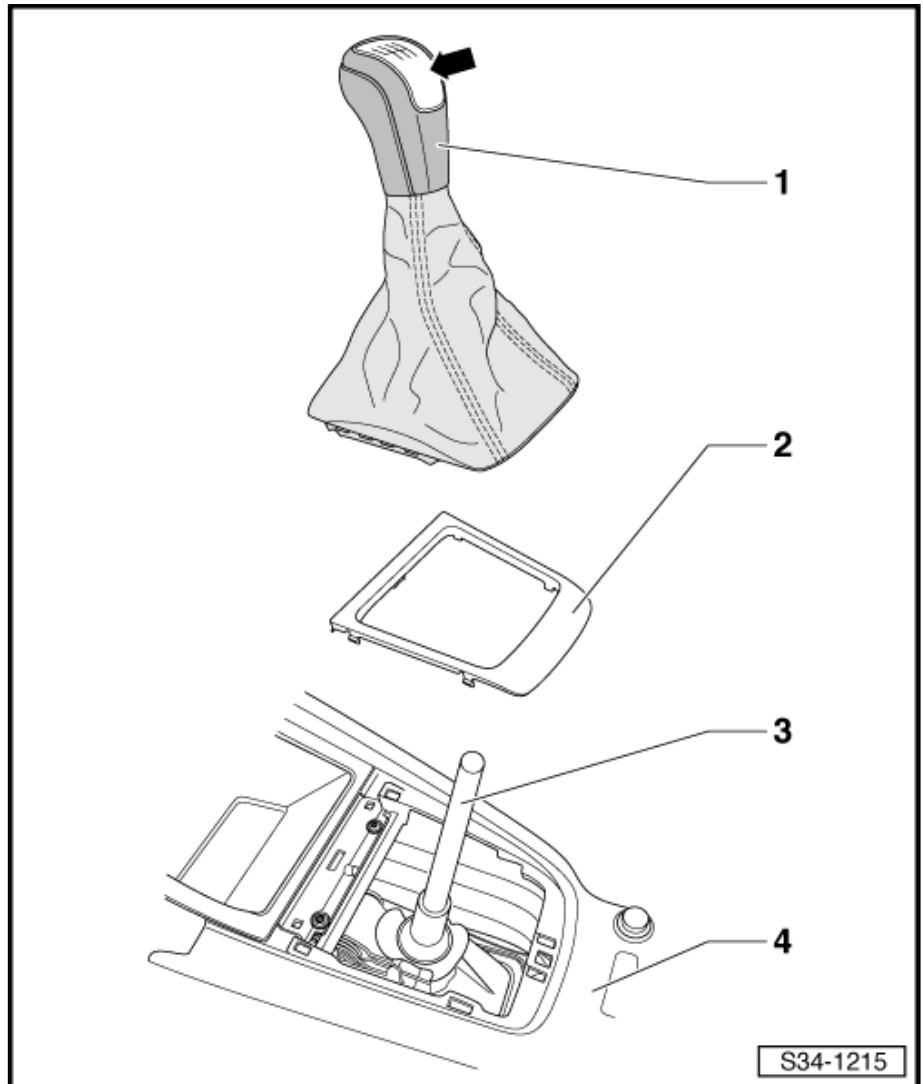
- with collar
- the gearshift knob and collar cannot be separated
- Plaque -arrow- of gearshift lever can be separated from the gearshift knob e.g. with a screwdriver
- always replace together  
⇒ Electronic Catalogue of Original Parts
- Assignment ⇒ Electronic Catalogue of Original Parts
- removing and installing  
⇒ [page 103](#)

#### 2 - Cover

- for centre console
- lever off from the centre console with the release tool - T30098-

#### 3 - Shift lever

#### 4 - Centre console





## 1.4 Summary of components - Gearshift mechanism



### Note

- ◆ Grease bearing and friction surfaces with grease - G 000 450 02- .
- ◆ Disassembling and assembling the gearshift mechanism ⇒ [page 115](#) .

#### 1 - Floor plate

- bend up tabs for removing
- after removing, replace ⇒ Electronic Catalogue of Original Parts

#### 2 - Gasket

- after removing, replace ⇒ Electronic Catalogue of Original Parts

#### 3 - Shift lever

- can be installed or removed with the shift lever guide pos. 15 mounted

#### 4 - Insulating washer

- push up to the stop -arrow- onto the shift lever
- in case of damage replace ⇒ Electronic Catalogue of Original Parts

#### 5 - Lock washer

- do not damage cable when removing
- after removing, replace ⇒ Electronic Catalogue of Original Parts

#### 6 - Selector cable

- removing and installing ⇒ [page 121](#)
- Fitting position ⇒ [page 89](#)
- adjust ⇒ [page 122](#)

#### 7 - Bush for selector cable

#### 8 - Shift cable

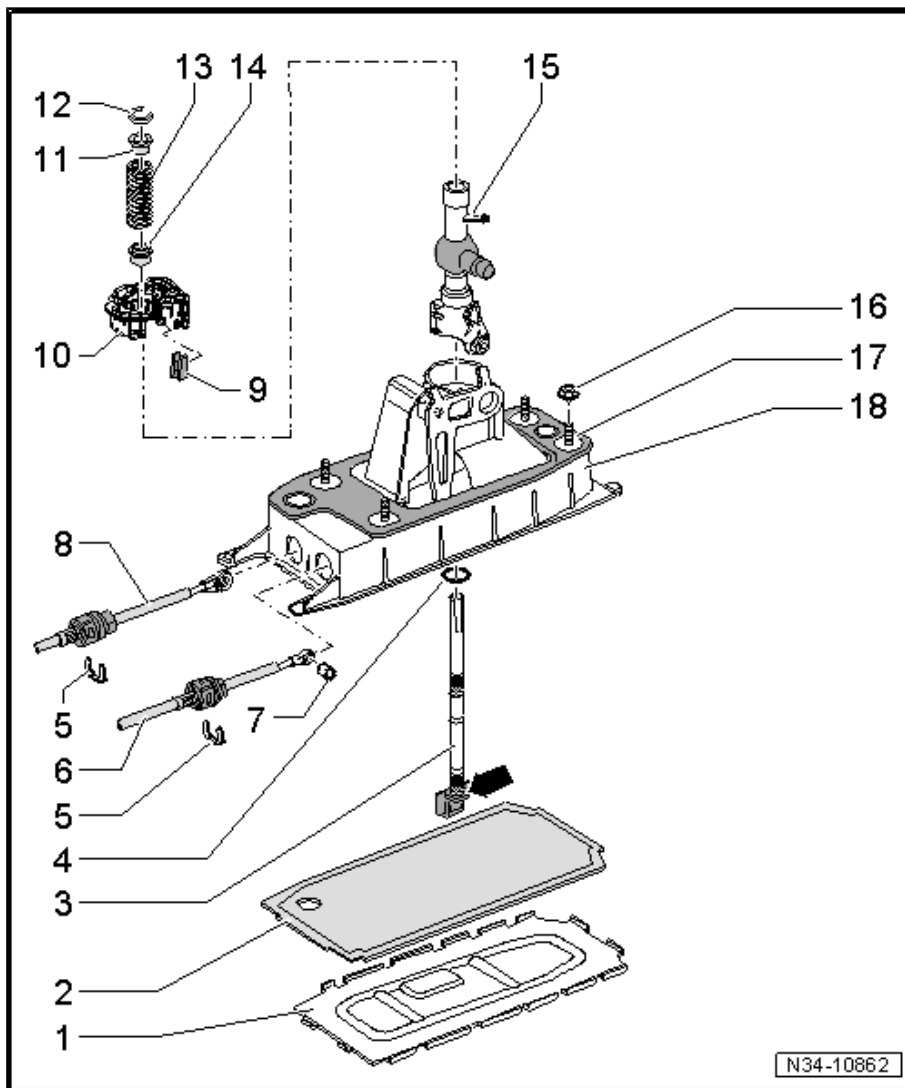
- removing and installing ⇒ [page 121](#)
- Fitting position ⇒ [page 89](#)
- adjust ⇒ [page 122](#)

#### 9 - Damping

- removing and installing ⇒ [page 97](#)

#### 10 - Bearing shell

- removing and installing ⇒ [page 115](#)
- when removing, the catches of the bearing shell are usually damaged



- always replace ⇒ Electronic Catalogue of Original Parts

### 11 - Bush

### 12 - Lock washer

- removing and installing ⇒ [page 97](#)

### 13 - Pressure spring

- removing and installing ⇒ [page 97](#)

### 14 - Bush

### 15 - Shift lever guide

- removing and installing ⇒ [page 115](#)

### 16 - Nut

- 4 pieces
- M8 = 25 Nm
- M6 = 8 Nm

### 17 - Gasket

- between shift housing and underbody
- self-adhesive
- stick onto shift housing

### 18 - Shift housing

- with pressure spring and selector angle
- Pressure spring and selector angle cannot be removed

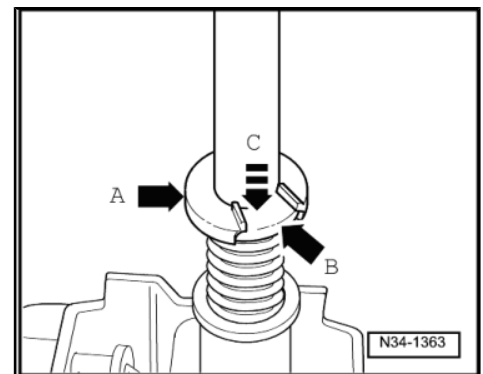
### Removing and installing lock washer

- To remove and install the lock washer -arrow A- press spacer bush -arrow B- with a screwdriver up to the stop -in direction of arrow C- and detach lock washer.



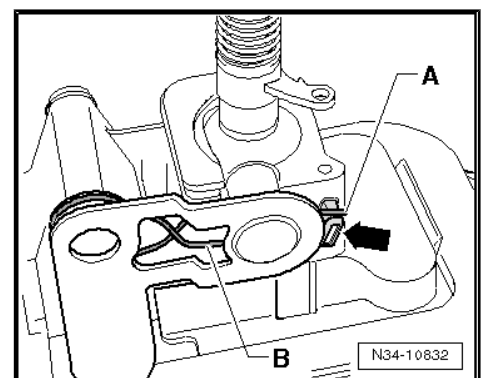
#### Note

- ◆ Do not twist bush when pressing down.
- ◆ The mounting slot in shift lever for circlip must be visible.
- ◆ Release spring carefully.



### Removing and installing the damping

- Press the pressure spring leg -A- to the left until it is located next to the damping -arrow-.
- Press the shift lever to the lift and pull off the damping.
- After installing the damping, the pressure spring arms -A- and -B- must rest on the damping -Pfeil-.





## 1.5 Summary of components - Control cables



Note

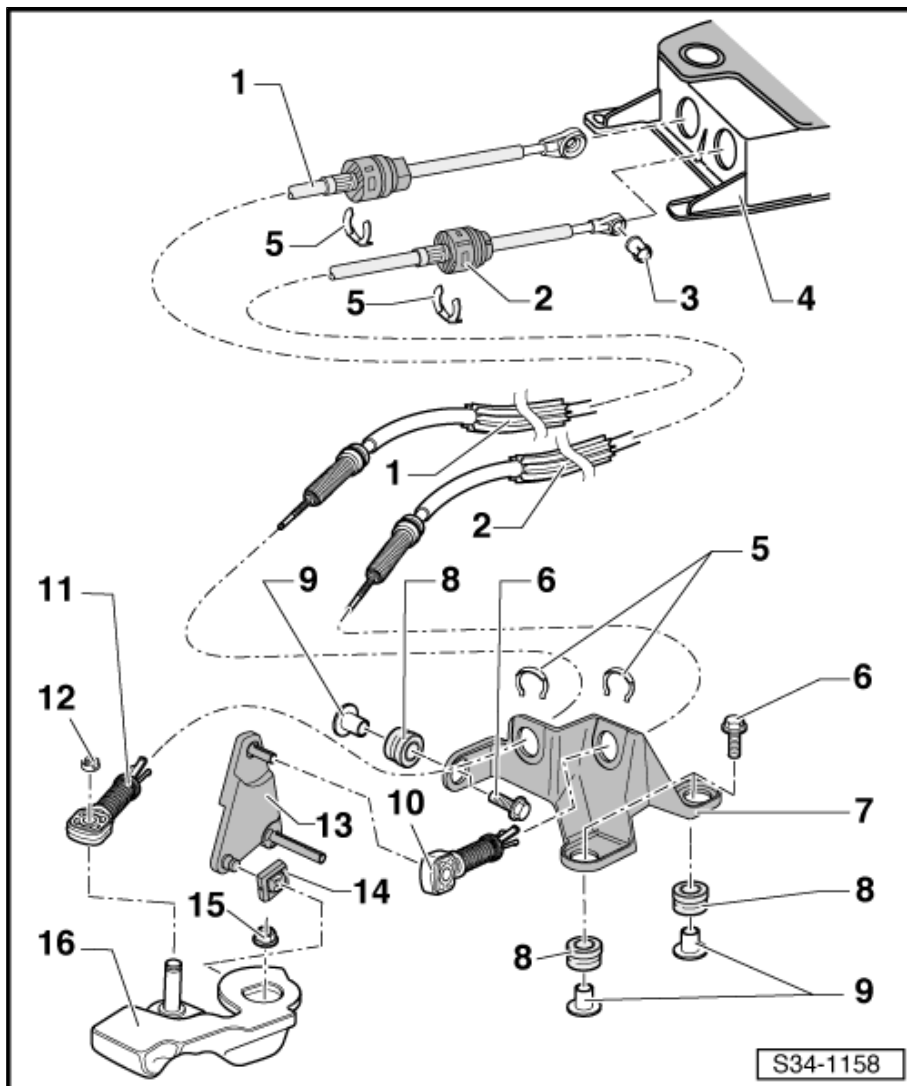
Grease bearing and friction surfaces with grease - G 000 450 02- .

### 1 - Shift cable

- slacken from the shift lever guide within the shift mechanism
- press onto the selector angle guide within the shift mechanism
- connect with cable lock Pos. 11 connect 11
- Fitting position ⇒ [page 89](#)
- removing and installing ⇒ [page 121](#)
- attach with cable strap to the selector cable ⇒ [page 100](#)
- after installing set shift mechanism ⇒ [page 122](#)

### 2 - Selector cable

- slacken from selector angle plate within the shift mechanism
- press onto selector angle plate within the shift mechanism
- connect with cable lock Pos. 10 connect 10
- Fitting position ⇒ [page 89](#)
- removing and installing ⇒ [page 121](#)
- attach with cable strap to the selector cable ⇒ [page 100](#)



- after installing set shift mechanism ⇒ [page 122](#)

### 3 - Bush for selector cable

### 4 - Shift housing

### 5 - Locking clips

- do not damage cable when removing
- after removing, replace ⇒ Electronic Catalogue of Original Parts

### 6 - Screw

- 3 pieces
- for cable support
- 20 Nm

### 7 - Cable support

- for control cables

Volkswagen Technical Site: <http://vwts.ru> <http://vwts.info>

огромный архив документации по автомобилям Volkswagen, Skoda, Seat, Audi



## 8 - Grommet

- Mounting of cable support to gearbox

## 9 - Bush

### 10 - Cable lock

- for selector cable at relay lever
- do not interchange, cable locks for selector cable at relay lever and for shift cable at gearshift lever are different
- after installing set shift mechanism ⇒ [page 122](#)
- remove and install together with relay lever Pos. 13 ⇒ [page 118](#)
- remove and press onto relay lever ⇒ [page 118](#)
- Assignment ⇒ [page 120](#)

### 11 - Cable lock

- for shift cable at gearbox shift lever
- after installing set shift mechanism ⇒ [page 122](#)
- do not interchange, cable locks for selector cable at relay lever and for shift cable at gearshift lever are different
- Assignment ⇒ [page 120](#)

### 12 - Circlip

- always replace ⇒ Electronic Catalogue of Original Parts

### 13 - Reversing lever

- Fitting position ⇒ [page 100](#)
- after installing set shift mechanism ⇒ [page 122](#)
- remove and install together with cable lock Pos. 10 ⇒ [page 118](#)

### 14 - Sliding shoe

### 15 - Nut

- always replace ⇒ Electronic Catalogue of Original Parts
- 23 Nm

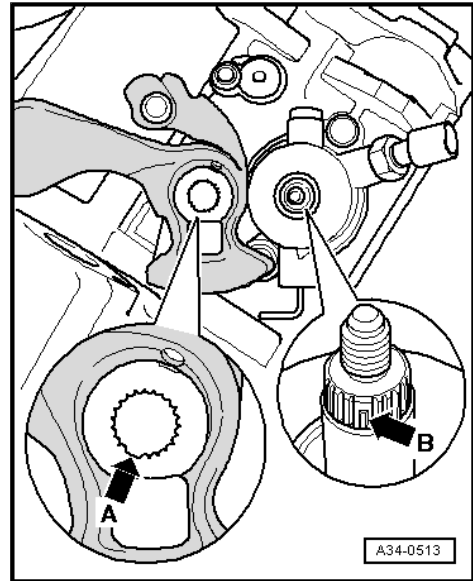
### 16 - Gearshift lever

- with balancing weight
- insert in such a way that the interrupted spacing of the teeth matches the gearshift shaft ⇒ [page 100](#)
- after installing set shift mechanism ⇒ [page 122](#)
- Fitting position ⇒ [page 100](#)



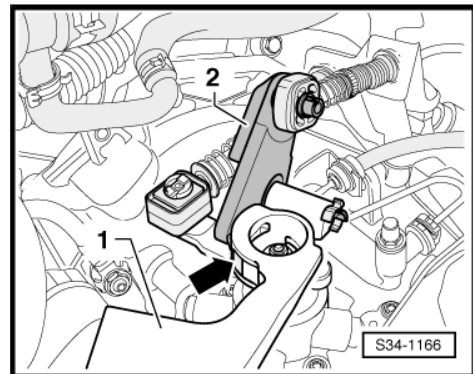
**Install gearshift lever**

- When positioning the gearshift lever, make sure that the tooth opening -arrow A- is located above the interrupted spacing of the teeth for the gearshift shaft -arrow B-.



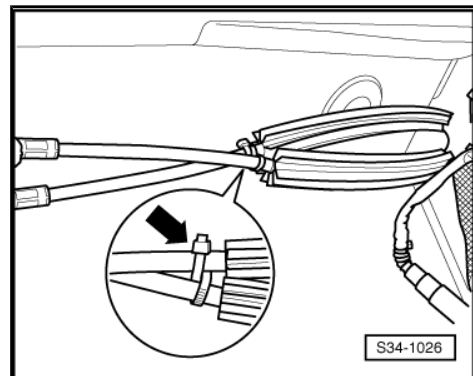
**Fitting location of gearbox shift lever/relay lever**

- 1 - Gearbox shift lever with balancing weight
- 2 - Relay lever is inserted over the sliding shoe -arrow- into the sliding rail of the gearbox shift lever



**Fitting position of cable strap for cable attachment**

- Cross cable strap -arrow-, in order to coil up the cables and fix as shown.





## 1.6 Removing and installing gearshift knob with shift lever collar

⇒ [“1.6.1 Removing and installing gearshift knob with collar \(Octavia II\)”, page 101](#)

⇒ [“1.6.2 Removing and installing gearshift knob with shift lever collar \(Octavia III\)”, page 101](#)

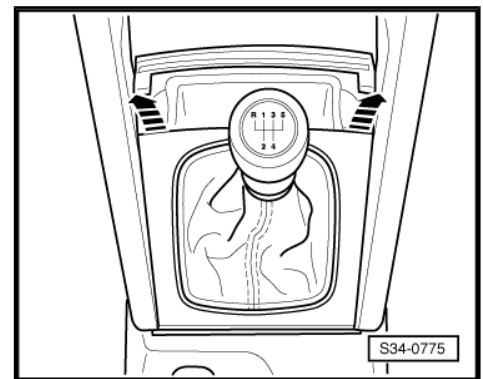
⇒ [“1.6.3 Removing and installing gearshift knob with collar \(Superb II\)”, page 102](#)

⇒ [“1.6.4 Removing and installing gearshift knob with collar \(Yeti\)”, page 103](#)

### 1.6.1 Removing and installing gearshift knob with collar (Octavia II)

#### Removing

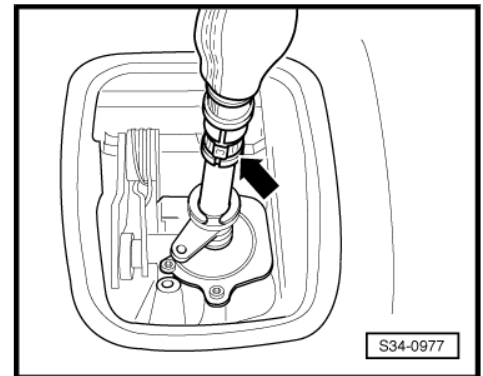
- Lever the collar upwards and out of centre console cover -arrows-.
- Pull the collar upwards over the gearshift knob.



- Open clamp -arrow- and pull off gearshift knob together with the collar.

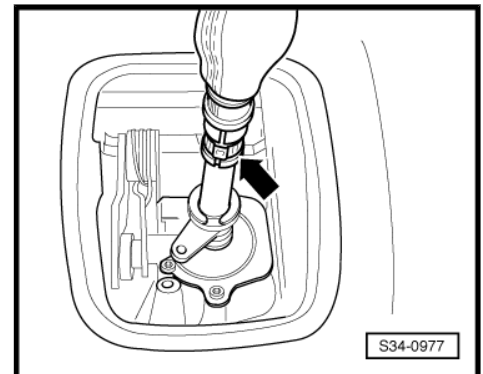
#### Install

- Turn collar inside out.



- Insert gearshift knob and collar and compress new collar clamp -arrow- with hose binding claw .

When inserting the gearshift knob on the shift lever the gearshift knob must lock into the round slot of the gearshift lever.



### 1.6.2 Removing and installing gearshift knob with shift lever collar (Octavia III)

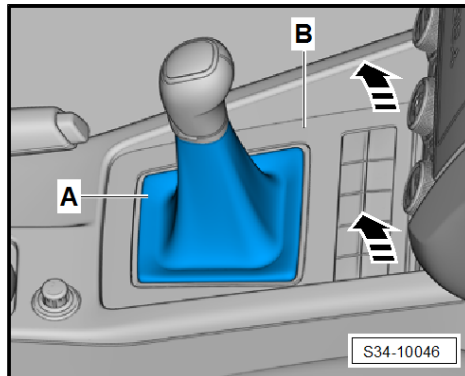
Special tools and workshop equipment required



- ◆ Hose strap pliers , e.g. -V.A.G 1275-

**Removing**

- Undo frame -B- together with the collar -A- from the central console -in the direction of arrow-.
- Pull the collar upwards over the gearshift knob.

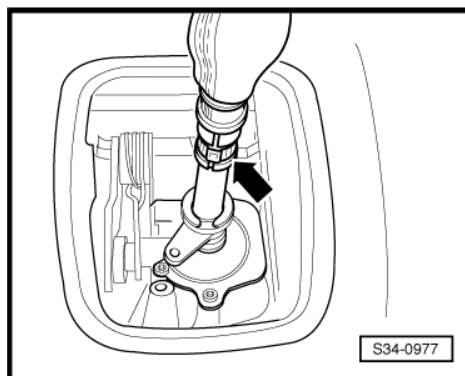


- Open clamp -arrow- and pull off gear knob together with gaiter.

**Install**

Installation is performed in the reverse order, while paying attention to the following:

- Press the gearshift knob together with the collar as far as the stop onto the shift lever.



**i Note**

*When inserting the gearshift knob on the shift lever the gearshift knob must lock into the round slot of the gearshift lever.*

- Attach gearshift knob with new clamp -arrow- onto gearshift lever using hose binding claw .

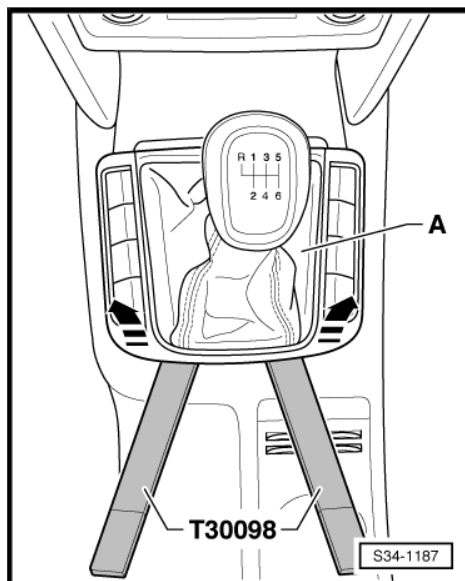
**1.6.3 Removing and installing gearshift knob with collar (Superb II)**

**Special tools and workshop equipment required**

- ◆ Release tool - T30098-

**Removing**

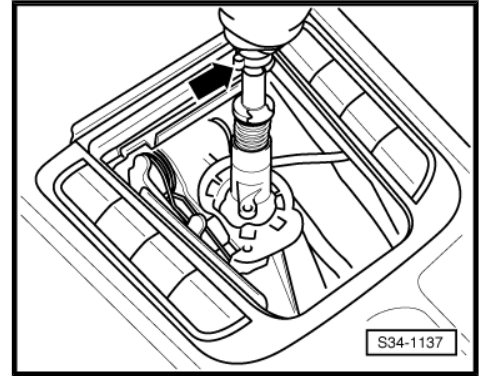
- Lever the collar upwards and out of centre console cover with release tool - T30098- -arrows-.
- Pull the collar upwards over the gearshift knob.



- Open clamp -arrow- and pull off gearshift knob together with the collar.

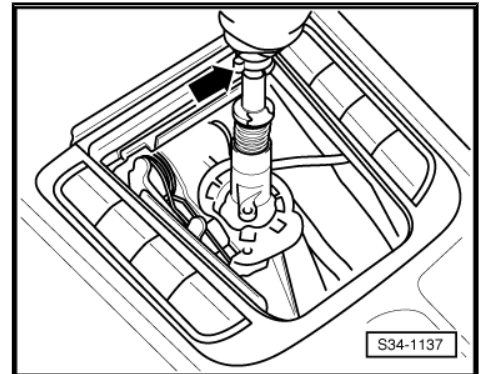
#### Install

- Turn collar inside out.



- Insert gearshift knob and collar and compress new collar clamp -arrow- with hose binding claw .

When inserting the gearshift knob on the shift lever the gearshift knob must lock into the round slot of the gearshift lever.



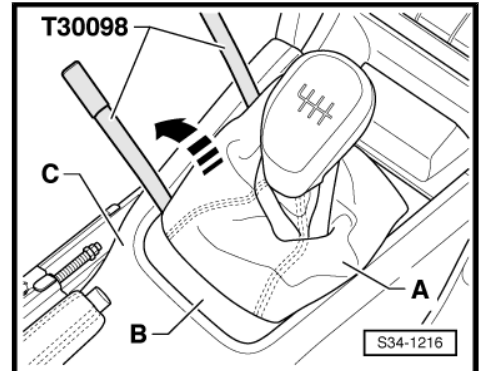
### 1.6.4 Removing and installing gearshift knob with collar (Yeti)

#### Special tools and workshop equipment required

- ◆ Release tool - T30098-

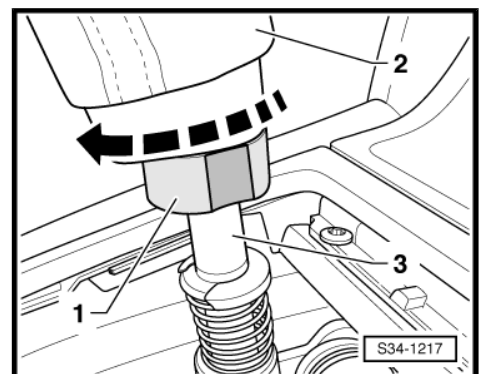
#### Removing

- Prise off collar -A- together with frame -B- from the central console -C- with release tool - T30098- -in direction of arrow-.
- Pull the collar upwards over the gearshift knob.



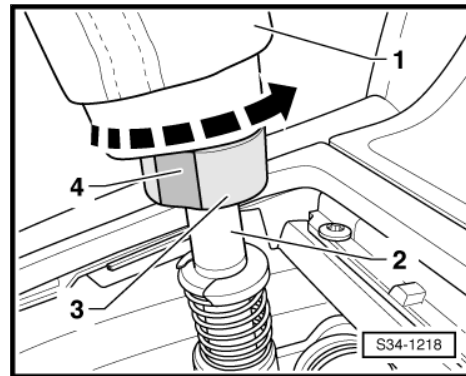
- Turn locking mechanism -1- by 45° to the right -direction of arrow-.
- Pull off the gearshift knob together with the collar -2- from the shift lever -3-.

#### Install





- Turn collar -1- inside out.
- Push the gearshift knob together with the collar -1- as far as the stop onto the shift lever -2-.
- Turn locking mechanism -1- by 45° to the left -direction of arrow-. While doing so, the surface -4- must point to the driver or front passenger seat.



## 1.7 Removing and installing selector mechanism

⇒ [“1.7.1 Remove and install shift mechanism \(Octavia II, Octavia III\)”, page 104](#)

⇒ [“1.7.2 Removing and installing shift mechanism \(Superb II\)”, page 107](#)

⇒ [“1.7.3 Removing and installing shift mechanism \(Yeti\)”, page 111](#)

### 1.7.1 Remove and install shift mechanism (Octavia II, Octavia III)

Special tools and workshop equipment required

- ◆ Grease - G 000 450 02-

#### Removing

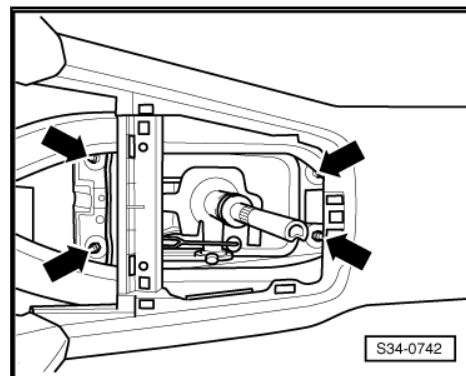
- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .



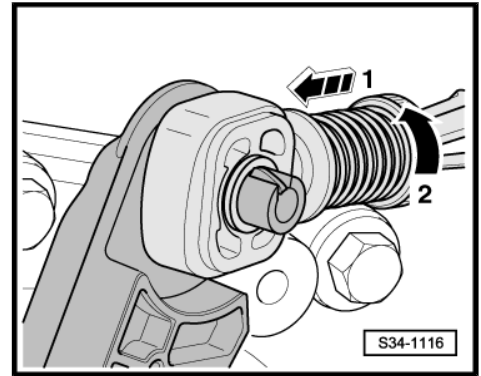
#### Note

*After the battery earth strap is disconnected and connected. carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*

- Remove air filter ⇒ Engine; Rep. gr. 24 , if it is installed above the gearbox.
- Remove gear knob with gaiter ⇒ [page 101](#) .
- If present, detach the noise insulation.
- Removing ashtray ⇒ Body Work; Rep. gr. 68 .
- Unscrew nuts -arrows- attaching the shift housing.
- In order to avoid damage to the selector cable, the cable lock must be separated from the selector cable before removal.



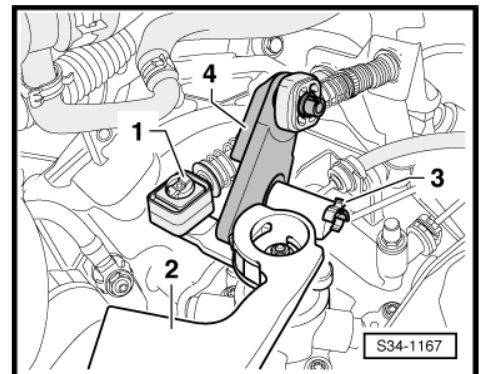
- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.



- Remove circlip -1- for shift cable from gearbox shift lever -2-.
- Pull off shift cable from the stud of the gearbox shift lever.

**The relay lever -4- is secured with a clip -3- in the cover**

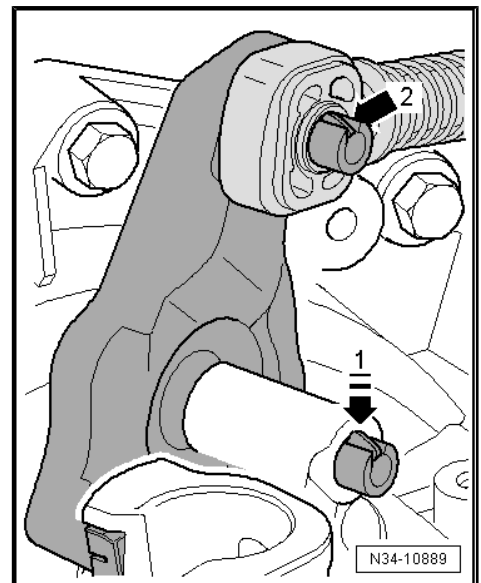
- Unclip -3- out of the hole of the relay lever and pull out relay lever -4- together with the cable lock out of the cover.



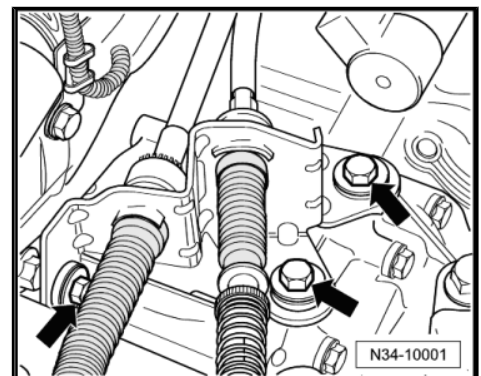
**The relay lever is secured with a catch -arrow 1- in the cover**

- Carefully press down the catch -arrow 1- up to the stop.
- Afterwards move relay lever in its bearing point back and forward (direction of operation). To do so, carefully pull out the relay lever together with the cable lock -arrow 2-.

**Continued for all gearshift mechanisms**

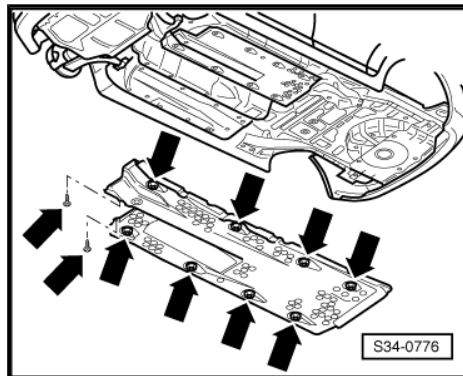


- Disconnect the Bowden cable support from gearbox -arrows-.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .





- Remove underbody cover on right and left -arrows-.



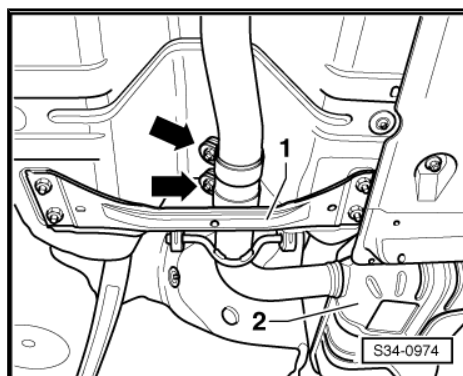
- Detach the tunnel bridge -1- below the exhaust system ⇒ Engine; Rep. gr. 26 .
- Separate exhaust system at the clamping sleeve -arrows-.
- Support the front exhaust pipe.



**Note**

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

- Unhook the rear silencer -2- from the retaining straps and remove.
- If necessary, remove pre-exhaust pipe ⇒ Engine; Rep. gr. 26 .
- Remove the heat shield below the shift housing.
- Swivel shift housing down and remove with control cables.



**Install**

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

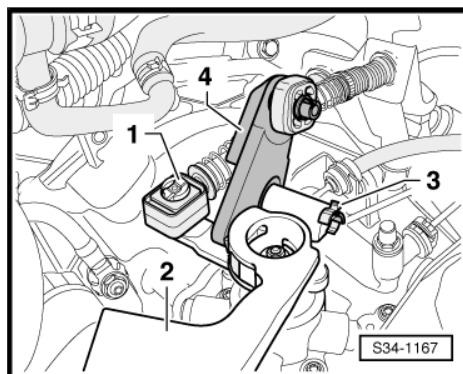
The holes in the cable locks have different diameters.

**Assign cable locks ⇒ page 120**

- Apply a small quantity of grease - G 000 450 02- onto the stud of the gearbox shift lever -2-.
- Replace circlip -1- after each removal.
- Secure the shift cable with the lock washer -1-.

**The relay lever -4- is secured with a clip -3- in the cover**

- Apply a small quantity of grease - G 000 450 02- onto the stud of the relay lever.
- Insert the relay lever -4- together with the cable lock in the cover and secure with the clip -3-.



The relay lever is secured with a catch -arrow 1- in the cover

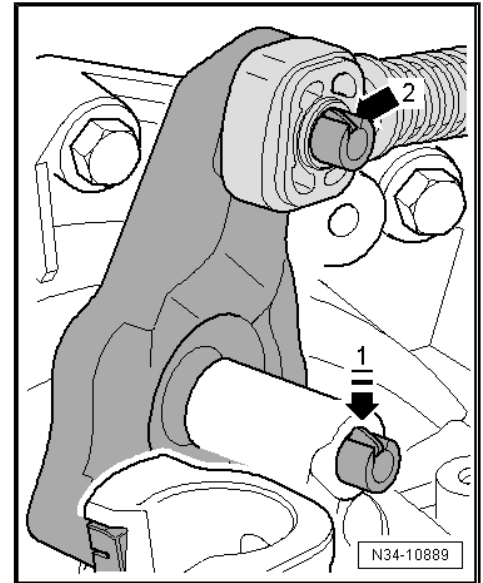
**i** Note

To install, grease bearing points and friction surfaces with grease - G 000 450 02- .

- Insert relay lever together with cable lock -arrow 2-.
- The catch -arrow 1- secures the relay lever.

**Continued for all gearshift mechanisms**

- Insert the selector cable into the cable lock.
- Align shift housing parallel to vehicle body.
- The distance to the vehicle body must be the same on both sides.
- Installing ashtray ⇒ Body Work; Rep. gr. 68 .
- Install gearshift knob with collar ⇒ [page 101](#) .
- Assemble exhaust system free of stress and attach tunnel bridge ⇒ Engine; Rep. gr. 26 .
- Install the noise insulation ⇒ Body Work; Rep. gr. 50 .
- Installing ashtray ⇒ Body Work; Rep. gr. 68 .
- Setting the shift mechanism ⇒ [page 122](#) .
- Install air filter ⇒ Engine; Rep. gr. 24 .



**i** Note

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

- Connect earth strap of battery while paying attention to the notes in the ⇒ Electrical System; Rep. gr. 27 .

**Tightening torques**

Component	Nm
Shift housing to body	⇒ <a href="#">page 96</a>
Cable support to gearbox	⇒ <a href="#">page 98</a>
Underbody cover	⇒ Body Work; Rep. gr. 50

## 1.7.2 Removing and installing shift mechanism (Superb II)

**Special tools and workshop equipment required**

- ◆ Release tool - T30098-
- ◆ Grease - G 000 450 02-



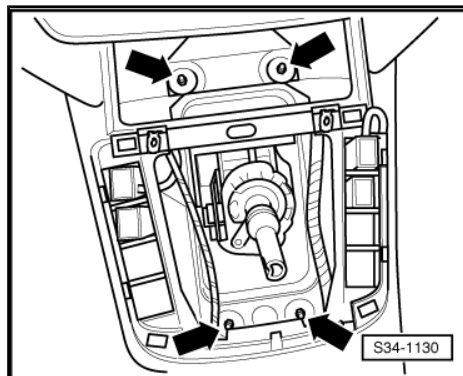
Removing



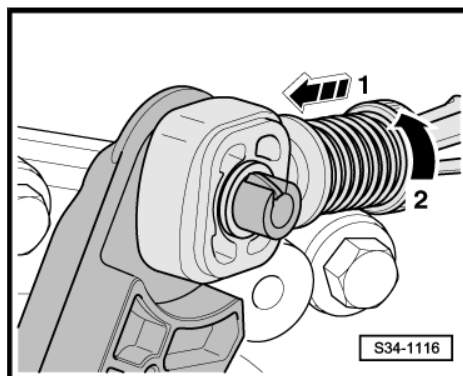
Note

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .
- Remove gear knob with gaiter ⇒ [page 101](#) .
- If present, detach the noise insulation.
- Removing ashtray ⇒ Body Work; Rep. gr. 68 .
- Unscrew nuts -arrows- attaching the shift housing.
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Before removal, the cable lock must be separated from the selector cable in order to avoid damage to the selector cable.



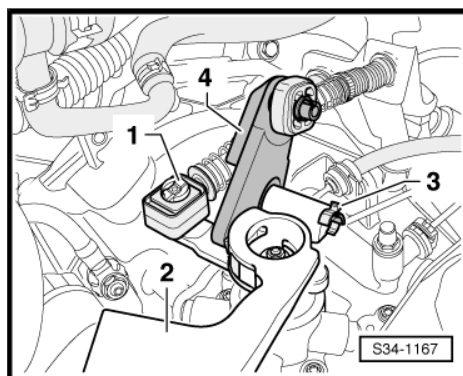
- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.



- Remove circlip -1- for shift cable from gearbox shift lever -2-.
- Pull off shift cable from the stud of the gearbox shift lever.

The relay lever -4- is secured with a clip -3- in the cover

- Unclip -3- out of the hole of the relay lever and pull out relay lever -4- together with the cable lock out of the cover.

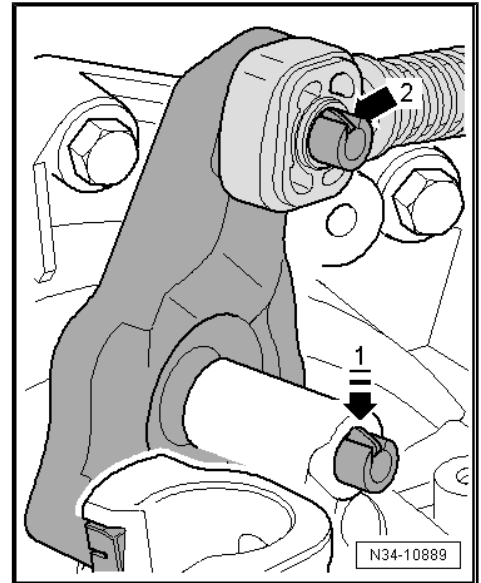




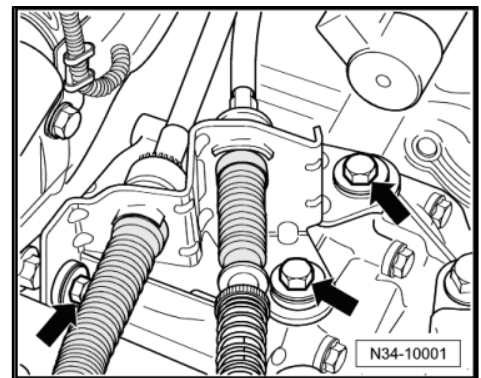
**The relay lever is secured with a catch -arrow 1- in the cover**

- Carefully press down the catch -arrow 1- up to the stop.
- Afterwards move relay lever in its bearing point back and forward (direction of operation). To do so, carefully pull out the relay lever together with the cable lock -arrow 2-.

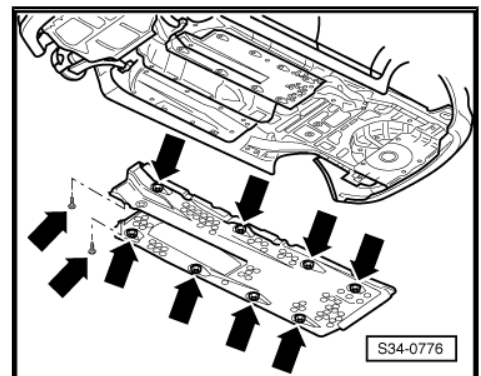
**Continued for all gearshift mechanisms**



- Disconnect the Bowden cable support from gearbox -arrows-.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .



