

Workshop Manual

Fabia II 2007 ➤ , Fabia II 2009 ➤ ,
Fabia II 2011 ➤ , Octavia II 2004 ➤ ,
Octavia II 2010 ➤ , Rapid 2011 ➤ ,
Rapid India 2011 ➤ , Rapid NH 2013 ➤ ,
Rapid NH 2014 ➤ , Roomster 2006 ➤ ,
Superb II 2008 ➤ , Superb II 2011 ➤ ,
Yeti 2010 ➤ , Yeti 2011 ➤

Gearbox 0AM-DSG

Edition 01.2015



List of Workshop Manual Repair Groups

Repair Group

00 - Technical data

30 - Clutch

34 - Controls, housing

35 - Gears, shafts

39 - Final drive - differential



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00 – Technical data

1 Identification

(SRL000769; Edition 01.2015)

⇒ [“1.1 Identification of the gearbox”, page 1](#)

1.1 Identification of the gearbox

Location of identification code letters on the gearbox

Example for a gearbox:

The gearbox code letter -arrow- is located at the top and bottom of the gearbox.

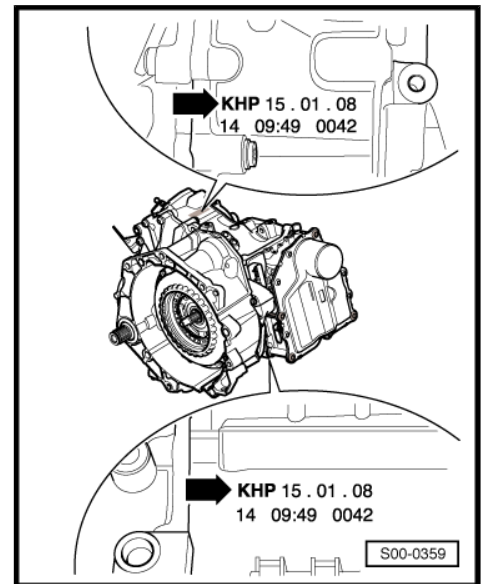
- ◆ KHP = gearbox identification character
- ◆ 15.01.08 = Production date 15th January 2008
- ◆ 14 = Factory code
- ◆ 09:49 = time
- ◆ 0042 = serial number

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



Note

If these vehicle data stickers are not present and another gearbox is installed than the one intended or you have no other possibility to identify the installed gearbox in case of doubt, then read off the identification characters directly from the gearbox.





2 Safety instructions

⇒ [“2.1 Safety precautions when working on vehicles with a start/stop system”, page 2](#)

⇒ [“2.2 Safety precautions during road tests in which testing and measuring equipment is used”, page 2](#)

⇒ [“2.3 Safety measures for working on the mechatronics for double clutch gearbox J743”, page 2](#)

2.1 Safety precautions when working on vehicles with a start/stop system



WARNING

On vehicles with start-stop system, there is the risk of injury from automatic engine start.

- ◆ *Deactivate the start-stop system when working on the vehicle. Switch off ignition.*
- ◆ *If required switch on the ignition for a short period of time.*

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

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



WARNING

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

There is a risk of injury from the release of the passenger air-bag in the event of an accident.

- *Operation of test and measuring instruments by the driver while driving may result in deviating from the direction of travel.*
- *There is an increased risk of injury or accident from unsecured testers and measuring instruments.*
- ◆ *Fasten test and measurement equipment with a strap on the rear seat and secure their operation by another person sitting on the rear seat.*

2.3 Safety measures for working on the mechatronics for double clutch gearbox - J743-

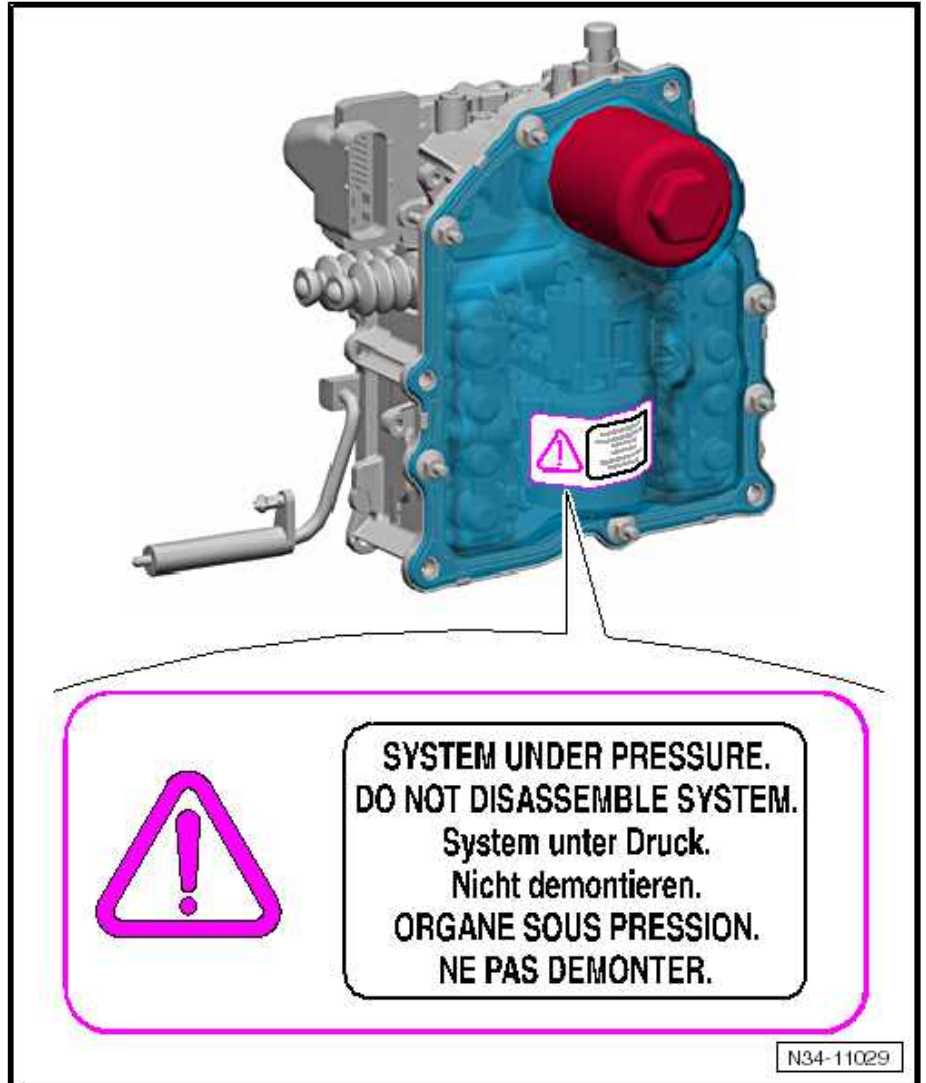


DANGER!

Do not remove the pressure tank. The pressure tank is under pressure and should not be opened.



Caution



3 Repair instructions

⇒ [“3.1 General points”, page 4](#)

⇒ [“3.2 Explanation of the terms used in this workshop manual”, page 7](#)

⇒ [“3.3 Contact corrosion”, page 9](#)

⇒ [“3.4 Gaskets and seals”, page 9](#)

⇒ [“3.5 Nuts and bolts”, page 9](#)

⇒ [“3.6 Working with testing devices”, page 10](#)

⇒ [“3.7 Notes on tow starting and towing”, page 11](#)

3.1 General points

The automatic gearbox DSG[®]-0AM is also designated as double clutch gearbox.

The gearbox is built like a 7-speed manual gearbox.

Information on structure and function of the gearbox ⇒ Self-study programme No. 75 ; automatic gearbox DSG - 0AM .

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

A number of generally valid notes for individual repair operations - which are otherwise listed several times at numerous points in the workshop manual - are summarised here.

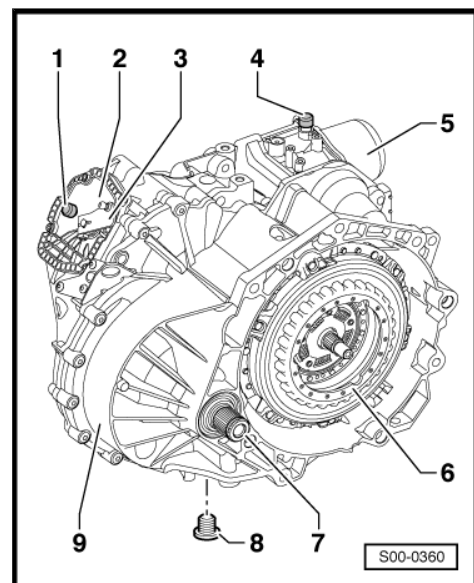
Notes apply to this particular workshop manual.

Special tools

List of the special tools used in the workshop manual is detailed in the individual repair descriptions.

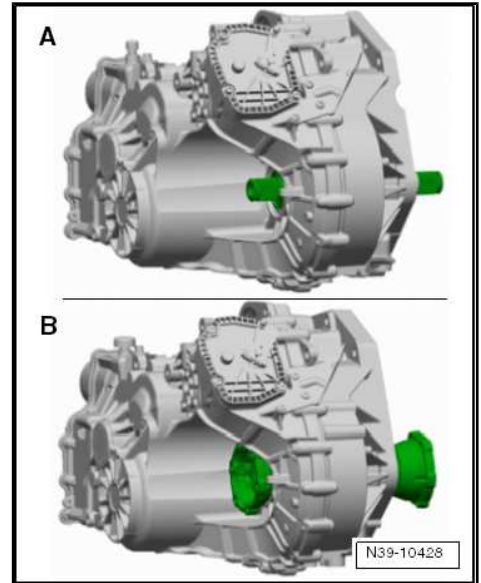
Summary of components of gearbox for vehicles Octavia II, Superb II and Yeti

- 1 - Ventilation cap of the gearbox
- 2 - Screw cap
- 3 - Gearshift lever
- 4 - Ventilation cap of the mechatronics for double clutch gearbox - J743-
- 5 - Mechatronics for double clutch gearbox - J743-
- 6 - Double clutch
- 7 - Up to production date “11.2008” rigid shaft, from production date “11.2008” flange shaft ⇒ [page 5](#)
- 8 - Oil drain plug
- 9 - Automatic Gearbox DSG - 0AM