- Remove underbody cover on right and left -arrows-.





- Detach the tunnel bridge -1- below the exhaust system ⇒ Engine; Rep. gr. 26 .
- Separate the exhaust system at the double clamp -arrows-.
- Support the front exhaust pipe.



**Note**

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

- Unhook the rear silencer -2- from the retaining straps and remove.
- If necessary, remove pre-exhaust pipe ⇒ Engine; Rep. gr. 26 .
- Remove the heat shield below the shift housing.
- Swivel shift housing down and remove with control cables.

**Install**

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

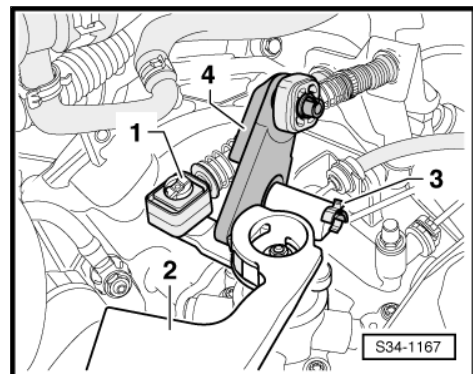
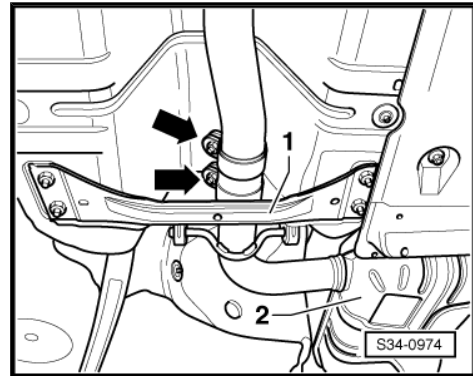
The holes in the cable locks have different diameters.

**Assign cable locks ⇒ page 120**

- Apply a small quantity of grease - G 000 450 02- onto the stud of the gearbox shift lever -2-.
- Replace circlip -1- after each removal.
- Secure the shift cable with the lock washer -1-.

**The relay lever -4- is secured with a clip -3- in the cover**

- Apply a small quantity of grease - G 000 450 02- onto the stud of the relay lever.
- Insert the relay lever -4- together with the cable lock in the cover and secure with the clip -3-.



The relay lever is secured with a catch -arrow 1- in the cover

**i** Note

To install, grease bearing points and friction surfaces with grease - G 000 450 02- .

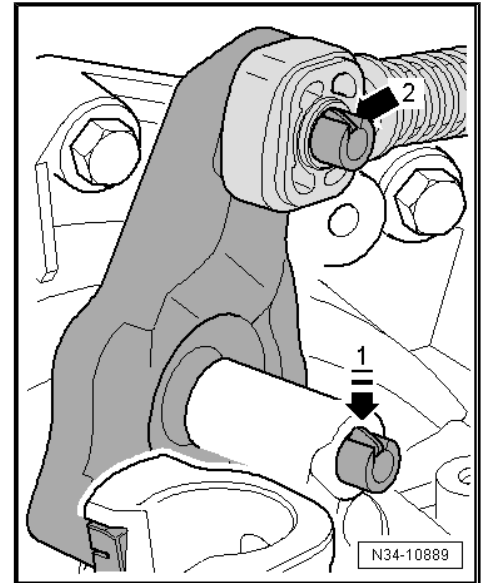
- Insert relay lever together with cable lock -arrow 2-.
- The catch -arrow 1- secures the relay lever.

**Continued for all gearshift mechanisms**

- Insert the selector cable into the cable lock.
- Align shift housing parallel to vehicle body.
- The distance to the vehicle body must be the same on both sides.
- Installing ashtray ⇒ Body Work; Rep. gr. 68 .
- Install gearshift knob with collar ⇒ [page 101](#) .
- Assemble exhaust system free of stress and attach tunnel bridge ⇒ Engine; Rep. gr. 26 .
- Install the noise insulation ⇒ Body Work; Rep. gr. 50 .

Setting the shift mechanism ⇒ [page 122](#) .

- Install air filter ⇒ Engine; Rep. gr. 24 .



**i** Note

After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 ; .

- Connect earth strap of battery while paying attention to the notes in the ⇒ Electrical System; Rep. gr. 27 .

**Tightening torques**

Component	Nm
Shift housing to body	⇒ <a href="#">page 96</a>
Cable support to gearbox	⇒ <a href="#">page 118</a>
Underbody cover	⇒ Body Work; Rep. gr. 50

### 1.7.3 Removing and installing shift mechanism (Yeti)

**Special tools and workshop equipment required**

- ◆ Release tool - T30098-
- ◆ Grease - G 000 450 02-

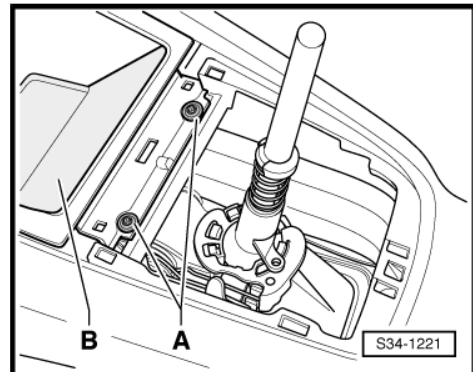
**Removing**

**i** Note

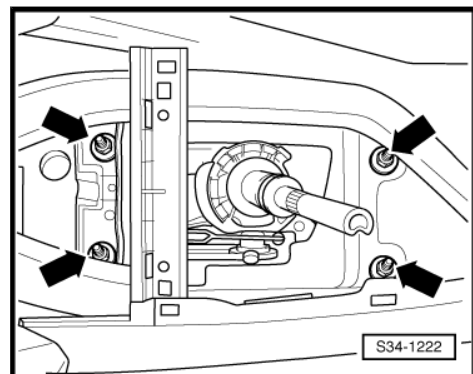
After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .



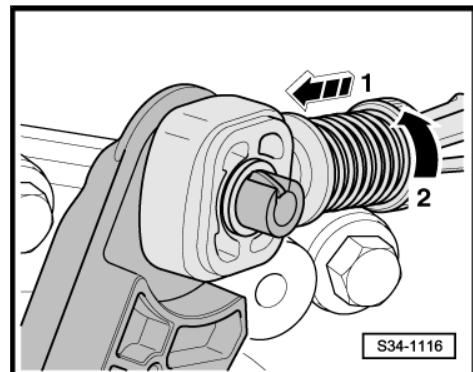
- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .
- Remove gear knob with gaiter ⇒ [page 101](#) .
- Release screws -A- and remove ashtray or storage compartment -B- ⇒ Body Work; Rep. gr. 68 .



- Unscrew nuts -arrows- attaching the shift housing.
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- In order to avoid damage to the selector cable, the cable lock must be separated from the selector cable before removal.



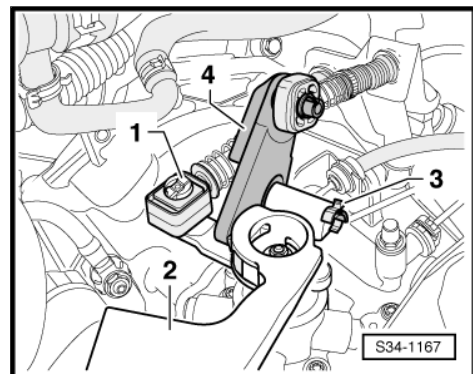
- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.



- Remove lock washer -1- for shift cable from gearbox shift lever -2-.
- Pull off shift cable from the stud of the gearbox shift lever.

**The relay lever -4- is secured with a clip -3- in the cover**

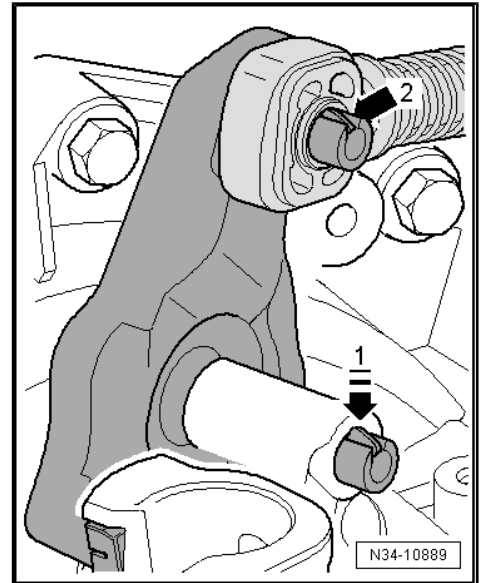
- Unclip -3- out of the hole of the relay lever and pull out relay lever -4- together with the cable lock out of the cover.



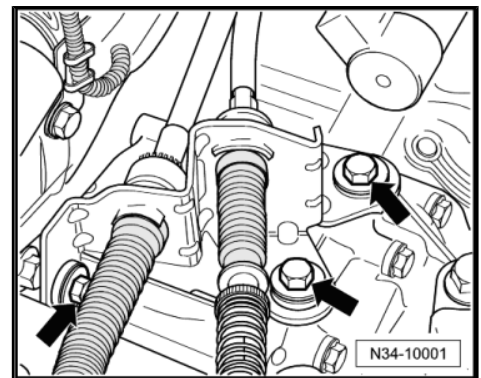
**The relay lever is secured with a catch -arrow 1- in the cover**

- Carefully press down the catch -arrow 1- up to the stop.
- Afterwards move relay lever in its bearing point back and forward (direction of operation). To do so, carefully pull out the relay lever together with the cable lock -arrow 2-.

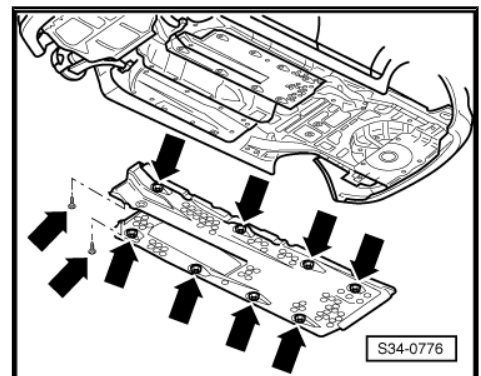
**Continued for all gearshift mechanisms**



- Disconnect the Bowden cable support from gearbox -arrows-.
- Remove the sound dampening system => Body Work; Rep. gr. 50 .



- Remove underbody cover on right and left -arrows-.





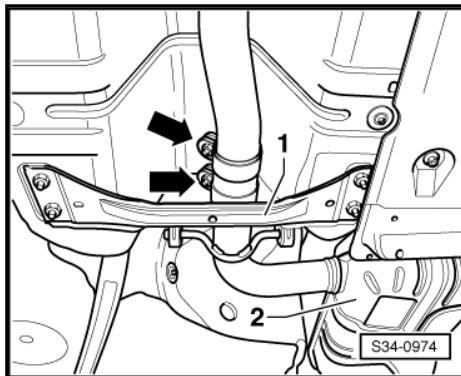
- Detach the tunnel bridge -1- below the exhaust system ⇒ Engine; Rep. gr. 26 .
- Separate exhaust system at the clamping sleeve -arrows-.
- Support the front exhaust pipe.



**Note**

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

- Unhook the rear silencer -2- from the retaining straps and remove.
- If necessary, remove pre-exhaust pipe ⇒ Engine; Rep. gr. 26 .
- Remove the heat shield below the shift housing.
- Swivel shift housing down and remove with control cables.



**Install**

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

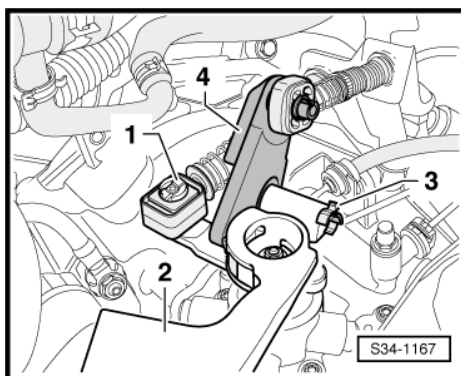
The holes in the cable locks have different diameters.

**Assign cable locks ⇒ page 120**

- Apply a small quantity of grease - G 000 450 02- onto the stud of the gearbox shift lever -2-.
- Replace circlip -1- after each removal.
- Secure the shift cable with the lock washer -1-.

**The relay lever -4- is secured with a clip -3- in the cover**

- Apply a small quantity of grease - G 000 450 02- onto the stud of the relay lever.
- Insert the relay lever -4- together with the cable lock in the cover and secure with the clip -3-.



**The relay lever is secured with a catch -arrow 1- in the cover**



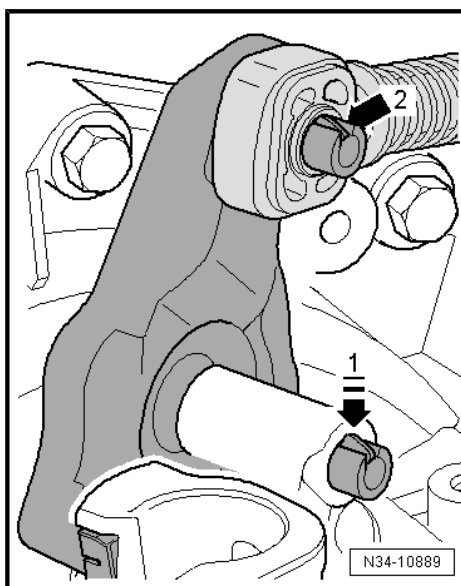
**Note**

*To install, grease bearing points and friction surfaces with grease - G 000 450 02- .*

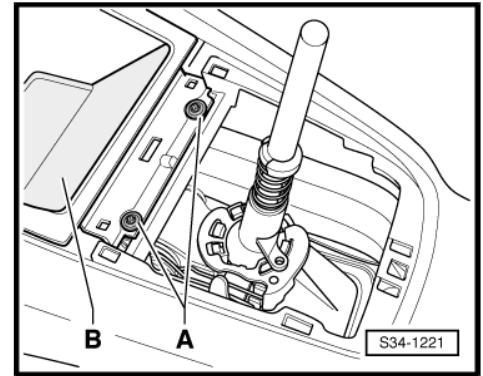
- Insert relay lever together with cable lock -arrow 2-.
- The catch -arrow 1- secures the relay lever.

**Continued for all gearshift mechanisms**

- Insert the selector cable into the cable lock.
- Align shift housing parallel to vehicle body.
- The distance to the vehicle body must be the same on both sides.



- Install ashtray or storage compartment -B- and tighten the screws -A- ⇒ Body Work; Rep. gr. 68 .
- Setting the shift mechanism ⇒ [page 122](#)
- Install gearshift knob with collar ⇒ [page 101](#) .
- Assemble exhaust system free of stress and attach tunnel bridge ⇒ Engine; Rep. gr. 26 .
- Install the noise insulation ⇒ Body Work; Rep. gr. 50 .
- Install air filter ⇒ Engine; Rep. gr. 24 .



**i** Note

*After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*

- Connect earth strap of battery while paying attention to the notes in the ⇒ Electrical System; Rep. gr. 27 .

**Tightening torques**

Component	Nm
Shift housing to body	⇒ <a href="#">page 96</a>
Cable support to gearbox	⇒ <a href="#">page 118</a>
Underbody cover	⇒ Body Work; Rep. gr. 50

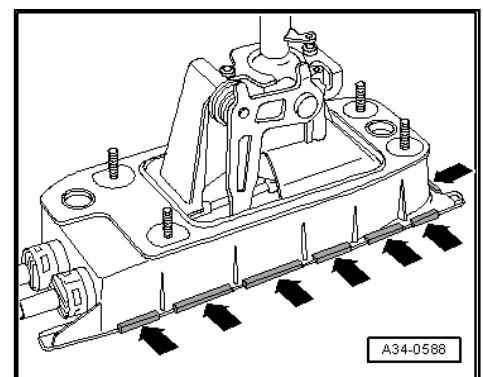
## 1.8 Disassembling and assembling shift mechanism housing

**Special tools and workshop equipment required**

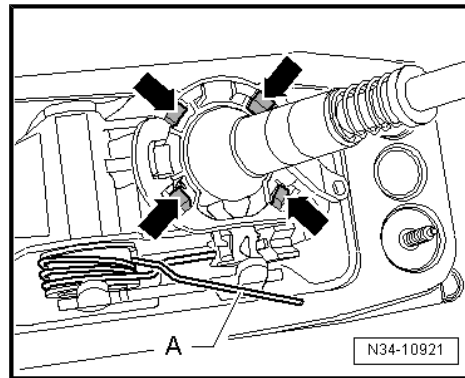
- ◆ Insert base - T10083-
- ◆ Grease - G 000 450 02-

**Removing**

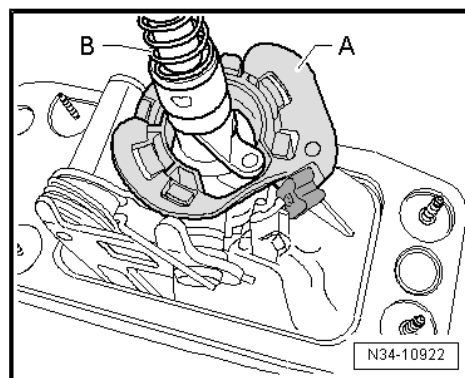
- Removing shift mechanism ⇒ [page 104](#)
- Bend up the tabs -arrows- of the floor plate for shift mechanism with a screwdriver and remove the floor plate; (the tabs in the front area of the floor plate are not shown in the illustration).
- Remove gasket from shift housing.
- Remove the shift cable and selector cable from the shift housing ⇒ [page 121](#) .



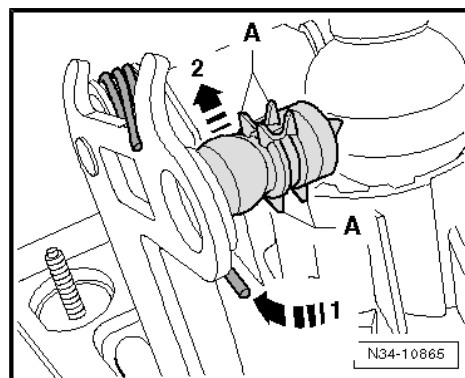
- Lift the upper leg -A- of the pressure spring over the tabs of the selector angle.
- Use a screwdriver to press the catches -arrows- of the bearing shell in direction of the bearing ball for the shift lever guide; if necessary break off the catches -arrows-.



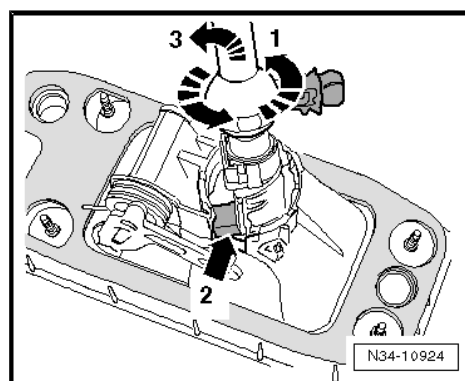
- Lever bearing shell -A- with shift lever guide and shift lever -B- out of the shift housing.
- Then press the bearing shell off the bearing ball for the shift lever guide and remove.



- During further work procedure observe the guides -A-.
- The guides -A- must not break off.
- Lever the lower leg of the pressure spring up to the stop onto the shoulder at the selector angle plate -direction of arrow 1-.
- Now pull up the shift lever guide as far as the stop and pull the ball stud out of the selector angle plate -direction of arrow 2-.



- Then turn the shift lever guide in -direction of arrow 1-.
- The stud -arrow 2- must be located in the recess of the shift housing.
- Afterwards, swivel out the shift lever guide with shift lever in -direction of arrow 3-.



**Install**



**Caution**

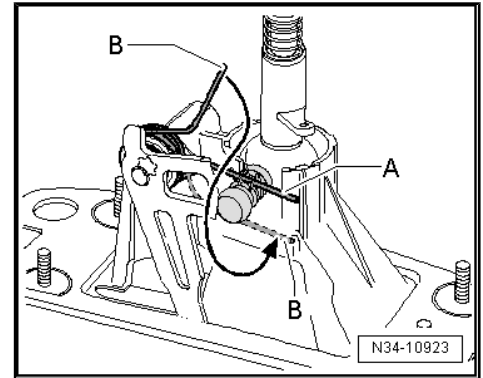
*The lower leg of the pressure spring ( ⇒ page 116 ) can jump off uncontrolled from the shoulder of the selector angle during further handling.*

- Thus carefully press down the lower leg from the shoulder of the selector angle plate.

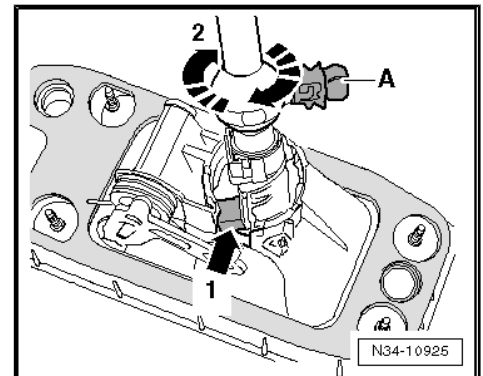
The legs of the pressure spring tighten “crosswise” with a loud noise



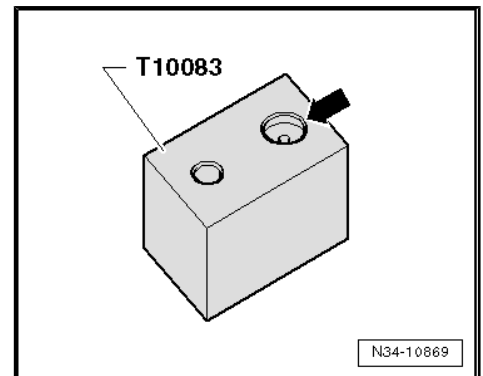
- To slacken, turn around the legs of the pressure spring -A- and -B- towards the right.
- The legs -A- and -B- must point in the opposite direction (shown here for inserted shift lever guide).



- Insert shift lever guide with shift lever into the shift housing.
- The stud -arrow 1- is still located in the recess of the shift housing.
- Turn shift lever guide in -direction of arrow 2-, until the ball stud -A- is above the recess of the shift housing.



- Position shift housing with shift lever guide into the larger recess -arrow- of the Insert base - T10083- .

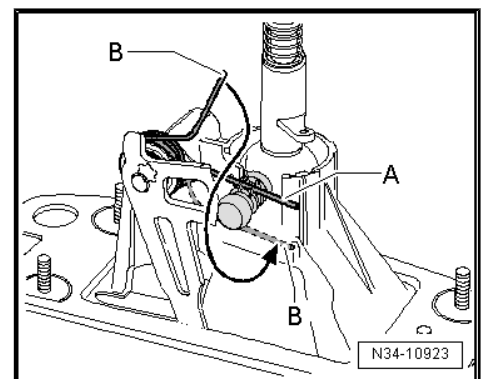


- The shift lever guide must protrude out of the shift housing as far as the stop.
- Insert the leg -A- of the pressure spring from the top into the guide.
- Pull leg -B- of pressure spring downwards and insert the leg -B- next to the guide (in direction of the spherical head).

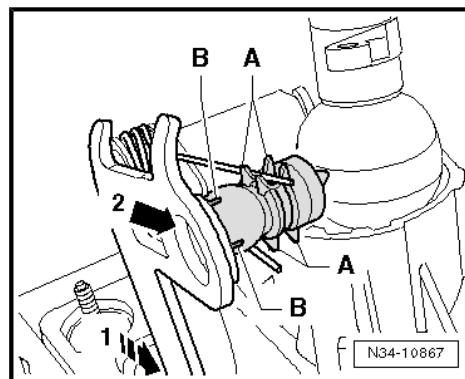
**i** Note

*To provide a clearer illustration, only the selector angle plate is partially illustrated.*

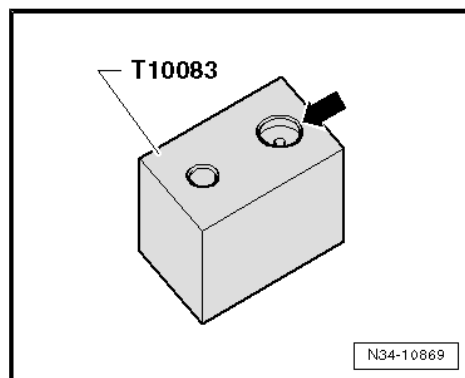
- Carefully remove shift housing with shift lever guide from the insert base - T10083- .



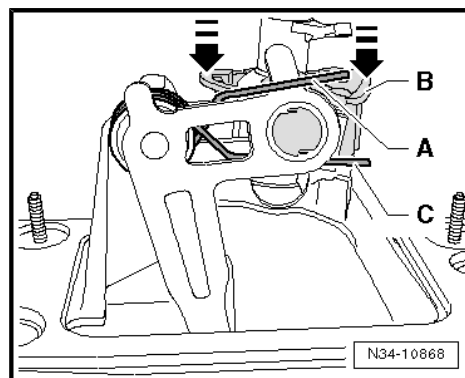
- Move selector angle plate up to stop to the rear (opposite the location holes for shift and selector cable) -direction of arrow 1-.
- Grease the ball stud with grease - G 000 450 02- .
- Press the ball stud into the selector angle plate -arrow 2-.
- The guides -A- and the tabs -B- must not be damaged.



- Position shift housing with shift lever guide into the larger recess -arrow- of the Insert base - T10083- .



- The shift lever guide must protrude out of the shift housing as far as the stop.
- Lift the upper leg -A- of the pressure spring over the stud of the selector angle plate.
- Use a new bearing shell -B-.
- Grease the bearing shell and the bearing ball of the shift lever guide with grease - G 000 450 02- .
- Press the bearing shell up to stop onto the bearing ball of the shift lever guide.
- Remove shift housing from the insert base - T10083- .
- Press the bearing shell into the shift housing -arrows-.
- All catch pegs must click audibly.
- Insert the lower leg -C- of the pressure spring into the guide.
- Lift the upper leg -A- of the pressure spring over the stud of the selector angle plate into the guide.
- Mount shift lever, shift cable, selector cable and floor plate.
- Installing shift mechanism ⇒ [page 104](#) .
- Setting the shift mechanism ⇒ [page 122](#) .

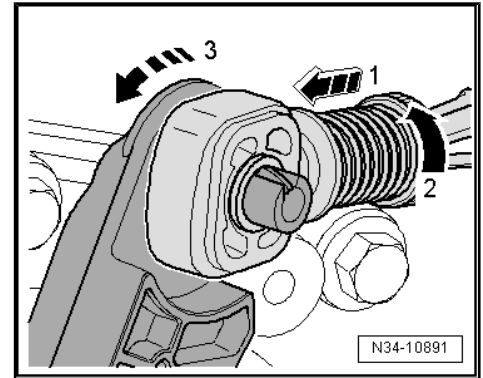


## 1.9 Removing and installing the cable lock from the relay lever

### Removing and installing relay lever

- In order to avoid damage to the selector cable, the cable lock must be separated from the selector cable before removal.
- Gearbox shift lever is located in the neutral position.

- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.
- Press the relay lever towards the front in the -direction of arrow 3-.



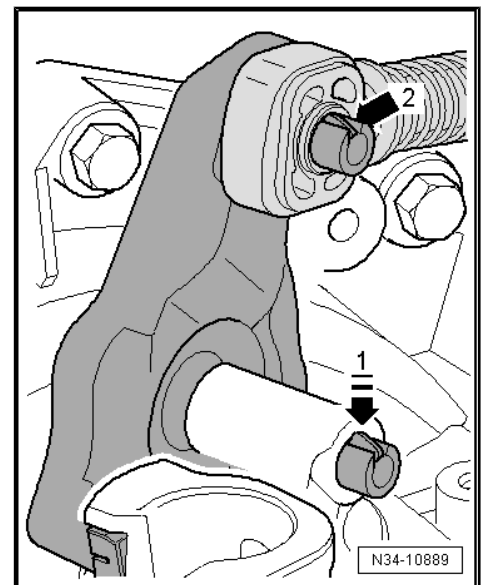
**The relay lever is secured with a catch -arrow 1- in the cover**

- Carefully press down the catch -arrow 1- up to the stop.
- Afterwards move relay lever in its bearing point back and forward (direction of operation). To do so, carefully pull out the relay lever together with the cable lock -arrow 2-.
- Only remove the cable lock -arrow 2- on removed relay lever => [page 120](#) .

**i Note**

*To install, grease bearing points and friction surfaces with grease - G 000 450 02- .*

- Press cable lock onto the relay lever => [page 120](#)
- Insert relay lever together with cable lock.
- The catch peg -arrow 1- secures the relay lever.
- The cable lock must be located behind the catch -arrow 2-.

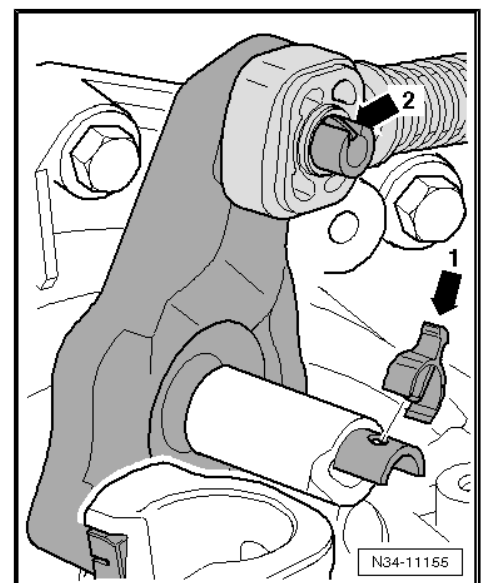


**The relay lever is secured with a clip -arrow 1- in the cover**

- Remove the clip -arrow 1- and the relay lever together with the cable lock -arrow 2-.

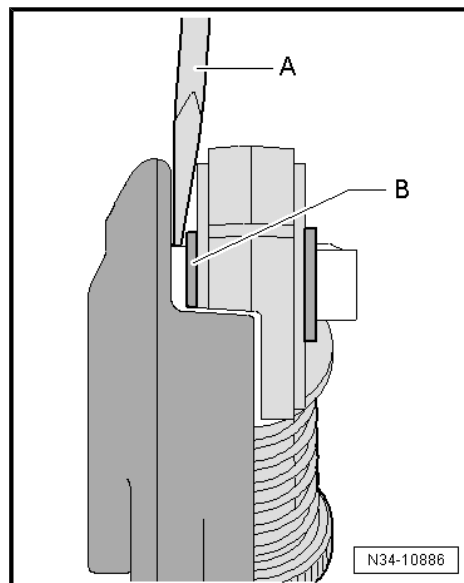
**i Note**

*To install, grease bearing points and friction surfaces with grease - G 000 450 02- .*



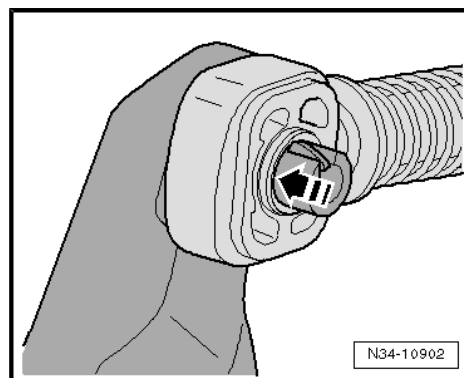
### Lever off cable lock for selector cable from relay lever

- Relay lever removed.
- Insert cross-head screwdriver -A- between bushing -B- and relay lever.



### Press on cable lock

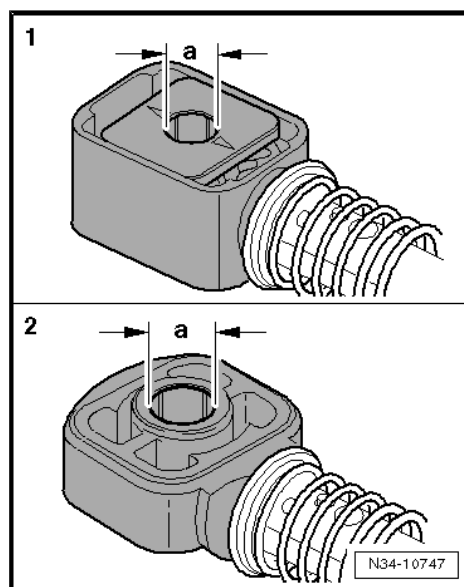
- Relay lever removed.
- The cable lock must only be pressed onto the bushing -arrow-.
- Cable lock must move freely on relay lever.
- It must be located behind the catch ⇒ [page 119](#) .



### Assign cable locks

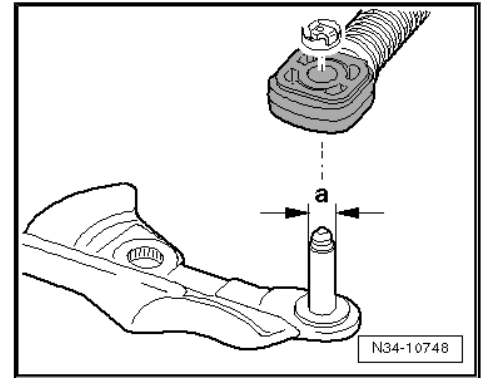
The holes in the cable locks have different diameters.

Cable lock for	Dimension "a"
1 - Shift cable at gearbox shift lever	8.5 mm
2 - Selector cable at relay lever ⇒ <a href="#">page 118</a>	10 mm



**Bolt diameter for attaching the cable lock of the shift cable**

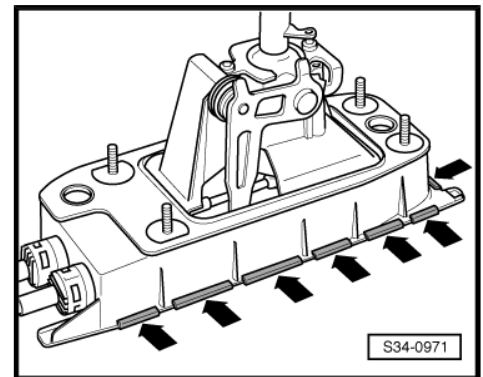
Mounting pin for the cable lock of the shift cable	Dimension "a"
∅ of the mounting pin	8.5 mm



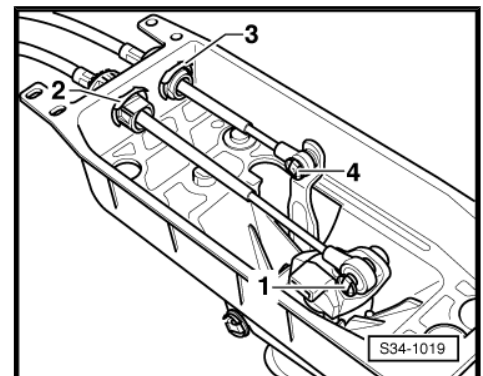
**1.10 Removing and installing shift cable and selector cable**

**Removing**

- Removing shift mechanism ⇒ [page 104](#) .
- Bend up tabs -arrows- of cover for the shift mechanism using a screwdriver and remove cover.
- Remove gasket ring.

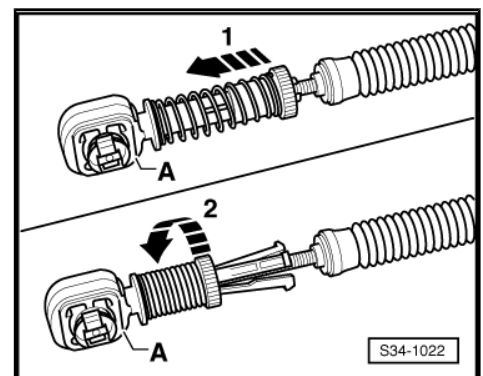


- Remove lock washers -2 and 3- (lock washers -1 and 4- are no longer available), selector cable and shift cable must be levered off from the shift lever or selector lever e.g. with a screwdriver.
- Remove shift cable and selector cable from shift housing.



Unlock catches -A- for shift cable and selector cable as follows:

- Slide sliding sleeve forwards up to the stop -arrow 1-.
- Turn sliding sleeve to the right up to the stop -arrow 2- until it locks audibly.
- Remove the catches from the cables.



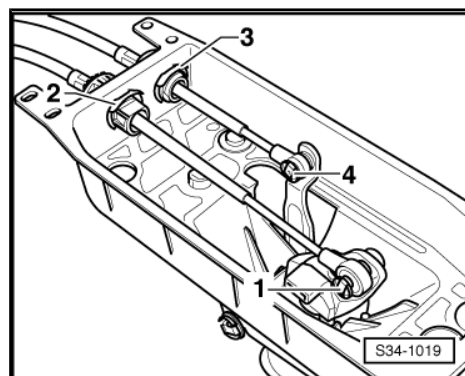
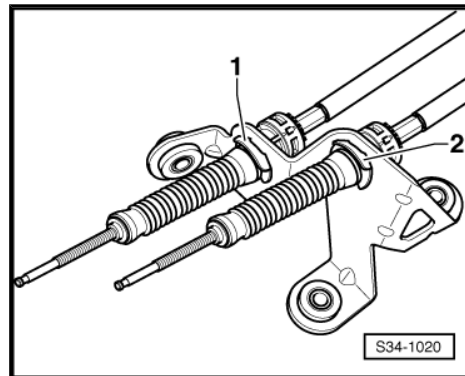


- Remove circlips -1- and -2-.
- Remove the cable support from the cables.

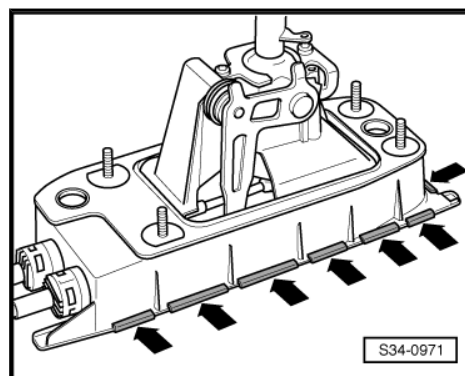
### Install

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

- Attach shift cable and selector cable to shift housing with circlips -2 and 3-.
- Press shift cable and selector cable onto shift lever and selector lever into shift housing (lock washers -1 and 4- are no longer available).



- Install gasket and attach cover for shift mechanism by pressing on the tabs -arrows- onto the shift housing.
- Installing shift mechanism ⇒ [page 104](#) .
- Setting the shift mechanism ⇒ [page 122](#)



## 1.11 Setting the shift mechanism

⇒ ["1.11.1 Setting the clutch control \(Octavia II, Superb II and Yeti\)", page 122](#)

⇒ ["1.11.2 Setting shift mechanism \(Octavia III\)", page 125](#)

### 1.11.1 Setting the clutch control (Octavia II, Superb II and Yeti)

#### Special tools and workshop equipment required

- ◆ Rig pin - T10027A-
- ◆ Release tool - T30098-

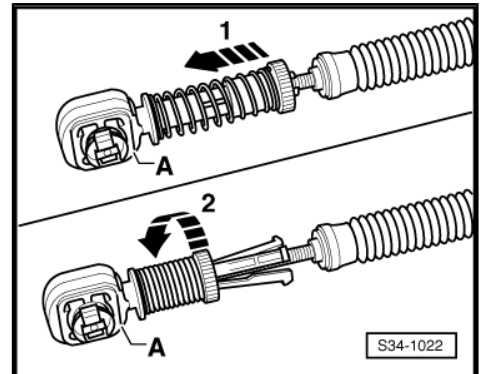


#### Note

*The following are required for correct setting of the shift mechanism:*

- Gearbox, clutch and clutch control in perfect condition
- Shift mechanism operates freely

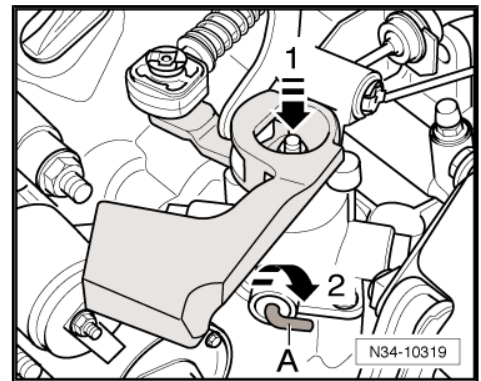
- Operating and transmission elements of the shift mechanism are in perfect condition
- Gearbox in Neutral
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Pull forward the locking mechanism at shift cable and at selector cable -A- as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.



Fix the gearshift shaft as follows:

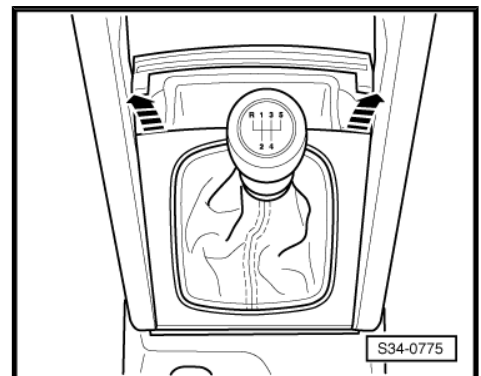
- Press down the gearshift shaft in -direction of arrow 1-.
- When pressing down the gearshift shaft turn angle lever -A- in -direction of arrow 2- and at the same time press it in direction of the gearshift shaft until it locks into the gearshift shaft.

#### Vehicles Octavia II



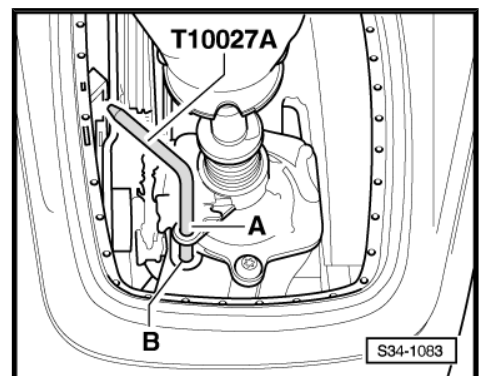
- Lever the collar upwards and out of centre console cover -arrows-.
- If present, detach the noise insulation.

Now fix the gearshift lever as follows:



- Insert the rig pin - T10027A - .

#### Vehicles Superb II

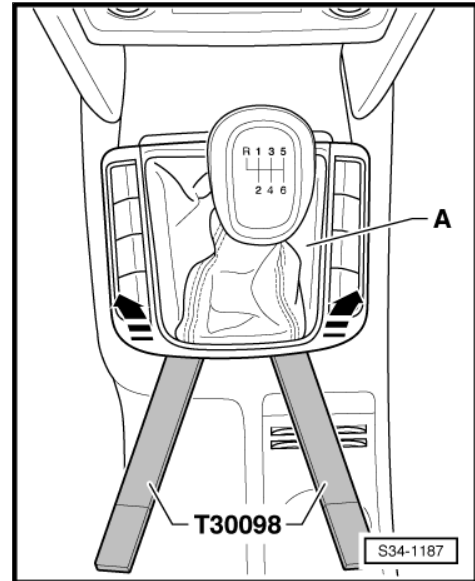




- Lever the collar upwards and out of centre console cover with release tool - T30098- -arrows-.
- Pull the collar upwards over the gearshift knob.
- If present, detach the noise insulation.

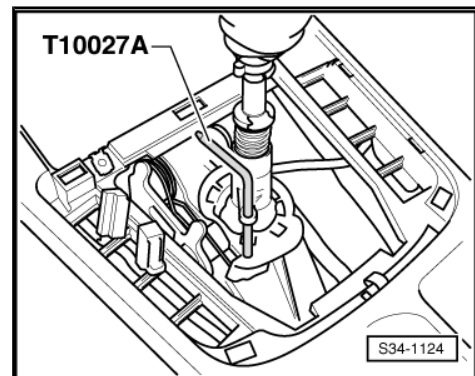
Now fix the gearshift lever as follows:

- Engage neutral position on gearshift lever.



- Insert the rig pin - T10027A- .

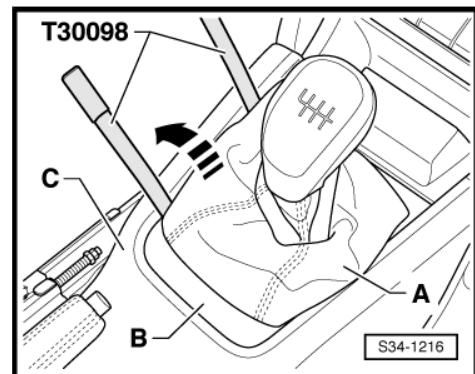
**Vehicles Yeti**



- Lever the collar -A- together with the surround -B- off the centre console -C- using the release tool - T30098- -direction of arrow-.

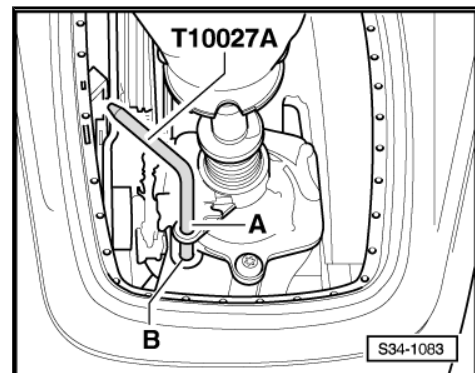
- Pull the collar upwards over the gearshift knob.

Now fix the gearshift lever as follows:



- Insert the rig pin - T10027A- .

**Continued for all vehicles**



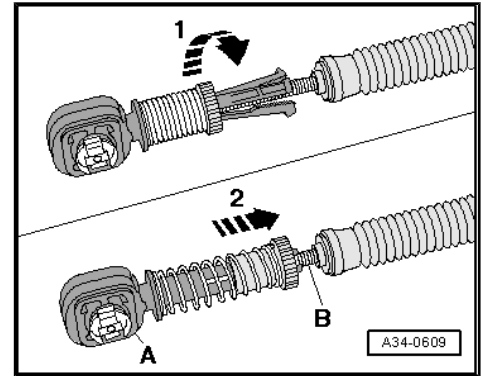


- Ensure that the selector and shift cable -B- are pushed free of tension into the catches -A-.
- Turn the locking mechanism at the shift cable and at the selector cable to the right as far as the stop -direction of arrow<sup>1</sup>-.

The spring pushes the locking mechanism into the initial position -direction of arrow 2-.

**i** Note

*The shift cables are now adjusted.*

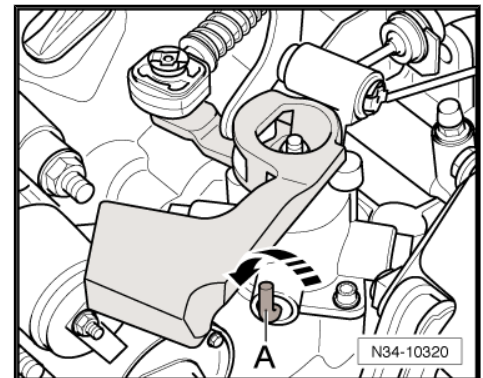


- Turn the angle lever -A- back to the initial position -in direction of arrow-.

**i** Note

*The angle lever -A- must be pressed out of the shift housing up to the stop and must point vertically upwards.*

- Pull out the rig pin - T10027A- .
- If present, install the noise insulation.
- Press collar into the cover.
- Install air filter ⇒ Engine; Rep. gr. 24 .



### Functional test

- Shift lever must be positioned in Neutral position in the selector lever gate of the 3rd/4th gear.
- Depress clutch.
- Shift through all gears several times. Pay particular attention to proper operation of the reverse gear lock.

If the difficulty in engaging a gear persists after repeated attempts, repeat adjustment procedure of selector mechanism  
⇒ [page 122](#) .

## 1.11.2 Setting shift mechanism (Octavia III)

### Special tools and workshop equipment required

- ◆ Rig pin - T10027A-

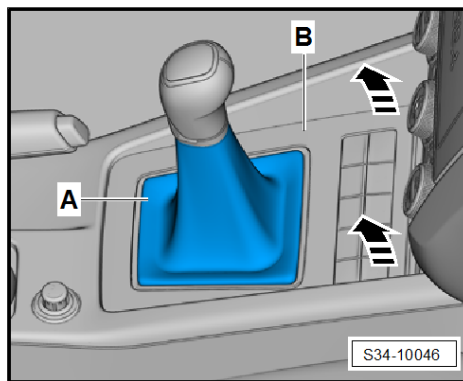
**i** Note

*The following points are essential to ensure correct adjustment of selector mechanism:*

- Gearbox, clutch and clutch control in perfect condition.
- Shift mechanism operates freely.
- Control elements and transmission elements of the shift mechanism are in perfect condition.
- Gearbox in Neutral.

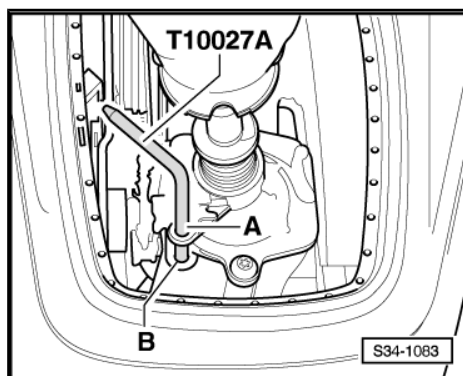


- Undo frame -B- together with the collar -A- from the central console -in the direction of arrow-.
- Pull gaiter upwards, inside out over gear knob.
- Guide shift lever in Neutral position to the left into the 1st/2nd gear gate via the leg.

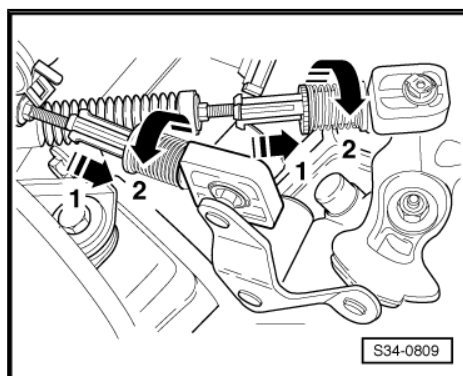


- Lock shift lever with rig pin -T10027A- .
- Remove air filter ⇒ Engine; Rep. gr. 24 , if it is installed above the gearbox.

Unlock cable locks for shift cable and selector cable as follows:



- Push sliding sleeve at shift cable and at selector cable forwards up to the stop -arrow 1-.
- Turn the sliding sleeves in direction of the -arrows 2- as far as the stop until they lock in place.



**Note**

*The cables can be moved in the catches.*

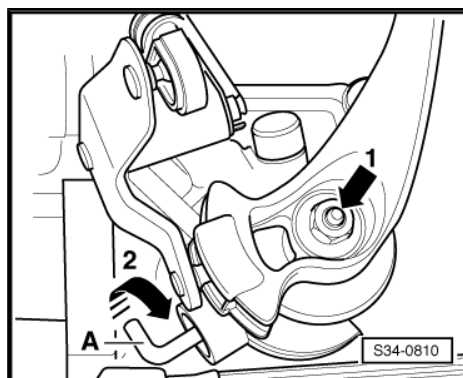
- Gearbox must be in neutral.

Lock the gearshift shaft as follows:

- Push down the gearbox shift lever in the direction of the arrow -1- into the gear gate of the 1st/2nd gear. Turn the angle lever -A- in direction of arrow -2-, until it locks.

This locks the gearshift shaft and can no longer be moved.

- Make sure that the shift cable and selector cable sit stress-free in the catches.



- Turn sliding sleeves at shift cable and selector cable in -direction of the arrow- up to the stop.

The springs push the sliding sleeves back into the initial position.

**i** Note

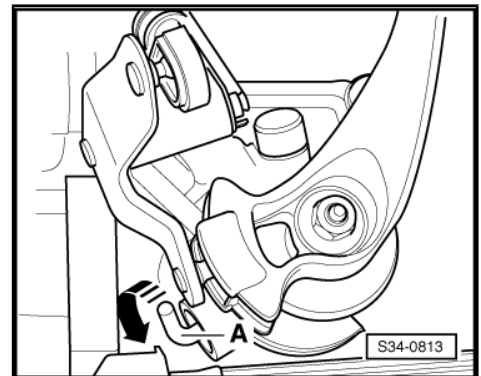
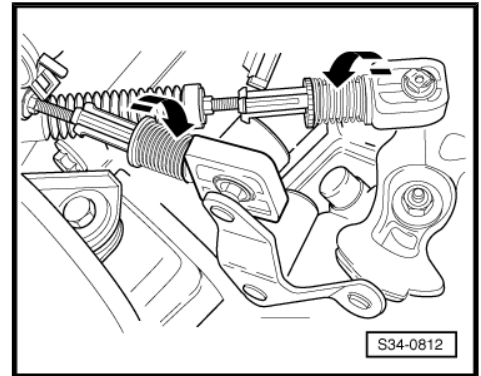
*The shift cables are now adjusted.*

- Turn angle lever -A- back to the initial position (in -direction of arrow-).
- Pull rig pin -T10027A- out of the gearshift mechanism.
- Install shift lever collar.
- Install air filter ⇒ Engine; Rep. gr. 24 , if it has been removed.

**Functional test**

- The shift lever must be positioned in neutral position in the selector gear gate of the 3rd/4th gear.
- Actuate clutch pedal.
- Select all gears several times. Pay particular attention to proper operation of the reverse gear lock.

If a gear catches when engaged again. set the shift mechanism once again ⇒ [page 122](#) .



## 2 Removing and installing the gearbox

⇒ [“2.1 Removing the gearbox”, page 128](#)

⇒ [“2.2 Installing the gearbox”, page 147](#)

⇒ [“2.3 Tightening torques”, page 149](#)

### 2.1 Removing the gearbox

⇒ [“2.1.1 Remove gearbox \(Octavia II and Octavia III\)”, page 128](#)

⇒ [“2.1.2 Remove gearbox \(Superb II\)”, page 135](#)

⇒ [“2.1.3 Removing gearbox \(Yeti\)”, page 141](#)

#### 2.1.1 Remove gearbox (Octavia II and Octavia III)

##### Special tools and workshop equipment required

- ◆ Supporting device - T30099-
- ◆ Hook for MP9-200 and T30099 - MP9-200/10 (10-222A/10)-
- ◆ Surface - T30099/1-
- ◆ Adapter - T40091/3-
- ◆ Adapter - MP9-200/18-
- ◆ Support - 10-222A/31-
- ◆ Surface - T30119-
- ◆ Adjusting plate - 3282/31-
- ◆ Gearbox mount - 3282-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383 A-
- ◆ Gearbox attachment device - MP3-478 (3336)-
- ◆ Grease for plug serration of clutch disc - G 000 100-
- Remove engine cover ⇒ Engine; Rep. gr. 10 (if present).



##### Note

- ◆ *All cable straps which are detached or cut open when removing, should be fitted on again in the same place when installing.*
- ◆ *After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*
- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .

##### For vehicles Octavia II

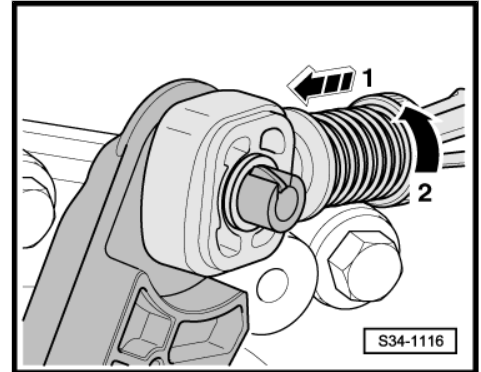
- Remove air filter ⇒ Engine; Rep. gr. 24 .

##### For vehicles Octavia III

- Remove air filter ⇒ Engine; Rep. gr. 24 , if it is installed above the gearbox.

**Continued for all vehicles**

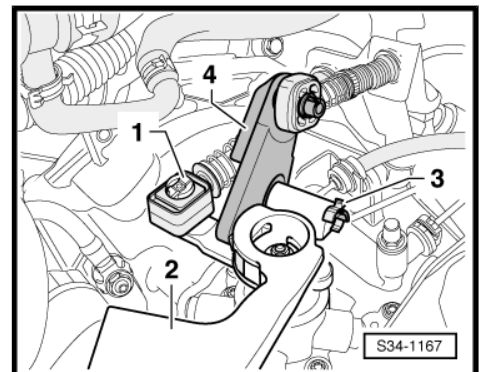
- Remove the cooling water tank cover ⇒ Body Work; Rep. gr. 66 .
- In order to avoid damage to the selector cable, the cable lock must be separated from the selector cable before removal.
- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.



- Remove lock washer -1- for shift cable from gearbox shift lever -2-.
- Pull off shift cable from the stud of the gearbox shift lever.

**The relay lever -4- is secured with a clip -3- in the cover**

- Unclip -3- out of the hole of the relay lever and pull out relay lever -4- together with the cable lock out of the cover.

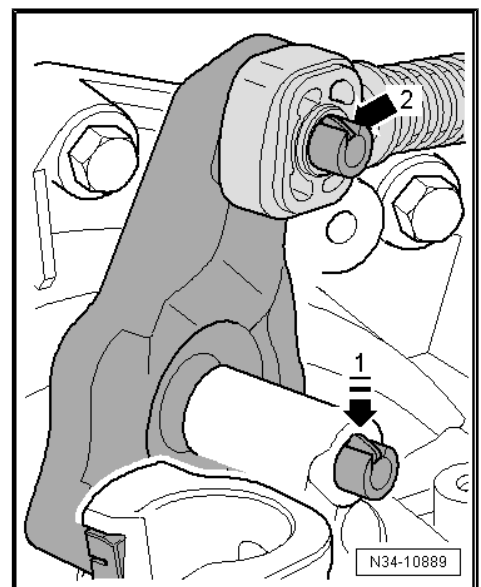


**The relay lever is secured with a catch -arrow 1- in the cover**

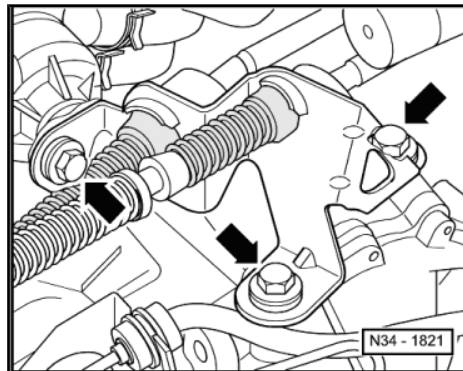
- Carefully press down the catch -arrow 1- of the relay lever up to the stop.
- Afterwards, carefully pull out the relay lever together with the cable lock -arrow 2- out of the bearing point in the cover. To do so move relay lever back and forward (direction of operation).

**Continued for all vehicles**

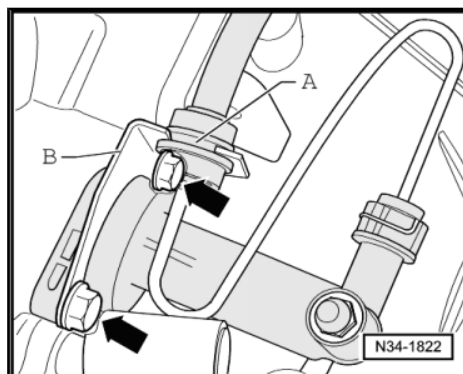
- Remove the gearshift lever from the gearshift shaft.



- Remove Bowden cable support -arrows-.
- Tie up shift cable and selector cable.



- Disconnect the tube-hose line -A- from bracket -B- on the gearbox.
- Remove slave cylinder -B-, lay aside and secure with wire. Do not open line system.

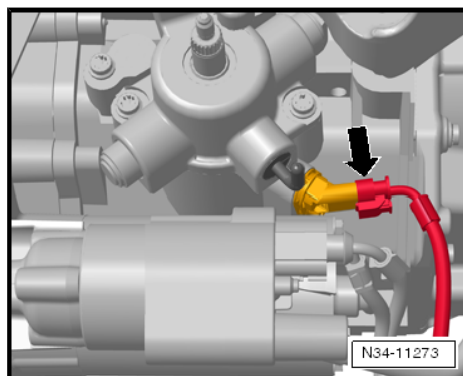


**i** Note

*Do not depress the clutch pedal.*

**Vehicles with start-stop system**

- Unplug the connector from the transmission neutral sender -G701- -arrow-.



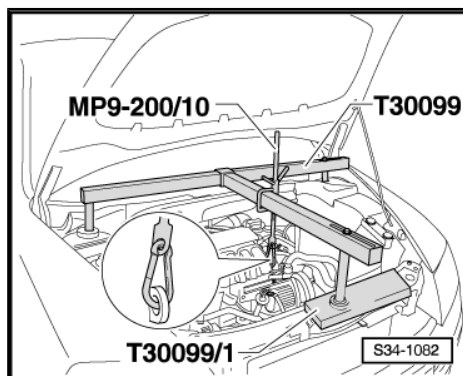
**Continued for all vehicles**

- Remove the earth strap from the engine/gearbox connecting screw.
- Remove engine/gearbox connecting screws at the top.
- Remove fixing screw for starter at the top.

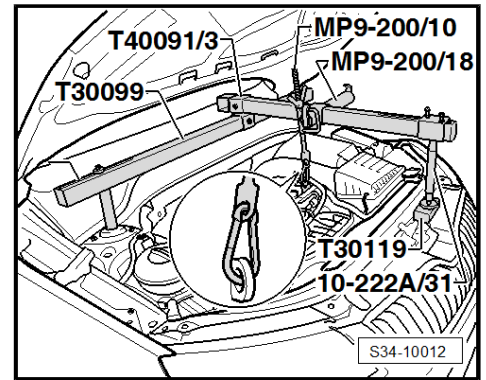
**For vehicles Octavia II**

- Fit supporting device -T 30099- .

**For vehicles Octavia III**



- Fit supporting device -T30099- .



- Unscrew nut -arrow- and remove earth strap from gearbox mount, if present.

**Continued for all vehicles**

- Slightly pre-tension the engine/gearbox unit via the spindles, do not raise.
- Loosen the front left wheel bolts.

- Raise vehicle:

◆ ⇒ Maintenance ; Booklet Octavia II .

◆ ⇒ Maintenance ; Booklet Octavia III .

- Fit the left front wheel ⇒ Chassis; Rep. gr. 44 .

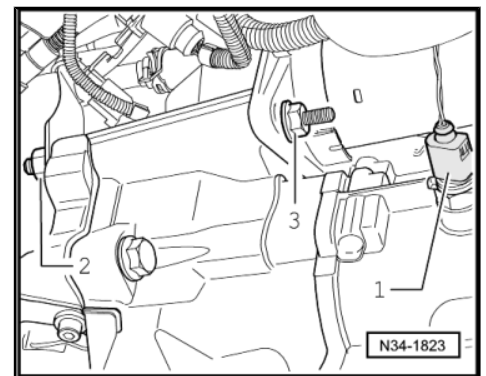
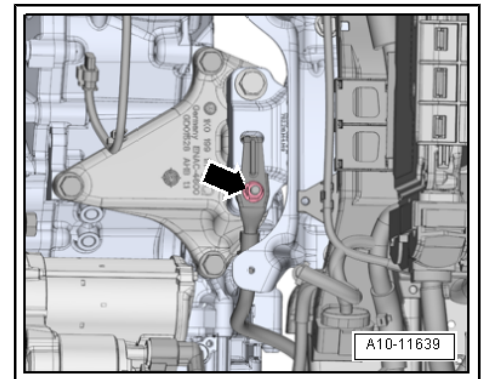
- Remove the noise insulation below the engine/gearbox ⇒ Body Work; Rep. gr. 50 .

- Remove the front left wheelhouse liner ⇒ Body Work; Rep. gr. 66 .

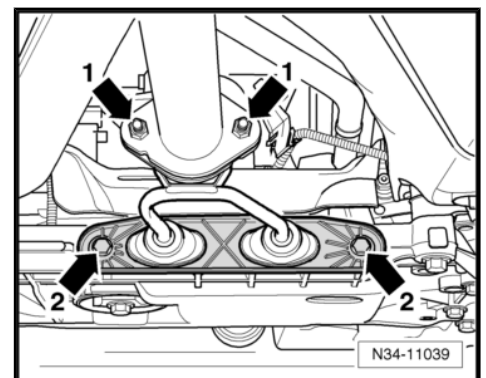
- Disconnect plug -1- of the reversing light switch - F4- .

- If present, remove nut -2-.

- Remove starter (screw -3-) ⇒ Electrical System; Rep. gr. 27 .

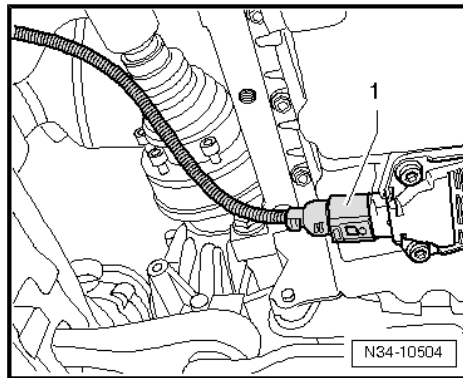


- Separate the exhaust system, -arrows 1- and unscrew the holder for the exhaust pipe from the assembly carrier -arrows 2- ⇒ Engine; Rep. gr. 26 .

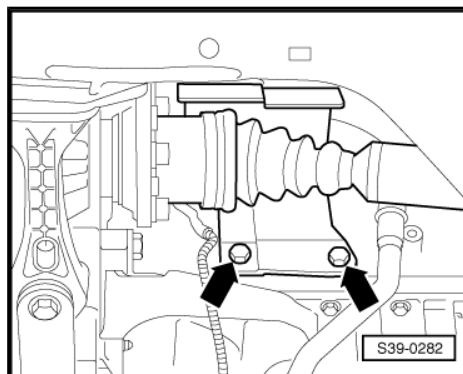




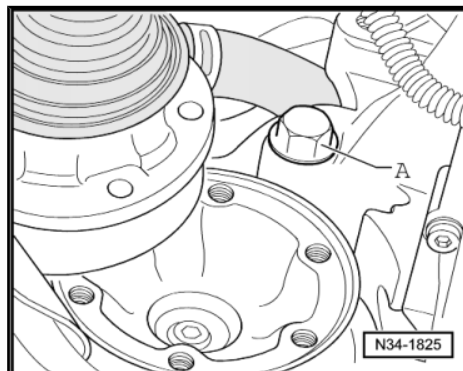
- Disconnect plug -1- for oil level and oil temperature sender - G266- .



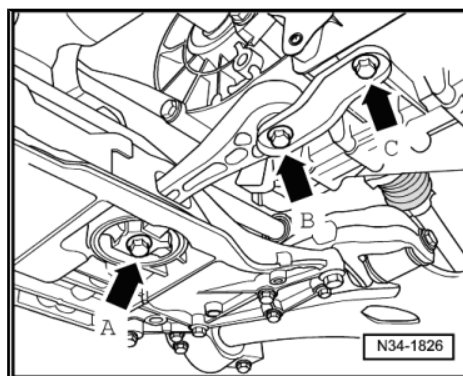
- Remove protection plate for drive shaft from the engine (if present) -arrows-.
- Remove drive shafts from flange shafts and tie up as far as possible; do not damage the surface protection.



- Unscrew the engine/gearbox connecting screw -A- above the right flange shaft.



- Remove pendulum support -arrows°A-, -B- and -C-.





- Remove the screws -arrows 1- of the left and right assembly carrier out of the gearbox mount.
- Move engine/gearbox unit into oblique position, to do so lower the supporting device - MP9-200 (10-222A)- via the spindle.

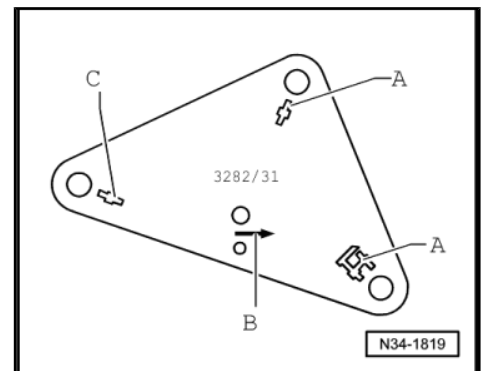
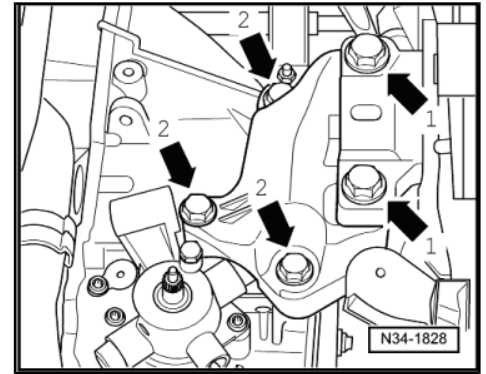
**i** Note

Observe all lines when lowering the gearbox.

- Remove gearbox console, to do so screw out the screws -arrows°2-.

The gearbox mount - 3282- is aligned for removal of the gearbox "0AJ" by using the adjusting plate - 3282/31- .

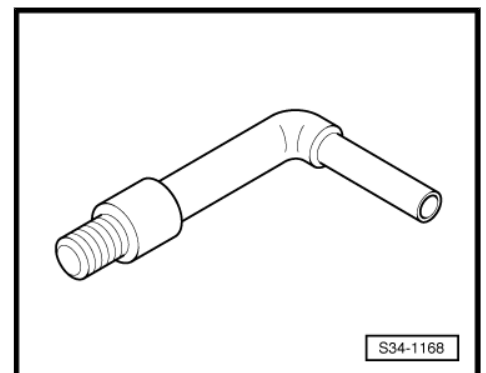
- Insert gearbox mount - 3282- in engine/gearbox jack - V.A.G 1383 A- .
- Position adjusting plate - 3282/31- onto the gearbox mount - 3282- ( adjusting plate fits in only one position).
- Align arms of the gearbox mount to match the holes in the adjusting plate .
- Screw in mounting elements -A-, as shown on the adjusting plate .
- Instead of the mounting element -C- screw in the lifting hook .



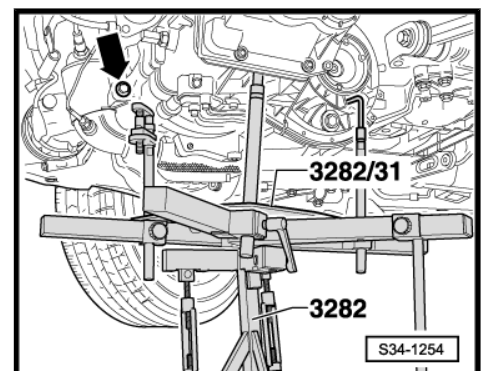
**i** Note

The lifting hook is a component part of the gearbox mount - 3282- .

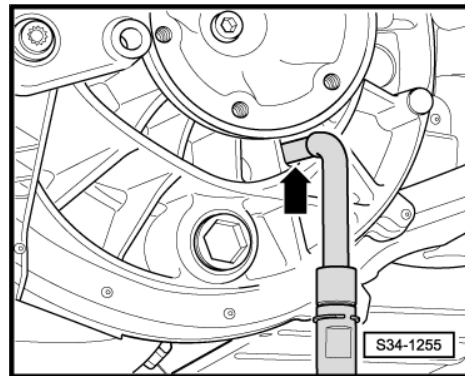
- Position engine/gearbox jack below vehicle, arrow -B- on adjusting plate points in the direction of travel/vehicle.



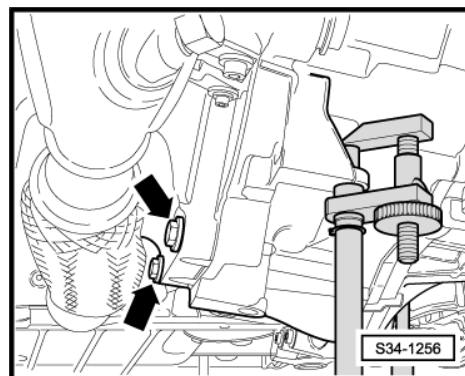
- Align the adjusting plate parallel to the gearbox.



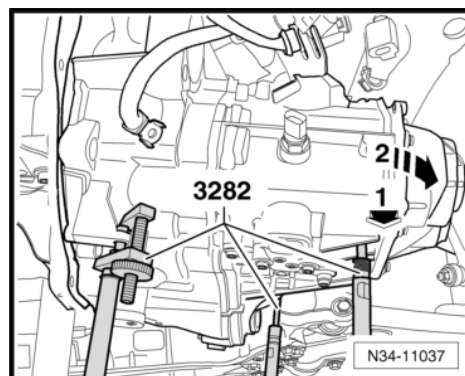
- Insert the lifting hook in one of the recesses of the gearbox housing below the left flange shaft -arrow-.
- Remove engine/gearbox connecting screw (-arrow- in the fig. S34-1254 => [page 133](#) ).



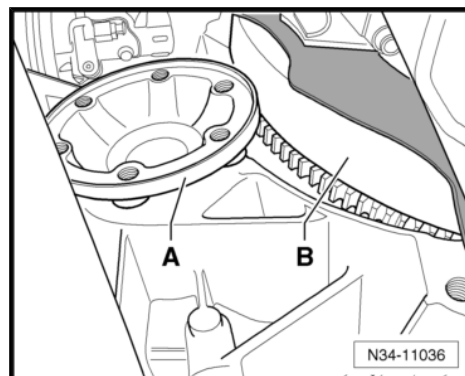
- Separate exhaust system so that the bottom screws -arrows- can be unscrewed (only on 1.4 engine).
- Ask a second mechanic to carefully push the engine forwards.
- Press the gearbox out of the sleeves.



- Press the gearbox in the area of the cover for the gearbox housing to the front end -arrow 1- and turn it slightly towards the bottom -arrow 2-.
- Pay attention to the intermediate plate on the engine.



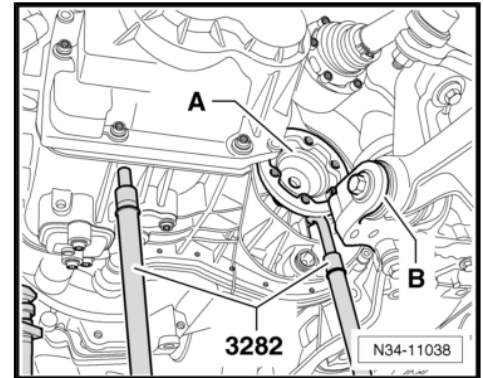
- After this, carefully guide the gearbox with the right flange shaft -A- past the flywheel -B- and the intermediate plate as shown.



- The left flange shaft -A- is carefully guided past the console -B- of the assembly carrier as shown.
- Lower gearbox, to do so pay attention to the assembly carrier.
- Change the gearbox position at the spindles of the gearbox mount - 3282- when lowering.

**i** Note

*Observe all lines when lowering the gearbox.*



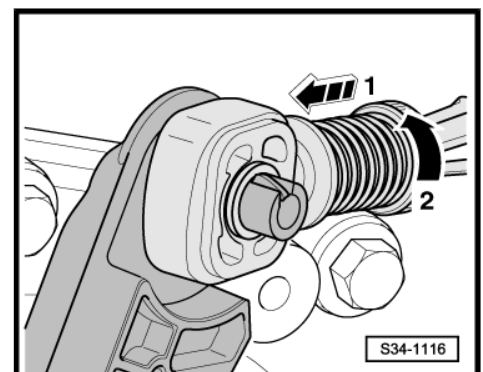
## 2.1.2 Remove gearbox (Superb II)

### Special tools and workshop equipment required

- ◆ Gearbox mount - 3282-
- ◆ Adjusting plate - 3282/31-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383 A-
- ◆ Gearbox attachment device - MP3-478 (3336)-
- ◆ Supporting device - MP9-200 (10-222A)-
- ◆ Adapter - MP9-200/18 (10-222A/18)-
- ◆ Support - T10346-
- ◆ Grease for plug serration of clutch disc - G 000 100-
- Remove engine cover ⇒ engine; Rep. gr. 10 .

**i** Note

- ◆ *All cable straps which are detached or cut open when removing, should be fitted on again in the same place when installing.*
- ◆ *After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*
- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Before removal, the cable lock must be separated from the selector cable in order to avoid damage to the selector cable.
- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.

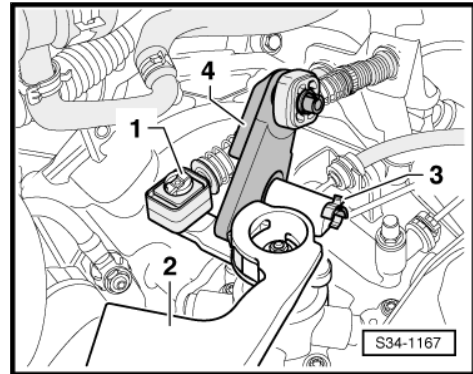




- Remove lock washer -1- for shift cable from gearbox shift lever -2-.
- Pull off shift cable from the stud of the gearbox shift lever.

**The relay lever -4- is secured with a clip -3- in the cover**

- Unclip -3- out of the hole of the relay lever and pull out relay lever -4- together with the cable lock out of the cover.

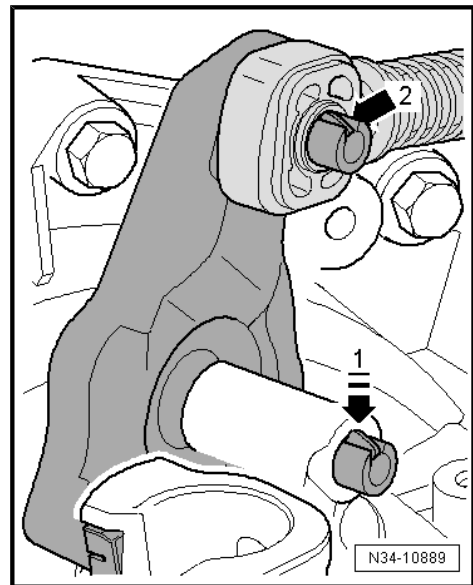


**The relay lever is secured with a catch -arrow 1- in the cover**

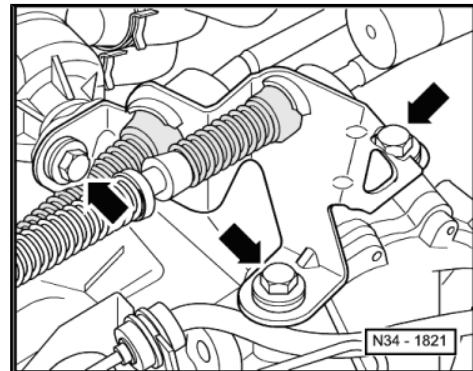
- Carefully press down the catch -arrow 1- of the relay lever up to the stop.
- Afterwards, carefully pull out the relay lever together with the cable lock -arrow 2- out of the bearing point in the cover. To do so move relay lever back and forward (direction of operation).

**Continued for all vehicles**

- Remove the gearshift lever from the gearshift shaft.



- Remove Bowden cable support -arrows-.
- Tie up shift cable and selector cable.

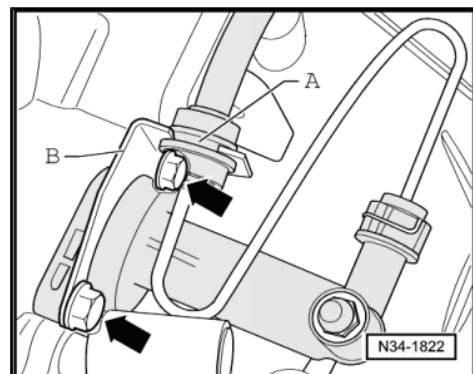


- Disconnect the tube-hose line -A- from bracket -B- on the gearbox.
- Remove slave cylinder -B-, lay aside and secure with wire. Do not open line system.

**Note**

*Do not depress the clutch pedal.*

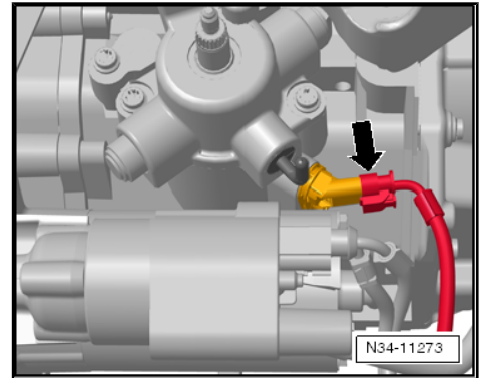
**Vehicles with start-stop system**



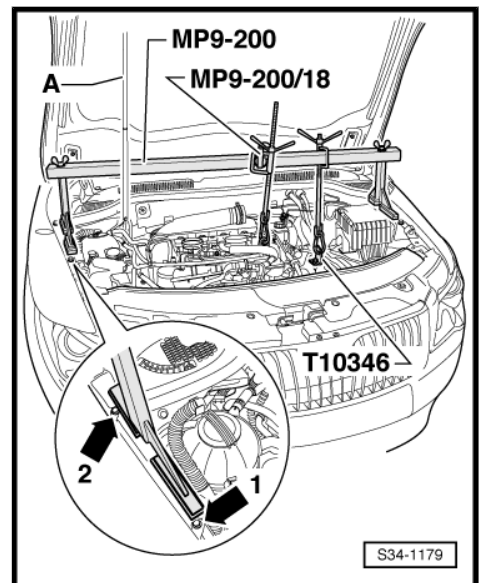
- Unplug the connector from the transmission neutral sender - G701- -arrow-.

**Continued for all vehicles**

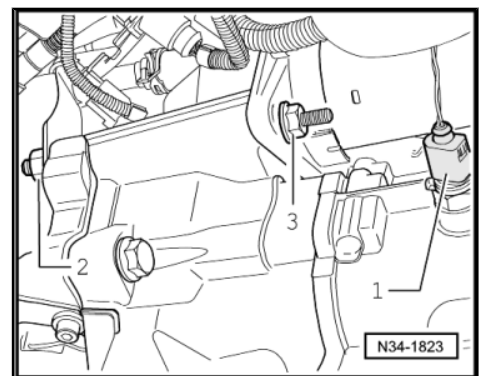
- Remove the earth strap from the engine/gearbox connecting screw.
- Remove engine/gearbox connecting screws at the top.
- Remove fixing screw for starter at the top.
- Remove the filling pieces from both upper edges of the wings.



- Tighten the holder - T10346- on the rear of the three location holes for the battery tray.
- To do so, use a collar screw M6 or one of the fixing screws for the battery tray.
- Position the supporting device - MP9-200 (10-222 A)- behind the pressurized gas strut -A- for the front flap.
- The feet of the supporting device must be placed as shown in the illustration, behind the screw -arrow 1- and sideways up to the screw -arrow 2- on the wheelhouse frame side rail at the top.

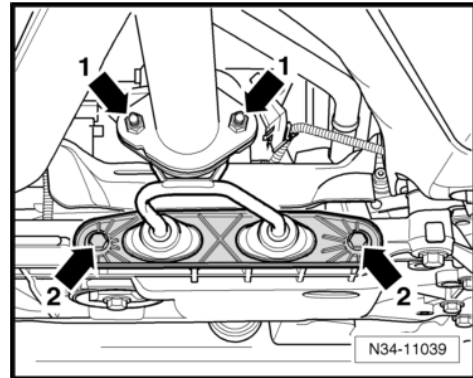


- Connect the holder - T10346- with the supporting device .
- Hook the second spindle into the front left engine lifting eye.
- Slightly take up the weight of the engine/gearbox unit via the spindle, do not raise.
- Loosen the front left wheel bolts.
- Raise vehicle.
- Remove front left wheel.
- Remove the noise insulation below the engine/gearbox => Body Work; Rep. gr. 50 .
- Remove the front left wheelhouse liner => Body Work; Rep. gr. 66 .
- Disconnect plug -1- of the reversing light switch - F4- .
- If present, remove nut -2-.
- Remove starter (screw -3-) => Electrical System; Rep. gr. 27 .

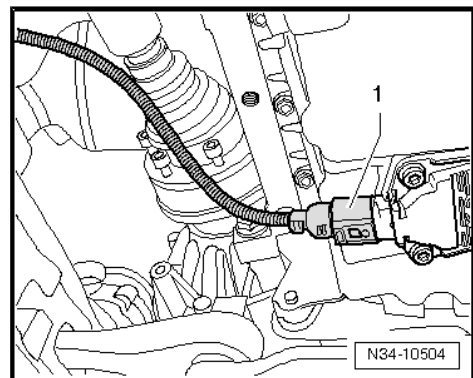




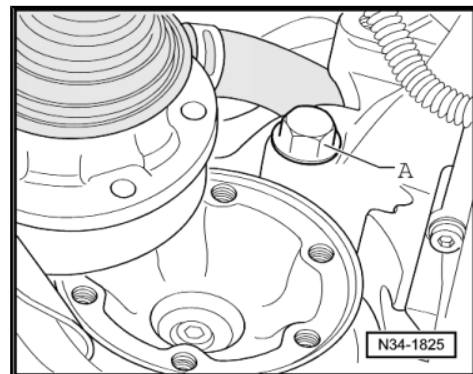
- Separate the exhaust system, -arrows 1- and unscrew the holder for the exhaust pipe from the assembly carrier -arrows 2- → Engine; Rep. gr. 26 .



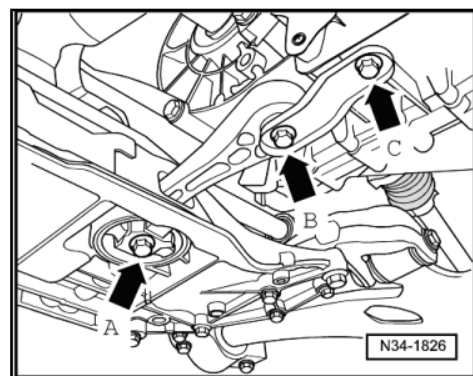
- Disconnect plug -1- from oil level and oil temperature sender - G266- .
- Remove drive shafts from flange shafts and tie up as far as possible; do not damage the surface protection.



- Unscrew the engine/gearbox connecting screw -A- above the right flange shaft.



- Remove pendulum support -arrows°A-, -B- and -C-.



- Remove the screws -arrows 1- of the left and right assembly carrier out of the gearbox mount.
- Move engine/gearbox unit into oblique position, to do so lower the supporting device - MP9-200 (10-222A)- via the spindle.

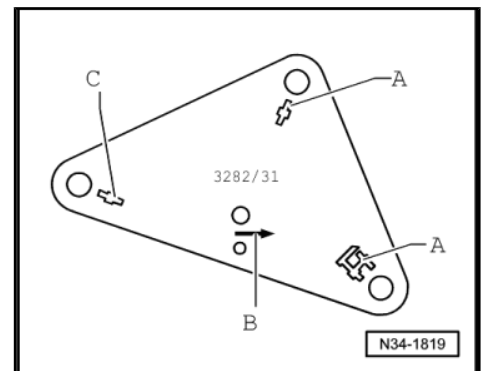
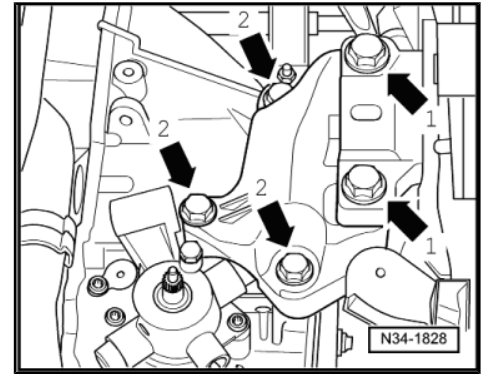
**i** Note

Observe all lines when lowering the gearbox.