Gearbox with different output shafts

- ◆ -A- - Rigid shafts up to 11.2008
- ◆ -B- - Flange shafts as of 11.2008

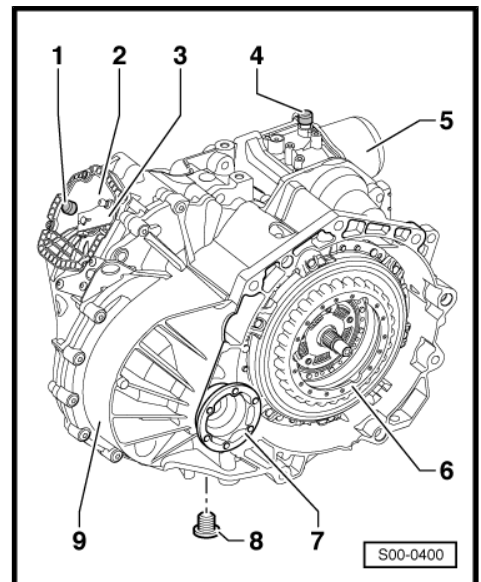


Summary of components of gearbox for vehicles Fabia II, Roomster, Rapid NH and Rapid India

- 1 - Ventilation cap of the gearbox
- 2 - Screw cap
- 3 - Gearshift lever
- 4 - Ventilation cap of the mechatronics for double clutch gearbox - J743-
- 5 - Mechatronics for double clutch gearbox - J743-
- 6 - Double clutch
- 7 - Flange shaft
- 8 - Oil drain plug
- 9 - Automatic Gearbox DSG - 0AM

Continued for all vehicles

Gearbox





The gearbox has an opening in the housing -arrow-.

Vehicles Octavia II, Superb II and Yeti



Note

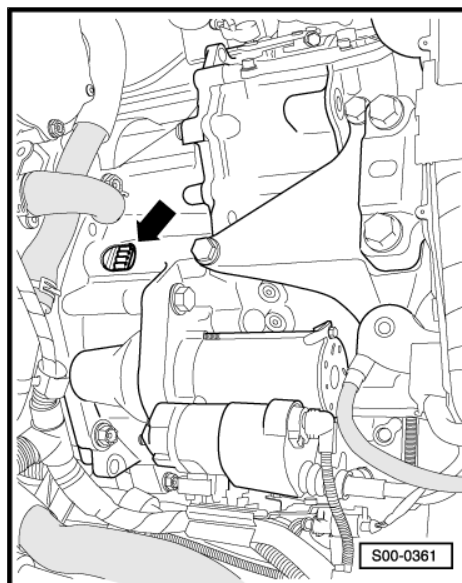
- ◆ When installing pay attention that nothing falls into this opening.
- ◆ Cover the opening with a cloth before commencing installation work.

For vehicles Fabia II, Roomster and Rapid NH



Note

- ◆ This opening is closed with a cap.
- ◆ When installing pay attention that nothing falls into this opening.



Continued for all vehicles

- ◆ If the covers are unscrewed from the gearbox or the gearbox is without oil, do not let the engine run and do not tow the vehicle.
- ◆ Permanently ensure that no dirt can get into the opened gearbox.
- ◆ Thoroughly clean the connection points and their surroundings and then release.
- ◆ When installing the gearbox, ensure the dowel sleeves are correctly located between the engine and gearbox.

On some transmissions, a cover is present above the engaging lever.

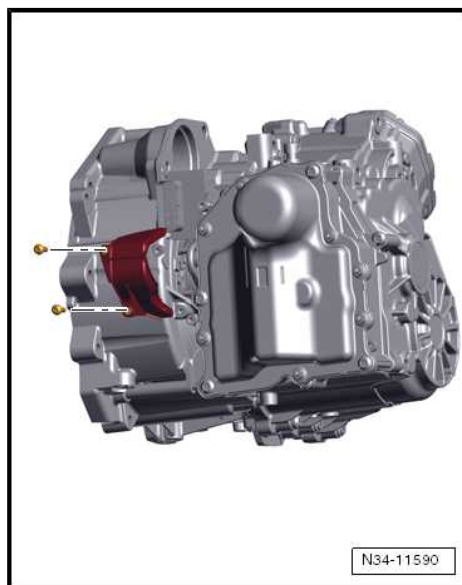
The cover protects against contamination.

Tightening torque securing bolts: 8 Nm

Mechatronics

- ◆ The mechatronics is allocated according to the gearbox code letters => Electronic Catalogue of Original Parts .
- ◆ The new mechatronics for the gearbox is already precisely filled with oil at the factory, do not drain the oil.
- ◆ The removed mechatronics for the gearbox is sent back with oil (close the ventilation opening with a suitable plug).
- ◆ During assembly work, remove the cover of the ventilation for the mechatronics and close the opening with a suitable screw plug. In case of oil leakage from the mechatronics , the mechatronics must be replaced.

Gear oil



The "7-speed double clutch gearbox DSG - 0AM" has two separate, different oil fillings. One for the area with gearbox oil -arrow A- and the other one for the area with hydraulic oil -arrow B-.

The oil level cannot be checked. The correct gear oil level can only be achieved by changing the gear oil, for example if the gearbox leaks ⇒ ["5 Change gearbox oil", page 174](#) .



Caution

Be careful when handling oil. Dispose of drained oil appropriately.

- ◆ Shake oil bottle before opening.
- ◆ Do not mix any additives in the oil, also do not fill in other oil.
- ◆ Drained oil must not be reused.

Locking elements

- ◆ Do not over-extend the circlips, if necessary replace.
- ◆ Circlips must be positioned in the base of the groove.

Electrical components

If you touch objects out of metal, it can happen that this can lead to an electrostatic discharge. This is due to the electrostatic charge accumulated by the human body. This electrostatic charge can lead to operational problems when touching the electrical components of the gearbox and the shift mechanism.

- Touch an earthed object, e. g. a metal pipe or a lift platform, before working on the electrical components.
- Do not grab directly at the plug contacts.

Targeted fault-finding

Before repairing the gearbox try to determine the origin of the damage as accurately as possible using "targeted fault finding".

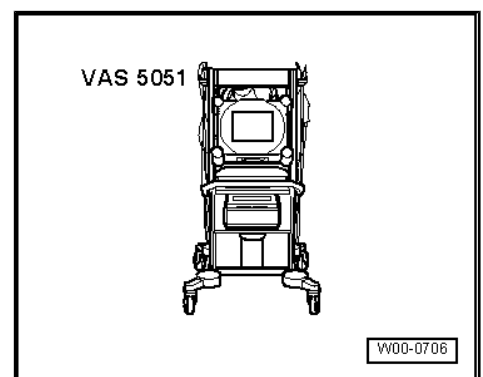
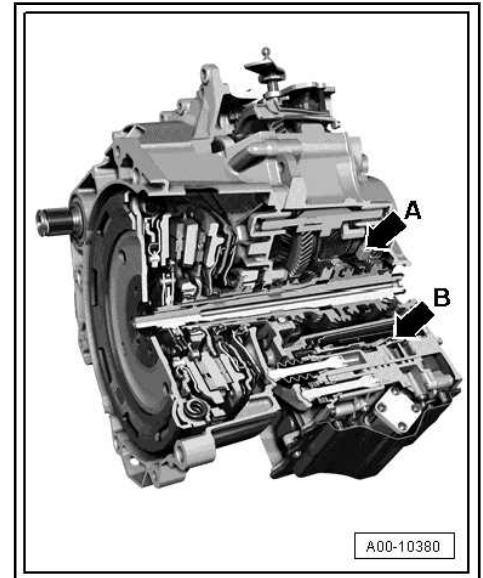
The "targeted fault finding" is performed with the ⇒ Vehicle diagnostic tester.

Rules of cleanliness

- ◆ Thoroughly clean the connection points and their surroundings before releasing.
- ◆ Only install clean parts: Remove spare parts from their wrapping immediately before fitting.
- ◆ Always replace the paper gaskets. Completely remove old gasket and thoroughly clean sealing surfaces.
- ◆ Place removed parts on a clean surface and cover them to prevent them from getting dirty. Use sheeting and paper for this purpose. Do not use fuzzy cloths!
- ◆ Carefully cover or close opened components if the repair is not completed immediately.

3.2 Explanation of the terms used in this workshop manual

These explanations are only related to the automatic gearbox DSG - 0AM. They do not claim to be valid in all cases.





CAN databus

Data transfer. Before transmission, electrical signals are put into certain forms (BUS). Further information on this can be found in ⇒ Self-study programme No. 24 ; Škoda OCTAVIA; CAN databus; Structure and Function .

DSG

Automatic gearbox DSG. Further information can be found in ⇒ Self-study programme No. 75 ; Automatic gearbox DSG - 0AM .

Self-diagnosis

The capability of the control unit to:

- Detect faults.
- React to faults.
- Store faults.
- Determine measured values and display them in the measured value block.

Gearbox input r.p.m. sender - G182-

The sender determines the speed at the clutch and sends it to the mechatronics.

Gearbox

The automatic gearbox DSG°-0AM is also designated as double clutch gearbox. The engine torque is initiated in the gearbox via the two-mass flywheel. The flywheel and the double clutch are interconnected via a serration. The gearbox is built like a 7-speed double clutch gearbox OAM. Due to the alternative hydraulic activation of the two dry clutches, it is operated like an automatic gearbox, i.e. the gears are automatically or manually engaged via the Tiptronic mode. A clutch pedal is not present.

Gear oil

The gearbox has separate oil fillings for mechatronics and manual gearboxes. Oils are designed to be filled for life.

Selector lever lock solenoid - N110-

The selector lever lock solenoid is integrated into the shift mechanism. Prevents (unintentional) tipping of the selector lever from the positions P and N when the brake is not operated.

Emergency running mode

If individual or several components or sensors fail, the gearbox control unit activates the corresponding backup functions or emergency running programmes. This ensures a nondestructive operation of the gearbox with the respective effect on the function and quality of the shifting.

The emergency running mode is a status of the control unit, which, if a fault of the control unit is detected, maintains driving safety, protects the gearbox from damage, and ensures that vehicle running will be affected as little as possible.

Parking position

When the vehicle is parked, the selector lever mechanically locks the parking gear thereby preventing the vehicle from moving off unintentionally.