- Remove gearbox console, to do so screw out the screws -arrows°2-.

The gearbox mount - 3282- is aligned for removal of the gearbox "0AJ" by using the adjusting plate - 3282/31- .

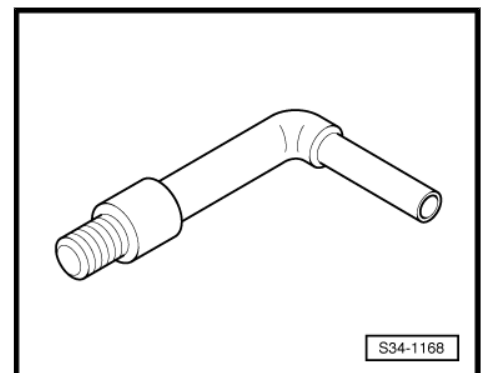
- Insert gearbox mount - 3282- into engine/gearbox jack - V.A.G 1383 A- .
- Position adjusting plate - 3282/31- onto the gearbox mount - 3282- ( adjusting plate fits in only one position).
- Align arms of the gearbox mount to match the holes in the adjusting plate .
- Screw in mounting elements -A-, as shown on the adjusting plate .
- Instead of the mounting element -C- screw in the lifting hook - 3282/49- .



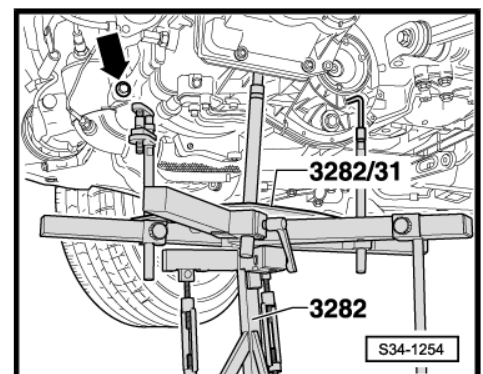
**i** Note

The lifting hook - 3282/49- is a component part of the gearbox mount - 3282- .

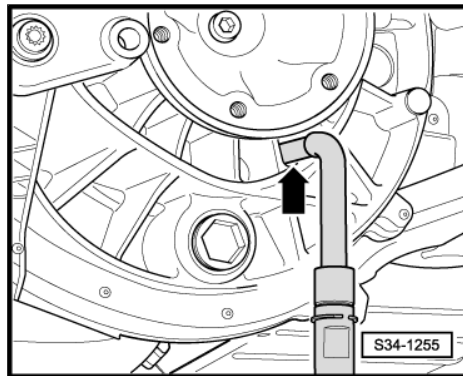
- Position engine/gearbox jack below vehicle, arrow -B- on adjusting plate points in the direction of travel/vehicle.



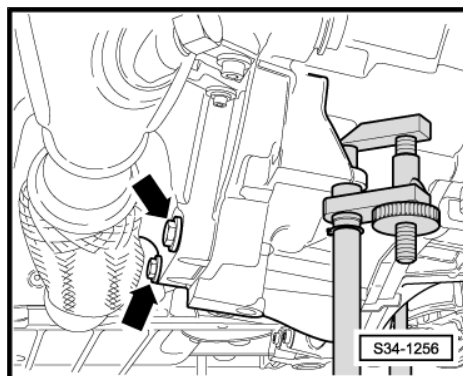
- Align the adjusting plate parallel to the gearbox.



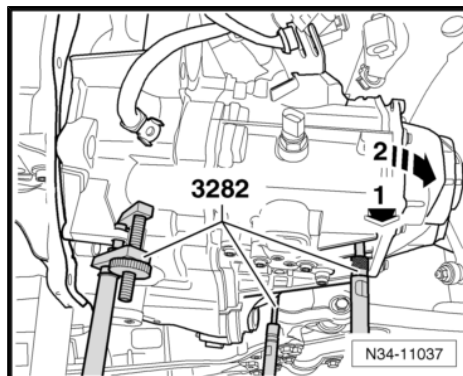
- Insert the lifting hook - 3282/49- in one of the recesses of the gearbox housing below the left flange shaft -arrow-.
- Remove engine/gearbox connecting screw (-arrow- in the fig. N34-1829 => [page 139](#) ).



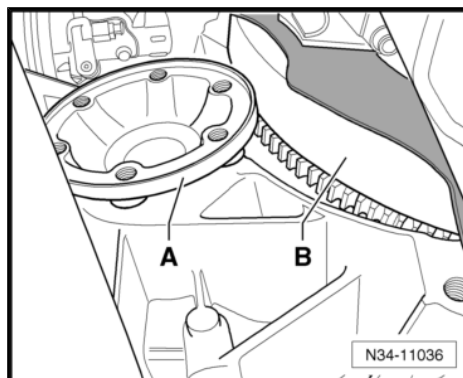
- Separate exhaust system so that the bottom screws -arrows- can be unscrewed.
- Ask a second mechanic to carefully push the engine forwards.
- Press the gearbox out of the sleeves.



- Press the gearbox in the area of the cover for the gearbox housing to the front end -arrow 1- and turn it slightly towards the bottom -arrow 2-.
- Pay attention to the intermediate plate on the engine.



- After this, carefully guide the gearbox with the right flange shaft -A- past the flywheel -B- and the intermediate plate as shown.

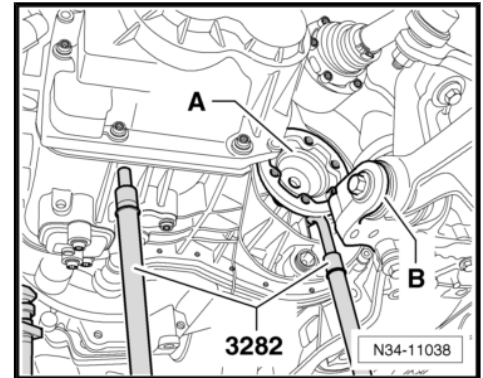




- The left flange shaft -A- is carefully guided past the console -B- of the assembly carrier as shown.
- Lower gearbox, to do so pay attention to the assembly carrier.
- Change the gearbox position at the spindles of the gearbox mount - 3282- when lowering.

**i** Note

*Observe all lines when lowering the gearbox.*



## 2.1.3 Removing gearbox (Yeti)

### Special tools and workshop equipment required

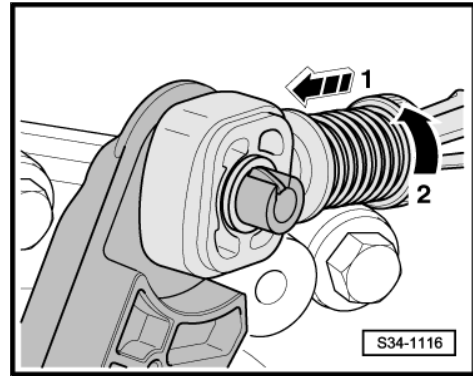
- ◆ Supporting device - T30099-
- ◆ Surface - T30099/1-
- ◆ Hook for MP9-200 and T30099 - MP9-200/10 (10-222A/10)-
- ◆ Adjusting plate - 3282/31-
- ◆ Tensioning strap - T10038-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383 A-
- ◆ Gearbox attachment device - MP3-478 (3336)-
- ◆ Gearbox mount - 3282-
- ◆ Grease for plug serration of clutch disc - G 000 100-
- Remove engine cover ⇒ engine; Rep. gr. 10 .

**i** Note

- ◆ *All cable straps which are detached or cut open when removing, should be fitted on again in the same place when installing.*
- ◆ *After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*
- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .
- Remove air filter ⇒ Engine; Rep. gr. 24 .
- Remove the cooling water tank cover ⇒ Body Work; Rep. gr. 66 .
- Before removal, the cable lock must be separated from the selector cable in order to avoid damage to the selector cable.



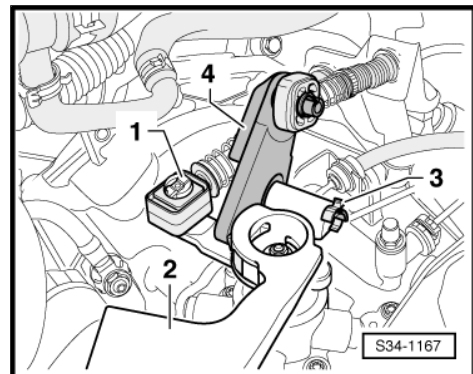
- Pull forward the locking mechanism as far as the stop in -direction of arrow 1-, then lock by turning to the left in -direction of arrow 2-.



- Remove lock washer -1- for shift cable from gearbox shift lever -2-.
- Pull off shift cable from the stud of the gearbox shift lever.

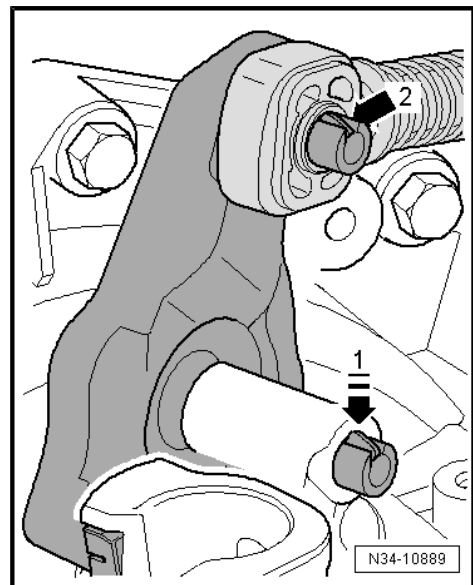
**The relay lever -4- is secured with a clip -3- in the cover**

- Unclip -3- out of the hole of the relay lever and pull out relay lever -4- together with the cable lock out of the cover.



**The relay lever is secured with a catch -arrow 1- in the cover**

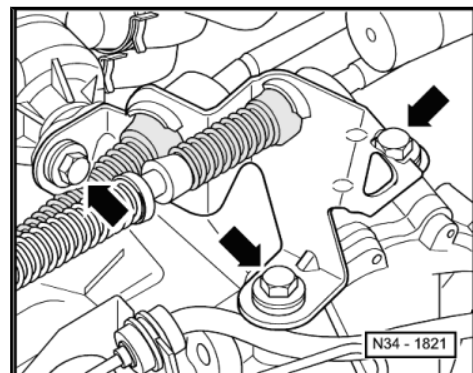
- Carefully press down the catch -arrow 1- of the relay lever up to the stop.
- Afterwards, carefully pull out the relay lever together with the cable lock -arrow 2- out of the bearing point in the cover. To do so move relay lever back and forward (direction of operation).



**Continued for all vehicles**

- Remove the gearshift lever from the gearshift shaft.

- Remove Bowden cable support -arrows-.
- Tie up shift cable and selector cable.



- Disconnect the tube-hose line -A- from bracket -B- on the gearbox.
- Remove slave cylinder -B-, lay aside and secure with wire. Do not open line system.

 **Note**

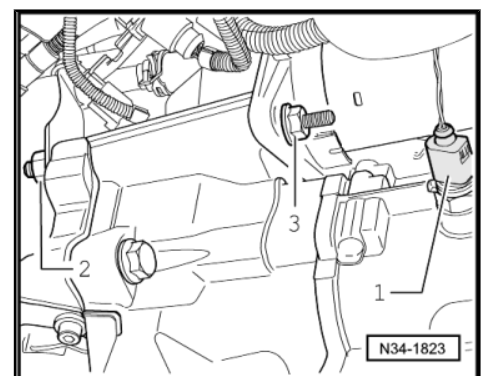
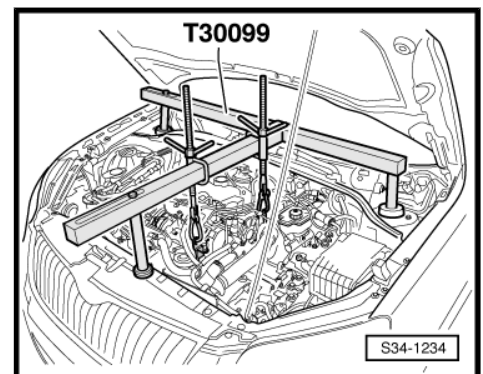
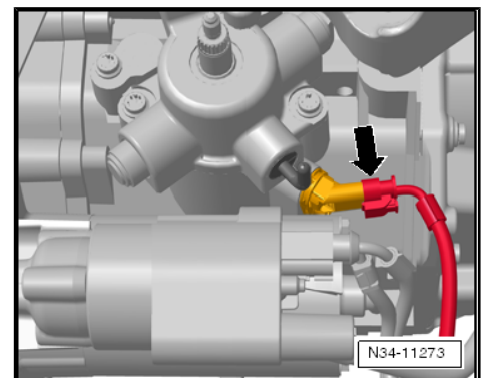
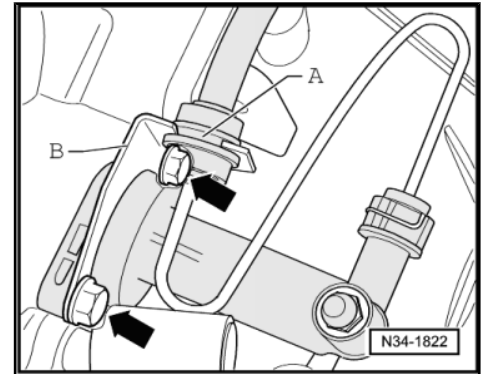
*Do not depress the clutch pedal.*

**Vehicles with start-stop system**

- Unplug the connector from the transmission neutral sender - G701- -arrow-.

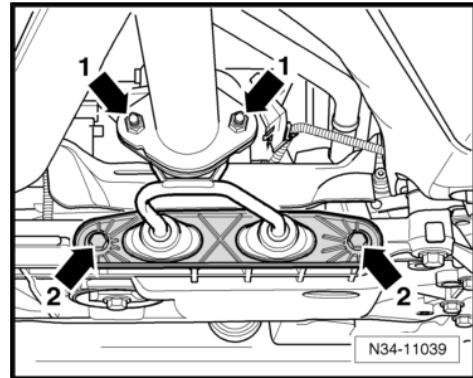
**Continued for all vehicles**

- Remove the earth strap from the engine/gearbox connecting screw.
- Remove engine/gearbox connecting screws at the top.
- Remove fixing screw for starter at the top.
- If hose and cable connections are located in the area of the lifting eye of the engine for the supporting device - T30099- , these must now be removed.
- Fit supporting device - T30099- .
- Hook the spindle of the supporting device into the lifting eye of the engine (use only one spindle of the supporting device on 1.2/77 kW engine).
- Slightly take up the weight of the engine/gearbox unit via the spindle, do not raise.
- Loosen the wheel bolts on front left and front right.
- Raise vehicle ⇒ Maintenance ; Booklet Yeti .
- Remove front left wheel.
- Remove the noise insulation below the engine/gearbox ⇒ Body Work; Rep. gr. 50 .
- Remove the front left wheelhouse liner ⇒ Body Work; Rep. gr. 66 .
- Disconnect plug -1- of the reversing light switch - F4- .
- If present, remove nut -2-.
- Remove holder for electric installation from starter ⇒ Electrical System; Rep. gr. 27 .
- Remove starter (screw -3-) ⇒ Electrical System; Rep. gr. 27 .

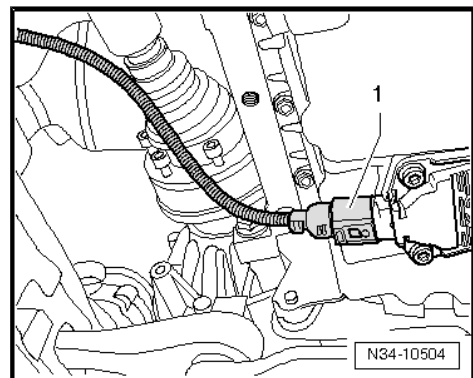




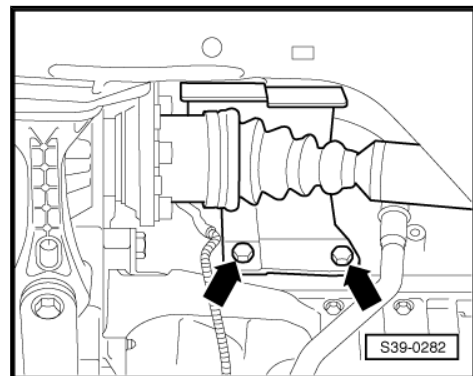
- Separate the exhaust system, -arrows 1- and unscrew the holder for the exhaust pipe from the assembly carrier -arrows 2- → Engine; Rep. gr. 26 .



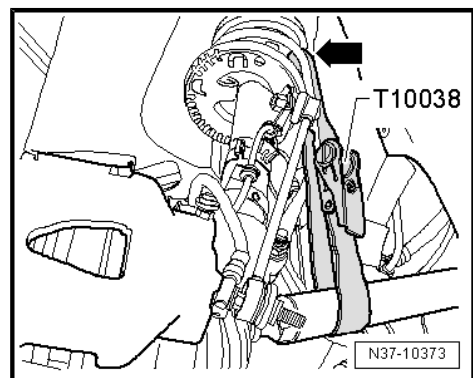
- Disconnect plug -1- from oil level and oil temperature sender - G266- .



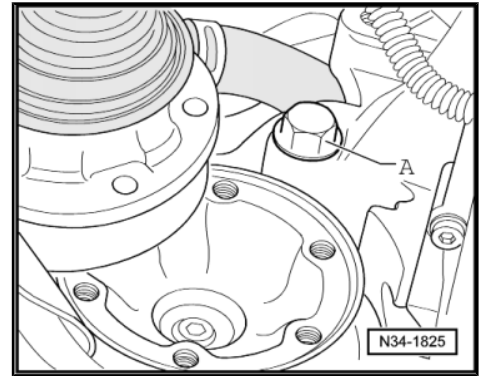
- Remove protection plate for drive shaft from the engine (if present) -arrows-.
- Remove drive shafts from flange shafts ⇒ Chassis; Rep. gr. 40 .



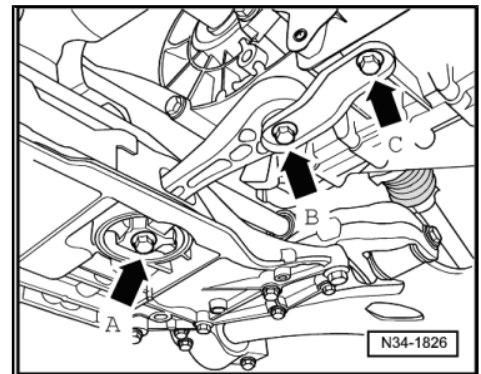
- Secure the drive shaft e.g. with the tensioning strap - T10038- (while doing so do not damage the surface protection).



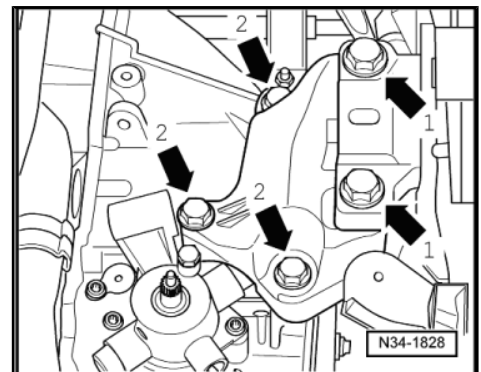
- Unscrew the engine/gearbox connecting screw -A- above the right flange shaft.



- Remove pendulum support -arrows°A-, -B- and -C-.



- Remove the screws -arrows 1- of the left and right assembly carrier out of the gearbox mount.
- Move engine/gearbox unit into oblique position, to do so lower the supporting device - MP9-200 (10-222A)- via the spindle.



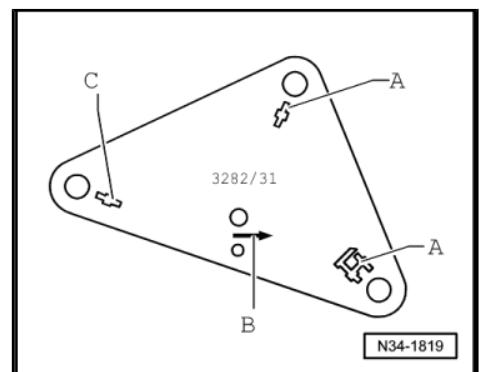
**i** Note

*Observe all lines when lowering the gearbox.*

- Remove gearbox console, to do so screw out the screws -arrows°2-.

The gearbox mount - 3282- is aligned for removal of the gearbox "0AJ" by using the adjusting plate - 3282/31- .

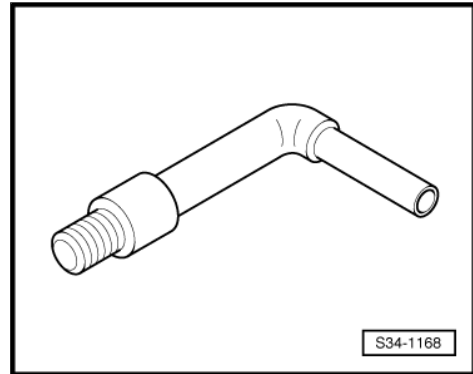
- Insert gearbox mount - 3282- into engine/gearbox jack - V.A.G 1383 A- .
- Position adjusting plate - 3282/31- onto the gearbox mount - 3282- ( adjusting plate fits in only one position).
- Align arms of the gearbox mount to match the holes in the adjusting plate .
- Screw in mounting elements -A-, as shown on the adjusting plate .
- Instead of the mounting element -C- screw in the lifting hook - 3282- .



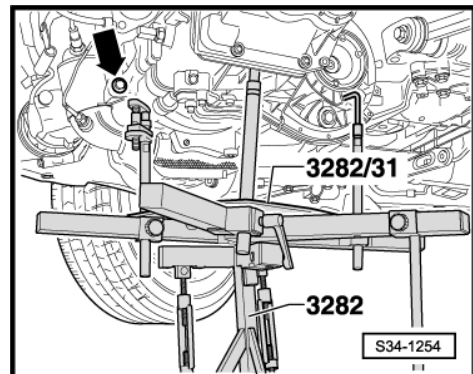

**Note**

The lifting hook - 3282- is a component part of the gearbox mount - 3282- .

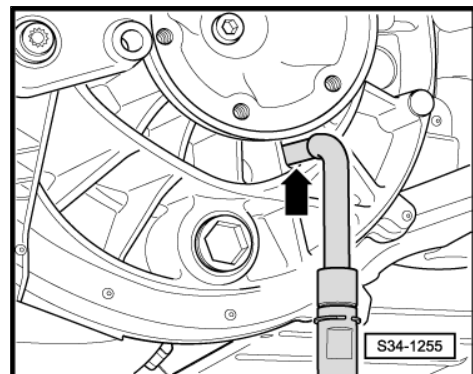
- Position engine/gearbox jack below vehicle, arrow -B- on adjusting plate points in the direction of travel/vehicle.



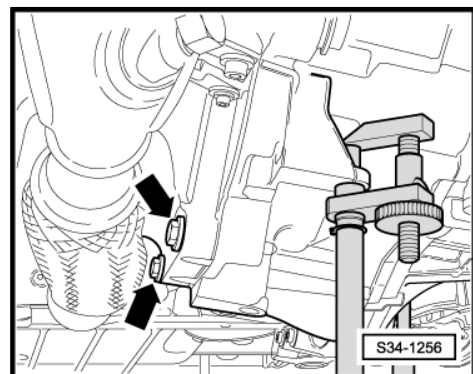
- Align the adjusting plate parallel to the gearbox.



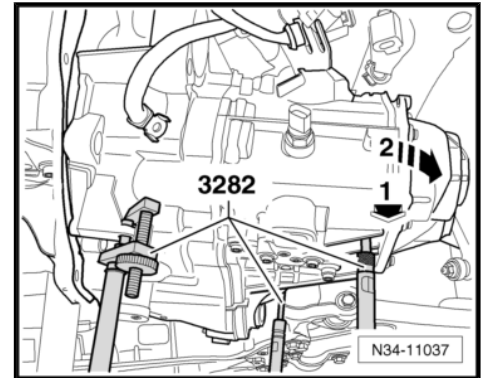
- Insert the lifting hook - 3282- in one of the recesses of the gearbox housing below the left flange shaft -arrow-.
- Remove engine/gearbox connecting screw (-arrow- in the fig. S34-1254 => [page 146](#) ).



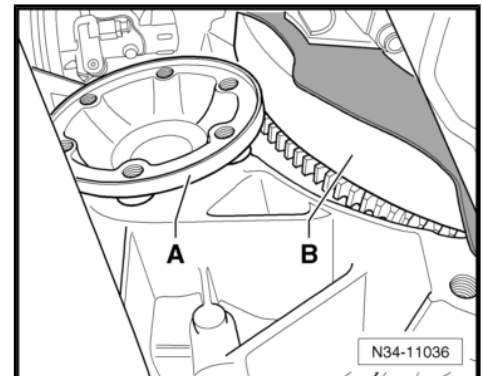
- Separate exhaust system so that the bottom screws -arrows- can be unscrewed (only on 1.4 engine).
- Ask a second mechanic to carefully push the engine forwards.
- Press the gearbox out of the sleeves.



- Press the gearbox in the area of the cover for the gearbox housing to the front end -arrow 1- and turn it slightly towards the bottom -arrow 2-.
- Pay attention to the intermediate plate on the engine.



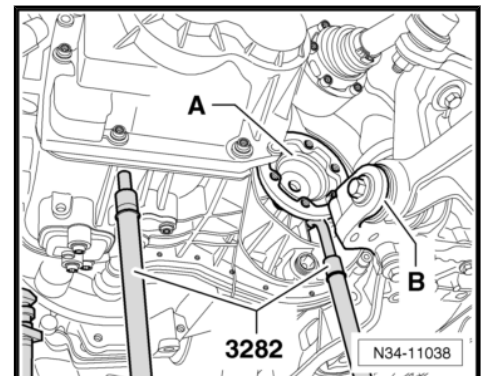
- After this, carefully guide the gearbox with the right flange shaft -A- past the flywheel -B- and the intermediate plate as shown.



- The left flange shaft -A- is carefully guided past the console -B- of the assembly carrier as shown.
- Lower gearbox, to do so pay attention to the assembly carrier.
- Change the gearbox position at the spindles of the gearbox mount - 3282- when lowering.

**i** Note

*Observe all lines when lowering the gearbox.*



## 2.2 Installing the gearbox

The installation of the gearbox occurs in reverse order. Observe the stress-free assembly bracket in the vehicle ⇒ Engine; Rep. gr. 10 .

- After installing, check gear oil level in the gearbox and if necessary top up with gear oil ⇒ [page 153](#) .
- Clean splines of drive shaft and apply a thin film of grease for plug serration of clutch disc - G 000 100 - .

**Note**

- ◆ *The clutch plate must slide freely up and down the drive shaft.*
- ◆ *If the gearbox is inserted. ensure the intermediate plate between the engine and gearbox is correctly installed.*
- ◆ *Check whether the dowel sleeves for centering the gearbox are present in the cylinder block. insert missing sleeves. If the sleeves are not provided. complications while shifting as well as problems with the clutch might occur and gearbox noises could arise.*
- Installing starter and cable ⇒ Electrical System; Rep. gr. 27 .
- Install drive shafts on gearbox ⇒ Chassis; Rep. gr. 40 .
- Assemble exhaust system ⇒ Engine; Rep. gr. 26 .
- Attach the shift mechanism to the gearbox ⇒ [page 118](#) .
- Setting the shift mechanism ⇒ [page 122](#) .
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .
- Install air filter ⇒ Engine; Rep. gr. 24 .
- Install the front left wheelhouse liner ⇒ Body Work; Rep. gr. 66 .
- Install the noise insulation below the engine/gearbox ⇒ Body Work; Rep. gr. 50 .
- Install front wheel ⇒ Chassis; Rep. gr. 44 .

**Note**

*After the battery earth strap is disconnected and connected. carry out additional operations ⇒ Electrical System; Rep. gr. 27 .*



## 2.3 Tightening torques

⇒ [“2.3.1 Tightening torques \(Octavia II and Octavia III\)”](#), page 149

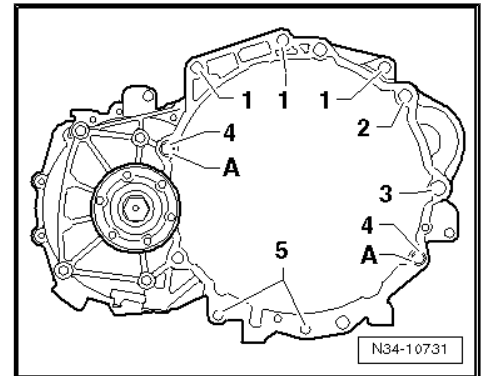
⇒ [“2.3.2 Tightening torques \(Superb II\)”](#), page 150

⇒ [“2.3.3 Tightening torques \(Yeti\)”](#), page 151

### 2.3.1 Tightening torques (Octavia II and Octavia III)

#### Attachment of gearbox to 1.2 engine (Octavia II)

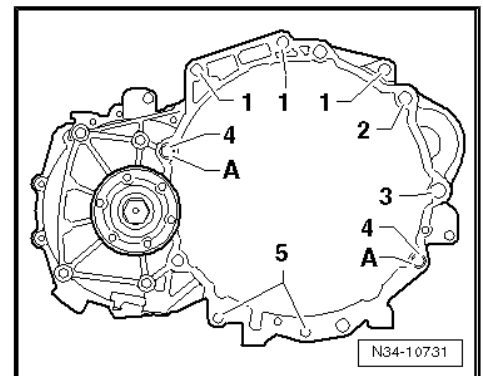
Pos.	Screw	Pieces	Nm
1	M12 x 60	3	80
2 <sup>1)</sup> 2)	M12 x 55	1	80
3 <sup>1)</sup> 2)	M12 x 150	1	80
4	M12 x 70	1	80
4 <sup>3)</sup>	M12 x 80	1	80
5	M10 x 30	2	40
A	Dowel sleeves	2	



- 1) Screw with threaded pin M8.
- 2) Additional starter to gearbox.
- 3) Screw above the flange shaft.

#### Attachment of gearbox to 1.4 engine (Octavia II)

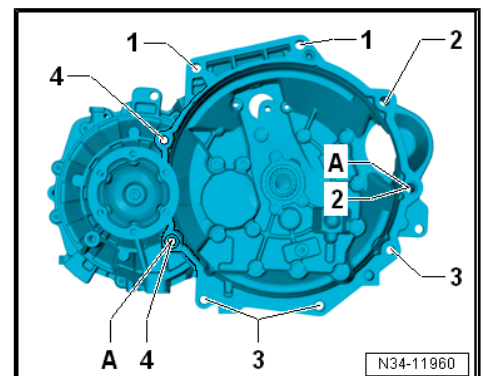
Pos.	Screw	Pieces	Nm
1	M12 x 50	3	80
2 <sup>1)</sup> 2)	M12 x 55	1	80
3 <sup>1)</sup> 2)	M12 x 150	1	80
4	M12 x 60	2	80
5	M10 x 35	2	40
A	Dowel sleeves	2	



- 1) Screw with threaded pin M8.
- 2) Additional starter to gearbox.

#### Attachment of gearbox to 1.2 engine (Octavia III)

Pos.	Screw	Pieces	Nm
1	M12 x 60	2	80
2 <sup>1)</sup> 2)	M12 x 165	2	80
3	M10 x 55	3	40
4	M12 x 70	1	80
4 <sup>3)</sup>	M12 x 70	1	80
A	Dowel sleeves	2	



- 1) Screw with threaded pin M8.
- 2) Additional starter to gearbox.
- 3) Screw above the flange shaft.



**Gearbox console to gearbox**

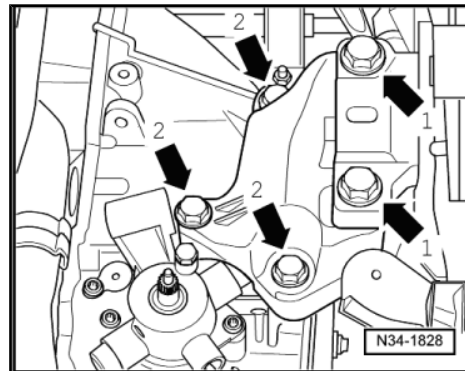
– Replace bolts.

Screws -arrows°2- 40 Nm + torque a further 90° (1/4 turn)

**Gearbox to body**

– Replace bolts.

Screws -arrows°1- 60 Nm + torque a further 90° (1/4 turn)



**Tightening torques**

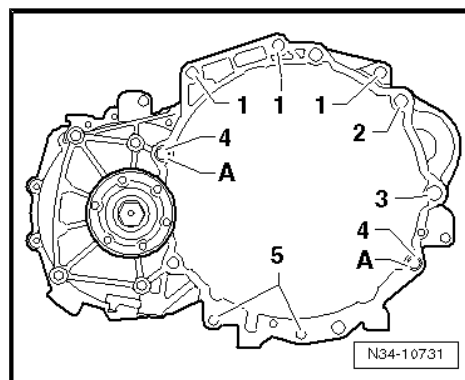
Component	Tightening torque
Cable support to gearbox	⇒ page 98
Gearbox shift lever to gearshift shaft	⇒ page 98
Slave cylinder to gearbox	⇒ page 78
Pendulum support <sup>1)</sup>	⇒ Engine; Rep. gr. 10
Protective cap for drive shaft on engine	⇒ Chassis; Rep. gr. 40
Drive shaft to flange shaft	⇒ Chassis; Rep. gr. 40
Wheel bolts to wheel hub	⇒ Chassis; Rep. gr. 44

<sup>1)</sup> Always replace these screws ⇒ Electronic Catalogue of Original Parts .

**2.3.2 Tightening torques (Superb II)**

**Gearbox to engine**

Pos.	Screw	Pieces	Nm
1	M12 x 50	3	80
2 <sup>1)</sup> 2)	M12 x 55	1	80
3 <sup>1)</sup> 2)	M12 x 150	1	80
4	M12 x 60	2	80
5	M10 x 35	2	40
A	Dowel sleeves	2	



- 1) Screw with threaded pin M8.
- 2) Additional starter to gearbox.

**Gearbox console to gearbox**

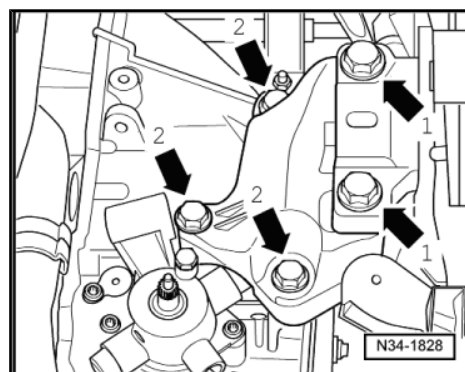
– Replace bolts.

Screws -arrows°2- 40 Nm + torque a further 90° (1/4 turn)

**Gearbox to body**

– Replace bolts.

Screws -arrows°1- 60 Nm + torque a further 90° (1/4 turn)



## Tightening torques

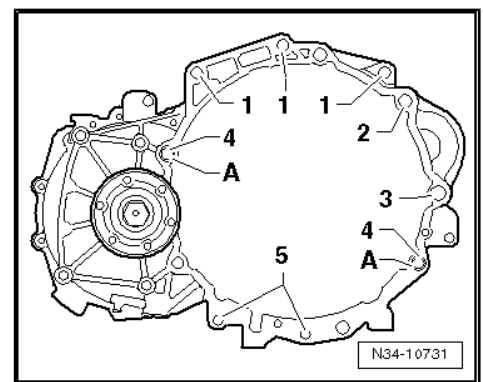
Component	Tightening torque
Cable support to gearbox	⇒ page 98
Gearbox shift lever to gearshift shaft	⇒ page 98
Slave cylinder to gearbox	⇒ page 78
Pendulum support <sup>1)</sup>	⇒ Engine; Rep. gr. 10
Drive shaft to flange shaft	⇒ Chassis; Rep. gr. 40
Wheel bolts to wheel hub	⇒ Chassis; Rep. gr. 44

<sup>1)</sup> Always replace these screws ⇒ Electronic Catalogue of Original Parts .

### 2.3.3 Tightening torques (Yeti)

#### Gearbox to 1.2 l engine

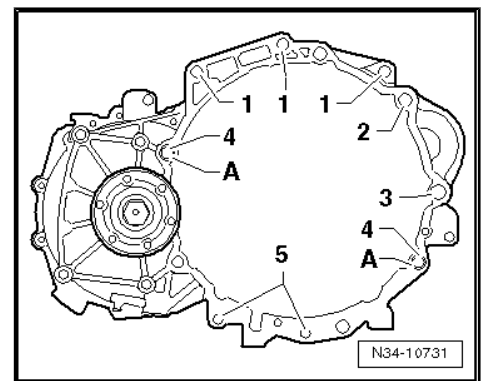
Pos.	Screw	Pieces	Nm
1	M12 x 60	3	80
2 <sup>1)</sup> 2)	M12 x 55	1	80
3 <sup>1)</sup> 2)	M12 x 150	1	80
4	M12 x 70	1	80
4 <sup>3)</sup>	M12 x 80	1	80
5	M10 x 35	2	40
A	Dowel sleeves	2	



- 1) Screw with threaded pin M8.
- 2) Additional starter to gearbox.
- 3) Screw above the flange shaft.

#### Gearbox to 1.4 l engine

Pos.	Screw	Pieces	Nm
1	M12 x 50	3	80
2 <sup>1)</sup> 2)	M12 x 55	1	80
3 <sup>1)</sup> 2)	M12 x 150	1	80
4	M12 x 60	1	80
4 <sup>3)</sup>	M12 x 60	1	80
5	M10 x 50	2	40
A	Dowel sleeves	2	



- 1) Screw with threaded pin M8.
- 2) Additional starter to gearbox.
- 3) Screw above the flange shaft.

Volkswagen Technical Site: <http://vwts.ru> <http://vwts.info>

огромный архив документации по автомобилям Volkswagen, Skoda, Seat, Audi



**Gearbox console to gearbox**

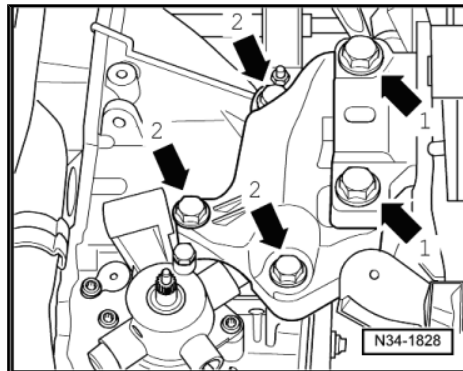
- Replace bolts.
- Screws -arrows°2-

40 Nm + torque a further 90°  
(1/4 turn)

**Gearbox to body**

- Replace bolts.
- Screws -arrows°1-

60 Nm + torque a further 90°  
(1/4 turn)



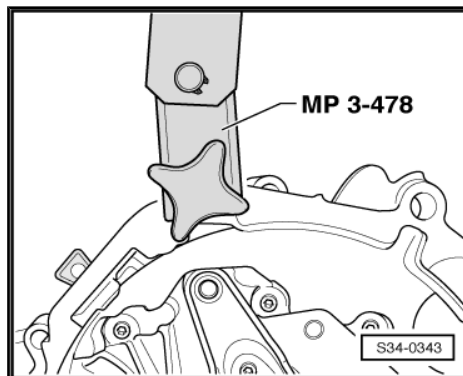
**Tightening torques**

Component	Tightening torque
Cable support to gearbox	⇒ page 98
Gearbox shift lever to gearshift shaft	⇒ page 98
Slave cylinder to gearbox	⇒ page 78
Pendulum support <sup>1)</sup>	⇒ Engine; Rep. gr. 10
Protective cap for drive shaft on engine	⇒ Chassis; Rep. gr. 40
Drive shaft to flange shaft	⇒ Chassis; Rep. gr. 40
Wheel bolts to wheel hub	⇒ Chassis; Rep. gr. 44

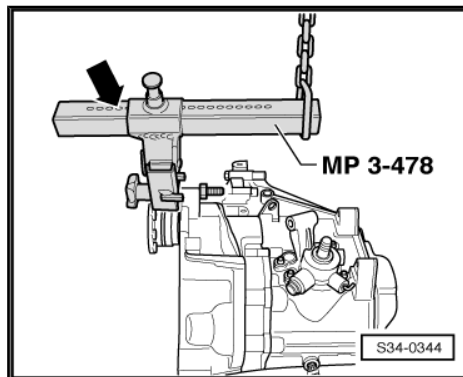
1) Always replace these screws ⇒ Electronic Catalogue of Original Parts .

**2.4 Transporting the gearbox**

- Screw down gearbox suspension device - MP3-478- onto clutch housing.



- Adjust supporting arm at slide with locking pin.
- Number of visible holes = 6.
- Raise gearbox with workshop crane and gearbox suspension device - MP 3-478- .
  - Place down gearbox, e.g. in a transport container.



## 3 Gear oil

⇒ **[“3.1 Check gear oil level”, page 153](#)**

### 3.1 Check gear oil level

#### Special tools and workshop equipment required

- ◆ Socket wrench insert - T30023 (3357)-

Gearbox oil specification ⇒ Electronic Catalogue of Original Parts .

- Unscrew plug for inspecting gear oil -arrow-.

The oil is at the correct level if the gear is filled up to the lower edge of the oil filler hole.

- Screw in oil filler plug -arrow- and tighten to tightening torque ⇒ [page 153](#) .

#### If re-filling, do the following:

- Unscrew oil filler plug -arrow-.
- Pour in gear oil up to lower edge of filler hole.
- Screw in plug -arrow-.
- Start engine, engage a gear and allow gearbox to rotate for about 2 minutes.
- Switch off engine, unscrew plug -arrow- and top up gear oil to lower edge of filler hole.
- Screw in oil filler plug -arrow- and tighten to tightening torque ⇒ [page 153](#) .

#### Different versions of oil filler plug and oil drain plug.

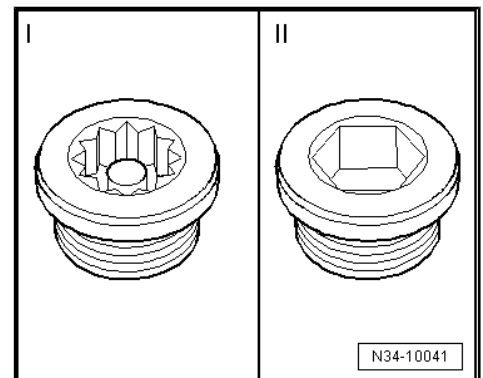
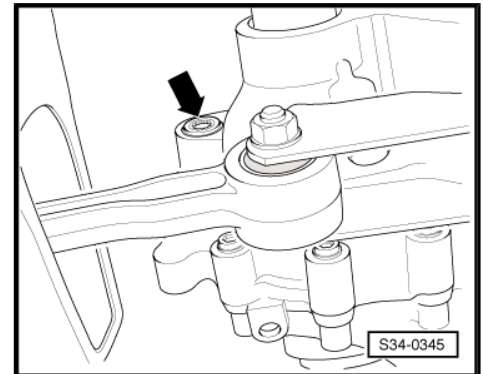
I - Oil filler plug or oil drain plug with internal serration 24 Nm

II - Oil filler plug or oil drain plug with internal serration 32 Nm



#### Note

- ◆ Loosen or tighten oil filler plug or oil drain plug with hexagon socket head with socket wrench insert - T30023 (3357)- .
- ◆ Assign oil filler plug or oil drain plug via the ⇒ Electronic Catalogue of Original Parts .