Shift mechanism

The selector lever position is no longer communicated mechanically, as for the other automatic gearboxes, via the selector lever control cable and the multi-function switch (sensor for driving po-

sition) to the gearbox. The selector lever positions or shifting are transmitted via a separate control unit in the shift mechanism via the CAN databus to the mechatronics. The shifting is then performed without control cable. Only in the selector lever position P is the parking position engaged mechanically via the selector lever control cable.

Gear-change points change on upward and downward gradients

On upward or downward gradients, gear-changes are selected automatically by additional gear-change mapping, according to accelerator position and driving speed.

- ◆ On steep gradients, gear-change mapping is adapted to engine power output.
- ◆ On steep gradients, gear-change mapping is adapted to the braking effect of the engine.
- ◆ By directly selecting a gear via the Tiptronic, it is also possible to use engine braking with a specific gear, e.g. for a slope during trailer operation.

Tiptronic

Another one exists to the right of the normal selector lever gate. In this selector lever gate, the selector lever can be tipped towards the Plus sign (+) to change up the gears manually and vice versa towards the Minus sign (-) to change down the gears manually.

3.3 Contact corrosion

The gearbox housing and the clutch housing are made out of magnesium alloy.

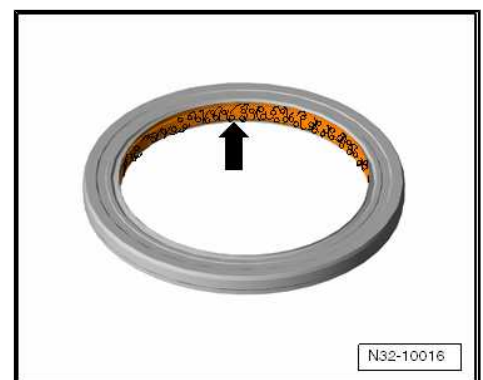
Bolts and other components that come into direct contact with the gearbox have a surface with varying finishes in relation to it.

The use of substitute components causes contact corrosion (screws, nuts, washers ...). The gearbox housing and the clutch housing are damaged.

Generally install parts which are indicated in the ⇒ Electronic Catalogue of Original Parts .

3.4 Gaskets and seals

- ◆ After removing all seals, inspect the contact faces on housings and shafts for burrs and damage and remove all which are found.
- ◆ Before a radial shaft seal is installed, coat the sealing lips and the space in-between halfways with sealing grease - G 052 128 A1- .
- ◆ The open side of the sealing rings is assembled towards the oil.
- ◆ Always replace O-rings, gasket rings and gaskets ⇒ Electronic Catalogue of Original Parts .
- ◆ Before inserting the O-rings only coat with DSG oil to prevent the rings being damaged during installation. A different lubricant can cause functional faults.
- ◆ After installing, check gear oil level
⇒ ["5 Change gearbox oil", page 174](#) .



3.5 Nuts and bolts

- ◆ Slacken and tighten screws or fixing nuts of covers and housings diagonally across in stages.



- ◆ Specified torques given are for unlubricated nuts, bolts and screws.
- ◆ Clean the thread of the screws that are inserted with a locking agent with a wire brush. Insert bolts with locking agent - AMV 185 101 A1- .
- ◆ Clean all threaded holes into which bolts are screwed in with locking agent, using a thread tap to remove locking agent residues. Otherwise there is a danger of bolts shearing when subsequently being removed.
- ◆ Always replace the self-locking screws and nuts.

3.6 Working with testing devices

- ◆ Vehicle diagnosis, measurement and information system - VAS/ODIS-

Work in the operating modes targeted functions and targeted fault finding.

Adapt information regarding lining

The mechatronics detects the other control units in the vehicle via the signals in the CAN bus. If the button adapt information regarding lining is pressed, the mechatronics receives a command to forget all systems with which it can communicate.

However, after switching on the ignition all active systems with which it can communicate are detected.

No faults can be generated with this function. The function adapt information regarding lining is always carried out after the following operations:

- ◆ After installing the mechatronics.
- ◆ After the gearbox has been fitted.
- ◆ After installing the selector lever.
- ◆ After installing another control unit, for example the engine control unit, the ABS control unit or the diagnostic interface for data bus (Gateway).

Vehicles Octavia II, Superb II and Yeti

- ◆ After working on the steering column gearshift.

Perform basic setting

The mechatronics memorises important settings in the function COMPLETE BASIC SETTING. The important settings are also memorised, e.g reset to preprogrammed points. For example, the synchronisation points and the vertices for the engaging lever and gear switches.

– Button COMPLETE BASIC SETTING only functions:

- ◆ after interrogating with “Targeted fault finding”,
- ◆ after rectifying the fault stored in the event memory,
- ◆ after installing the clutch,
- ◆ or after installing the Mechatronics.

3.7 Notes on tow starting and towing



Caution

When towing the vehicle, the selector lever must be in position N and it must not be towed further than 50 km and faster than 50 km/h, otherwise the gearbox will be destroyed.

It is not possible to tow start an engine, e.g. if the battery is weak or the starter does not operate.

4 Technical data

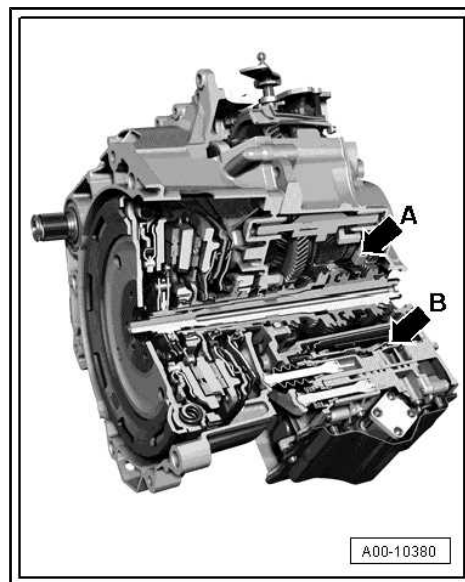
⇒ ["4.1 Filling capacity", page 12](#)

⇒ ["4.2 Allocation gearbox - engine", page 13](#)

⇒ ["4.3 Calculation of gear ratios", page 21](#)

4.1 Filling capacity

The 7-speed double clutch gearbox DSG - 0AM has two separate, different oil fillings. One for the area with gearbox oil -arrow A- and the other one for the area with hydraulic oil -arrow B-.



Gearbox capacity	Area with gearbox oil
New filling	1.9 l
Top-up	no top-up
Lubricant	Gearbox oil for double clutch gearbox 0AM part number ⇒ Electronic Catalogue of Original Parts

The gear oil filling is permanent for the 7-speed double clutch gearbox 0AM (oils are designed to be filled for life). For this reason the oil level is not checked and the inspection plug is not present on this gearbox.

Capacity in the mechatronics for double clutch gearbox - J743-	Area with hydraulic oil
Filling	1 ltr.
Top-up	no top-up
<ul style="list-style-type: none"> ◆ The mechatronics is allocated according to the gearbox code letters ⇒ Electronic Catalogue of Original Parts . ◆ The new mechatronics for the gearbox is already precisely filled with oil at the factory. 	



Caution

Only spare part gear oils should be used for the 7-speed double clutch gearbox DSG - 0AM.

Other oils can lead to functional problems or to failure of the gearbox.

4.2 Allocation gearbox - engine

⇒ [“4.2.1 Identification characters, aggregate assignment, ratios \(Octavia II\)”, page 13](#)

⇒ [“4.2.2 Identification characters, aggregate assignment, ratios \(Superb II\)”, page 15](#)

⇒ [“4.2.3 Identification characters, aggregate assignment, ratios \(Yeti\)”, page 17](#)

⇒ [“4.2.4 Identification characters, aggregate assignment, ratios \(Fabia II\)”, page 18](#)

⇒ [“4.2.5 Identification characters, aggregate assignment, ratios \(Roomster\)”, page 19](#)

⇒ [“4.2.6 Identification characters, aggregate assignment, ratios \(Rapid NH\)”, page 20](#)

⇒ [“4.2.7 Identification characters, aggregate assignment, ratios \(Rapid India\)”, page 20](#)

4.2.1 Identification characters, aggregate assignment, ratios (Octavia II)

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	LKN	LPK	LSS
	Manufactured from through	11.2008 05.2009	05.2009 05.2009	06.2009 10.2009
Assignment	Engine	1.8 ltr./118 kW TFSI		1.8 ltr./118 kW TFSI 1.8 ltr./112 kW TFSI

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MGL	MLC	MPJ
	Manufactured from through	11.2009 05.2010	06.2010 10.2010	11.2010 05.2011
Assignment	Engine	1.8 ltr./118 kW TFSI 1.8 ltr./112 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NAT	NQB	NTQ
	Manufactured from through	06.2011 10.2011	11.2011 05.2012	06.2012 10.2012
Assignment	Engine	1.8 ltr./118 kW TFSI 1.8 ltr./112 kW TFSI		



Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PMJ		
	Manufactured from through	11.2012 04.2013		
Assignment	Engine	1.8 ltr./118 kW TFSI 1.8 ltr./112 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	KHN	LKG	LKM
	Manufactured from through	11.2008 11.2008	11.2008 11.2008	11.2008 05.2009
Assignment	Engine	1.4 ltr./90 kW TSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	LPJ	LWZ	MGK
	Manufactured from through	05.2009 05.2009	06.2009 10.2009	11.2009 05.2010
Assignment	Engine	1.4 ltr./90 kW TSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MLB	MPH	NAS
	Manufactured from through	06.2010 10.2010	11.2010 05.2011	05.2011 05.2011
Assignment	Engine	1.4 ltr./90 kW TSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NBA	NQK	NTZ
	Manufactured from through	06.2011 10.2011	11.2011 05.2012	06.2012 11.2012
Assignment	Engine	1.4 ltr./90 kW TSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MGU	MLJ	MPQ
	Manufactured from through	02.2010 05.2010	06.2010 10.2010	11.2010 05.2011



Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MGU	MLJ	MPQ
Assignment	Engine	1.2 ltr./77 kW TSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NBA	NQK	NTZ
	Manufactured from through	06.2011 10.2011	11.2011 05.2012	06.2012 11.2012
Assignment	Engine	1.2 ltr./77 kW TSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MGN	MLE	MPL
	Manufactured from through	11.2009 05.2010	06.2010 10.2010	11.2010 05.2011
Assignment	Engine	1.6 ltr./77 kW TDI CR		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NKA	NQE	NTT
	Manufactured from through	06.2011 10.2011	11.2011 05.2012	06.2012 10.2012
Assignment	Engine	1.6 ltr./77 kW TDI CR		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PML		
	Manufactured from through	11.2012 04.2013		
Assignment	Engine	1.6 ltr./77 kW TDI CR		

4.2.2 Identification characters, aggregate assignment, ratios (Superb II)

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	KHP	LKN	LKN
	Manufactured from through	09.2008 10.2008	11.2008 05.2009	03.2009 05.2009
Assignment	Engine	1.8 ltr./118 kW TFSI		1.8 ltr./112 kW TFSI



Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	LPK	LSS	MGL
	Manufactured from through	05.2009 05.2009	06.2009 10.2009	11.2009 05.2010
Assignment	Engine	1.8 ltr./118 kW TFSI 1.8 ltr./112 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MLC	MPJ	NAT
	Manufactured from through	06.2010 10.2010	11.2010 05.2011	06.2011 11.2011
Assignment	Engine	1.8 ltr./118 kW TFSI 1.8 ltr./112 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NQB	NTQ	PMJ
	Manufactured from through	11.2011 05.2012	06.2012 10.2012	11.2012 05.2013
Assignment	Engine	1.8 ltr./118 kW TFSI 1.8 ltr./112 kW TFSI		1.8 ltr./118 kW TFSI

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PKN	PKQ	PKP
	Manufactured from through	06.2013 10.2013	06.2013 06.2013	06.2013 10.2013
Assignment	Engine	1.8 ltr./118 kW TFSI	1.6 ltr./77 kW TDI CR	

Automatic gearbox DSG		0AM - front-wheel drive	
Gearbox	Engine code	PVV	PVW
	Manufactured from to	11.2013 05.2014	11.2013 05.2014
Assignment	Engine	1.8 ltr./118 kW TFSI	1.6 ltr./77 kW TDI CR



Automatic gearbox DSG		0AM - front-wheel drive			
Gearbox	Identification characters	QQU	QGV	QQV	QGX
	Manufactured from to	05.2014 11.2014	11.2014	05.2014 11.2014	11.2014
Assignment	Engine	1.8 ltr./118 kW TFSI		1.6 ltr./77 kW TDI CR	

4.2.3 Identification characters, aggregate assignment, ratios (Yeti)

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MGU	MLJ	MPQ
	Manufactured from through	02.2010 05.2010	06.2010 10.2010	11.2010 05.2011
Assignment	Engine	1.2 ltr./77 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NBA	NQK	NTZ
	Manufactured from through	06.2011 10.2011	11.2011 05.2012	06.2012 10.2012
Assignment	Engine	1.2 ltr./77 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PMS		PKW
	Manufactured from through	11.2012 05.2013	01.2013 05.2013	06.2013 10.2013
Assignment	Engine	1.2 ltr./77 kW TFSI	1.4 ltr./90 kW TSI	

Automatic gearbox DSG		0AM - front-wheel drive	
Gearbox	Engine code	PWD	
	Manufactured from to	11.2013 05.2014	11.2013 05.2014
Assignment	Engine	1.2 ltr./77 kW TFSI	1.4 ltr./90 kW TSI

Automatic gearbox DSG		0AM - front-wheel drive	
Gearbox	Identification characters	QRB	QHE
	Manufactured from to	05.2014 11.2014	11.2014



Automatic gearbox DSG		0AM - front-wheel drive	
Gearbox	Identification characters	QRB	QHE
Assignment	Engine	1.2 ltr./77 kW TFSI 1.4 ltr./90 kW TSI	

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PVW	QQV	QGX
	Manufactured from to	11.2013 05.2014	05.2014 11.2014	11.2014
Assignment	Engine	1.6 ltr./77 kW TDI CR		

4.2.4 Identification characters, aggregate assignment, ratios (Fabia II)

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MGV	MLN	MPU
	Manufactured from through	03.2010 05.2010	05.2010 10.2010	11.2010 05.2011
Assignment	Engine	1.2 ltr./77 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NBD	NQN	NUC
	Manufactured from through	06.11 10.2011	11.2011 05.2012	06.2012 10.2012
Assignment	Engine	1.2 ltr./77 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PMV	PKZ	PWG
	Manufactured from through	11.2012 05.2012	06.2013 10.2013	11.2013 05.2014
Assignment	Engine	1.2 ltr./77 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MLH	MPP	NAY
	Manufactured from through	05.2010 10.2010	11.2010 05.2011	06.2011 10.2011
Assignment	Engine	1.4 ltr./132 kW TFSI		



Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MLH	MPP	NAY
	Manufactured from through	05.2010 10.2010	11.2010 05.2011	06.2011 10.2011
Assignment	Engine	1.4 ltr./132 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NQH	NTW	PMP
	Manufactured from through	11.2011 05.2012	06.2012 10.2012	11.2012 05.2013
Assignment	Engine	1.4 ltr./132 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PKT	PWA	QQY
	Manufactured from to	05.2013 11.2013	11.2013 05.2014	05.2014
Assignment	Engine	1.4 ltr./132 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	QRE	QHH	
	Manufactured from through	05.2014 11.2014	11.2014	
Assignment	Engine	1.2 ltr./77 kW TFSI		

4.2.5 Identification characters, aggregate assignment, ratios (Roomster)

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	MGV	MLN	MPU
	Manufactured from through	03.2010 05.2010	05.2010 10.2010	11.2010 05.2011
Assignment	Engine	1.2 ltr./77 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NBD	NQN	NUC
	Manufactured from through	06.2011 10.2011	11.2011 05.2012	06.2012 10.2012
Assignment	Engine	1.2 ltr./77 kW TFSI		



Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PMV	PKZ	PWG
	Manufactured from through	11.2012 05.2012	06.2013 10.2013	11.2013 05.2014
Assignment	Engine	1.2 ltr./77 kW TFSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	QRE	QHH	
	Manufactured from through	05.2014 11.2014	11.2014	
Assignment	Engine	1.2 ltr./77 kW TFSI		

4.2.6 Identification characters, aggregate assignment, ratios (Rapid NH)

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	NUA	PMT	PKX
	Manufactured from through	11.2012 11.2012	11.2012 05.2013	06.2013 10.2013
Assignment	Engine	1.4 ltr./90 kW TSI		

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Engine code	PWE	QRC	QHF
	Manufactured from to	11.2013 05.2014	05.2014 11.2014	11.2014
Assignment	Engine	1.4 ltr./90 kW TSI		

Automatic gearbox DSG		0AM - front-wheel drive			
Gearbox	Identification characters	PKY	PWF	QRD	QHD
	Manufactured from to	08.2013 10.2013	11.2013 05.2014	05.2014 11.2014	11.2014
Assignment	Engine	1.6 ltr./66 kW TDI CR			

4.2.7 Identification characters, aggregate assignment, ratios (Rapid India)

Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PWF	QRD	QHG
	Manufactured from through	09.2014 09.2014	09.2014 01.2015	01.2015



Automatic gearbox DSG		0AM - front-wheel drive		
Gearbox	Identification characters	PWF	QRD	QHG
Assignment	Engine	1.5 I/77 kW TDI CR		

4.3 Calculation of gear ratios

Example:

	5. gear	Final drive
Drive gear	$ZG_1 = 46$	$ZA_1 = 24$
Driven gear	$ZG_2 = 33$	$ZA_2 = 70$

$$i = ZG_2 : ZG_1 \text{ } ^{1)}$$

$$i_G = \text{Gear ratio} = ZG_2 : ZG_1 = 33 : 46 = 0,717$$

$$i_A = \text{Ratio of the final drive} = ZA_2 : ZA_1 = 70 : 24 = 2,917$$

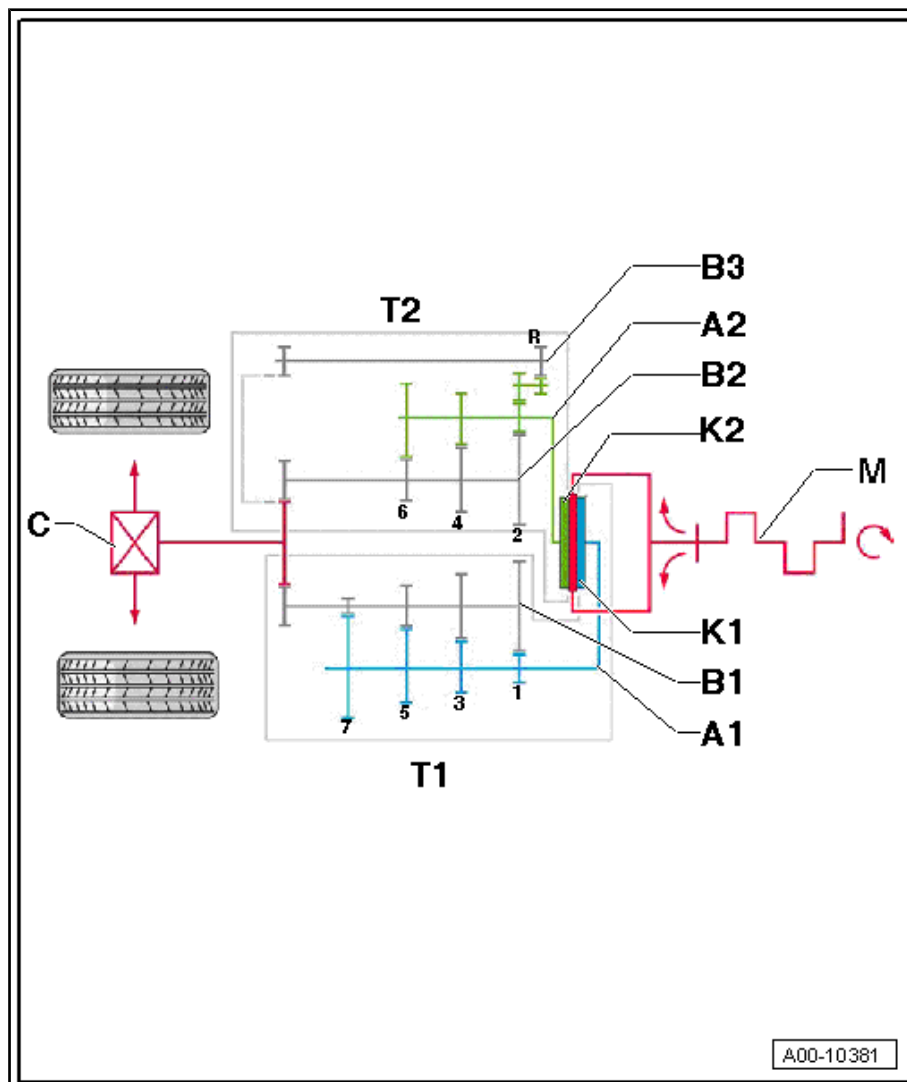
$$i_{\text{total}} = \text{Total ratio} = i_G \times i_A = 0.717 \times 2.917 = 2.091$$

1) Z_1 = No. of teeth on driving gear, Z_2 = No. of teeth on driven gear

5 Overview of Transmission System

The 7-speed double clutch gearbox DSG - 0AM has 2 drive shafts and 3 output shafts.