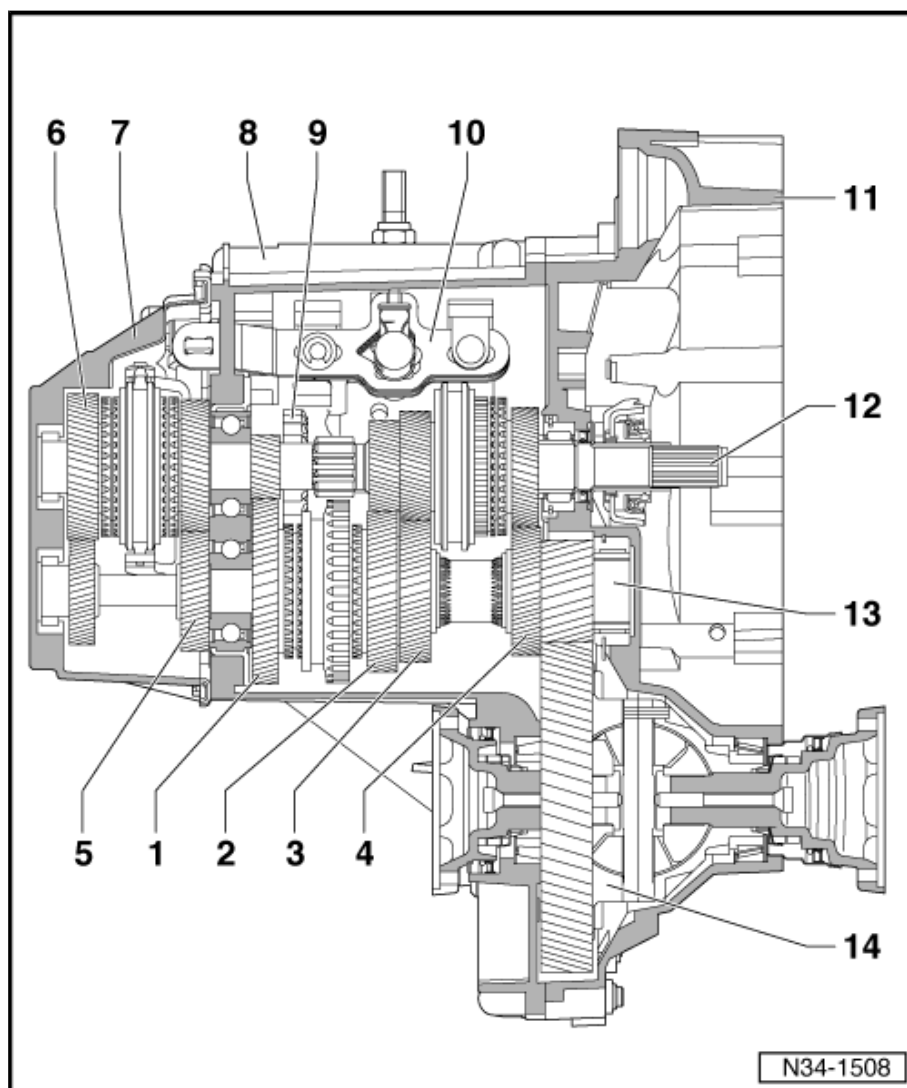


## 4 Disassembling and assembling the gearbox

- ⇒ [“4.1 Schematic overview - Gearbox”, page 154](#)
- ⇒ [“4.2 Summary of components of gearbox”, page 155](#)
- ⇒ [“4.3 Summary of components- Gearbox housing cover and 5th/6th gear”, page 156](#)
- ⇒ [“4.4 Summary of components - Clutch housing”, page 158](#)
- ⇒ [“4.5 Summary of components - Shafts, differential gear and gearshift forks”, page 159](#)
- ⇒ [“4.6 Summary of components - Gearshift unit”, page 161](#)
- ⇒ [“4.7 Assembly overview - shift forks ”, page 162](#)
- ⇒ [“4.8 Repairing gearshift forks”, page 163](#)
- ⇒ [“4.9 Repairing gearshift unit”, page 164](#)
- ⇒ [“4.10 Disassembling and assembling the gearbox”, page 166](#)

### 4.1 Schematic overview - Gearbox

- 1 - 1. gear
- 2 - 2. gear
- 3 - 3. gear
- 4 - 4. gear
- 5 - 5. gear
- 6 - 6. gear
- 7 - Cover for gearbox housing
- 8 - Gearbox housing
- 9 - Reverse gear
- 10 - Shift mechanism  
□ (Gearshift forks)
- 11 - Clutch housing
- 12 - Drive shaft
- 13 - Output shaft
- 14 - Differential gear

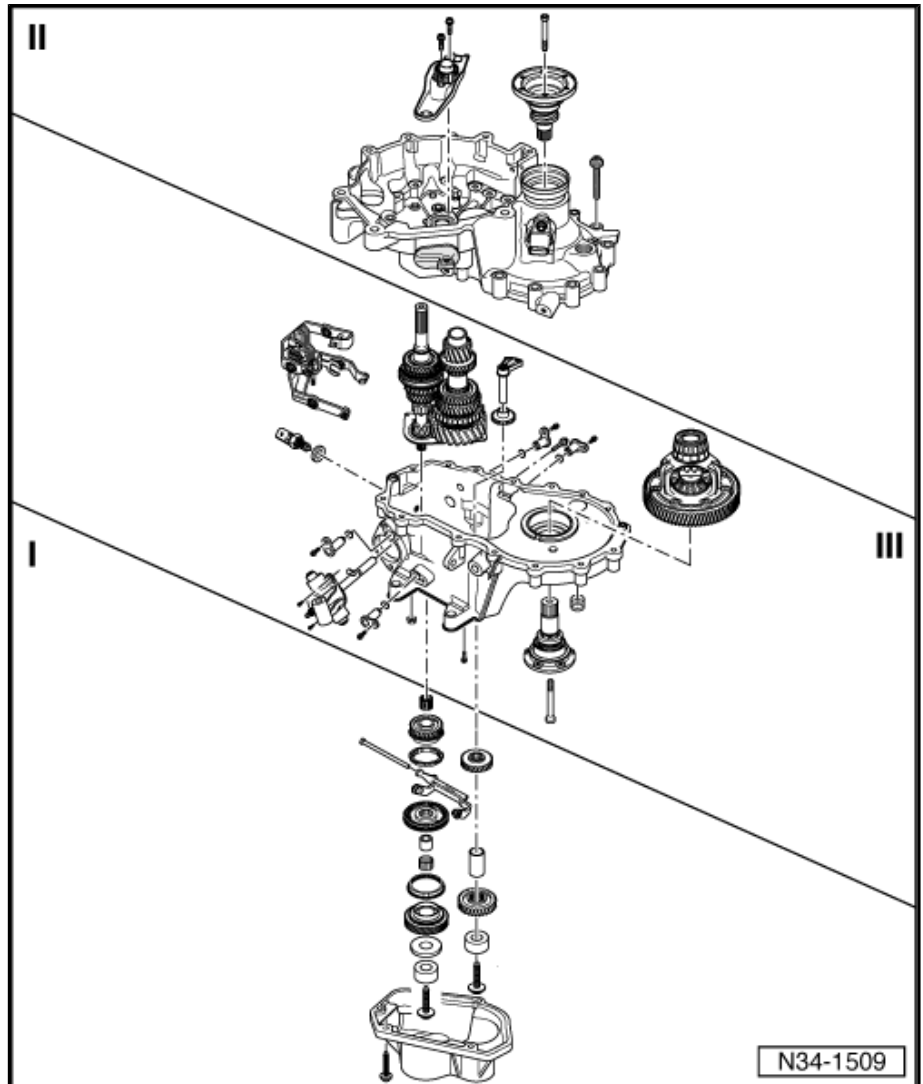


## 4.2 Summary of components of gearbox

I - Removing and installing gearbox housing cover and 5th/6th gear ⇒ [page 156](#)

II - Detaching and attaching clutch housing ⇒ [page 158](#)

III - Removing and installing the drive shaft, output shaft, differential gear and shift forks ⇒ [page 159](#)



### 4.3 Summary of components- Gearbox housing cover and 5th/6th gear

#### 1 - Gearbox housing

- repairing ⇒ [page 178](#)

#### 2 - 5th gear pinion

- removing and installing ⇒ [page 166](#)
- Fitting position and press on ⇒ [page 174](#)

#### 3 - Bushing

#### 4 - 6th gear pinion

- Fitting position ⇒ [page 176](#)

#### 5 - Inner ring/cylindrical-roller bearing

- for output shaft
- identify before removing
- do not interchange with inner ring/cylindrical-roller bearing of input shaft
- can be replaced separately

#### 6 - Self-locking screw

- for output shaft
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- M8: 30 Nm + torque a further 90° (1/4 turn)
- M10 x 1: 75 Nm + torque a further 45° (1/8 turn)

#### 7 - Cover for gearbox housing

- with cylindrical-roller bearing for drive shaft and for output shaft
- repairing ⇒ [page 180](#)

#### 8 - Screw

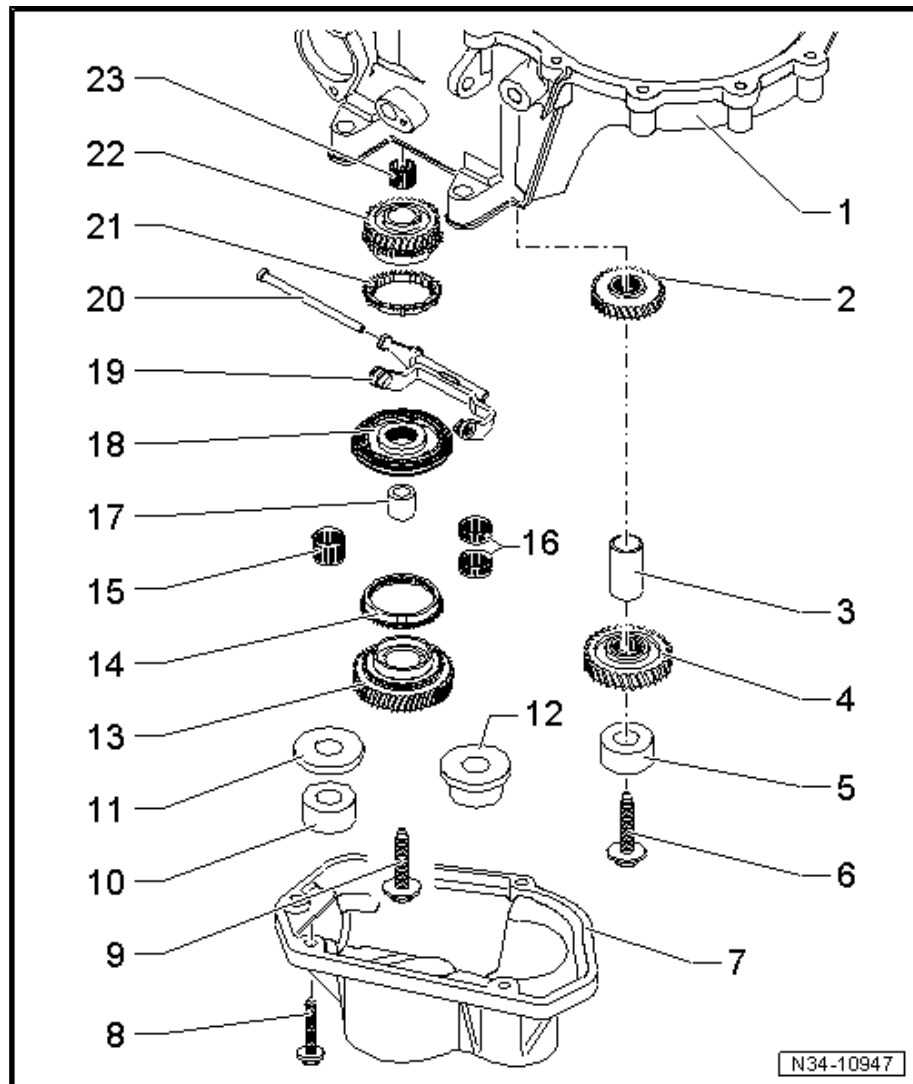
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 5 Nm + 90°

#### 9 - Self-locking screw

- for drive shaft
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- M8: 30 Nm + torque a further 90° (1/4 turn)
- M10: 75 Nm + torque a further 45° (1/8 turn)

#### 10 - Inner ring/cylindrical-roller bearing

- for drive shaft
- identify before removing
- do not interchange with inner ring/cylindrical-roller bearing of output shaft
- can be replaced separately







#### 11 - Thrust washer

#### 12 - Inner ring/cylindrical-roller bearing with thrust washer

- for drive shaft
- present on certain gearboxes
- assign according to the ⇒ Electronic catalogue of original parts .

#### 13 - 6th gear sliding gear

#### 14 - 6th gear synchronizer ring

#### 15 - Needle bearing

- one-piece
- for 6th gear
- assign according to the ⇒ Electronic catalogue of original parts .
- replace together with bushing Pos. 17

#### 16 - Needle bearing

- two-piece
- for 6th gear
- present on certain gearboxes
- assign according to the ⇒ Electronic catalogue of original parts .
- replace together with bushing Pos. 17

#### 17 - Bushing

- for 6th gear needle bearing
- replace together with needle bearing Pos. 15 or 16

#### 18 - Sliding sleeve with 5th and 6th gear synchronizer body

- disassembling and assembling ⇒ [page 185](#)

#### 19 - 5th/6th gear shift fork

#### 20 - Bearing bolt

- for 5th/6th gear shift fork

#### 21 - 5th gear synchronizer ring

- is damaged by the drive shaft when removing
- always replace ⇒ Electronic Catalogue of Original Parts

#### 22 - 5th gear sliding gear

#### 23 - Needle bearing

- for 5th gear



## 4.4 Summary of components - Clutch housing

### 1 - Conical screw

- 25 Nm

### 2 - Flange shaft with pressure spring

- removing and installing ⇒ [page 166](#)
- complete ⇒ [page 202](#)

### 3 - Screw

- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 5 Nm + 90°

### 4 - Clutch housing

- repairing ⇒ [page 178](#)

### 5 - Gearbox housing

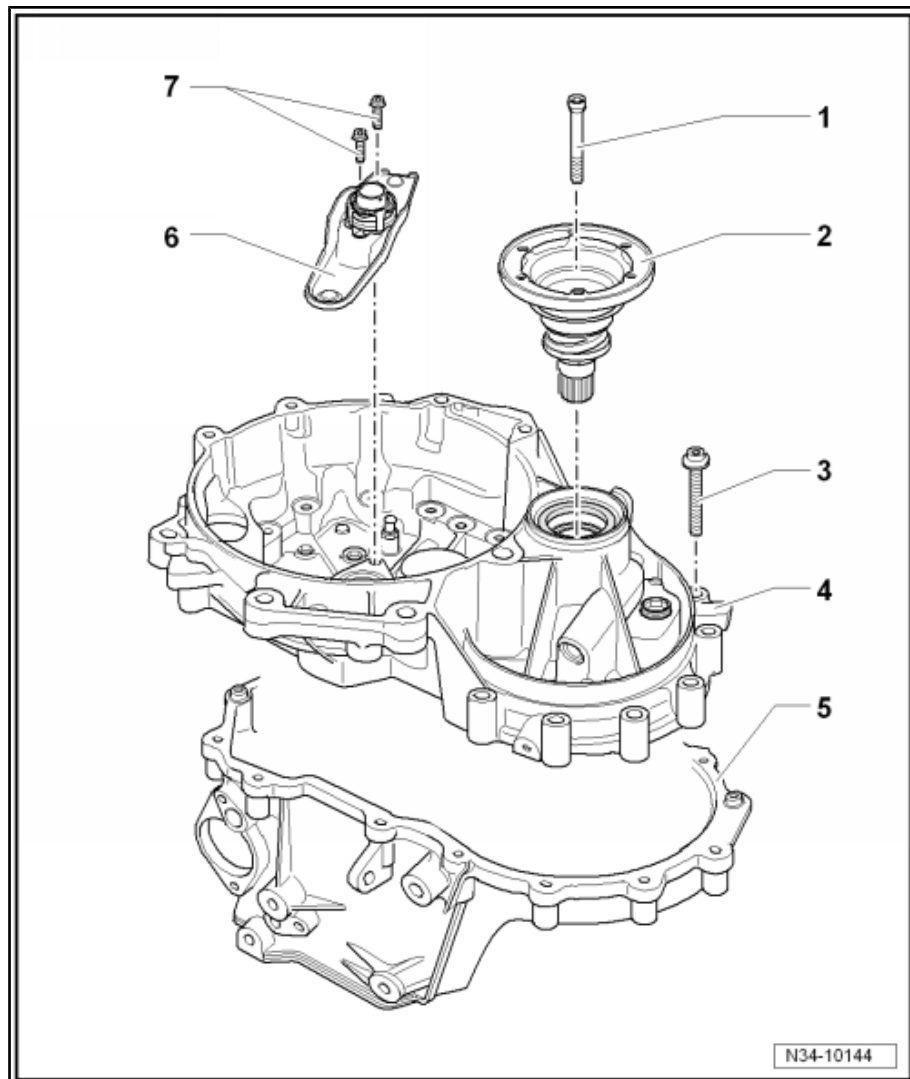
- repairing ⇒ [page 178](#)

### 6 - Clutch release lever

- with guide bushing and clutch release bearing
- removing and installing ⇒ [page 78](#)

### 7 - Screw

- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 5 Nm + 90°



## 4.5 Summary of components - Shafts, differential gear and gearshift forks

### 1 - Differential gear

- disassembling and assembling ⇒ [page 205](#)

### 2 - Gearbox housing

- repairing ⇒ [page 153](#)  
⇒ [page 178](#)

### 3 - Oil drain plug

- Tightening torque ⇒ [page 153](#)
- different versions; assign via the ⇒ Electronic Catalogue of Original Parts

### 4 - Flange shaft with pressure spring

- removing and installing ⇒ [page 166](#)
- complete ⇒ [page 202](#)

### 5 - Conical screw

- 25 Nm

### 6 - Self-locking screw

- to secure the bearing support with grooved ball bearings for the drive and output shaft
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 5 Nm + 90°

### 7 - Hexagon nut with collar

- for shift mechanism
- self-locking
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 23 Nm

### 8 - O-ring

- after removing, replace ⇒ Electronic Catalogue of Original Parts

### 9 - Bearing pins

### 10 - Screw

- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 5 Nm + 90°

### 11 - Gearshift shaft with cover

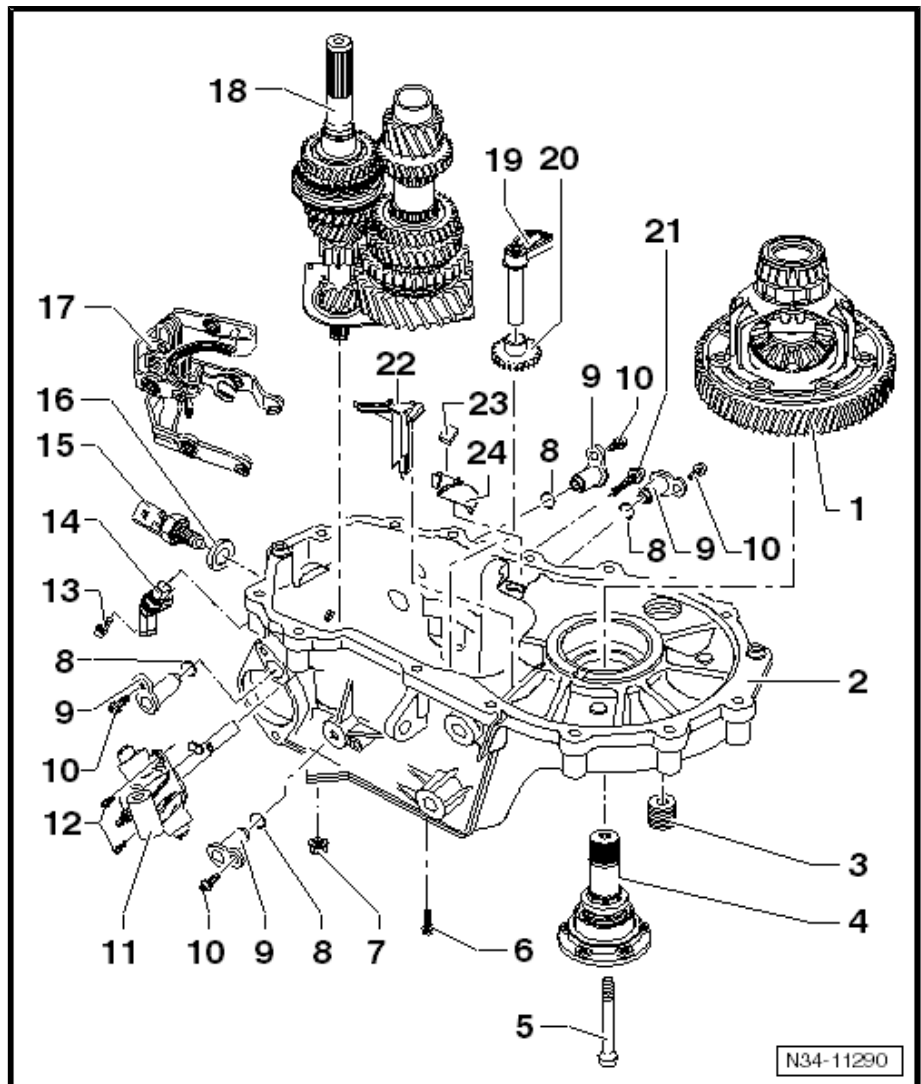
- (Gearshift unit)
- disassembling and assembling ⇒ [page 164](#)

### 12 - Screw

- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 5 Nm + 90°

### 13 - Screw

- 6 Nm



**14 - Gearbox neutral position sender - G701-**

- on vehicles with start-stop system

**15 - Reversing light switch - F4-**

- 20 Nm

**16 - Sealing ring**

- after removing, replace ⇒ Electronic Catalogue of Original Parts

**17 - Shift mechanism**

- Gearshift forks
- disassembling and assembling ⇒ [page 163](#)

**18 - Drive shaft and output shaft with bearing support for grooved ball bearings**

- If the bearing support is released, it must always be replaced ⇒ Electronic Catalogue of Original Parts
- pressing off and on bearing support ⇒ [page 185](#)
- Disassembling and assembling the drive shaft ⇒ [page 185](#)
- Disassembling and assembling the output shaft ⇒ [page 194](#)

**19 - Reverse shaft support****20 - Reverse gear****21 - Screw**

- for reverse shaft support
- after removing, replace ⇒ Electronic Catalogue of Original Parts
- 25 Nm + 90°

**22 - Oil drip pan****23 - Magnet****24 - Oil guide part**

## 4.6 Summary of components - Gearshift unit

### 1 - Bushing

- for the gearshift shaft
- extracting and inserting  
⇒ [page 178](#) flush

### 2 - Gearshift shaft with cover

- replace jointly

### 3 - Locking bolt

- for setting the gearshift mechanism
- removing ⇒ [page 164](#)
- inserting ⇒ [page 165](#)

### 4 - Reversing lever

- Fitting position  
⇒ [page 100](#)
- after installing set shift mechanism ⇒ [page 122](#)
- remove and install together with cable lock for selector cable  
⇒ [page 118](#)
- on certain vehicles, the relay lever is secured with the clip on the gearshift cover ⇒ [page 166](#)

### 5 - Sealing ring

- for the gearshift shaft
- lever out with screwdriver
- inserting ⇒ [page 165](#)

### 6 - Cap

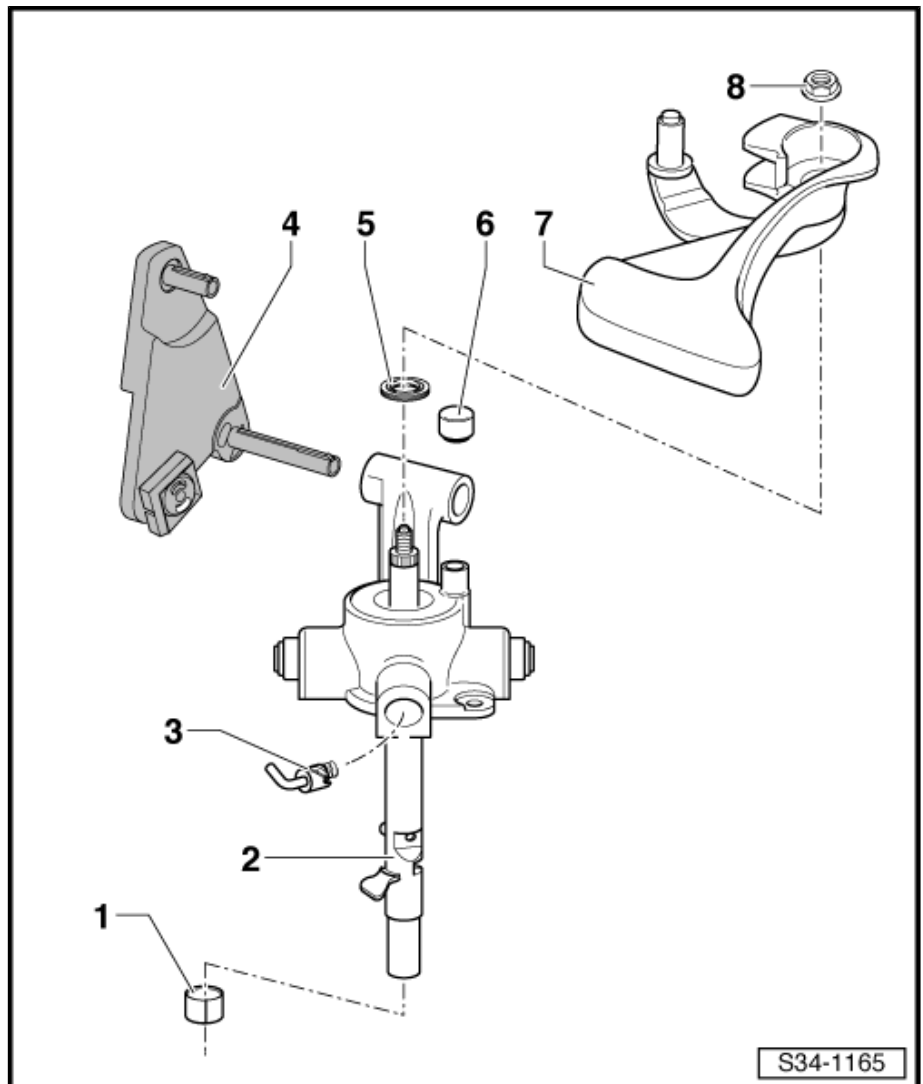
- for gearbox bleeder

### 7 - Gearshift lever

- with balancing weight
- insert in such a way that the interrupted spacing of the teeth matches the gearshift shaft ⇒ [page 165](#)
- may be replaced with the gearshift mechanism mounted
- Fitting position ⇒ [page 100](#)

### 8 - Hexagon nut

- self-locking
- replace ⇒ Electronic Catalogue of Original Parts
- 20 Nm





## 4.7 Assembly overview - shift forks



### Note

The gearshift fork group Pos. 1 does not have to be disassembled for the disassembly and assembly of the shift segments, circlips and if necessary angular ball bearings.

#### 1 - Gearshift fork group with shift rails

#### 2 - 3rd/4th gear shift segment

- It must still be possible to rotate the shift segment freely once fitted
- Identification ⇒ [page 163](#)

#### 3 - Angular ball bearing

- 4 pieces
- removing ⇒ [page 164](#)
- installing ⇒ [page 164](#)

#### 4 - Circlip

- always replace ⇒ Electronic Catalogue of Original Parts
- removing ⇒ [page 163](#)
- installing ⇒ [page 164](#)

#### 5 - 1st/2nd gear shift segment

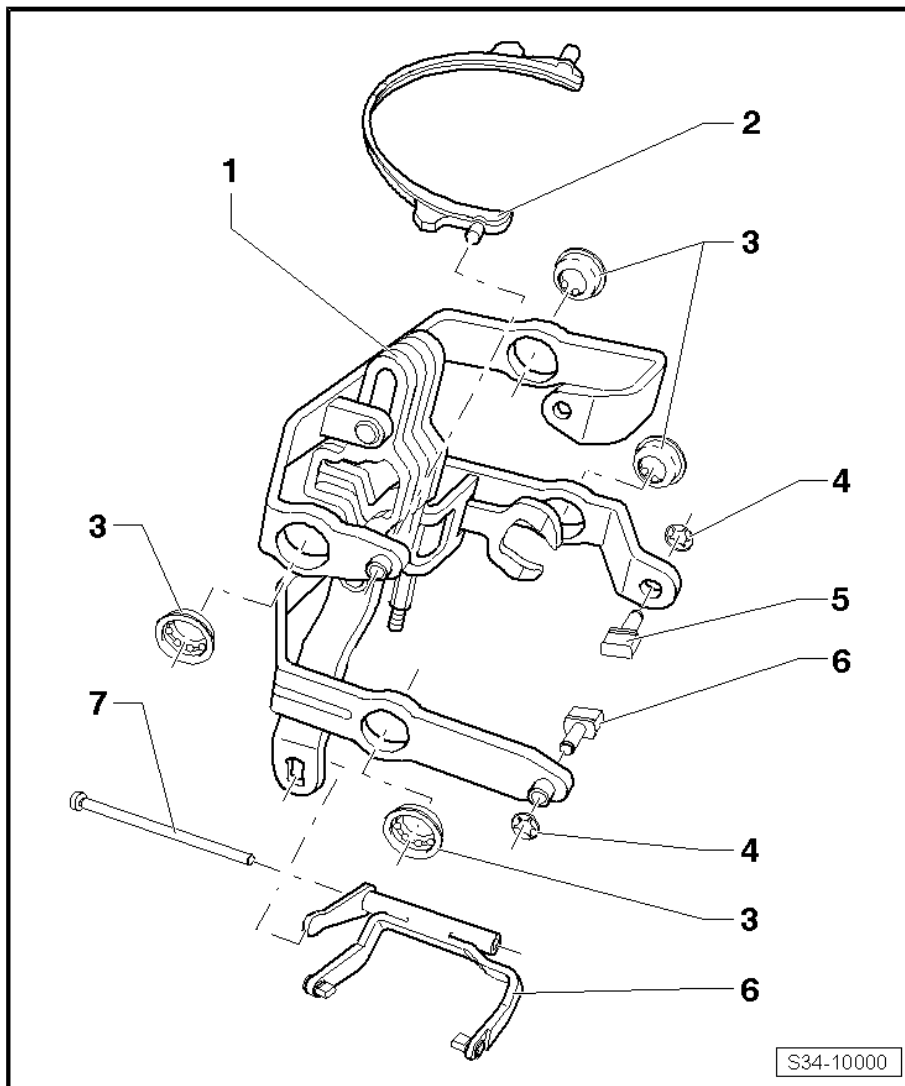
- Gearshift fork with shift segment ⇒ [page 163](#)
- It must still be possible to rotate the shift segment freely once the circlip has been fitted

#### 6 - 5th/6th gear shift fork with shift segments

- Shift segments are connected inseparably with the gearshift fork
- Identification ⇒ [page 163](#)

#### 7 - Bearing bolt

- for 5th/6th gear shift fork



## 4.8 Repairing gearshift forks

### Special tools and workshop equipment required

- ◆ Driver - MP1-304 (10-206)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Thrust piece - MP3-453 (VW 431)-
- ◆ Distance sleeve - MP3-458/2 (VW 472/2)-
- ◆ Assembly device - MP5-402 (3301)-
- ◆ Removal tool for inner lining of the door panel - MP8-602/1 (80-200)-
- ◆ Assembly device - T30100 (3290)-

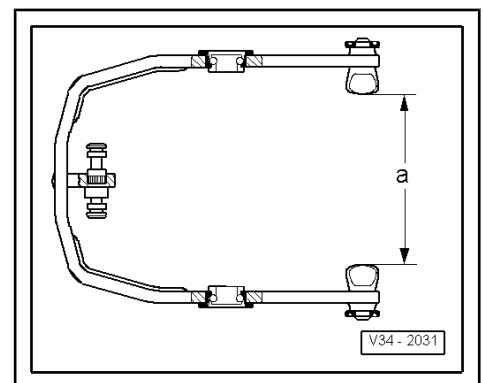
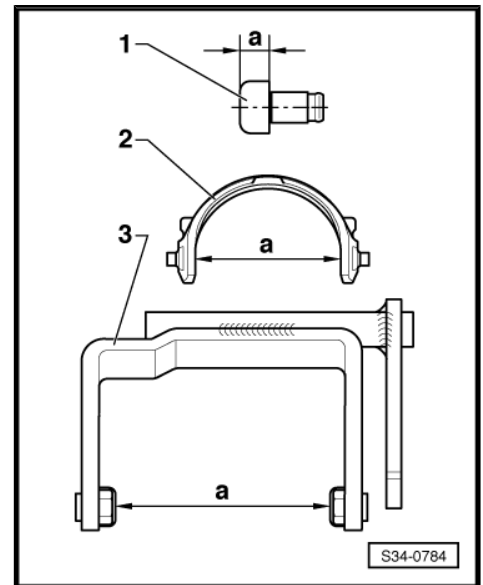
### Identification of shift segments and 5th/6th gear shift fork with shift segments

#### Dimension -a-

- 1 - Shift segments 1st/2nd gear = 10.2 mm
- 2 - 3rd/4th gear shift segment = 78.6 mm
- 3 - 5th/6th gear shift fork with shift segments = 79.5 mm

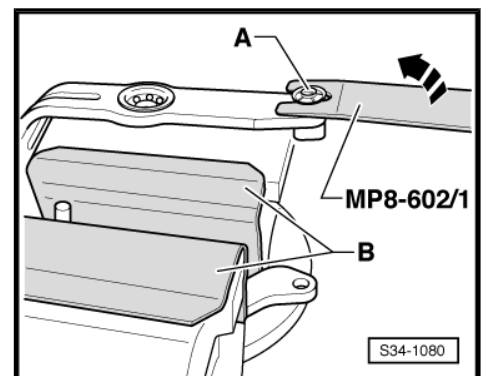
### 1st/2nd gear shift fork with shift segments

Dimension -a- = 75 mm



### Removing the circlip

- Secure the shift fork in a vice fitted with protective jaws -B-.
- Lift off the circlip -A- in -direction of the arrow-.



### Fitting the circlip

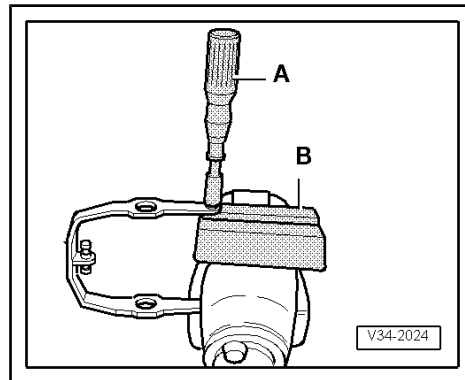
- Press the circlip with a handle wrench into the slot of the shift segment.

**i** Note

*It must still be possible to rotate the shift segment freely once the circlip has been fitted.*

A - Handle wrench, wrench size 10 mm

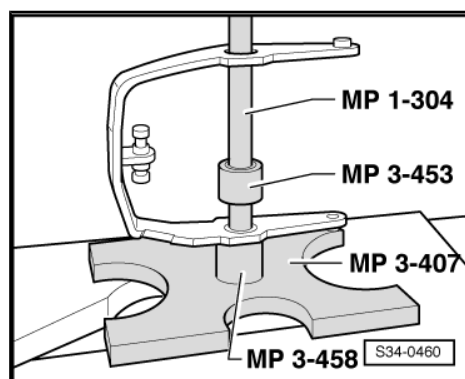
B - Protective jaws



### Removing the angular ball bearing

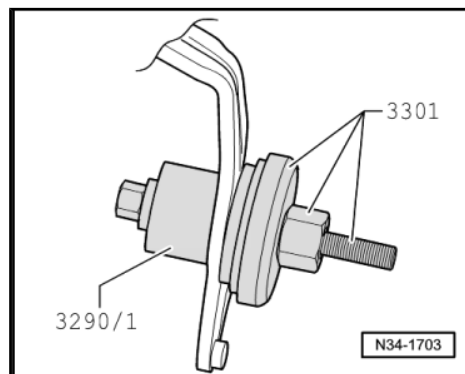
**i** Note

*Do not bend the shift forks when removing and installing the angular ball bearings.*



### Insert the angular ball bearing up to the stop into the gearshift fork

The recess in the pressure plate - 3290/1- from the assembly device - 3290- points towards the ball bearing.



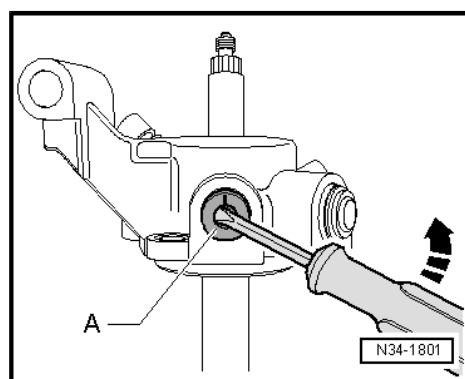
## 4.9 Repairing gearshift unit

### Special tools and workshop equipment required

- ◆ Pipe section - MP3-479 (VW 423)-
- ◆ Thrust piece - T10203-
- ◆ Pressure spindle - MP3-448 (VW 408 A)-
- ◆ Centering mandrel - MP3-463 (12-551)-
- ◆ Sealant - AMV 188 200 03-

### Remove locking bolt -A- from gearshift cover

- Remove the outer part of the locking bolt.
- Then lever out locking bolt carefully with a screwdriver.

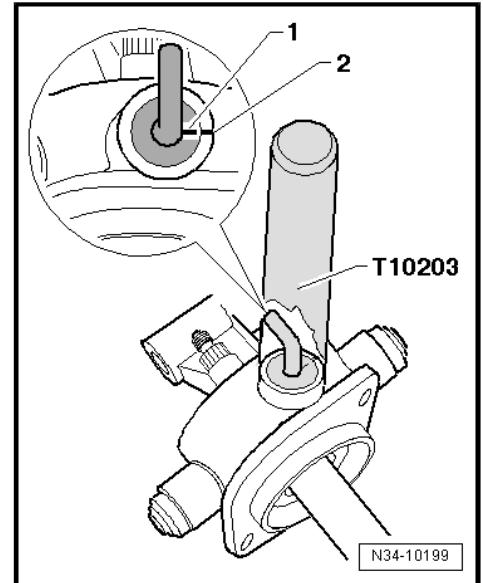




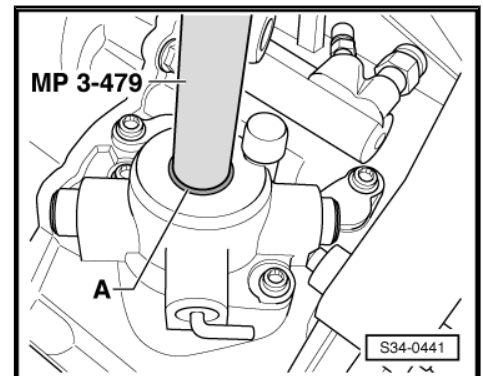
### Drive locking bolt into gearshift cover

#### Fitting position:

The marking -1- points towards the marking -2- on the gearshift cover.

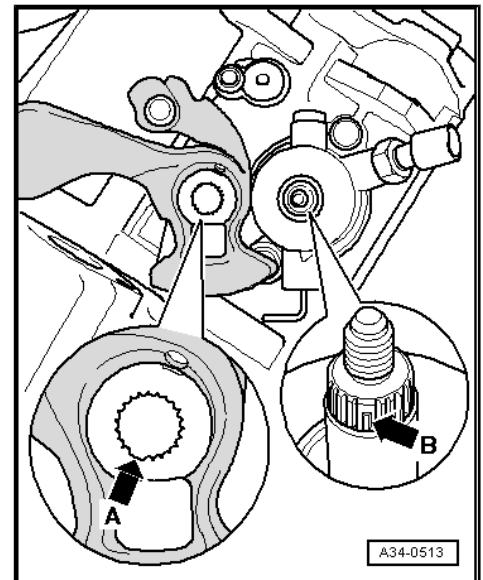


### Insert gasket ring -A- up to the stop



### Install gearshift lever

- When positioning the gearshift lever, make sure that the tooth opening -arrow A- is located above the interrupted spacing of the teeth for the gearshift shaft -arrow B-.





### remove and install relay lever with clip -arrow 1-

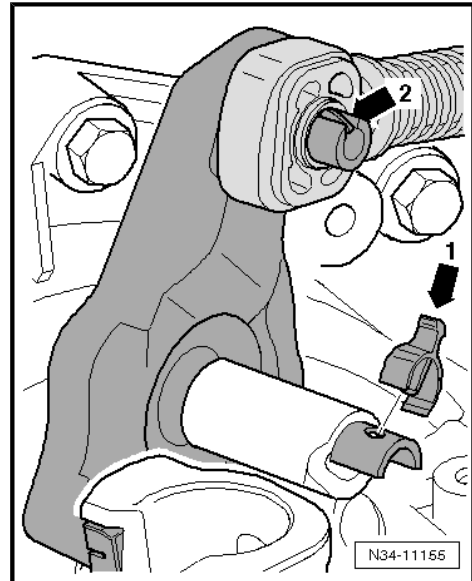
- Remove the clip -arrow 1- and the relay lever together with the cable lock -arrow 2-.



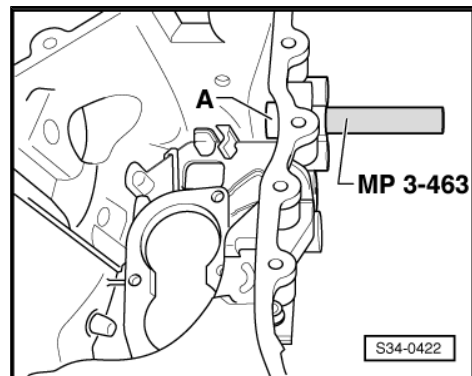
#### Note

*To install, grease bearing points and friction surfaces with grease - G 000 450 02- .*

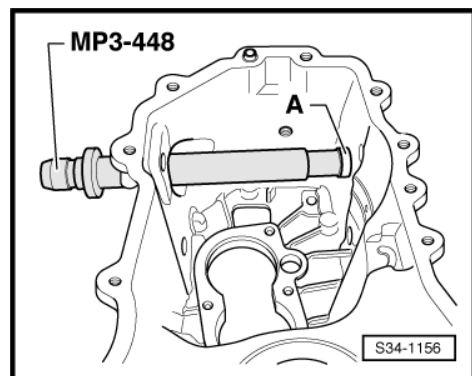
- Insert the relay lever together with the cable lock up to the stop in the gearshift cover.
- Insert the clip -arrow 1- in the hole of the relay lever.
- Pay attention to secure catch of the clip.