- A1 - 1. Drive shaft
- A2 - 2. Drive shaft
- B1 - 1. Output shaft
- B2 - 2. Output shaft
- B3 - 3. Output shaft
- C - Front final drive
- K1 - Clutch 1
- K2 - Clutch 2
- M - Engine
- T1 - One part of the gearbox 1
 - with 1st, 3rd, 5th and 7th gear
- T2 - One part of the gearbox 2
 - with 2nd, 4th, 6th gear and reverse gear R



6 Electrical components

⇒ [“6.1 Electric/electronic components and fitting locations of the automatic gearbox DSG - 0AM”, page 23](#)

6.1 Electric/electronic components and fitting locations of the automatic gearbox DSG - 0AM

⇒ [“6.1.1 Electric/electronic components and fitting locations of the automatic gearbox DSG - 0AM \(Octavia II, Superb II and Yeti\)”, page 23](#)

⇒ [“6.1.2 Electric/electronic components and fitting locations of the automatic gearbox DSG - 0AM \(Fabia II and Roomster\)”, page 26](#)

⇒ [“6.1.3 Electric/electronic components and fitting locations of the automatic gearbox DSG - 0AM \(Rapid\)”, page 29](#)

6.1.1 Electric/electronic components and fitting locations of the automatic gearbox DSG - 0AM (Octavia II, Superb II and Yeti)

1 - Diagnostic connection

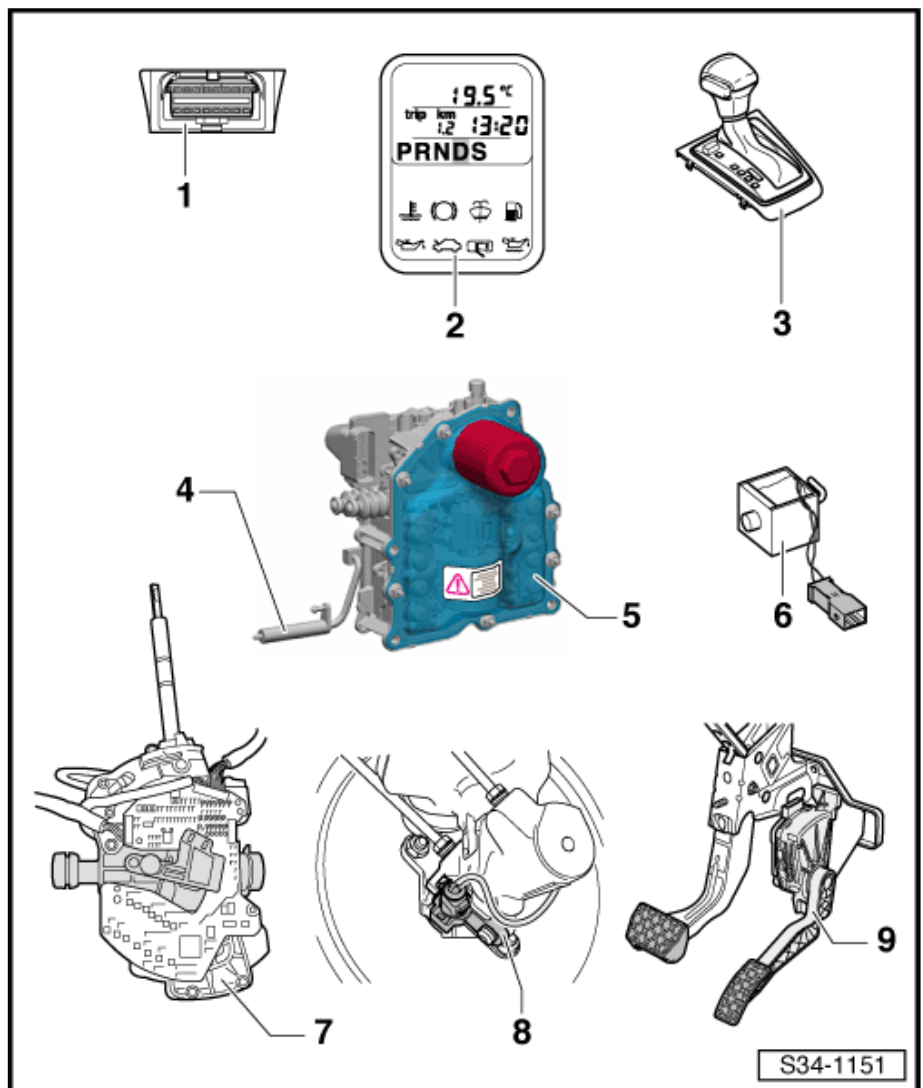
- ❑ Fitting location: under the cover in the driver's footwell

2 - Selector lever position indicator - Y6-

- ❑ Fitting location: Integrated in the dash panel insert
- ❑ a switched off gear display points to an emergency operation with deactivated gearbox control unit
- ❑ a fully lit gear display points to an emergency operation with activated gearbox control unit
- ❑ can only be replaced together with the dash panel insert ⇒ Electrical System; Rep. gr. 90

3 - Cover for shift mechanism with lamp for selector lever scale illumination - L101-

- ❑ the lamp for selector lever scale illumination - L101- is integrated in the cover frame; fitting location ⇒ [page 25](#)
- ❑ the lamp for selector lever scale illumination - L101- is checked by self-diagnosis
- ❑ as of 11.2012 (CW 45), the selector lever handle was changed



⇒ [“2.1 Summary of components - Gearshift mechanism”, page 97](#)



- Removing and installing ⇒ [“2.5 Removing and Installing the cover for the shift mechanism”, page 109](#)

4 - Gearbox input r.p.m. sender - G182-

- Fitting location ⇒ [page 25](#)
- is checked by self-diagnosis
- is a component and can only be removed and installed with the° mechatronics for double clutch gearbox - J743- ⇒ [“1 Mechatronics for double clutch gearbox J743 ”, page 77](#)

5 - Mechatronics for double clutch gearbox - J743-

- Fitting location ⇒ [page 24](#)
- is checked by self-diagnosis
- Removing and installing ⇒ [“1 Mechatronics for double clutch gearbox J743 ”, page 77](#)

6 - Selector lever lock solenoid - N110-

- Fitting location ⇒ [page 25](#)
- is checked by self-diagnosis

7 - Selector lever - E313- with Tiptronic switch - F189- , selector lever sensor control unit - J587- and selector lever switch locked in P - F319-

- Fitting location ⇒ [page 25](#)
- is checked by self-diagnosis
- Tiptronic switch - F189- , selector lever sensor control unit - J587- and selector lever switch locked in P - F319 - are integrated into the shift mechanism.
- these components cannot be replaced separately; the removal and installation procedure is only possible together with the gearshift mechanism
⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”, page 118](#)

8 - Brake light switch - F- and brake pedal switch - F47-

- Fitting location ⇒ [page 26](#)
- Signal transfer from engine control unit to gearbox control unit via CAN databus
- is checked by self-diagnosis
- removing and installing ⇒ Chassis; Rep. gr. 46

9 - Kick-down switch - F8-

- Fitting location ⇒ [page 26](#)
- Signal transfer from engine control unit to gearbox control unit via CAN databus
- is checked by self-diagnosis
- Removing and Installing ⇒ Engine; Rep. gr. 20

Mechatronics for double clutch gearbox - J743-

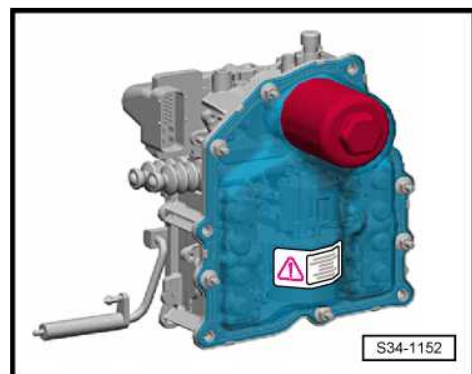
Fitting location: The mechatronics for double clutch gearboxes - J743- is screwed onto the front gearbox housing.

The control unit is firmly integrated in the mechatronics for double clutch gearbox - J743- .

The senders and the actuators are located in the mechatronics for double clutch gearbox - J743- . Further information can be found in ⇒ Self-study programme No. 75 ; Automatic gearbox DSG - 0AM .

Removing and installing the mechatronics for double clutch gearbox - J743-

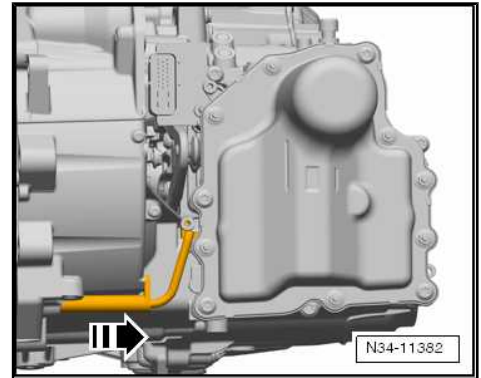
⇒ [“1 Mechatronics for double clutch gearbox J743 ”, page 77 .](#)



Gearbox input r.p.m. sender - G182-

Fitting location: The gearbox input speed sender - G182- is clipped onto the front of the gearbox housing. Release the sender for removal and pull out in -direction of arrow-

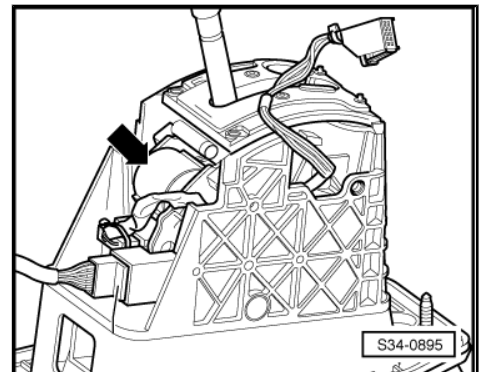
The gearbox input r.p.m. sender - G182- can only be replaced together with the mechatronics for double clutch gearbox - J743-
⇒ ["1 Mechatronics for double clutch gearbox J743", page 77](#) .



Selector lever lock solenoid - N110-

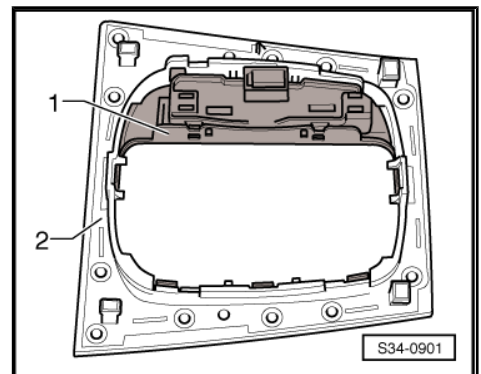
The selector lever lock solenoid - N110- fitting location -arrow- is located in the gearshift mechanism
⇒ ["2.1 Summary of components - Gearshift mechanism", page 97](#) .

The selector lever lock solenoid - N110- is installed firmly in the gearshift mechanism and cannot be replaced individually. The removal and installation procedure is only possible together with the gearshift mechanism
⇒ ["2.8 Removing and installing shift mechanism with selector lever control cable", page 118](#) .



Lamp for selector lever scale illumination - L101-

Fitting location: The lamp for selector lever scale illumination - L101- -1- is integrated in the bottom side of the cover frame -2-



Selector lever - E313- with Tiptronic switch - F189- , selector lever sensor control unit - J587- and selector lever switch locked in P - F319-

Fitting location: Selector lever - E313- is firmly integrated in the gearshift mechanism.

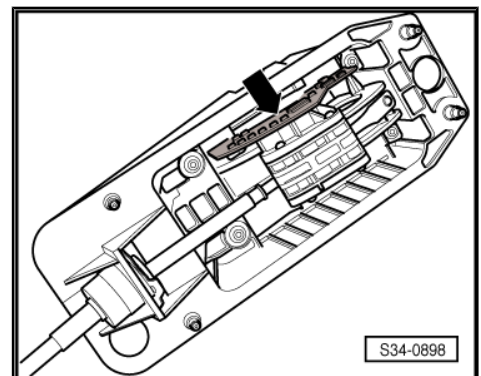
Tiptronic switch - F189- , Selector lever sensor control unit - J587- and Selector lever switch blocked in P - F319- are firmly integrated into the PCB -arrow- of the shift mechanism (up to 05.2009).

A new shift mechanism is fitted as of 06.2009, then the cover for the bottom shift mechanism can no longer be removed in this way.

These components cannot be replaced separately.

The removal and installation procedure is only possible together with the gearshift mechanism

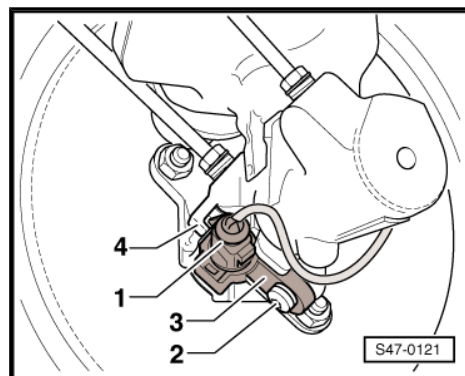
⇒ ["2.8 Removing and installing shift mechanism with selector lever control cable", page 118](#) .





Brake light switch - F- and brake pedal switch - F47-

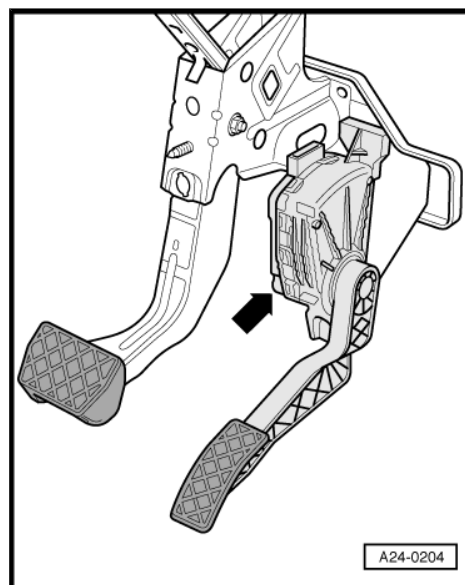
Fitting location: The brake light switch - F- and brake pedal switch - F47- -3- is located on the master brake cylinder -4-.



Kick-down switch - F8-

An initialised value of the accelerator pedal position sender - G79- / accelerator pedal position sender 2 - G185- (integrated in the accelerator pedal module) is stored as a kick-down signal in the engine control unit.

Fitting location: The accelerator pedal position sender - G79- / accelerator pedal position sender 2 - G185- -arrow- are located on the foot controls.



6.1.2 Electric/electronic components and fitting locations of the automatic gearbox DSG - 0AM (Fabia II and Roomster)

1 - Diagnostic connection

- ❑ Fitting location: Dash panel in the area of the driver's footwell

2 - Selector lever position indicator - Y6-

- ❑ Fitting location: Integrated in the dash panel insert
- ❑ a switched off gear display points to an emergency operation with deactivated gearbox control unit
- ❑ a fully lit gear display points to an emergency operation with activated gearbox control unit
- ❑ can only be replaced together with the dash panel insert ⇒ Electrical System; Rep. gr. 90

3 - Cover for shift mechanism with lamp for selector lever scale illumination - L101-

- ❑ the lamp for selector lever scale illumination - L101- is integrated in the cover for gearshift mechanism -arrow-
- ❑ is checked by self-diagnosis
- ❑ Removing and installing ⇒ ["2.5 Removing and Installing the cover for the shift mechanism"](#), page 109

- ❑ as of 11.2012 (CW 45), the selector lever handle was changed ⇒ ["2.1 Summary of components - Gearshift mechanism"](#), page 97

4 - Gearbox input r.p.m. sender - G182-

- ❑ Fitting location ⇒ [page 28](#)
- ❑ is checked by self-diagnosis
- ❑ is a component and can only be removed and installed with the° mechatronics for double clutch gearbox - J743- ⇒ ["1. Mechatronics for double clutch gearbox J743"](#), page 77

5 - Mechatronics for double clutch gearbox - J743-

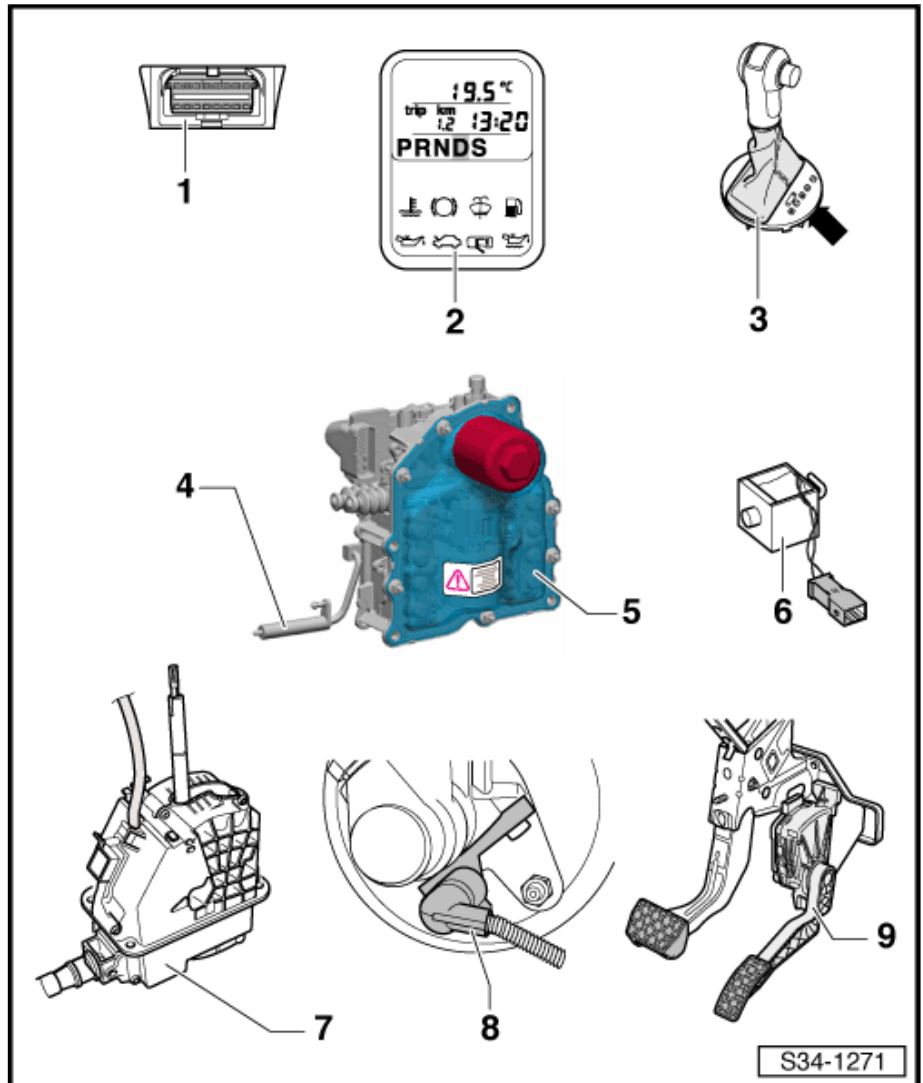
- ❑ Fitting location ⇒ [page 28](#)
- ❑ is checked by self-diagnosis
- ❑ Removing and installing ⇒ ["1. Mechatronics for double clutch gearbox J743"](#), page 77

6 - Selector lever lock solenoid - N110-

- ❑ Fitting location: Is integrated firmly in the gearshift mechanism and cannot be replaced separately
- ❑ is checked by self-diagnosis
- ❑ Removal and installation is only possible together with the gearshift mechanism ⇒ ["2.8 Removing and installing shift mechanism with selector lever control cable"](#), page 118