### Remove the bushing -A- for the shiftgear shaft



### Drive in the bushing -A- for the shift rod up to the stop



## 4.10 Disassembling and assembling the gearbox

Removing and installing cover for gearbox housing, clutch housing, gearshift shaft with gearshift cover, drive shaft, output shaft, differential gear and gearshift mechanism

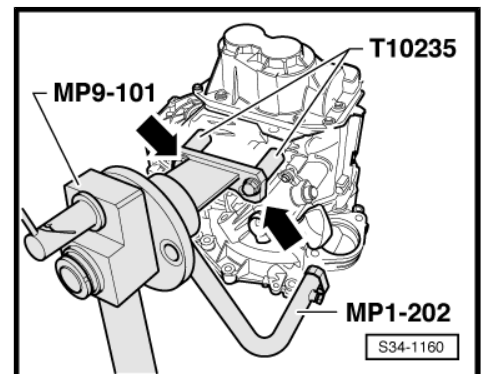
#### Special tools and workshop equipment required

- ◆ Engine / gearbox mount - MP1-202 (VW 540)-
- ◆ Pressure plate - MP3-406 (VW 401)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure spindle - MP3-408 (VW 412)-
- ◆ Pipe section - MP3-409 (VW 418 A)-

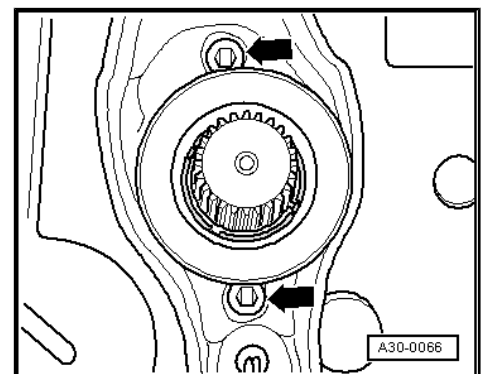
- ◆ Pressure spindle - MP3-423 (VW 407)-
- ◆ Assembly stand - MP9-101-
- ◆ Guide bolt - T10079-
- ◆ Thrust piece - T10080-
- ◆ Insert base - T10083-
- ◆ Washer - T10083/1-
- ◆ Adapter - T10235-
- ◆ Pressure washer - T10375-
- ◆ Assembly device - T30103 (30-506 B)-
- ◆ Two-arm extractor - Kukko 20/10-
- ◆ Extractor - Kukko 18/1-
- ◆ Separating device - Kukko 17/1-
- ◆ Hot-air blower - V.A.G 1416-
- ◆ Sealant - AMV 188 200 03-
- ◆ Allen screw - M8 x 15-

#### Disassembling gearbox

- Secure gearbox to the assembly stand -arrows-.
- Position catch pan underneath.
- Drain out gear oil.

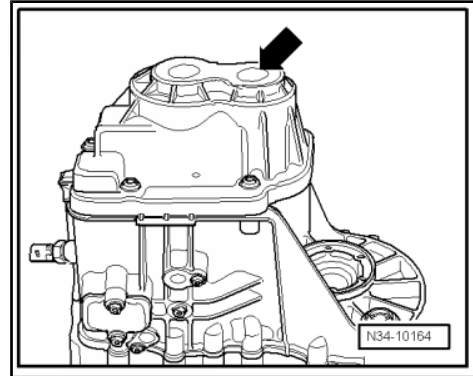


- Release screws -arrows-.
- Separate the clutch release lever together with the release bearing and guide bushing from the drive shaft and ball stud.
- Release fixing screw for right flange shaft. To this end insert two screws in the flange and counterhold the flange shaft using a tyre iron.
- Pull out the flange shaft with pressure spring, stop disc and conical ring.

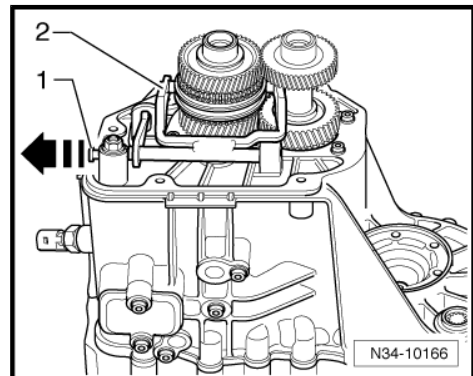




- Unscrew the cover -arrow- for the gearbox housing carefully remove.



- Pull out the bearing bolt -1- for the 5th/6th gear shift fork -2- in -direction of arrow- and remove gearshift fork.



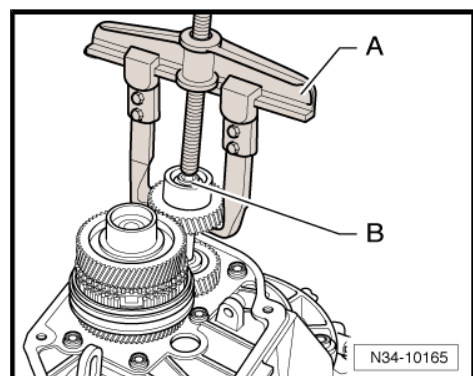
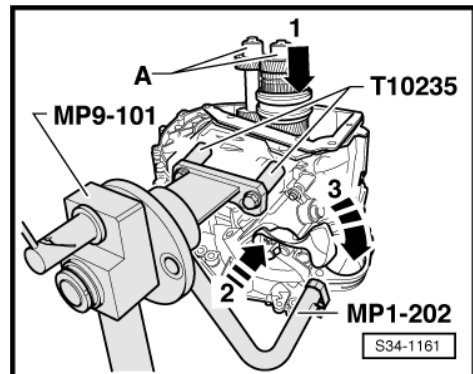
- Unscrew screws -A- for inner rings of the bearing on the input and output shaft, to this end engage the 5th gear -arrow 1- and the 1st gear -arrow 2- and -arrow 3-.
- The input and output shafts are blocked after engaging both gears. Now it is possible to release the two bolts.

**i Note**

*If the shafts are not replaced, carefully clean the threaded holes e.g. using a screw-tap in order to remove locking agent residues.*

- If necessary, heat the gear pinion using the hot air blower - V.A.G 1416- .
- Remove 6th gear pinion with inner ring/cylindrical-roller bearing for output shaft.

- A - Two-arm extractor - Kukko 20/10-
- B - Allen screw - M8 x 15-



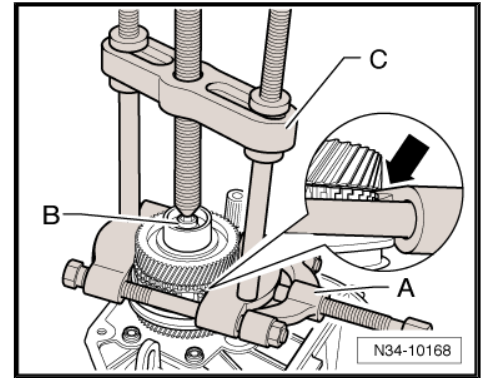
- Tighten the separating device - Kukko 17/1- -A- behind the running gear (not behind the engaging gearing) of the 6th gear sliding gear -arrow-.

A - Separating device - Kukko 17/1-

B - Allen screw - M8 x 15-

C - Extractor - Kukko 18/1-

- If necessary, heat the gear pinion using the hot air blower - V.A.G 1416- .
- Remove sliding gear, 6th gear.
- Remove inner ring for cylindrical-roller bearing of drive shaft.
- Remove thrust washer.
- Remove the sliding sleeve for 5th/6th °gear with the arresters.



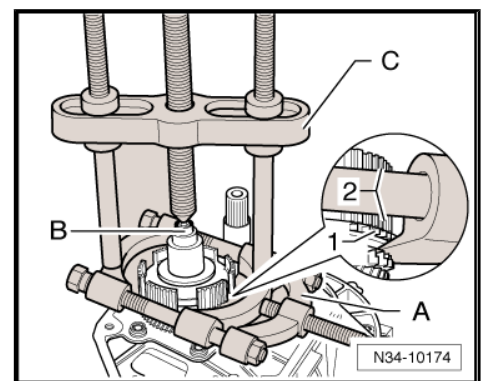
- Insert the separating device - Kukko 17/1- -A- below the synchronizer ring of the 5th gear -1-. The synchronizer ring is thereby pressed onto the synchronizer body -2-.

A - Separating device - Kukko 17/1-

B - Allen screw - M8 x 15-

C - Extractor - Kukko 18/1-

- Heat 5th/6th gear synchronizer body and inner ring for needle bearing 6th Heat gear with hot-air blower - V.A.G 1416- where necessary.
- Pull off 5th/6th °gear synchronizer body with inner ring for 6th °gear needle bearing and 5th °gear synchronizer ring.

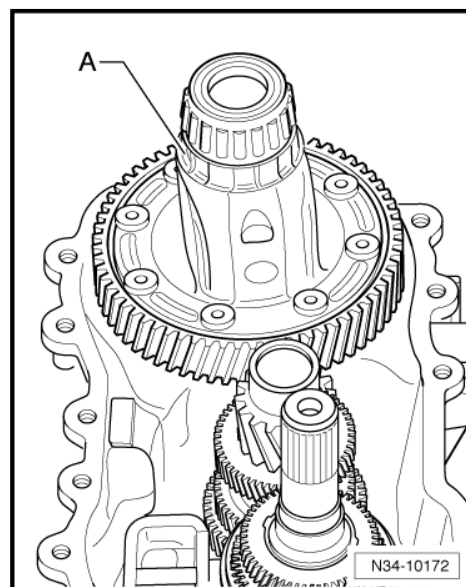
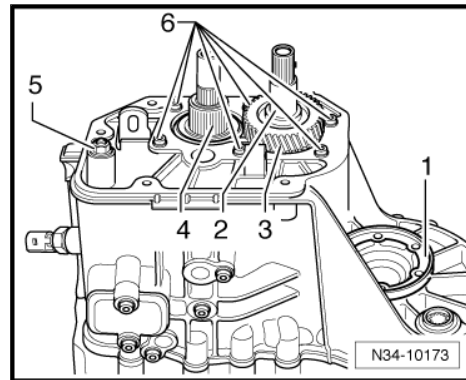


**i** Note

*The 5th °gear synchronizer ring must always be replaced after removing => Electronic catalogue of original parts .*

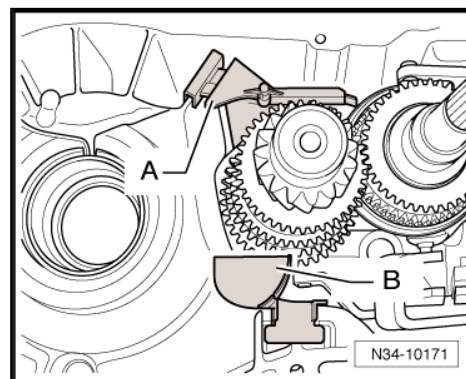
- Unscrew the fixing screw for the left flange shaft -1-, to this end insert two screws in the flange and counterhold the flange shaft using a tyre iron.

- Remove the flange shaft -1- with pressure spring.
- Remove the bushing -2- and the 5th °gear sliding gear with needle bearing -4-.
- Unscrew hexagon collar nut -5- for shift mechanism (fitting of the reverse gear).
- Release the fixing screws -6- for the bearing support of the drive shaft and output shaft.
- The 5th °gear pinion -3- is later pressed off when removing the bearing support for the grooved ball bearings ⇒ [page 185](#) .
- Turn the gearbox in the assembly support with the clutch housing upwards.
- Release fixing screws, that serve to secure the gearbox housing from the clutch housing.
- Carefully release the clutch housing from the projecting housing lands and make sure the sealing surfaces are not damaged in the process.
- When removing, the clutch housing must not tilt so that the roller bearing and the bearing assembly on the drive shaft and the output shaft are not damaged.
- Remove the differential gear -A- from the gearbox housing.



- Afterwards, remove the oil drip pan -A- and the oil guide part -B- with the solenoid from the gearbox housing.

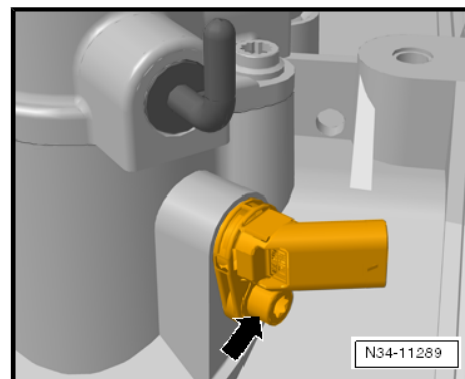
**Vehicles with start-stop system**



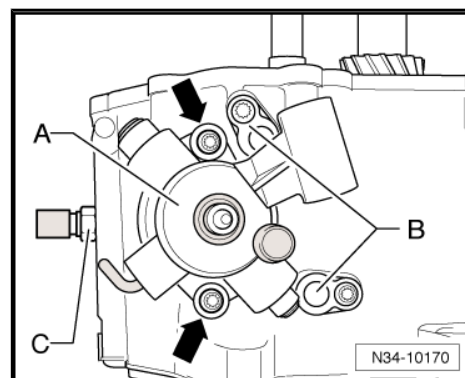


- Remove transmission neutral sender - G701- -arrow-.

Continued for all vehicles



- Remove the gearshift shaft with cover -A-. To do so put the gearshift shaft into Neutral. Subsequently unscrew screws -arrows- and remove the gearshift shaft from the gearbox housing.
- Remove the bearing pins -B- at the top of the gearbox.
- Unscrew the reversing lights switch - F4- -C-.

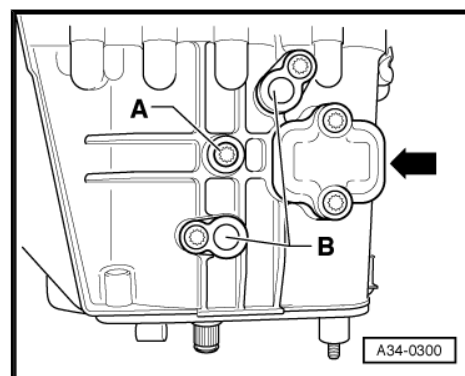


- Unscrew screw -A- for securing the reverse wheel shaft.
- Remove the bearing pins -B- at the gearbox bottom side.



Note

*Do not remove the cover -arrow- to disassemble the gearbox.*



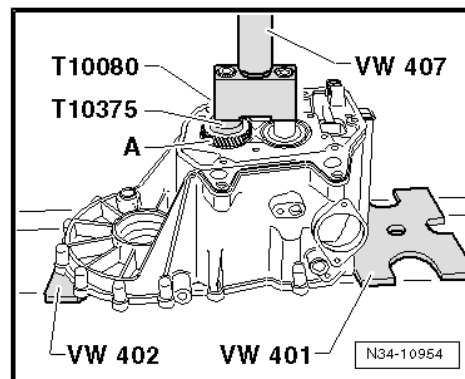
- Press off the drive shaft and output shaft together with the 5th gear sliding gear -A-, bearing support, gearshift mechanism (shift forks) and reverse gear.



Note

- ◆ *Position the gearbox housing in such a way that the dowel sleeves in the gearbox housing are not damaged.*
- ◆ *During the pressing off procedure request the assistance of second mechanic to prevent components from falling.*

- Pressing off the drive and output shafts from the bearing support with grooved ball bearings and 5th gear pinion ⇒ [page 185](#) .

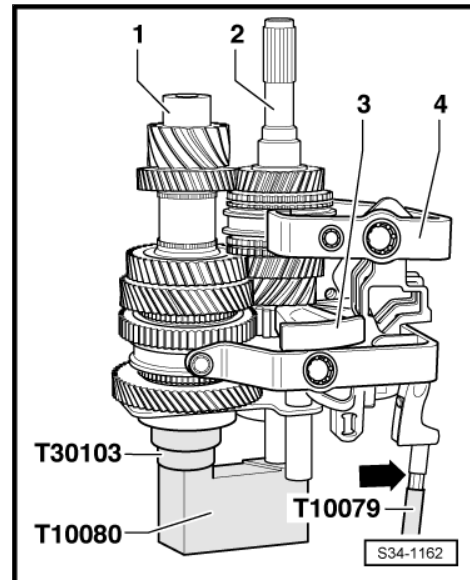


#### Assembling gearbox

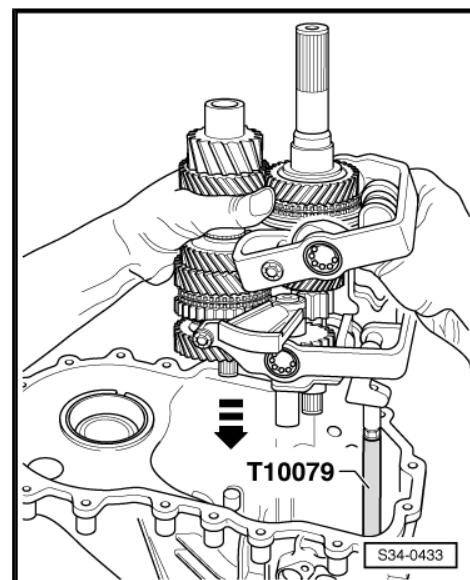
- Press the drive and output shaft into the bearing support for grooved ball bearings ⇒ [page 185](#) .
- Pressing the sleeve of the 5th gear sliding gear needle bearing onto the drive shaft ⇒ [page 185](#) .



- Fit the assembled components: Place input shaft -2-, output shaft -1- with bearing support for grooved ball bearing in the thrust piece - T10080- .
- Insert the gearshift mechanism (shift forks) -4- in the sliding sleeves of the shaft.
- Insert reverse shaft support -3- with reverse gear wheel.
- Screw guide bolt - T10079- to the fitting of the reverse gear -arrow-.



- Insert the components together into the gearbox housing, by passing the guide bolt - T10079- through the fixing holes of the gearshift mechanism in the gearbox housing.
- Unscrew guide bolt - T10079- .
- Check before pressing on the bearing support:

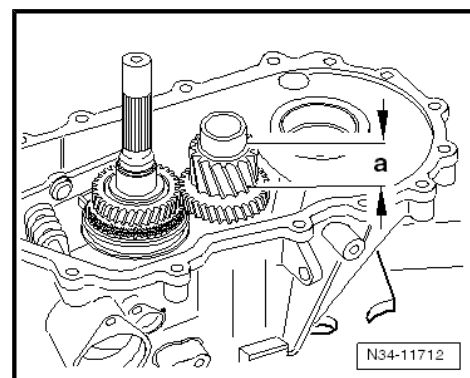


- ◆ To click in the shift forks into the sliding sleeves correctly.
- ◆ Dimension -a- of the output shaft serration.



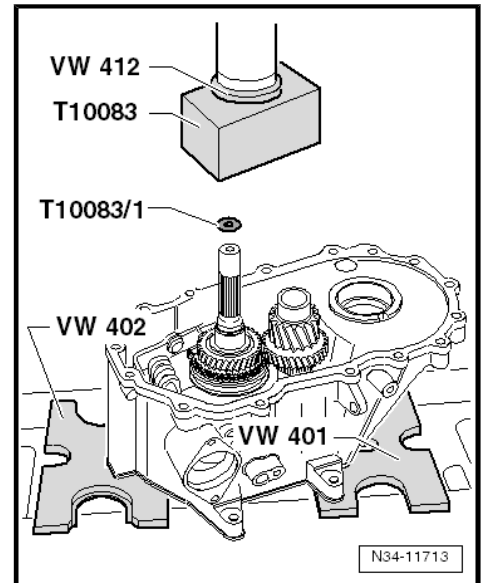
**Note**

- ◆ *The drive shafts of the individual gearboxes have different lengths due to the different heights of the serration, dimension -a-.*
  - ◆ *In order to press in the drive shaft and the output shaft at the same time, a 3 mm thick washer - T10083/1- must be positioned onto the drive shaft, if necessary.*
  - ◆ *Therefore, the dimension -a- of the output shaft serration must be measured.*
- Dimension -a- = 30.6 mm

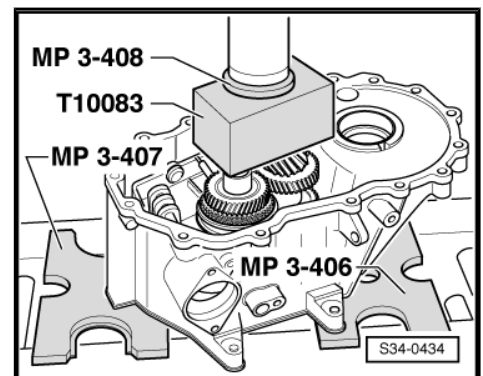




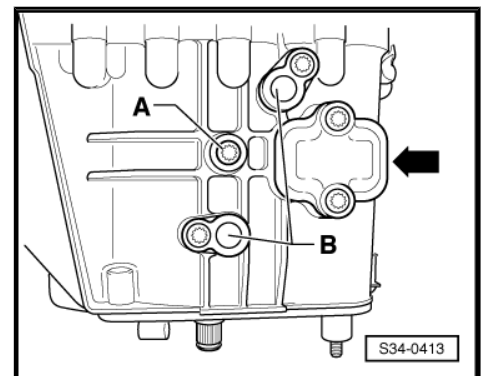
- Fit the washer - T10083/1- onto the drive shaft and carefully press in the bearing support together with the drive shaft and the output shaft up to the stop.



- Carefully press on the bearing support with the drive and output shaft up to the arrester.

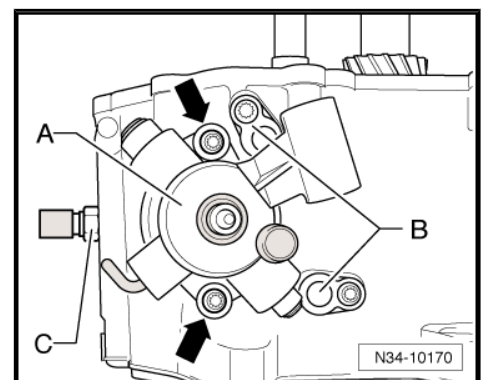


- Tighten screw -A- for reverse wheel shaft.
- Install the bearing pins -B- at the bottom of the gearbox.



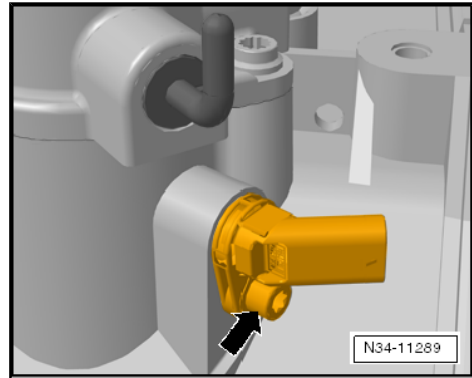
- Screw on the reversing lights switch - F4- -C-.
- Install the bearing pins -B- at the top of the gearbox.
- Put the gearshift forks into Neutral.
- Apply sealant - AMV 188 200 03- uniformly on the sealing surfaces of the cover.
- Install the gearshift shaft with cover -A-. Subsequently tighten the screws -arrows-.

**Vehicles with start-stop system**



- Installing gearbox neutral position sender - G701- -arrow- and tighten fixing screw pos. 13. ➔ [page 159](#)

Continued for all vehicles



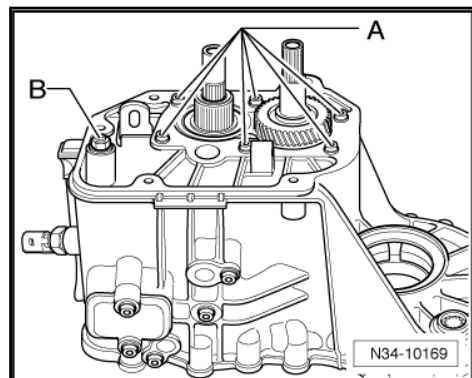
- Use new screws -A- to secure the bearing support to the drive shaft and output shaft.



**Note**

*Gradually tighten the screws -A- according to the given torque starting from the middle and crosswise.*

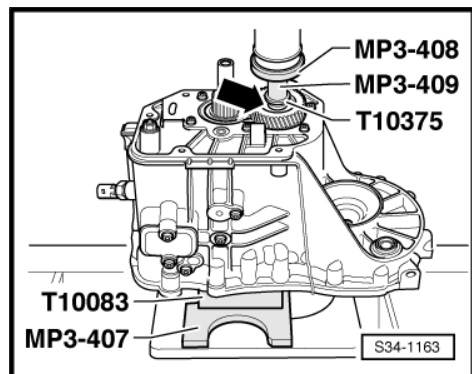
- Tighten hexagon nut -B- for the gearshift mechanism (shift forks).
- Insert the drive and output shafts together with the gearbox housing in the insert base - T10083- .



**Fitting position press on 5th °gear pinion and 5th °gear pinion**

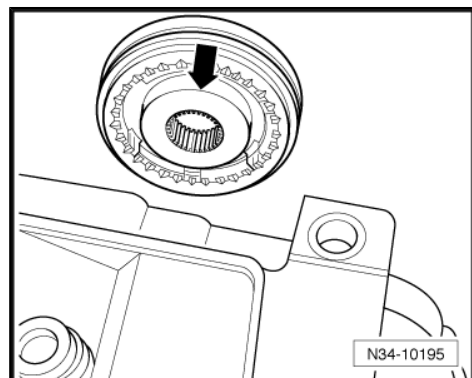
The highest collar -arrow- points to the gearbox housing cover.

- Pressing on 5th °gear pinion.
- Mount the 5th gear sliding gear with needle bearing.
- Position the 5th gear synchronizer ring on the sliding gear.

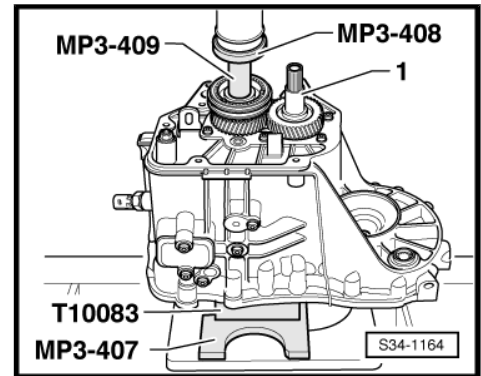


**Fitting position of the 5th/6th gear synchronizer body/sliding sleeve**


The high collar -arrow- points to the 5th °gear and to the gearbox housing.



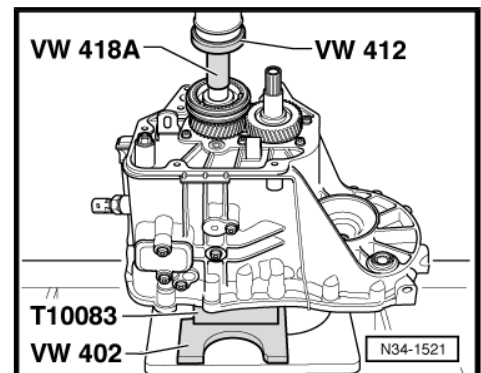
- Press on the synchronizer body/5th/6th °gear sliding sleeve.
- Mount bushing -1- onto the 5th °gear pinion.



- Heat the inner ring for the 6th gear needle bearing to max. 100 °C and press on.



**WARNING**  
*Wear protective gloves!*

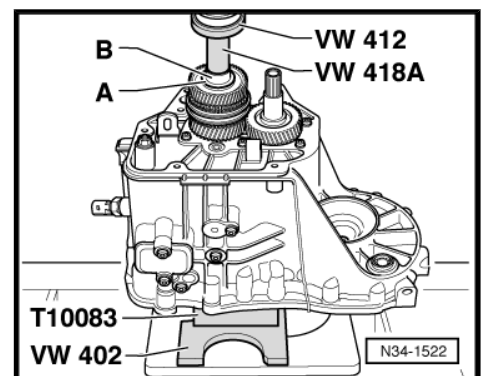



- Mount the 6th °gear sliding gear with needle bearing and synchronizer ring.

- Place on the thrust washer -A-.

 **Note**

- ◆ *Do not interchange inner rings/cylindrical-roller bearings for input and output shafts.*
- ◆ *On certain gearboxes, the thrust washer -A- and the inner ring/cylindrical-roller bearing -B- are combined in one component part.*
- Then they can only be pressed on together.





**WARNING**  
*Wear protective gloves!*

- Heat the inner ring for the cylindrical-roller bearing -B- to max. 100°C and press onto the drive shaft.



**Fitting position of the 6th gear pinion:**

The high collar points to the bushing.

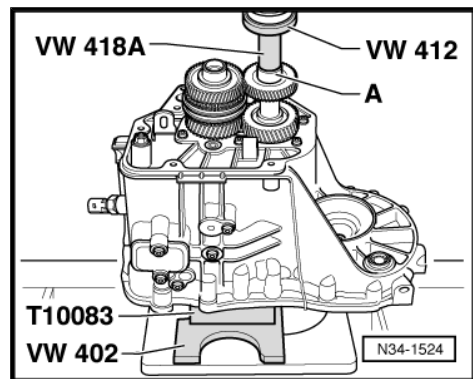
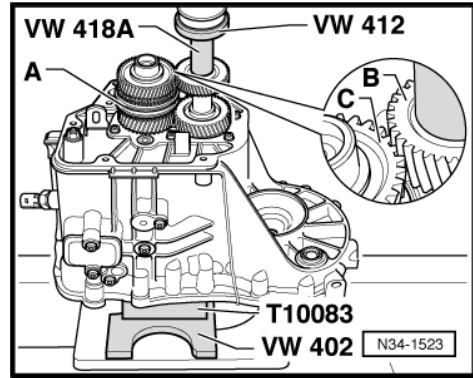
- Shift the sliding sleeve -A- for 5th/6th °gear into idle position so that through this the 6th °gear sliding gear can turn during the pressing on of the 6th °gear pinion.



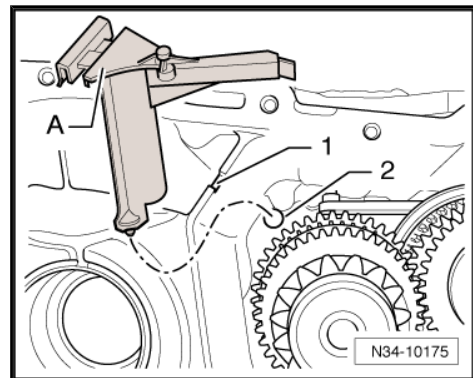
**WARNING**

*Wear protective gloves!*

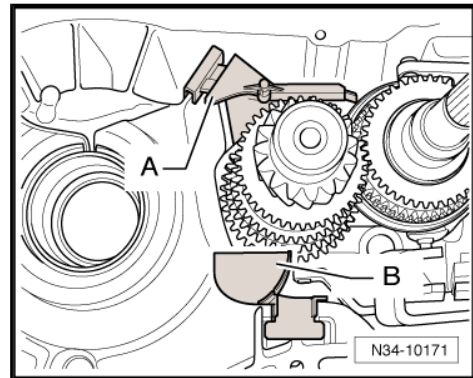
- Heat the 6th gear pinion to max. 100 °C.
- Press on 6th °gear sliding gear, while doing so ensure that the serration of the pinion -B- for the 6th gear and the 6th °gear sliding gear -C- are in mesh.
- Heat the inner ring for the cylindrical-roller bearing -A- to max. 100°C and press onto the output shaft.



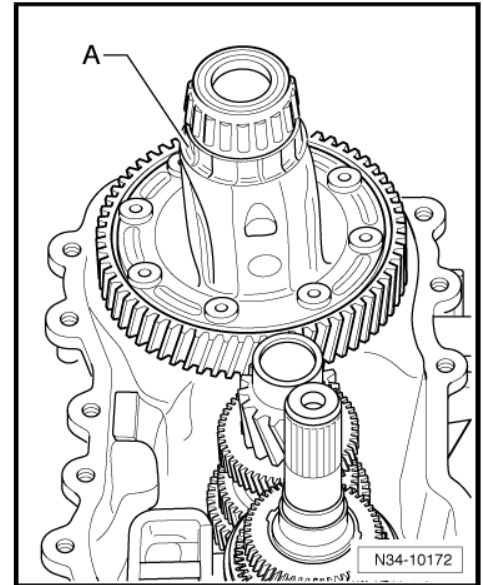
- Afterwards, insert the oil drip pan -A- into the recess -1- and into the hole -2- of the gearbox housing.



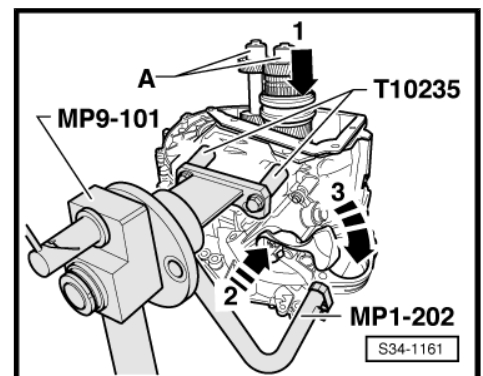
- Now position the oil guide part -B- into the gearbox housing.
- Insert solenoid into the oil guide part -B-.



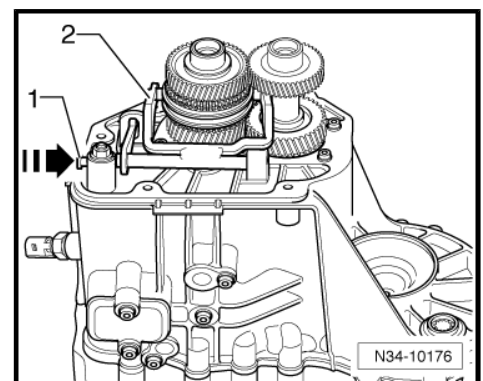
- Insert differential gear -A-.
- Apply sealant - AMV 188 200 03- uniformly on the sealing surface.
- Screw down the clutch housing onto the gearbox housing.
- Turn the gearbox in the assembly support with the clutch housing upwards.



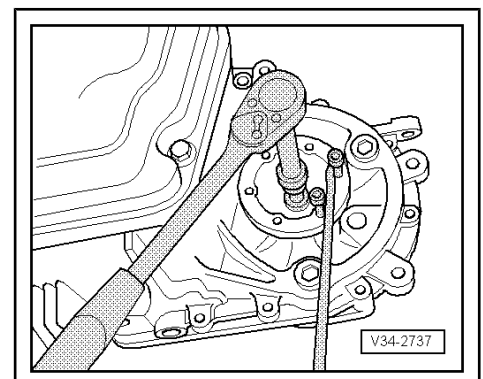
- Before tightening the fixing screws -A-, 2 gears must be engaged -arrow°1- to -arrow 3-.



- Insert the 5th/6th gear shift fork -2- and push the bearing bolt -1- up to the stop -direction of arrow-.
- Apply sealant - AMV 188 200 03- uniformly on the sealing surface.
- Tighten cover for gearbox housing.



- Install both flange shafts with pressure springs, stop discs and conical rings.
- Install the clutch release lever together with the release bearing and guide bushing ⇒ [page 78](#) .
- Pour in gear oil ⇒ [page 153](#) .



## 5 Gearbox housing, clutch housing

⇒ [“5.1 Summary of components - Gearbox housing,clutch housing”, page 178](#)

⇒ [“5.2 Summary of components- Gearbox housing cover”, page 180](#)

⇒ [“5.3 Repairing gearbox housing cover”, page 180](#)

### 5.1 Summary of components - Gearbox housing,clutch housing

#### 1 - Clutch housing

- when used: Adjusting differential gear  
⇒ [page 208](#)

#### 2 - Gasket ring for drive shaft

- removing and installing  
⇒ [page 190](#)

#### 3 - Ball pin

- remove previous grease
- grease with grease for plug serration of clutch disc - G 000 100-
- 20 Nm

#### 4 - Sealing ring

- for right flange shaft
- replace with installed gearbox ⇒ [page 200](#)

#### 5 - Oil filler plug

- Tightening torque  
⇒ [page 153](#)
- different versions  
⇒ [page 153](#)
- if necessary screw and unscrew with socket wrench insert - T30023-

#### 6 - Adjusting washer

- for the differential gear
- Determine thickness  
⇒ [page 208](#)

#### 7 - Outer ring/tapered-roller bearing

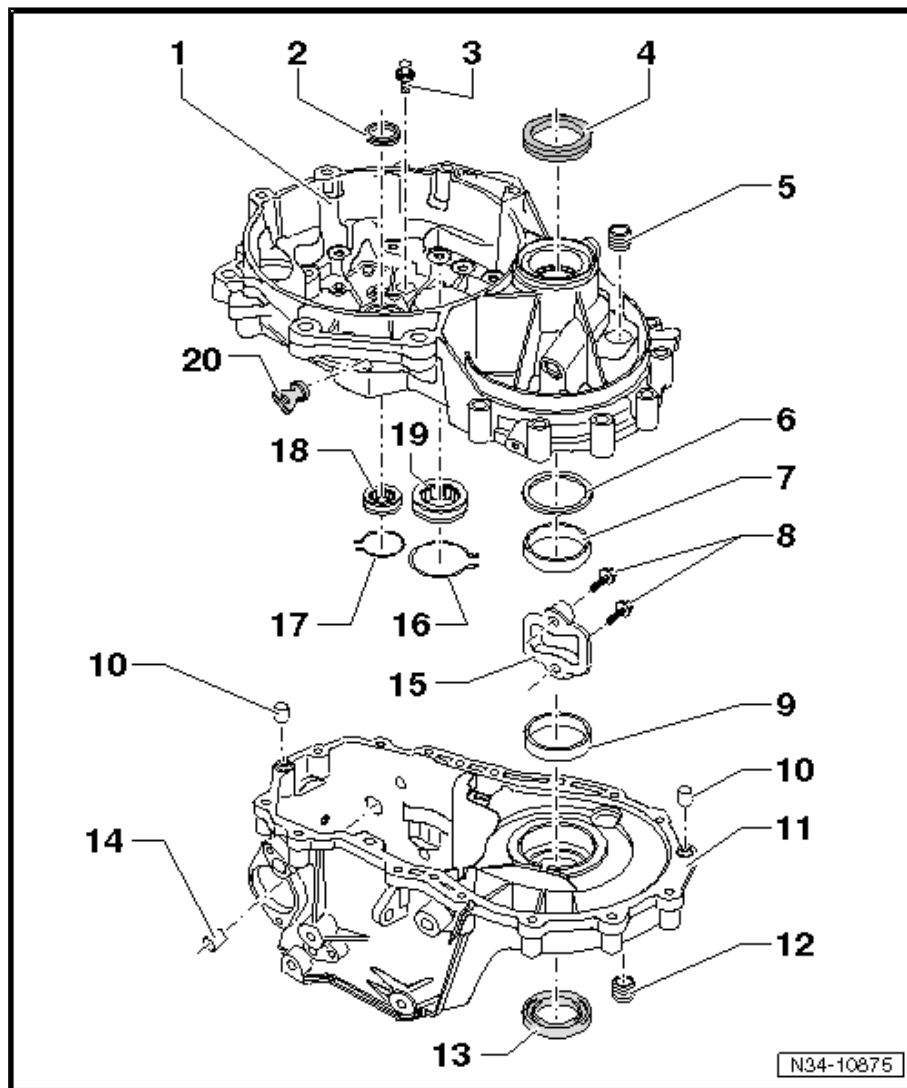
- for the differential gear
- removing and installing ⇒ [page 205](#)
- when used: Adjusting differential gear ⇒ [page 208](#)

#### 8 - Screw

- always replace ⇒ Electronic Catalogue of Original Parts
- 5 Nm + 90°

#### 9 - Outer ring/tapered-roller bearing

- for the differential gear
- removing and installing ⇒ [page 205](#)
- when used: Adjusting differential gear ⇒ [page 208](#)





#### 10 - Fitting sleeve

- 2 pieces

#### 11 - Gearbox housing

- when used: Adjusting differential gear ⇒ [page 208](#)

#### 12 - Oil drain plug

- Tightening torque ⇒ [page 153](#)
- different versions ⇒ [page 153](#)
- if necessary screw and unscrew with socket wrench insert - T30023-

#### 13 - Sealing ring

- for left flange shaft
- replace with installed gearbox ⇒ [page 199](#)

#### 14 - Bushing

- for the gearshift shaft
- extracting ⇒ [page 166](#)
- inserting ⇒ [page 166](#)

#### 15 - Screw cap

- Before screwing down apply -AMV 188 200 03- to the sealing surface

#### 16 - Circlip

- insert in the nut of the cylinder roller bearing groove Pos. 19

#### 17 - Circlip

- insert in the nut of the cylinder roller bearing groove Pos. 18

#### 18 - Cylindrical-roller bearing

- for drive shaft
- removing and installing ⇒ [page 185](#)

#### 19 - Cylindrical-roller bearing

- for output shaft
- removing and installing ⇒ [page 194](#)

#### 20 - Plug

- present on certain gearboxes
- insert in the holes of the clutch housing

## 5.2 Summary of components- Gearbox housing cover

### 1 - Countersunk screw

- tighten crosswise
- 2 Nm

### 2 - Bearing plate

- for cylindrical-roller bearing
- Fitting position: countersunk screws point to the gearbox housing

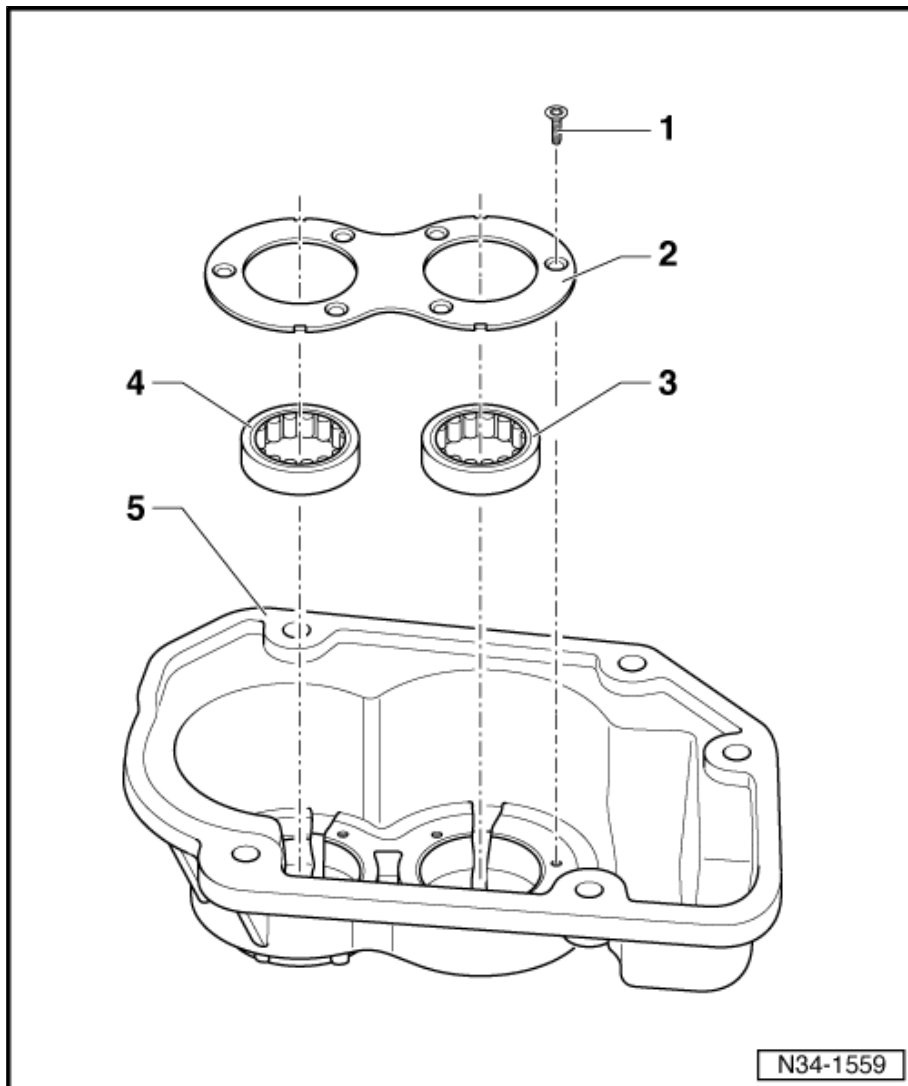
### 3 - Cylindrical-roller bearing

- for drive shaft
- do not interchange with cylindrical-roller bearing for output shaft
- can be replaced separately
- removing ⇒ [page 180](#)
- installing ⇒ [page 181](#)

### 4 - Cylindrical-roller bearing

- for output shaft
- do not interchange with cylindrical-roller bearing for input shaft
- can be replaced separately
- removing ⇒ [page 180](#)
- installing ⇒ [page 181](#)

### 5 - Cover for gearbox housing



## 5.3 Repairing gearbox housing cover

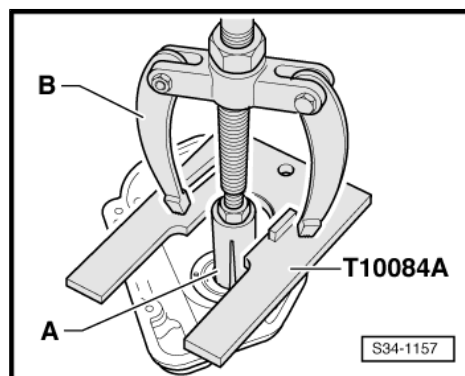
### Special tools and workshop equipment required

- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure spindle - MP3-408 (VW 412)-
- ◆ Drive bushing - MP3-427 (40-21)-
- ◆ Pressure plate - T10084 A-
- ◆ Interior extractor 30...37 mm , e.g. -Kukko 21/5-
- ◆ Countersupport , e.g. -Kukko 22/2-
- ◆ Hot air blower e.g. -V.A.G 1416-

### Pull the cylindrical-roller bearing out of the gearbox cover

A - Interior extractor 30...37 mm , e.g. -Kukko 21/5-

B - Countersupport , e.g. -Kukko 22/2-



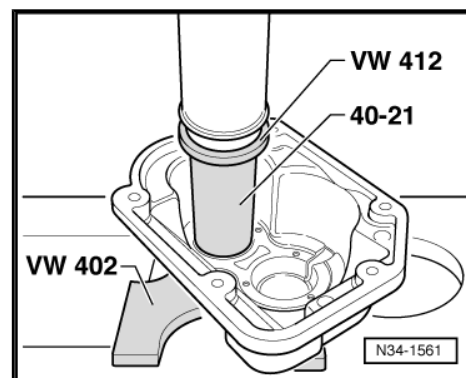


### Press cylindrical-roller bearing into cover for gearbox housing

- Heat the cover for gearbox housing with the hot-air blower , e.g. -V.A.G 1416- in the area of the bearing pedestals to approx. 100°C.
- Insert the cylindrical-roller bearing in the heated gearbox and press down under the workshop press until heat is transferred.