7 - Selector lever - E313- with Tiptronic switch - F189- , selector lever sensor control unit - J587- and selector lever switch locked in P - F319-

- ❑ is checked by self-diagnosis





- ❑ Tiptronic switch - F189- , selector lever sensor control unit - J587- and selector lever switch locked in P - F319- are integrated into the shift mechanism.
- ❑ these components cannot be replaced separately; the removal and installation procedure is only possible together with the gearshift mechanism
⇒ ["2.8 Removing and installing shift mechanism with selector lever control cable", page 118](#)

8 - Brake light switch - F- and brake pedal switch - F47-

- ❑ Fitting location ⇒ [page 28](#)
- ❑ is checked by self-diagnosis
- ❑ removing and installing ⇒ Chassis; Rep. gr. 47

9 - Kick-down switch - F8-

- ❑ Fitting location ⇒ [page 29](#)
- ❑ Signal transfer from engine control unit to gearbox control unit via CAN databus
- ❑ is checked by self-diagnosis
- ❑ Removing and Installing ⇒ Engine; Rep. gr. 20

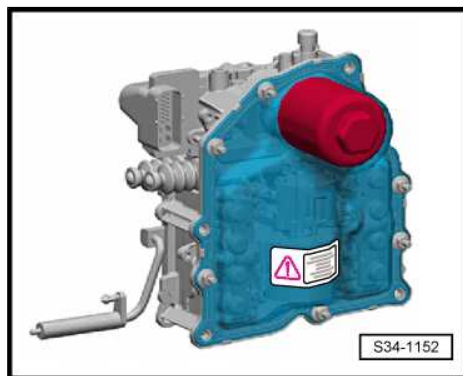
Mechatronics for double clutch gearbox - J743-

Fitting location: The mechatronics for double clutch gearboxes - J743- is screwed onto the front gearbox housing.

The control unit is firmly integrated in the mechatronics for double clutch gearbox - J743- .

The senders and the actuators are located in the mechatronics for double clutch gearbox - J743- . Further information can be found in ⇒ Self-study programme No. 75 ; Automatic gearbox DSG - 0AM .

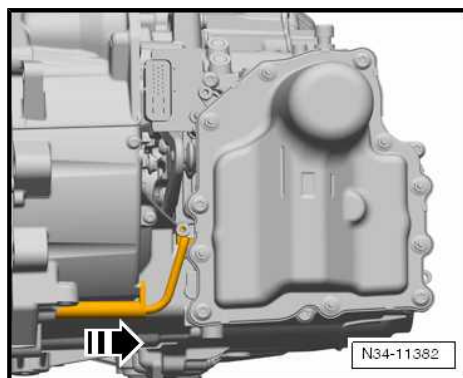
Removing and installing the mechatronics for double clutch gearbox - J743-
⇒ ["1 Mechatronics for double clutch gearbox J743 ", page 77 .](#)



Gearbox input r.p.m. sender - G182-

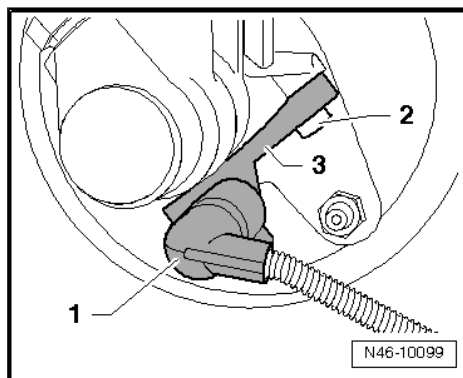
Fitting location: The gearbox input speed sender - G182- is clipped onto the front of the gearbox housing. Release the sender for removal and pull out in -direction of arrow-.

The gearbox input r.p.m. sender - G182- can only be replaced together with the mechatronics for double clutch gearbox - J743-
⇒ ["1 Mechatronics for double clutch gearbox J743 ", page 77 .](#)



Brake light switch - F- and brake pedal switch - F47-

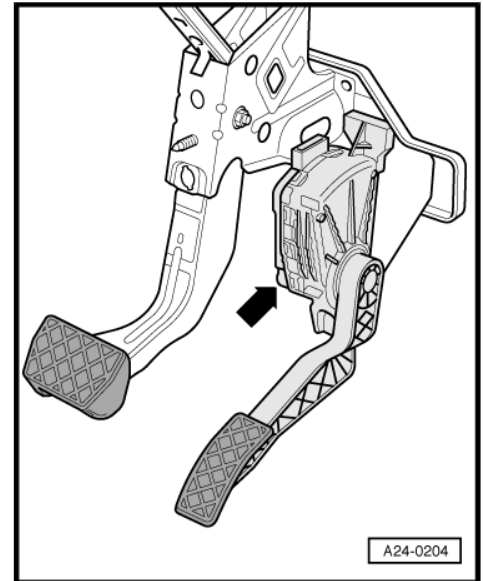
Fitting location: The brake light switch - F- and brake pedal switch - F47- -3- is located on the master brake cylinder.



Kick-down switch - F8-

An initialised value of the accelerator pedal position sender - G79- / accelerator pedal position sender 2 - G185- (integrated in the accelerator pedal module) is stored as a kick-down signal in the engine control unit.

Fitting location: Accelerator pedal position sender - G79- / accelerator pedal position sender 2 - G185- -arrow- are located on the foot controls.



6.1.3 Electric/electronic components and fitting locations of the automatic gearbox DSG - 0AM (Rapid)

1 - Diagnostic connection

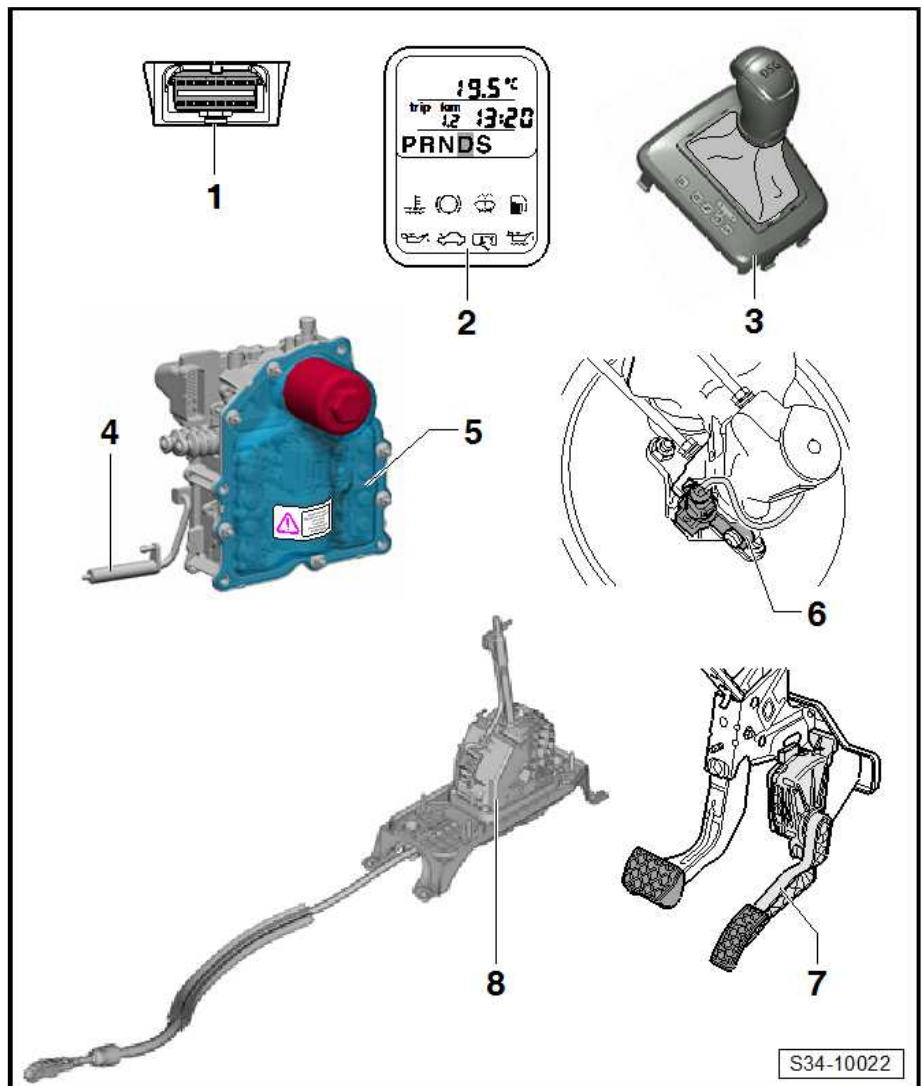
- Fitting location: under the cover in the driver's footwell

2 - Selector lever position indicator - Y6-

- Fitting location: Integrated in the dash panel insert
- a switched off gear display points to an emergency operation with deactivated gearbox control unit
- a fully lit gear display points to an emergency operation with activated gearbox control unit
- can only be replaced together with the dash panel insert ⇒ Electrical System; Rep. gr. 90

3 - Cover for shift mechanism with lamp for selector lever scale illumination - L101-

- the lamp for selector lever scale illumination - L101- is integrated in the cover for gearshift mechanism
- is checked by self-diagnosis
- Removing and installing ⇒ ["2.5 Removing and Installing the cover for the shift mechanism"](#), page 109





4 - Gearbox input r.p.m. sender - G182-

- Fitting location ⇒ [page 31](#)
- is checked by self-diagnosis
- is a component and can only be removed and installed with the° mechatronics for double clutch gearbox - J743- ⇒ [“1 Mechatronics for double clutch gearbox J743”, page 77](#)

5 - Mechatronics for double clutch gearbox - J743-

- Fitting location ⇒ [page 30](#)
- is checked by self-diagnosis
- Removing and installing ⇒ [“1 Mechatronics for double clutch gearbox J743”, page 77](#)

6 - Brake light switch - F- and brake pedal switch - F47-

- Fitting location ⇒ [page 31](#)
- Signal transfer from engine control unit to gearbox control unit via CAN databus
- is checked by self-diagnosis
- removing and installing ⇒ Chassis; Rep. gr. 46

7 - Kick-down switch - F8-

- Fitting location ⇒ [page 31](#)
- Signal transfer from engine control unit to gearbox control unit via CAN databus
- is checked by self-diagnosis
- Removing and Installing ⇒ Engine; Rep. gr. 20

8 - Shift mechanism

Selector lever - E313- with Tiptronic switch - F189- , selector lever sensor control unit - J587- , selector lever switch locked in P - F319- and selector lever lock solenoid - N110-

- is checked by self-diagnosis
- these components cannot be replaced separately, the removal and installation procedure is only possible together with the gearshift mechanism
⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”, page 118](#)

Mechatronics for double clutch gearbox - J743-

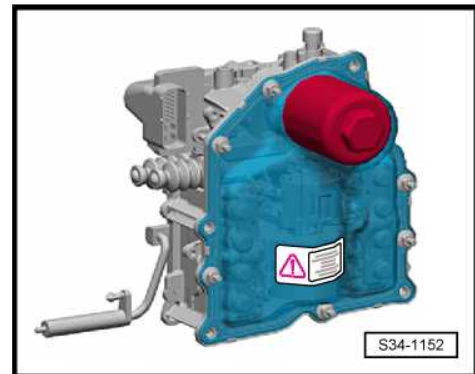
Fitting location: The mechatronics for double clutch gearboxes - J743- is screwed onto the front gearbox housing.