**i** Note

*Cylindrical-roller bearing must be pressed into the cover up to the stop. Do not tighten in the opposite direction with the countersunk screws across the bearing plate.*



## 35 – Gears, shafts

### 1 Drive shaft

⇒ “1.1 Summary of components - Drive shaft”, page 182

⇒ “1.2 Disassembling and assembling the drive shaft”, page 185

⇒ “1.3 Replace gasket ring for drive shaft”, page 190

#### 1.1 Summary of components - Drive shaft



#### Note

- ◆ When installing new pinions observe the technical data ⇒ [page 2](#).
- ◆ Insert all bearings, sliding gears and synchronizer rings onto the drive shaft with gear oil.
- ◆ Do not interchange the synchronizer rings, if re-used always assign to the original sliding gear.

#### 1 - Screw

- removing and installing ⇒ [page 156](#)

#### 2 - Inner ring/cylindrical-roller bearing

- combined with thrust washer Pos. 3 on some gearboxes ⇒ [page 156](#)
- identify before removing
- do not interchange with inner ring/cylindrical-roller bearing of output shaft
- can be replaced separately
- removing and installing ⇒ [page 166](#)

#### 3 - Thrust washer

- combined with inner ring/cylindrical-roller bearing Pos. 2 on some gearboxes ⇒ [page 156](#)

#### 4 - 6th gear sliding gear

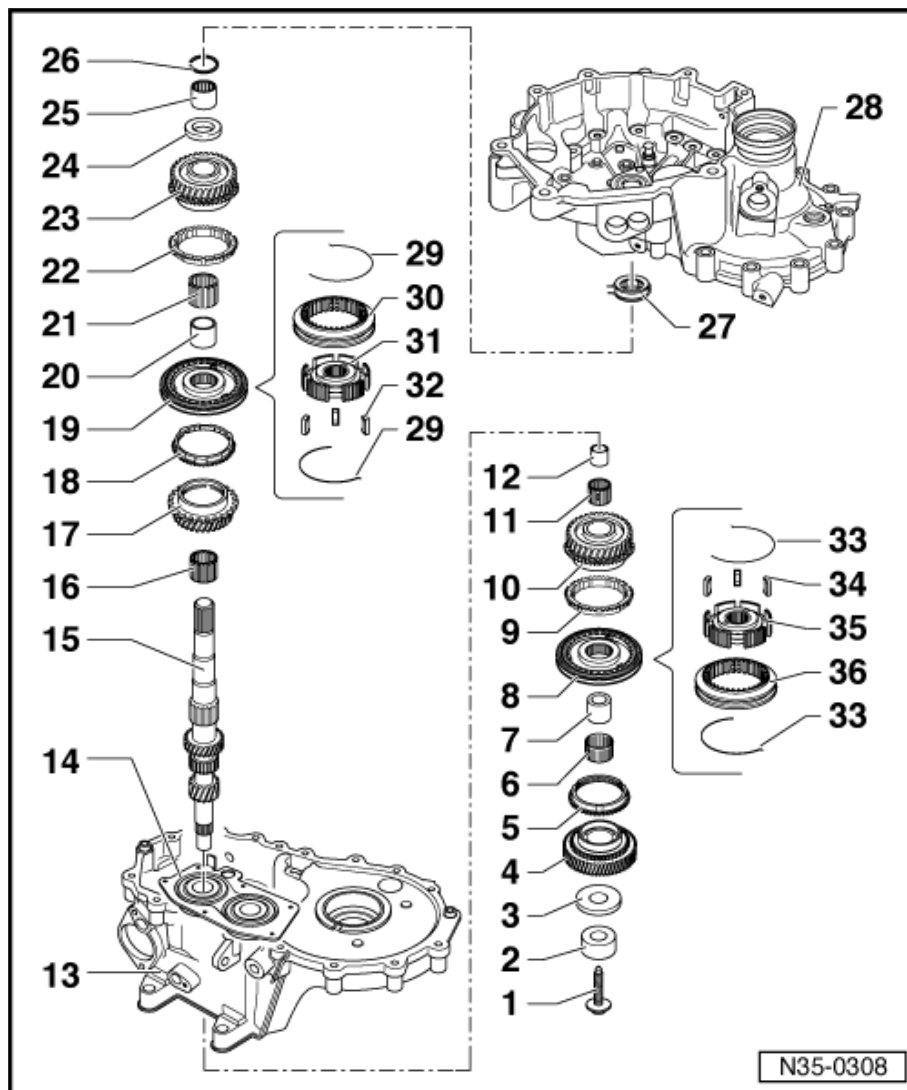
- No. of teeth ⇒ [page 2](#)

#### 5 - 6th gear synchronizer ring

- check for wear ⇒ [page 187](#)

#### 6 - Needle bearing

- for 6th gear
- replace together with Pos. 7
- on certain gearboxes two-piece, assign via the ⇒ Electronic Catalogue of Original Parts





## 7 - Bushing

- for 6th gear needle bearing
- replace together with Pos. 6
- removing and installing ⇒ [page 166](#)

## 8 - Sliding sleeve with 5th and 6th gear synchronizer body

- removing and installing ⇒ [page 166](#)
- disassembling ⇒ [page 189](#)
- Assembly of the sliding sleeve/5th/6th °gear synchronizer body ⇒ [page 189](#) and ⇒ [page 190](#)
- Fitting position ⇒ [page 189](#)

## 9 - 5th gear synchronizer ring

- is damaged by the drive shaft when removing
- always replace ⇒ Electronic Catalogue of Original Parts
- check for wear ⇒ [page 187](#)

## 10 - 5th gear sliding gear

- No. of teeth ⇒ [page 2](#)

## 11 - Needle bearing

- for 5th gear
- replace together with Pos. 12

## 12 - Bushing

- for 5th gear needle bearing
- replace together with Pos. 11
- press off with bearing support for grooved ball bearing Pos. 14
- pressing on ⇒ [page 189](#)

## 13 - Gearbox housing

- repairing ⇒ [page 178](#)

## 14 - Bearing support with grooved ball bearing

- Always replace grooved ball bearing together with the bearing support
- If the bearing support is released, it must always be replaced ⇒ Electronic Catalogue of Original Parts
- pressing off with 5th°gear pinion ⇒ [page 186](#)
- pressing on ⇒ [page 189](#)

## 15 - Drive shaft

- Clean the threaded hole in the drive shaft e.g with a thread tap from the locking agent residues

## 16 - Needle bearing

- for 3rd gear

## 17 - 3rd gear sliding gear

- No. of teeth ⇒ [page 2](#)

## 18 - 3rd gear synchronizer ring

- check for wear ⇒ [page 187](#)

## 19 - Sliding sleeve with 3rd and 4th gear synchronizer body

- press off with 3rd gear sliding gear ⇒ [page 186](#)
- disassembling ⇒ [page 186](#)
- Fitting position sliding sleeve/synchronizer body ⇒ [page 187](#)
- assembling ⇒ [page 186](#)
- pressing on ⇒ [page 187](#)

## 20 - Bushing

- for 4th gear needle bearing
- replace together with Pos. 21



- press off with 3rd gear sliding gear ⇒ [page 186](#)
- pressing on ⇒ [page 187](#)

#### 21 - Needle bearing

- for 4th gear
- replace together with Pos. 20

#### 22 - 4th gear synchronizer ring

- check for wear ⇒ [page 187](#)

#### 23 - 4th gear sliding gear

- No. of teeth ⇒ [page 2](#)

#### 24 - Thrust washer

#### 25 - Inner ring/cylindrical-roller bearing

- pressing off ⇒ [page 186](#)
- pressing on ⇒ [page 188](#)

#### 26 - Circlip

- replace ⇒ Electronic Catalogue of Original Parts
- Determine thickness ⇒ [page 188](#)

#### 27 - Cylindrical-roller bearing

- with circlip
- removing ⇒ [page 185](#)
- pressing on ⇒ [page 185](#)
- Fitting position: The circlip in the bearing points towards the drive shaft

#### 28 - Clutch housing

- repairing ⇒ [page 178](#)

#### 29 - Spring

- Fitting position ⇒ [page 186](#)

#### 30 - Sliding sleeve 3rd and 4th gear

#### 31 - 3rd and 4th gear synchronizer body

#### 32 - Arresters (3 pieces)

#### 33 - Spring

- Fitting position ⇒ [page 190](#)

#### 34 - Arresters (3 pieces)

#### 35 - Synchronizer body for 5th and 6th gear

#### 36 - Sliding sleeve 5th and 6th gear

## 1.2 Disassembling and assembling the drive shaft

### Special tools and workshop equipment required

- ◆ Bushing - MP1-316 (30-100)-
- ◆ Pressure plate - MP3-406 (VW 401)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Thrust piece - MP3-408 (VW 412)-
- ◆ Pipe section - MP3-414 (VW 516)-
- ◆ Pressure spindle - MP3-423 (VW 407)-
- ◆ Thrust piece - MP3-431 (3002)-
- ◆ Pipe section - MP3-450 (VW 415A)-
- ◆ Pipe section - MP3-451 (VW 422)-
- ◆ Distance sleeve - MP3-458/2 (VW 472/2)-
- ◆ Flywheel type belt pulley fitting tool - MP9-400-
- ◆ Cap - T10080-
- ◆ Thrust piece - T10081-
- ◆ Insert base - T10083-
- ◆ Washer - T10083/1-
- ◆ Pressure plate - T10084A-
- ◆ Cap - T30066 (30-23)-
- ◆ Separating device 12...75 mm , e.g. -Kukko 17/1-
- ◆ Extractor , e.g. -Kukko 18/1-
- ◆ Interior extractor 30...37 mm , e.g. -Kukko 21/5-
- ◆ Countersupport , e.g. -Kukko 22/1-

### Pull out the cylindrical-roller bearing from the clutch housing

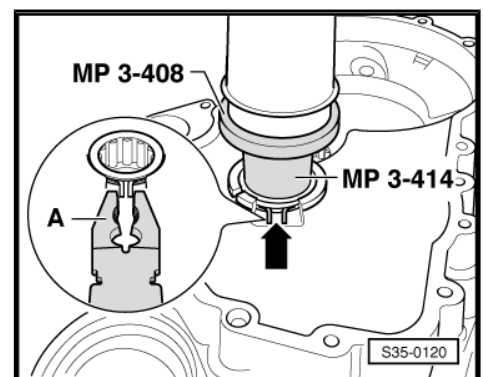
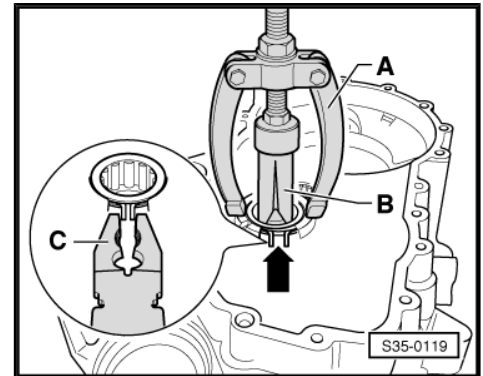
- When removing compress circlip -arrow- of the cylindrical-roller bearing with pliers -C-.

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

B - Interior extractor 30...37 mm , e.g. -Kukko 21/5-

### Press the cylindrical-roller bearing into the clutch housing

- Support the clutch housing with pipe section - MP3-450 (VW 415A)- , not visible in figure, directly under the bearing support.
- When inserting compress circlip -arrow- of the cylindrical-roller bearing with pliers -A-.
- Remove pliers before the cylindrical-roller bearing is in fitting position. The circlip must lock into the clutch housing slot.





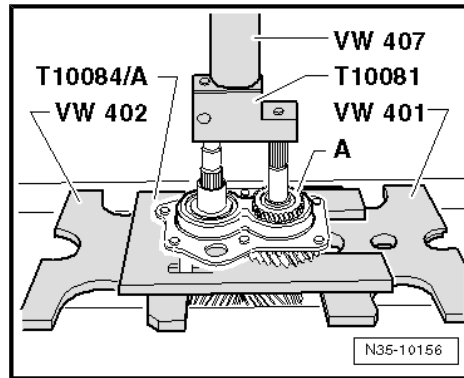
**Press off the bearing support with the grooved ball bearing and the 5th gear° pinion -A-**

- Sliding sleeve for 1st and 2nd gear to 2nd gear.
- Slide the pressure plate - T10084 A- sideways up to stop onto the drive shaft.



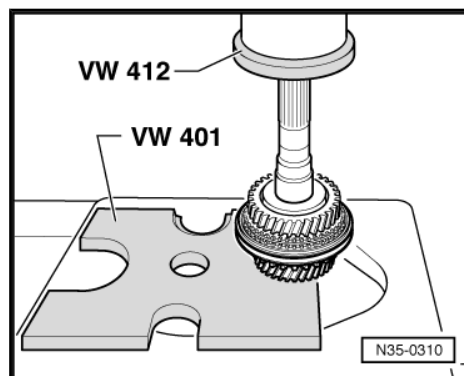
**Note**

*Always replace bearing support with grooved ball bearing => Electronic Catalogue of Original Parts .*



**Press off inner ring/cylindrical-roller bearing**

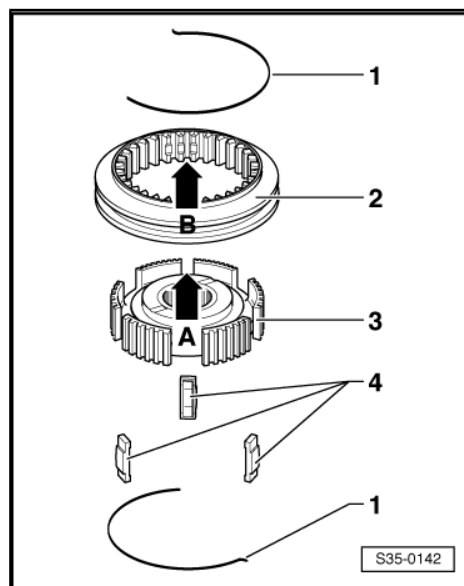
- Removing the circlip.
- Press off inner ring for cylindrical-roller bearing together with thrust washer, 4th °gear sliding gear with needle bearing, sliding sleeve/synchronizer body for 3rd °and 4th °gear and 3rd ° gear sliding gear.



**Disassembling and assembling the sliding sleeve and 3rd and 4th gear synchronizer body**

- 1 - Spring
  - 2 - Sliding sleeve
  - 3 - Synchronizer body
  - 4 - Arresters for synchronizer body
- Slide the sliding sleeve over the synchronizer body.

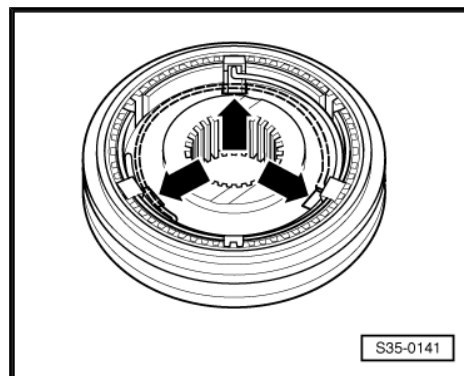
The deeper recesses -arrow A- of the arresters in the synchronizer body and the recesses -arrow B- in the sliding sleeve must be positioned above one another.



**Assembly of the sliding sleeve/3rd and 4th gear synchronizer body**

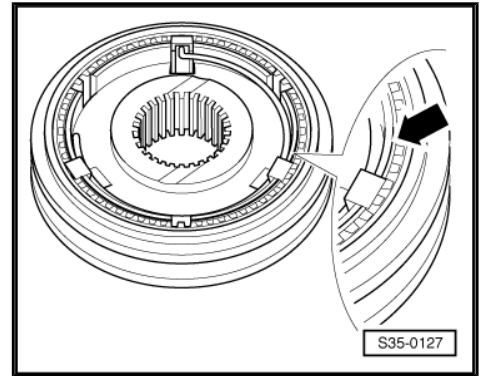
- The sliding sleeve is drawn over the synchronizer body.
- Insert the arresters in the deeper recesses -arrows- and mount the springs with 120° offset.

The angled end of the springs must grip into the hollow arrester of the synchronizer body.



### Fitting position of the sliding sleeve/3rd and 4th gear synchronizer body

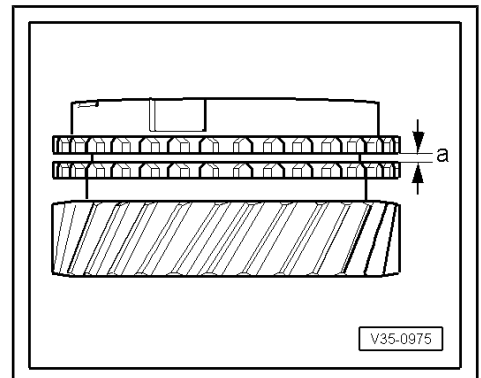
The groove on the front side -arrow- points towards the 4th gear.



### Check synchronizer ring for wear

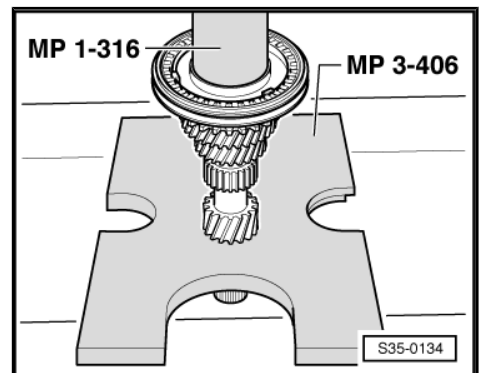
- Press the synchronizer ring on the cone of the sliding gear and measure clearance -a- with a feeler gauge.

Clearance -a-	Fitting dimension	Wear limit
3., 4, 5 and 6th gear	1.1 ... 1.7 mm	0.5 mm



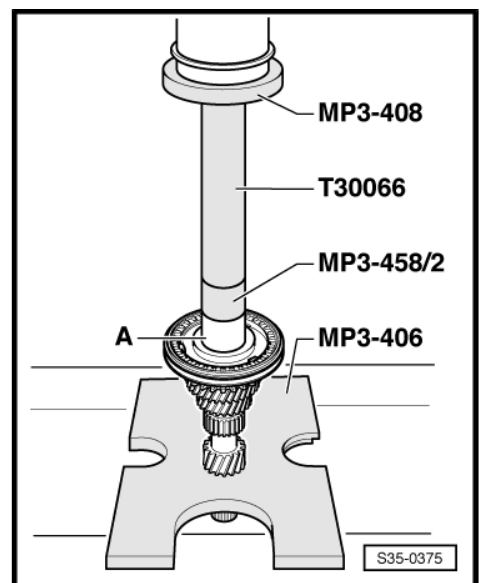
### Press on the synchronizer body with the 3rd and 4th gear sliding sleeve

Fitting position: The wide collar points to the 3rd gear sliding gear.



### Press on the bushing -A- for the 4th °gear needle bearing

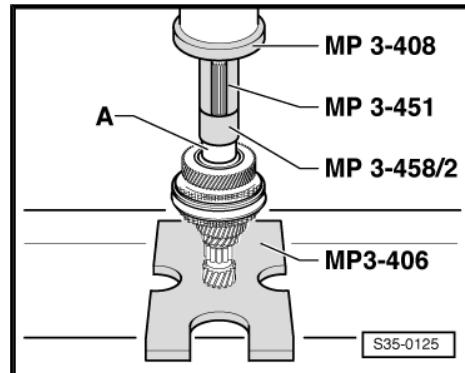
- Subsequently place 4th gear needle bearing with 4th gear sliding gear and thrust washer.





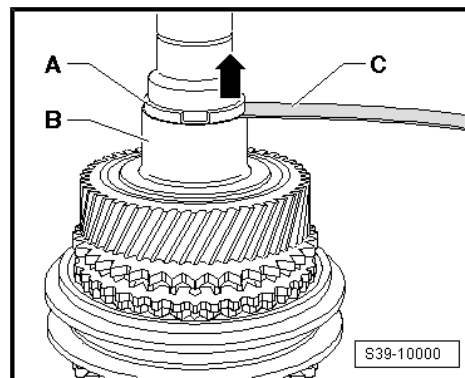
**Press on the inner ring -A- for the cylindrical-roller bearing**

- Insert determined circlip => [page 188](#) .



**Determining the circlip**

- Insert circlip -A- with a thickness of 2.0 mm in the slot of the drive shaft and push upwards -arrow-.
- Measure dimension between inner ring -B- and positioned circlip -A- using a feeler gauge -C-.
- Remove the circlip used to take the measurement.
- Determine the first circlip required according to the table.



**Note**

Assign circlips via => *Electronic Catalogue of Original Parts* .

**Circlips available**

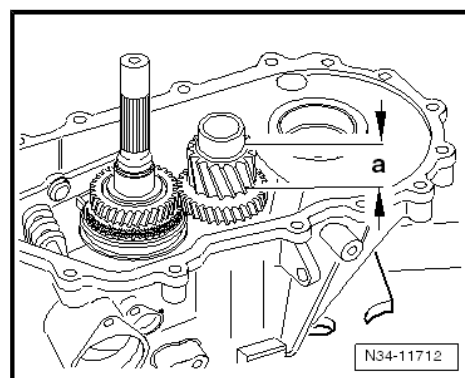
Measured value (mm)	Circlip thickness (mm)	Axial play (mm)
0.05...0.14	2.0	0.05...0.15
0.15...0.24	2.1	0.05...0.15
0.25...0.34	2.2	0.05...0.15
0.35...0.44	2.3	0.05...0.15
0.45...0.51	2.4	0.05...0.10

**Press the bearing support for grooved ball bearings onto the input and output shafts**



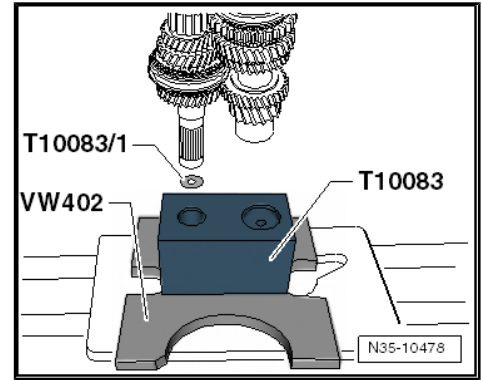
**Note**

- ◆ *The drive shafts of the individual gearboxes have different lengths due to the different heights of the serration, dimension -a-.*
  - ◆ *In order to press in the bearing support evenly onto the shafts, it is necessary that the shafts are also positioned evenly on the insert base - T10083- .*
  - ◆ *A 3 mm thick washer - T10083/1- must be inserted in the fastening opening of the drive shaft, if necessary => [page 189](#) .*
  - ◆ *Therefore, the dimension -a- of the output shaft serration must be measured.*
- Dimension -a- = 30.6 mm






Insert washer - T10083/1-

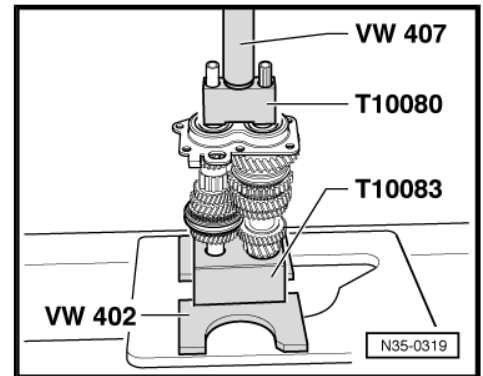


Press on bearing support with grooved ball bearing

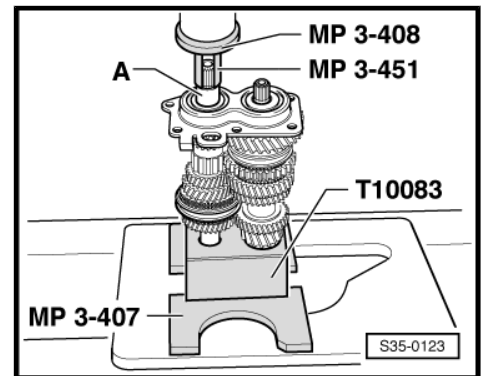
- Before pressing on the bearing support heat it to max. 100 ° C.



**WARNING**  
*Wear protective gloves!*



Press on the bushing -A- for the 5th gear needle bearing

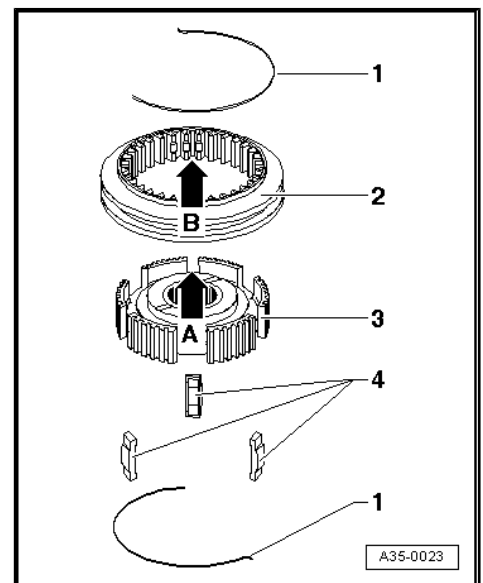


Disassembling and assembling the sliding sleeve and 5th/6th gear synchronizer body

- 1 - Spring
- 2 - Sliding sleeve
- 3 - Synchronizer body
- 4 - Arrester

- Slide the sliding sleeve over the synchronizer body.

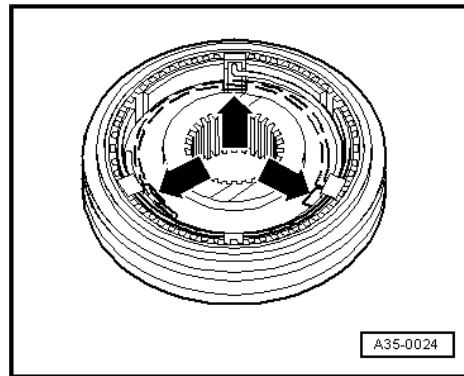
The deeper recesses -arrow A- of the arresters in the synchronizer body and the recesses -arrow B- in the sliding sleeve must be positioned above one another.





**Assembly of the sliding sleeve/5th/6th °gear synchronizer body**

- The sliding sleeve is drawn over the synchronizer body.
- Insert the arresters in the deeper recesses -arrows- and mount the springs with 120° offset.
- The angled end of the spring must grip into the hollow arrester.



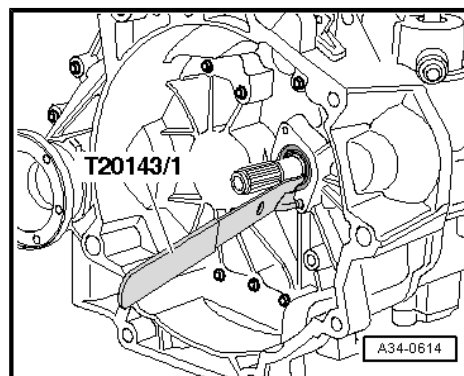
**1.3 Replace gasket ring for drive shaft**

**Special tools and workshop equipment required**

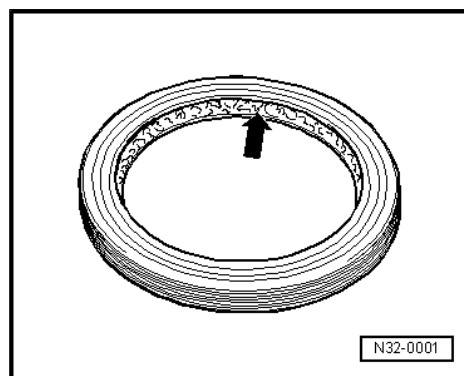
- ◆ Thrust piece - T40008-
- ◆ Ejection lever - T20143-
- ◆ Sealing grease - G 052 128 A1-
- Removing the gearbox ⇒ [page 128](#) .
- Remove clutch release lever with release bearing ⇒ [page 78](#) .
- Remove gasket ring on the drive shaft with input shaft - T20143- .

**Caution**

*Do not damage the running surface of the gasket ring on drive shaft.*

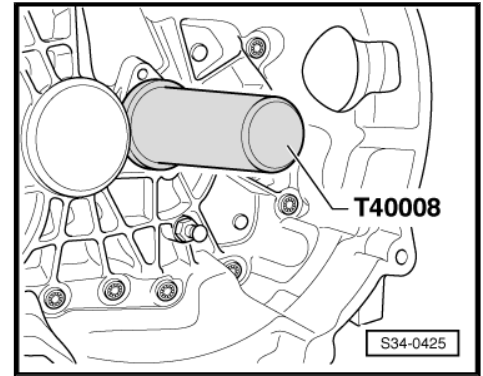


- Fill space between sealing lip and dust lip -arrow- with sealing grease - G 052 128 A1- .
- Slightly moisten the outer circumference of the gasket ring with gearbox oil.



**Insert the gasket ring for the drive shaft until flush**

- Mount clutch release lever with release bearing ⇒ [page 78](#) .
- Installing the gearbox ⇒ [page 128](#) .



## 2 Output shaft

⇒ "2.1 Summary of components - Output shaft", page 192

⇒ "2.2 Disassembling and assembling the output shaft", page 194

### 2.1 Summary of components - Output shaft



#### Note

- ◆ When installing new pinions or a new shaft observe the technical data ⇒ page 2.
- ◆ Insert all bearings, sliding gears and synchronizer rings onto the output shaft with gear oil.
- ◆ Do not interchange the synchronizer rings, if re-used always assign to the original sliding gear.

#### 1 - Clutch housing

- repairing ⇒ page 178

#### 2 - Cylindrical-roller bearing

- with circlip
- removing ⇒ page 194
- installing ⇒ page 195
- Fitting position: The circlip in the bearing points towards the output shaft

#### 3 - Output shaft

- if an inner ring is fitted as a bearing assembly for the cylindrical-roller bearing Pos. 2, it cannot be removed from the output shaft
- Inspect bearing assembly or inner ring for cylindrical-roller bearing for scoring and damage
- Replace output shaft and cylindrical-roller bearing together if there is scoring and damage on the bearing assembly or inner ring

#### 4 - 4th gear pinion

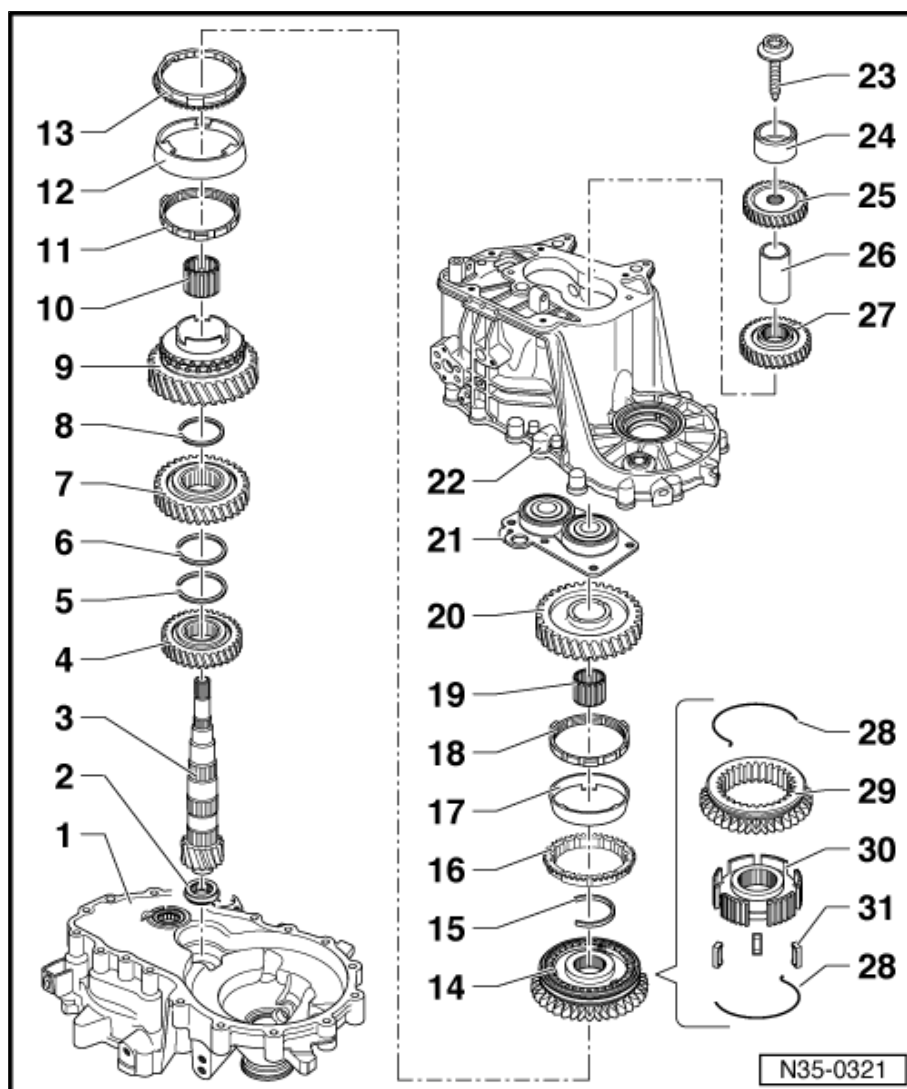
- Fitting position: The collar points to the 3rd gear ⇒ page 195
- No. of teeth ⇒ page 2

#### 5 - Circlip

#### 6 - Circlip

#### 7 - 3rd gear pinion

- Fitting position: The collar points to the 4th gear ⇒ page 195
- No. of teeth ⇒ page 2



## 8 - Circlip

### 9 - 2nd gear sliding gear

- No. of teeth ⇒ [page 2](#)

### 10 - Needle bearing

- for 2nd gear

### 11 - Inner ring for 2nd gear

- check for wear ⇒ [page 196](#)
- Fitting position ⇒ [page 196](#)

### 12 - Outer ring for 2nd gear

- place onto the inner ring Pos. 11
- replace if there are any traces of scoring or friction
- Fitting position ⇒ [page 196](#)

### 13 - 2nd gear synchronizer ring

- check for wear ⇒ [page 196](#)
- Fitting position ⇒ [page 196](#)

### 14 - Sliding sleeve with 1st and 2nd gear synchronizer body

- after removing the circlip -Pos. 15- press off with the 2nd gear sliding gear ⇒ [page 195](#)
- disassembling and assembling ⇒ [page 197](#)
- Assemble sliding sleeve/synchronizer body ⇒ [page 197](#)
- Fitting position ⇒ [page 197](#)
- installing ⇒ [page 197](#)

## 15 - Circlip

- pushing out ⇒ [page 195](#)
- inserting ⇒ [page 198](#)

### 16 - 1st gear synchronizer ring

- check for wear ⇒ [page 196](#)
- insert in such a way that the recesses lock into the arresters of the sliding sleeve Pos. 14

### 17 - Outer ring for 1st gear

- insert into synchronizer ring Pos. 16
- Fitting position ⇒ [page 198](#)
- replace if there are any traces of scoring or friction

### 18 - Inner ring for 1st gear

- check for wear ⇒ [page 196](#)
- Check pegs for traces of wear
- Fitting position ⇒ [page 198](#)

### 19 - Needle bearing

- for 1st gear

### 20 - 1st gear sliding gear

- Fitting position ⇒ [page 198](#)
- No. of teeth ⇒ [page 2](#)

### 21 - Bearing support with grooved ball bearing

- Always replace grooved ball bearing together with the bearing support
- If the bearing support is released, it must always be replaced ⇒ Electronic Catalogue of Original Parts
- removing and installing ⇒ [page 185](#)

### 22 - Gearbox housing

- repairing ⇒ [page 178](#)



### 23 - Screw

- removing and installing ⇒ [page 156](#)

### 24 - Inner ring/cylindrical-roller bearing

- identify before removing
- do not interchange with inner ring/cylindrical-roller bearing of input shaft
- can be replaced separately
- removing and installing ⇒ [page 166](#)

### 25 - 6th gear pinion

- Fitting position: The collar points to the bushing Pos. 26
- removing and installing ⇒ [page 166](#)
- No. of teeth ⇒ [page 1](#)

### 26 - Bushing

- removing and installing ⇒ [page 166](#)

### 27 - 5th gear pinion

- Fitting position ⇒ [page 166](#)
- press off together with bearing support Pos. 21 ⇒ [page 185](#)
- pressing on ⇒ [page 166](#)
- No. of teeth ⇒ [page 1](#)

### 28 - Spring

- Fitting position ⇒ [page 197](#)

### 29 - Sliding sleeve

### 30 - Synchronizer body

### 31 - Arresters (3 pieces)

## 2.2 Disassembling and assembling the output shaft

### Special tools and workshop equipment required

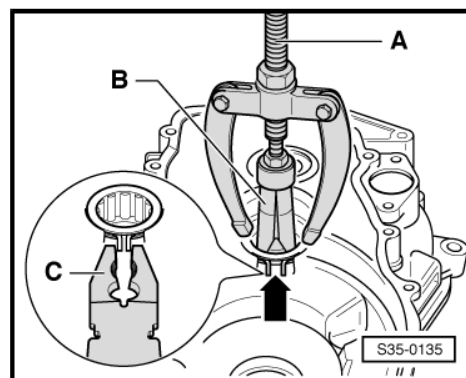
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure spindle - MP3-408 (VW 412)-
- ◆ Pressure spindle - MP3-423 (VW 407)-
- ◆ Drive bushing - MP3-427 (40-21)-
- ◆ Pipe section - MP3-450 (VW 415A)-
- ◆ Thrust piece - MP3-4014 (VW 432)-
- ◆ Interior extractor 30...37 mm , e.g. -Kukko 21/5-
- ◆ Countersupport , e.g. -Kukko 22/1-

### Pull out the cylindrical-roller bearing from the clutch housing

- When removing compress circlip of the cylindrical-roller bearing -arrow- with pliers -C-.

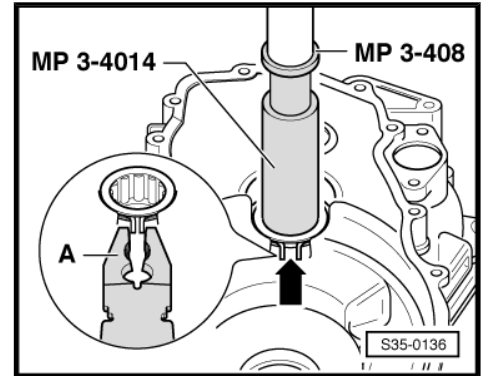
A - Countersupport , e.g. -Kukko 22/1-

B - Interior extractor 30...37 mm , e.g. -Kukko 21/5-




### Press the cylindrical-roller bearing into the clutch housing

- Support the clutch housing with pipe section - MP3-450- , not visible in figure, directly under the bearing support.
- When pressing in the cylindrical-roller bearing compress the circlip -arrow- with pliers -A-.
- Remove pliers before the cylindrical-roller bearing is in fitting position. The circlip must lock into the clutch housing slot.



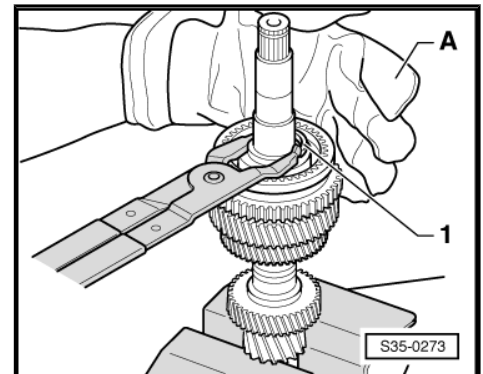
### Press the circlip -1- out of the slot

A - Protective glove



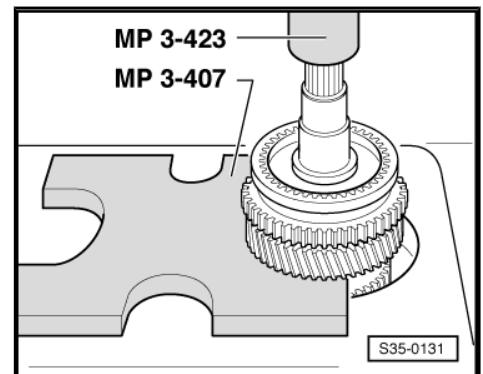
**WARNING**

*Prevent uncontrolled ejection of the circlip.*



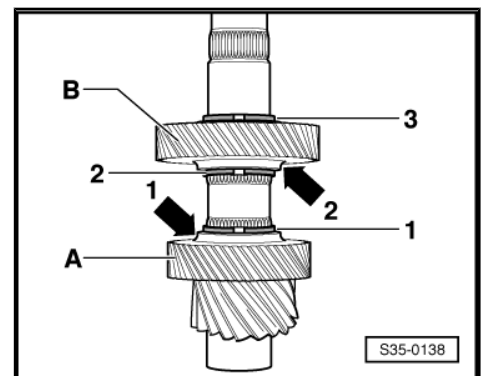
### Press off sliding sleeve with 1st and 2nd gear synchronizer body

- After removing the circlip jointly press off the 2nd gear sliding gear and the sliding sleeve/synchronizer body.



### Fitting position of gear pinion of 3rd and gear pinion of 4th

- Place the 4th gear pinion -A- on the output shaft.  
Fitting position:  
The collar -arrow 1- points towards the 3rd gear pinion -B-.
- Insert circlips -1- and -2-.
- Place the 3rd gear pinion -B- on the output shaft.  
Fitting position:  
The collar -arrow 2- points towards the 4th gear pinion -A-.
- Insert circlip -3-.

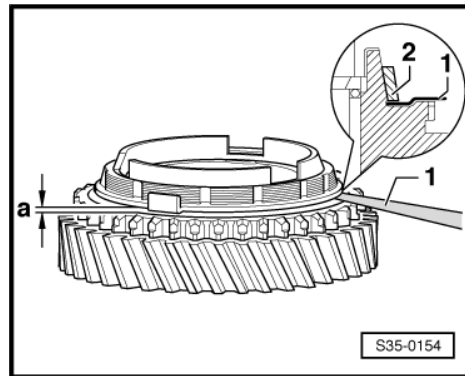




**Check 1st and 2nd gear inner ring for wear**

- Press the inner ring -2- on the cone of the sliding gear and measure clearance -a- with a feeler gauge -1-.

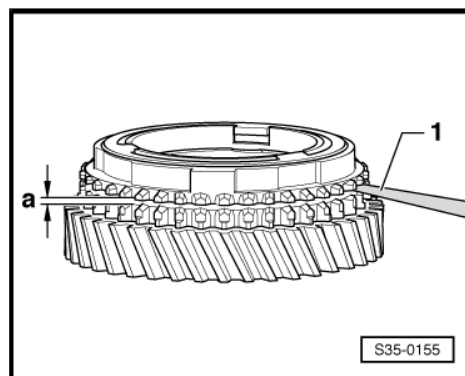
	Fitting dimension	Wear limit
Clearance -a-	0.75 ... 1.25 mm	0.3 mm



**Check 1st and 2nd gear synchronizer ring for wear**

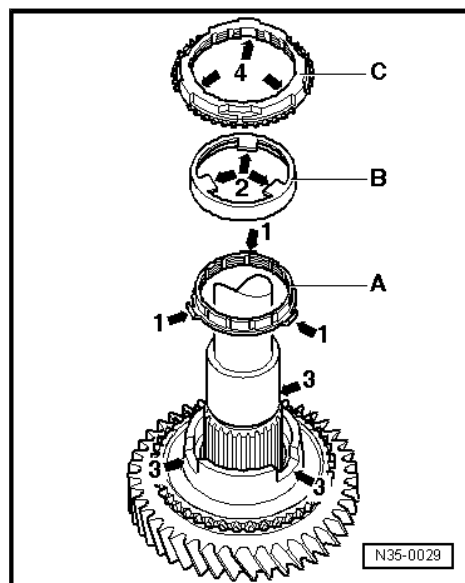
- Press the synchronizer ring, outer ring and inner ring on the cone of the sliding gear and measure clearance -a- with a feeler gauge -1-.

	Fitting dimension	Wear limit
Clearance -a-	1.2 ... 1.8 mm	0.5 mm



**Fitting position of the outer ring, inner ring and 2nd gear synchronizer ring**

- Position the inner ring -A- on the 2nd gear sliding gear.  
The angled lands -arrow 1- point towards the outer ring -B-.
- Position the outer ring -B-.  
Lock the lands -arrows 2- in the recesses -arrows 3- of the sliding gear.
- Insert the synchronizer ring -C-.  
Lock the recesses -arrows 4- in the lands -arrows 1- of the inner ring -A-.





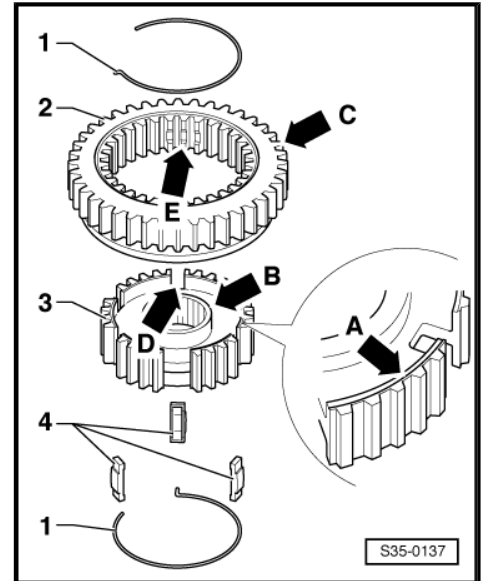
### Disassembling and assembling the sliding sleeve and 1st and 2nd gear synchronizer body

- 1 - Spring
- 2 - Sliding sleeve
- 3 - Synchronizer body
- 4 - Arresters for synchronizer body

– Slide the sliding sleeve over the synchronizer body.

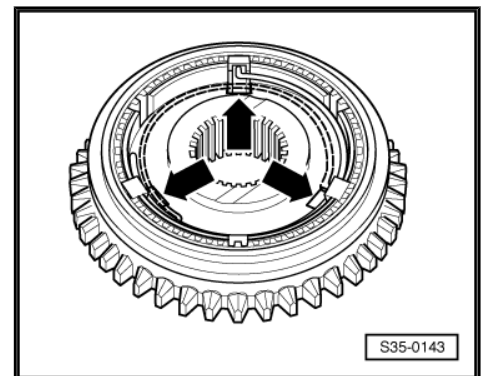
Fitting position:

After assembly the groove on the front side -arrow A- and the higher collar -arrow B- of the synchronizer body point towards the outer serration of the sliding sleeve -arrow C-. The deeper recesses -arrow D- of the arresters in the synchronizer body and the recesses -arrow E- in the sliding sleeve must be positioned above one another.



### Assembly of the sliding sleeve/1st and 2nd gear synchronizer body

- The sliding sleeve is drawn over the synchronizer body.
- Insert the arresters in the deeper recesses -arrows- and mount the springs with 120° offset. The angled end of the spring must grip into the hollow arrester.

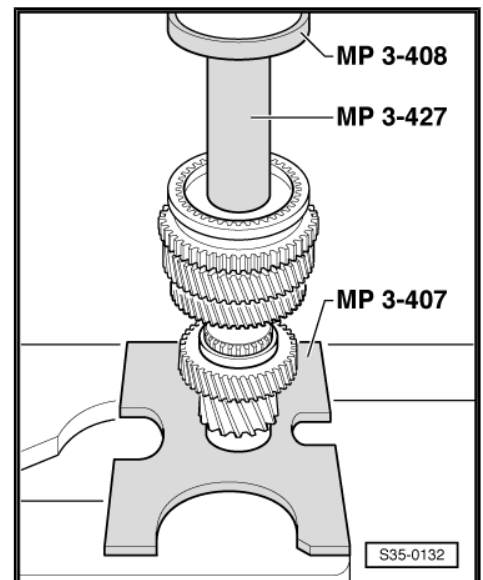


### Press on the sliding sleeve and 1st and 2nd gear synchronizer body

Fitting position:

The slot for the shift fork in the sliding sleeve points towards the 1st gear, the serration of the reversing gear points towards the 2nd gear.

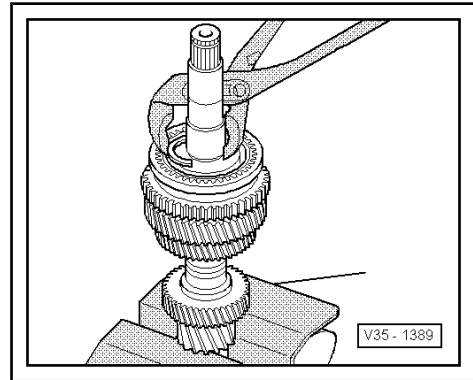
- Rotate the synchronizer ring in such a way that the slots are flush with the arresters.





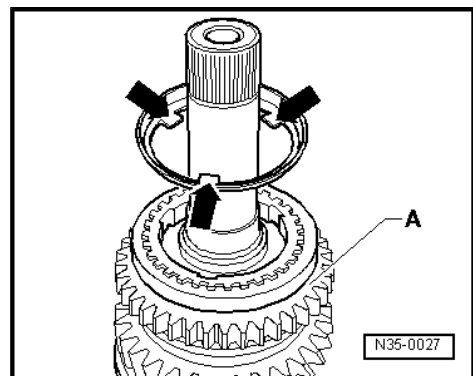
**Insert the circlip**

- Insert the 1st gear synchronizer ring in the sliding sleeve/synchronizer body.



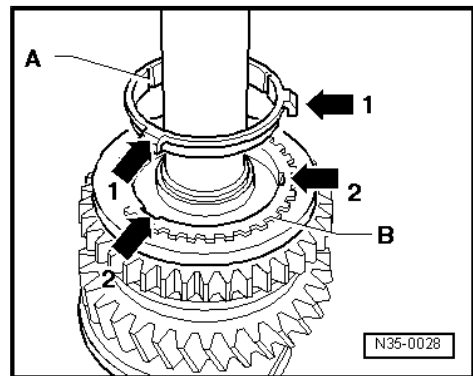
**Fitting position of the 1st gear outer ring**

The pegs -arrows- point towards the reversing gear serration.



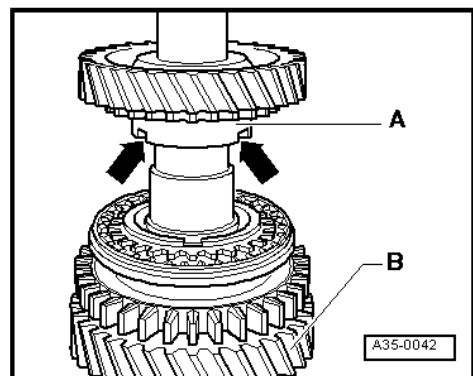
**Fitting position for 1st gear inner ring -A-**

Lock the pegs -arrows 1- in the recesses -arrows 2- of the synchronizer ring -B-.



**Fitting position 1st gear sliding gear**

The higher collar -A- points towards the 2nd gear -B-. The recesses in the collar -arrows- lock into the pegs of the outer ring => [page 198](#) .



## 39 – Final drive - differential

### 1 Replacing the flange shaft gasket rings (gearbox assembled)

⇒ [“1.1 Replacing the left flange shaft gasket ring”, page 199](#)

⇒ [“1.2 Replacing the right flange shaft seal ring”, page 200](#) .

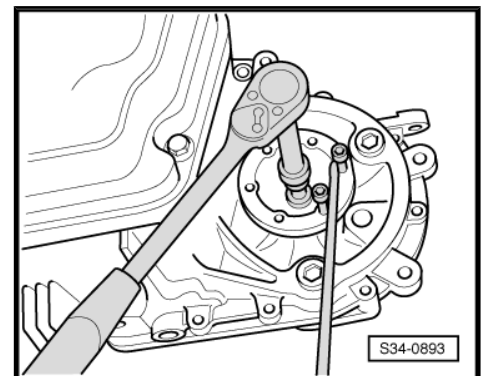
#### 1.1 Replacing the left flange shaft gasket ring

##### Special tools and workshop equipment required

- ◆ Extractor - MP3-419/37 (VW 771/37)-
- ◆ Inertia extractor - MP9-501 (VW 771)-
- ◆ Thrust piece - T10160-
- ◆ Catch pan
- ◆ Sealing grease - G 052 128 A1-

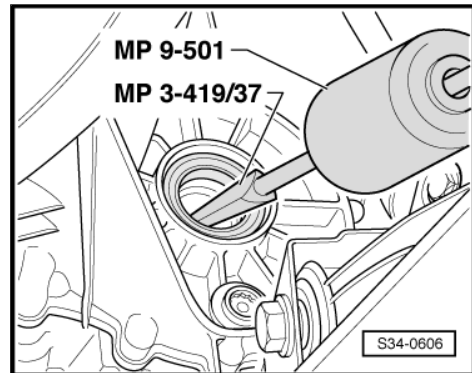
##### Removing

- Remove front left wheel and raise vehicle.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Remove the front left wheelhouse liner ⇒ Body Work; Rep. gr. 66 .
- Turn steering to full left lock.
- Unscrew the drive shaft from the flange shaft.
- Tie up the drive shaft as far as possible. Avoid damaging the paintwork on the drive shaft during this operation.
- Position the catch pan under the gearbox.
- Unscrew the fixing screw for the flange shaft, to this end insert two screws in the flange and using a tyre iron hold the shaft.
- Remove the flange shaft with pressure spring.

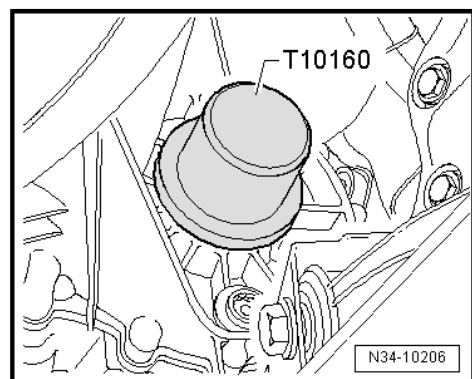


- Remove gasket ring for flange shaft with inertia extractor - MP9-501 (VW 771)- and extractor - MP3-419/37 (VW 771/37)- .

### Install



- Drive the new seal ring in up to the stop, do not twist the seal ring.
- Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128 A1- .
- Insert the flange shaft.
- Secure the flange shaft with the conical screw.
- Bolt drive shaft to flange shaft ⇒ Chassis; Rep. gr. 40 .
- Install the wheelhouse liner into the left wheelhouse ⇒ Body Work; Rep. gr. 66 .
- Install wheel ⇒ Chassis; Rep. gr. 44 .
- Check gear oil level, if necessary fill up to lower edge of filler hole ⇒ [page 153](#) .
- Install the noise insulation ⇒ Body Work; Rep. gr. 50 .



### Tightening torques

Component	Nm
Flange shaft on gearbox (conical screw)	⇒ <a href="#">page 202</a>

## 1.2 Replacing the right flange shaft seal ring

### Special tools and workshop equipment required

- ◆ Extractor - MP3-419/37 (VW 771/37)-
- ◆ Inertia extractor - MP9-501 (VW 771)-
- ◆ Thrust piece - T10160-
- ◆ Catch pan
- ◆ Sealing grease - G 052 128 A1-

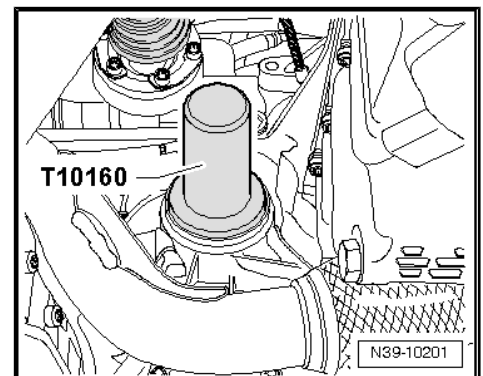
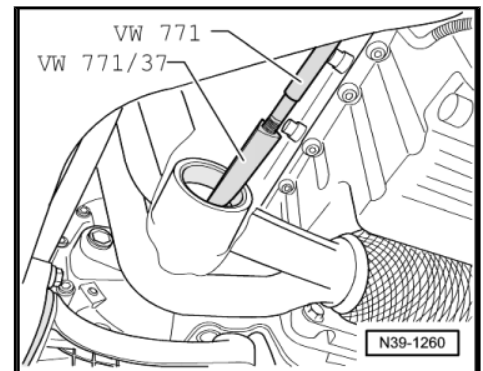
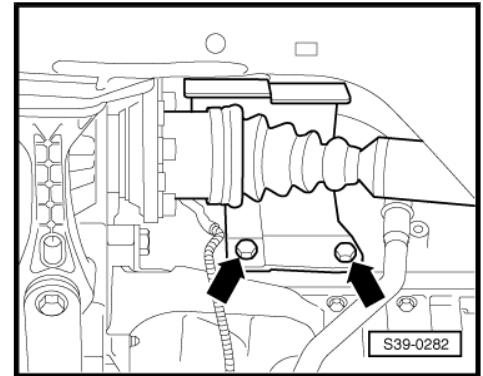
### Removing

- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Turn steering to full right lock.

- Remove protection plate for drive shaft from the engine (if present) -arrows-.
- Unscrew the drive shaft from the flange shaft.
- Tie up the drive shaft as far as possible. Avoid damaging the paintwork on the drive shaft during this operation.
- Position the catch pan under the gearbox.
- Unscrew the fixing screw for the flange shaft, to this end insert two screws in the flange and using a tyre iron hold the shaft.
- Remove the flange shaft with pressure spring.
- Pull out seal ring for flange shaft with -VW 771 (MP9-501)- and -VW 771/37 (MP3-419/37)- .

### Install

- Drive the new seal ring in up to the stop, do not twist the seal ring.
- Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128 A1- .
- Insert the flange shaft.
- Secure the flange shaft with the conical screw.
- Screw the right drive shaft onto the flange shaft ⇒ Chassis; Rep. gr. 40 .
- Check gear oil level, if necessary fill up to lower edge of filler hole ⇒ [page 153](#) .
- Install the noise insulation ⇒ Body Work; Rep. gr. 50 .



### Tightening torques

Component	Nm
Flange shaft on gearbox (conical screw)	⇒ <a href="#">page 202</a>
Protective cap for drive shaft on engine	⇒ Chassis; Rep. gr. 40

## 2 Differential gear

⇒ "2.1 Summary of components - Differential", page 202 .

⇒ "2.2 Disassembling and assembling differential gear", page 205 .

⇒ "2.3 Adjusting the differential gear", page 208 .

### 2.1 Summary of components - Differential

⇒ "2.1.1 Differential gear - Summary of components (Octavia II, Superb II and Yeti) .", page 202

⇒ "2.1.2 Differential gear - Summary of components (Octavia III)", page 204

#### 2.1.1 Differential gear - Summary of components (Octavia II, Superb II and Yeti) .

##### 1 - Conical screw

- screw into threaded piece Pos. 8
- 25 Nm

##### 2 - Right flange shaft

##### 3 - Pressure spring for flange shaft

- fitted behind flange shaft

##### 4 - Thrust washer

- Fitting position: Collar for compression spring

##### 5 - Conical ring

- Fitting position: Cone for differential gear housing

##### 6 - Circlip

- holds the conical ring, stop disc and pressure spring in position when the flange shaft is removed

##### 7 - Large differential bevel gear

- installing ⇒ [page 208](#)

##### 8 - Threaded part

- installing ⇒ [page 208](#)

##### 9 - Differential bevel gear shaft

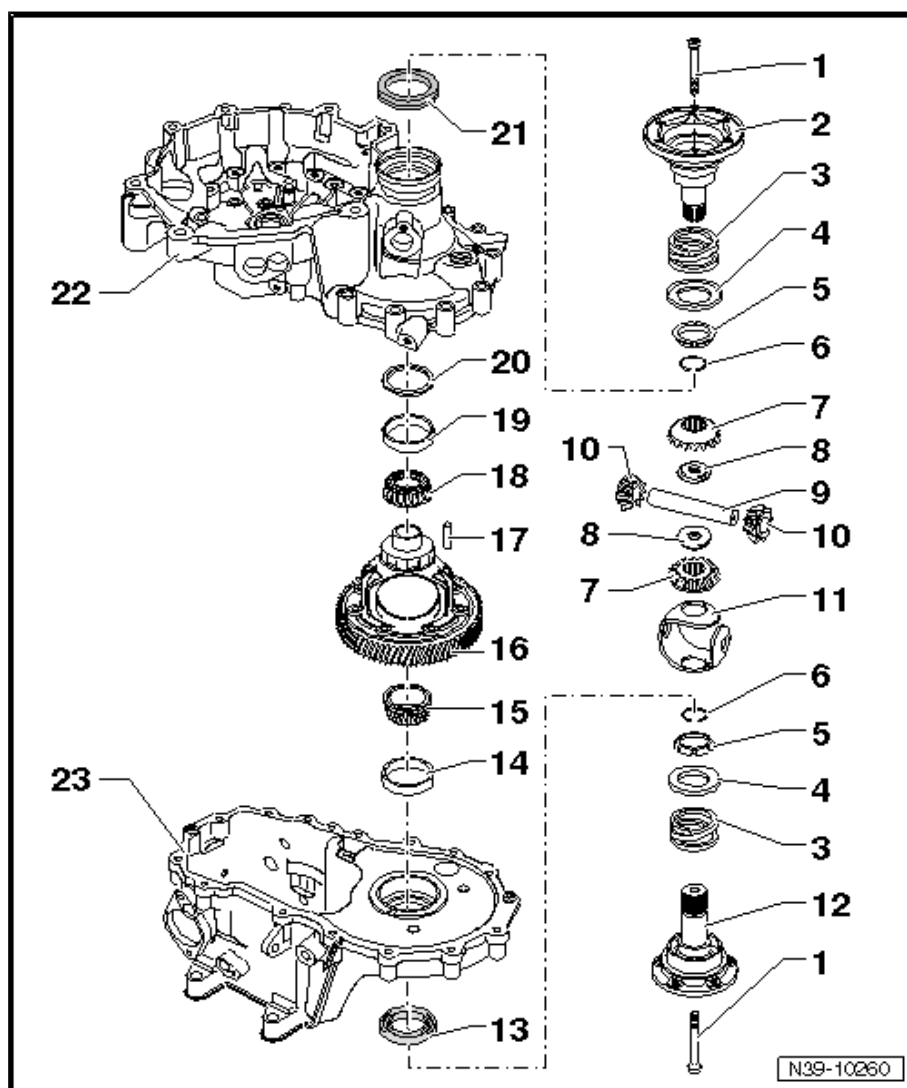
- upon removal, the tensioning sleeve is cut out pos. 17 ⇒ [page 207](#)
- installing ⇒ [page 208](#)

##### 10 - Small differential bevel gear

- installing ⇒ [page 208](#)

##### 11 - Stop disc compound

- insert with gear oil



## 12 - Flange shaft left

### 13 - Sealing ring

- for left flange shaft
- replace with installed gearbox ⇒ [page 199](#)

### 14 - Outer ring/tapered-roller bearing

- removing ⇒ [page 205](#)
- installing ⇒ [page 206](#)

### 15 - Inner ring/tapered-roller bearing

- remove ⇒ [page 206](#)
- pressing on ⇒ [page 206](#)

### 16 - Differential gear housing

- with gear pinion for final drive
- Assignment tensioning sleeve pos. 17 ⇒ [page 207](#)

### 17 - Tensioning sleeve

- to secure the differential bevel gear shaft
- Assignment to differential gear housing pos. 16 ⇒ [page 207](#)
- is cut when removing ⇒ [page 207](#)
- installing ⇒ [page 208](#)

### 18 - Inner ring/tapered-roller bearing

- remove ⇒ [page 206](#)
- pressing on ⇒ [page 206](#)

### 19 - Outer ring/tapered-roller bearing

- removing ⇒ [page 206](#)
- pressing on ⇒ [page 207](#)

### 20 - Adjusting washer

- for the differential gear
- Determine thickness ⇒ [page 208](#)

### 21 - Sealing ring

- for right flange shaft
- replace with installed gearbox ⇒ [page 200](#)

### 22 - Clutch housing

- repairing ⇒ [page 178](#)

### 23 - Gearbox housing

- repairing ⇒ [page 178](#)

## 2.1.2 Differential gear - Summary of components (Octavia III)

### 1 - Conical screw

- 25 Nm

### 2 - Right flange shaft

### 3 - Pressure spring for flange shaft

- fitted behind flange shaft

### 4 - Thrust washer

- Fitting position: Collar for compression spring

### 5 - Conical ring

- Fitting position: Cone for differential gear housing

### 6 - Circlip

- holds the conical ring, stop disc and pressure spring in position when the flange shaft is removed

### 7 - Flange shaft left

### 8 - Sealing ring

- for left flange shaft
- replace with installed gearbox ⇒ [page 199](#)

### 9 - Outer ring/tapered-roller bearing

- removing ⇒ [page 205](#)
- pressing on ⇒ [page 206](#)

### 10 - Inner ring/tapered-roller bearing

- remove ⇒ [page 206](#)
- pressing on ⇒ [page 206](#)

### 11 - Differential gear

- with gear pinion for final drive

### 12 - Inner ring/tapered-roller bearing

- remove ⇒ [page 206](#)
- pressing on ⇒ [page 206](#)

### 13 - Outer ring/tapered-roller bearing

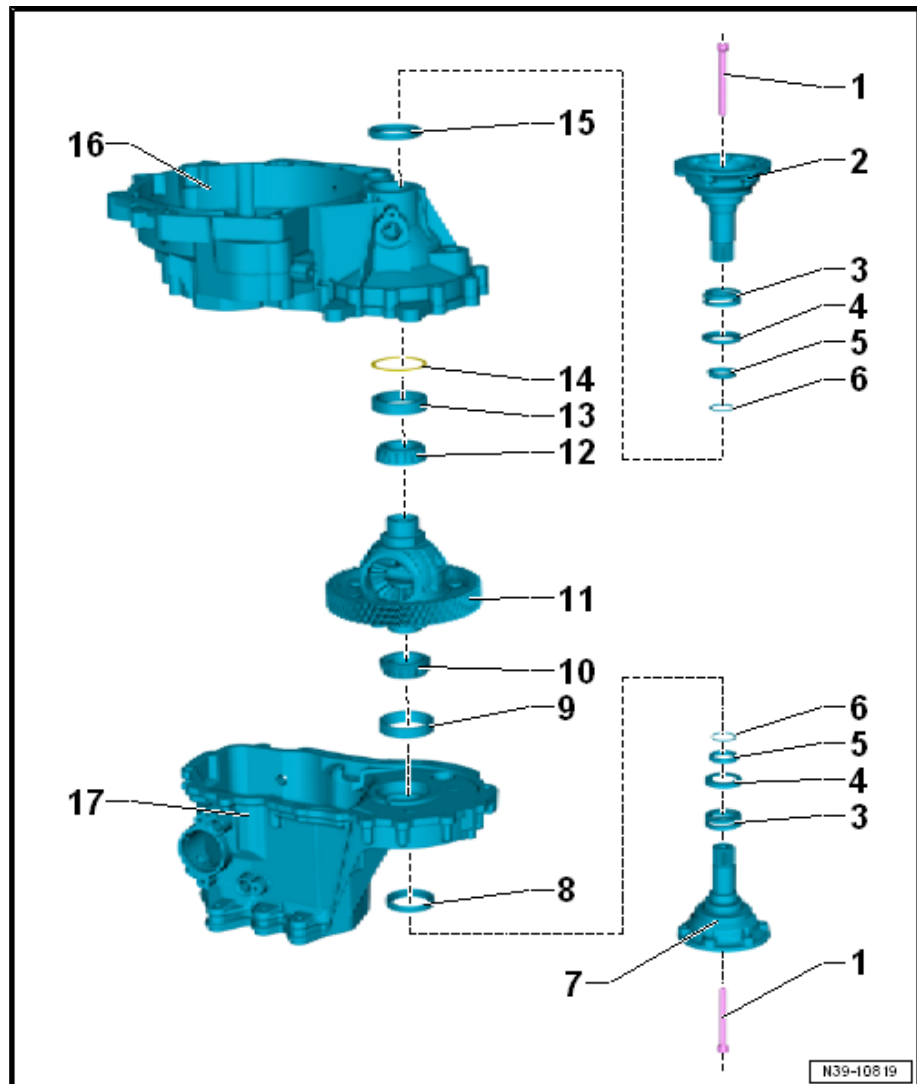
- removing ⇒ [page 206](#)
- pressing on ⇒ [page 207](#)

### 14 - Adjusting washer

- for the differential gear
- Determine thickness ⇒ [page 208](#)

### 15 - Sealing ring

- for right flange shaft
- replace with installed gearbox ⇒ [page 200](#)





## 16 - Clutch housing

- repairing ⇒ [page 178](#)

## 17 - Gearbox housing

- repairing ⇒ [page 178](#)

## 2.2 Disassembling and assembling differential gear

### Special tools and workshop equipment required

- ◆ Counterholder - MP1-223 (3067)-
- ◆ Pressure plate - MP3-406 (VW 401)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure spindle - MP3-408 (VW 412)-
- ◆ Pipe section - MP3-409 (VW 418A)-
- ◆ Press-on sleeve - MP3-412 (VW 455)-
- ◆ Drive bushing - MP3-427 (40-21)-
- ◆ Thrust piece - MP3-431 (3002)-
- ◆ Pressure spindle - MP3-448 (VW 408 A)-
- ◆ Distance sleeve - MP3-458/2 (VW 472/2)-
- ◆ Thrust plate - MP3-464 (30-205)-
- ◆ Pressure pipe - MP6-408 (30-14)-
- ◆ Pipe - MP6-419 (3259)-
- ◆ Pipe section - T30041 (2040)-
- ◆ Tapered-roller bearing extractor - V.A.G 1582-
- ◆ Gripper - V.A.G 1582/3-
- ◆ Interior extractor 46...58 mm , e.g. -Kukko 21/7-
- ◆ Countersupport , e.g. -Kukko 22/2-



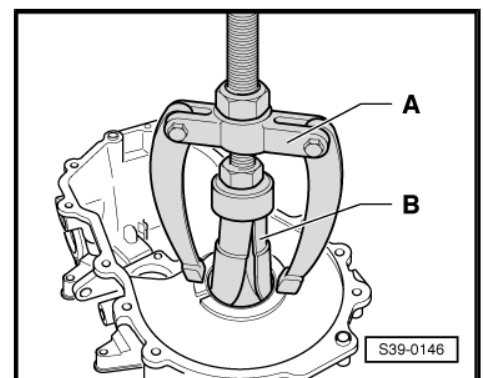
### Note

- ◆ *Before installing heat the inner ring of the tapered-roller bearing to 100°C.*
- ◆ *Replace both tapered-roller bearings together.*
- ◆ *When replacing the tapered-roller bearings, the differential housing, the gearbox housing or the clutch housing, set the differential gear ⇒ [page 208](#) .*

### Remove outer ring/tapered-roller bearing from gearbox housing

A - Countersupport , e.g. -Kukko 22/2-

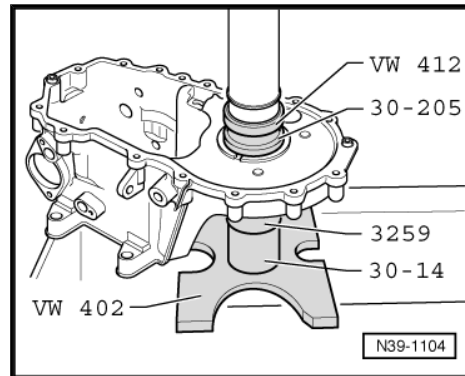
B - Interior extractor 46...58 mm , e.g. -Kukko 21/7-





**Press in outer ring/tapered-roller bearing in the gearbox housing**

- Support the gearbox housing with a pipe - 3259 (MP6-419)- directly below the bearing support.



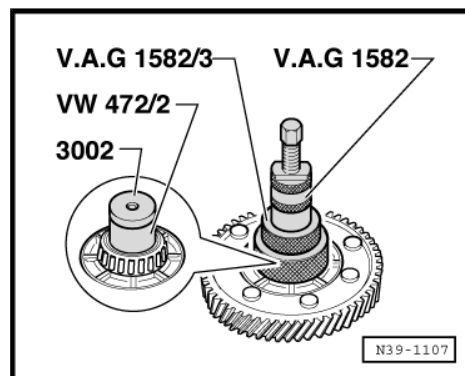
**Remove inner rings/tapered-roller bearing**

- Before fitting the extractor, position distance sleeve - VW 472/2 (MP3-458/2)- and thrust piece - 3002 (MP3-431)- on the differential gear housing.



**Note**

- ◆ Both inner rings/tapered-roller bearings of the differential gear housing are removed in the same way.
- ◆ The inner and outer rings of the tapered-roller bearing are paired. Do not interchange!



**Press on inner rings/tapered-roller bearing**

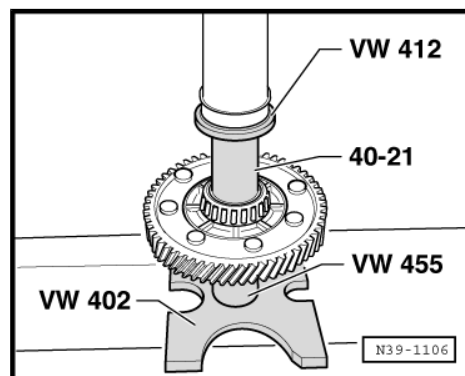
- Press on inner ring/tapered-roller bearing with drive bushing - 40-21 (MP3-427)- up to the stop.
- Support the opposite side of the inner ring with an insertion bushing - VW 455 (MP3-412)- .

The shoulder of the insertion bushing - VW 455- points to the differential gear housing.



**Note**

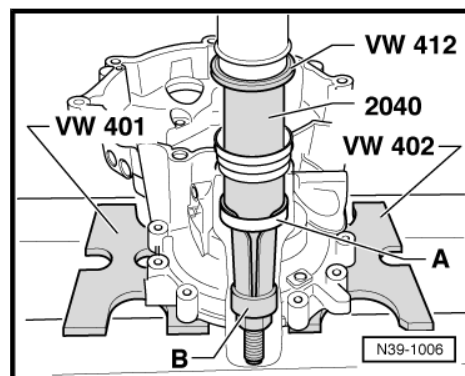
- ◆ Both inner rings/tapered-roller bearings of the differential gear housing are pressed on in the same way.
- ◆ The inner and outer rings of the tapered-roller bearing are paired. Do not interchange!



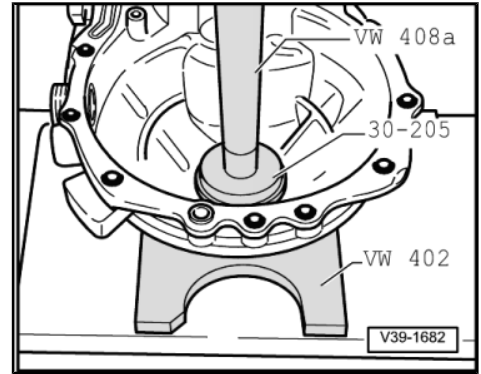
**Remove the outer ring/tapered-roller bearing -A- from the clutch housing**

B - Interior extractor 46...58 mm , e.g. -Kukko 21/7-

- Position pipe - 2040 (T30041)- directly on the feet of the interior extractor -B- and press out the outer ring/tapered-roller bearing -A-.



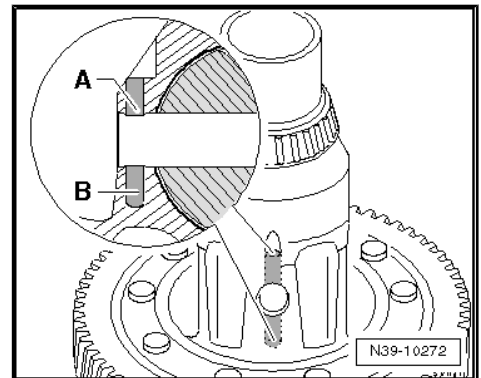
**Press outer ring/tapered-roller bearing into the clutch housing**



**Assign differential gear housing and tensioning sleeve before removal and installation**

- Check the hole for the tensioning sleeve in the differential gear housing.

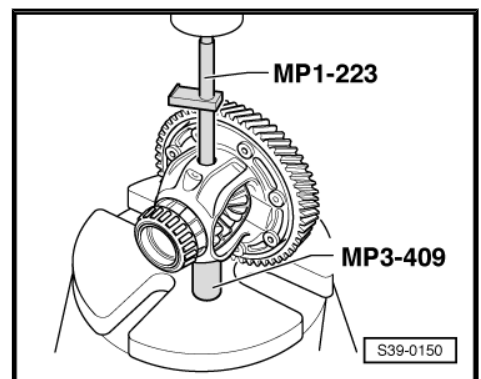
Bore	Length of tensioning sleeve mm	Tensioning sleeve	
-A-	24 (short)	removing ⇒ <a href="#">page 207</a>	installing ⇒ <a href="#">page 208</a>
-B-	36 (long)	removing ⇒ <a href="#">page 207</a>	installing ⇒ <a href="#">page 208</a>
continuous	36 (long)	removing ⇒ <a href="#">page 207</a>	installing ⇒ <a href="#">page 208</a>



**Press out differential bevel gear shaft**

The tensioning sleeve is cut during pressing out.

- Remove the remaining part of the tensioning sleeve from the differential gear housing.

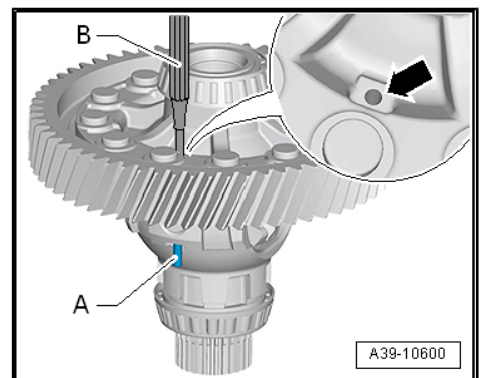


**Remove long tensioning sleeve before removing the differential bevel gear axis**

- Drive out tensioning sleeve -A- with mandrel -B-  $\varnothing$  5 mm from the bore -arrow- in the differential gear housing.

**Note**

If the bore -arrow- is not continuous in the differential gear housing, the tensioning sleeve must be cut through ⇒ [page 207](#).

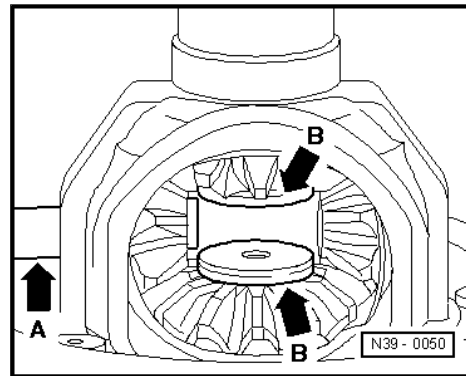


### Install differential bevel gears

- Install stop disc compound with gearbox oil.
- Insert both large differential bevel gears and secure (e.g. with flange shaft).
- Insert the small differential bevel gears offset at 180° and slide in.
- Push in the differential bevel gear shaft -arrow A- up to the first small differential bevel gear.
- Insert the threaded parts -arrows B- in the large differential bevel gears.

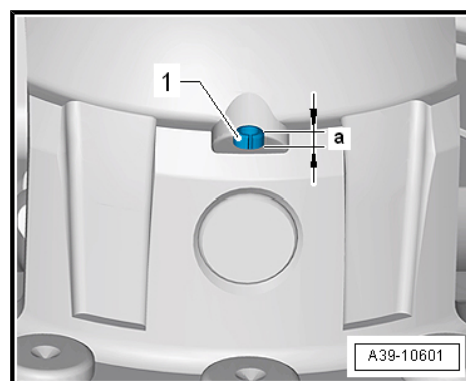
Fitting position: Heel of the differential bevel gear.

- Drive in the axis for the differential bevel gear up to end position and secure with new tensioning sleeve ⇒ [page 208](#) .



### Remove tensioning sleeve for differential bevel gear axis

- Adjust the hole in the differential bevel gear shaft at the hole in the differential gear housing.
- Drive in tensioning sleeve -1- with mandrel onto dimension -a- = 2.5 mm.
- The tensioning sleeve -1- must not come into contact with the coupling housing.



## 2.3 Adjusting the differential gear

### Special tools and workshop equipment required

- ◆ Gauge block plate - MP3-405/17 (VW 385/17)-
- ◆ Pressure plate - MP3-406 (VW 401)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure spindle - MP3-408 (VW 412)-
- ◆ Universal dial gauge holder - MP3-447 (VW 387)-
- ◆ Pressure spindle - MP3-448 (VW 408 A)-
- ◆ Thrust plate - MP3-464 (30-205)-
- ◆ Pressure pipe - MP6-408 (30-14)-
- ◆ Pipe - MP6-419 (3259)-
- ◆ Pipe section - T30041 (2040)-
- ◆ Interior extractor 46...58 mm , e.g. -Kukko 21/7-

The differential gear must be re-set when the following components are replaced:

- ◆ Gearbox housing
- ◆ Clutch housing
- ◆ Differential gear housing

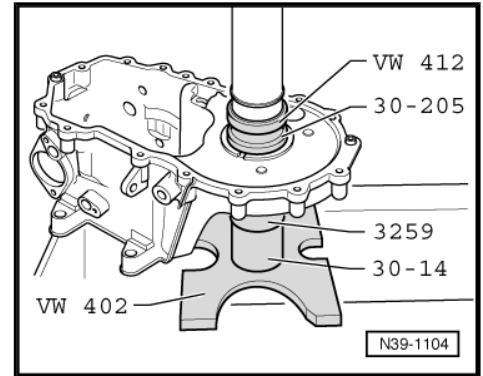
or the

- ◆ Tapered-roller bearings of the differential gear

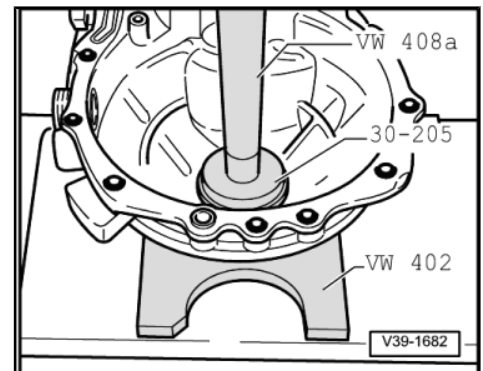
- Press in outer ring/tapered-roller bearing (pinion side) in the gearbox housing.
- Support the gearbox housing with a pipe - 3259 (MP6-419)- directly below the bearing support.

**i** Note

*The inner and outer rings of the tapered-roller bearing are paired. Do not interchange!*



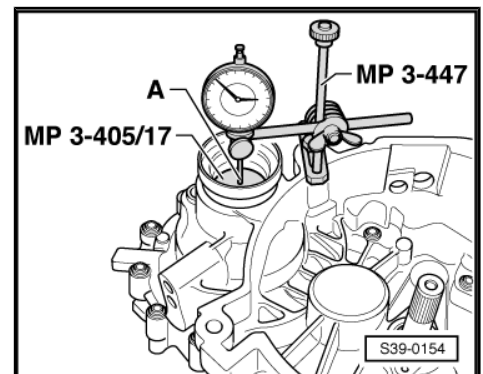
- Press the outer ring/tapered-roller bearing (opposite pinion side) without adjusting washer into the clutch housing.
- Insert the differential gear in the gearbox housing.
- Position the clutch housing and screw in 5 screws and tighten to the given tightening torque ⇒ [page 158](#) .



- Set up the measuring device and dial gauge (3 mm measuring range), dial gauge extension -A- approx. 30 mm).
- Set the dial gauge to 0 with 1 mm bias.
- Move the differential gear up and down, read off and write down the clearance on the dial gauge. (Example: 1.50 mm)

**i** Note

*Do not turn the differential gear while measuring as otherwise the bearings will settle and the measuring result will be inaccurate.*



**Determine the adjusting washer**

The prescribed bearing preload is reached by adding to the established measured value (example 1.50 mm) a constant compression value (0.25 mm).

**Example**

measured value	1.50 mm
+ pressure (const. value)	0.25 mm
<b>Thickness of the adjusting washer</b>	<b>= 1.75 mm</b>

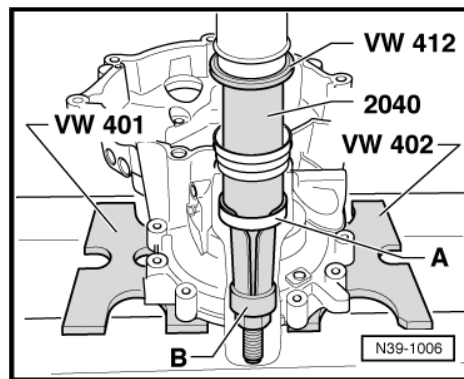


- Remove the clutch housing and press out the outer ring/tapered-roller bearing -A-.
- B- Interior extractor 46 ... 58 mm , e.g. -Kukko 21/7-
- Position pipe - 2040 (T30041)- directly on the feet of the interior extractor -B- and press out the outer ring/tapered-roller bearing -A-.



**Note**

Assign the adjusting washer (s) via the ⇒ *Electronic Catalogue of Original Parts* .



**Available adjusting washers**

Adjusting washer thickness (mm)		
0.65	0.90	1.15
0.70	0.95	1.20
0.75	1.00	1.25
0.80	1.05	
0.85	1.10	

Different tolerances allow to select the required thickness for each washer very precisely.

If the measured washer thickness is greater than the one listed in the table, 2 washers corresponding to the measured value may be fitted.

- Insert adjusting washer with the required thickness (in this example 1.75 mm) and press the outer ring/tapered-roller bearing back into the clutch housing.
- Position the clutch housing and tighten the screws to the given tightening torque ⇒ [page 158](#) .