The control unit is firmly integrated in the mechatronics for double clutch gearbox - J743- .

The senders and the actuators are located in the mechatronics for double clutch gearbox - J743- . Further information on the same gearbox type 0AM can be found in ⇒ Self-study programme No. 75 und Nr. 94 ; Automatic gearbox DSG - 0AM .

Removing and installing the mechatronics for double clutch gearbox - J743-

⇒ [“1 Mechatronics for double clutch gearbox J743”, page 77](#) .



Gearbox input r.p.m. sender - G182-

Fitting location: The gearbox input speed sender - G182- is clipped onto the front of the gearbox housing. Release the sender for removal and pull out in -direction of arrow-.

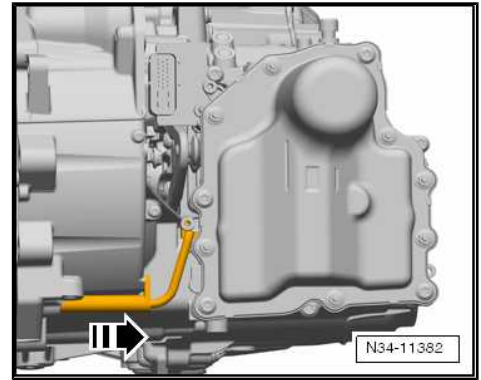
The gearbox input r.p.m. sender - G182- can only be replaced together with the mechatronics for double clutch gearbox - J743- ⇒ ["1 Mechatronics for double clutch gearbox J743", page 77](#) .

Selector lever - E313- with Tiptronic switch - F189- , selector lever sensor control unit - J587- , selector lever switch locked in P - F319- and selector lever lock solenoid - N110-

Fitting location: Is integrated firmly in the gearshift mechanism and cannot be replaced separately.

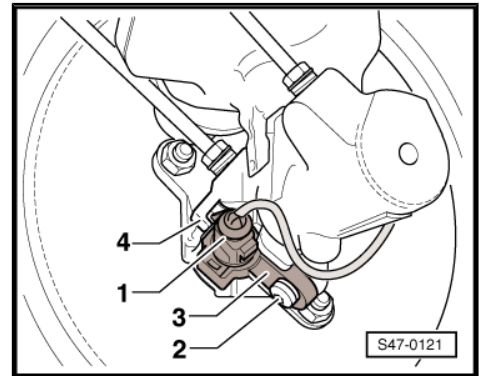
Removal and installation is only possible together with the gearshift mechanism

⇒ ["2.8 Removing and installing shift mechanism with selector lever control cable", page 118](#)



Brake light switch - F- and brake pedal switch - F47-

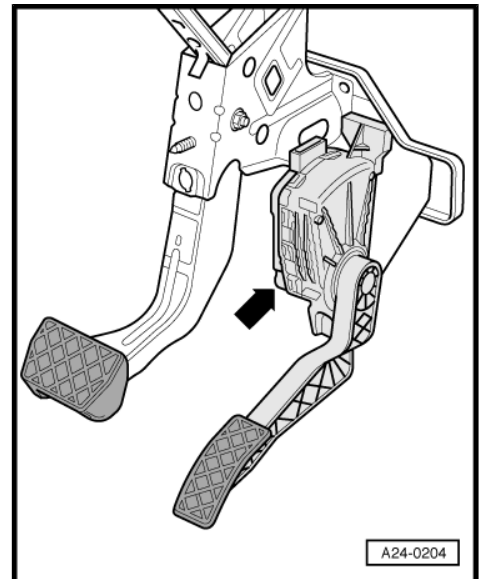
Fitting location: The brake light switch - F- and brake pedal switch - F47- -3- is located on the master brake cylinder -4-.



Kick-down switch - F8-

An initialised value of the accelerator pedal position sender - G79- / accelerator pedal position sender 2 - G185- (integrated in the accelerator pedal module) is stored as a kick-down signal in the engine control unit.

Fitting location: The accelerator pedal position sender - G79- / accelerator pedal position sender 2 - G185- -arrow- are located on the foot controls.





30 – Clutch

1 Clutch operation

⇒ [“1.1 Assembly overview - clutch release mechanism”, page 32](#)

⇒ [“1.2 Removing and installing clutch release mechanism”, page 34](#)

⇒ [“1.3 Adjust clutch release mechanism”, page 41](#)

1.1 Assembly overview - clutch release mechanism

⇒ [“1.1.1 Summary of components - Clutch release mechanism, version up to 05.2011”, page 32](#)

⇒ [“1.1.2 Summary of components - Clutch release mechanism, version as of 06.2011”, page 33](#)

1.1.1 Summary of components - Clutch release mechanism, version up to 05.2011

1 - Small engaging lever for K2 clutch

- is removed and installed together with the top and bottom part of the guide bushing
- replace when replacing the double clutch

2 - Adjusting washer for K2 clutch

- replace when replacing the double clutch
- Determine thickness
⇒ [“1.3.1 Adjust clutch release mechanism, gearbox up to 05.2011”, page 41](#)

3 - Small engaging bearing for K2 clutch

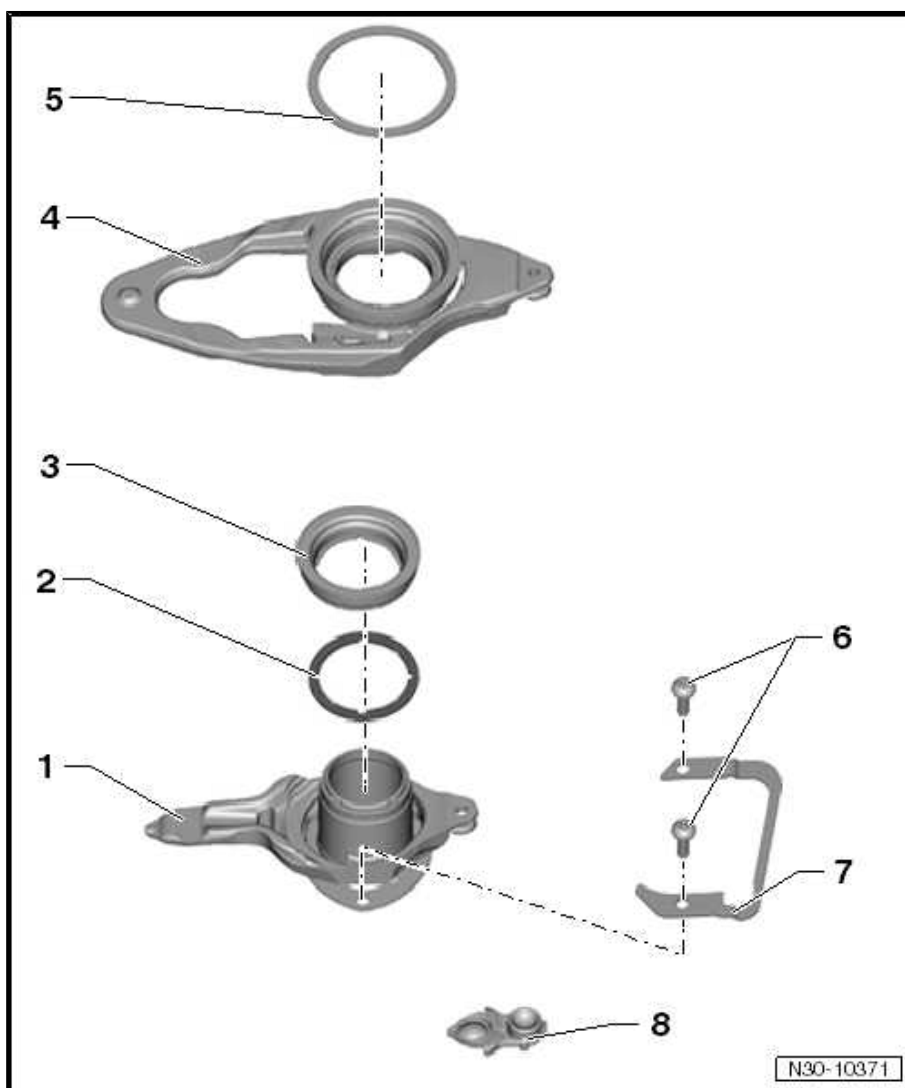
- replace when replacing the double clutch

4 - Large engaging lever for K1 clutch

- together with large engaging bearing
- replace when replacing the double clutch

5 - Adjusting washer for K1 clutch

- replace when replacing the double clutch
- Determine thickness
⇒ [“1.3.1 Adjust clutch release mechanism”,](#)



[gearbox up to 05.2011",
page 41](#)

6 - Screw

- Replace after disassembly
- 8 Nm + 90°

7 - Clamp

- not present on some older gearboxes
- replace when replacing the double clutch

8 - Support for the engaging lever

- replace when replacing the double clutch

1.1.2 Summary of components - Clutch release mechanism, version as of 06.2011

1 - Adjusting washer for K1 clutch

- Determine thickness
⇒ ["1.3.2 Adjusting the clutch release mechanism, gearbox as of 06.2011", page 51](#)

2 - Large engaging lever for K1 clutch

- together with large engaging bearing
- replace when replacing the double clutch

3 - Hinge bearing

- for large engaging lever
Pos. 2 2
- is not replaced

4 - Small engaging bearing for K2 clutch

- replace when replacing the double clutch

5 - Adjusting washer for K2 clutch

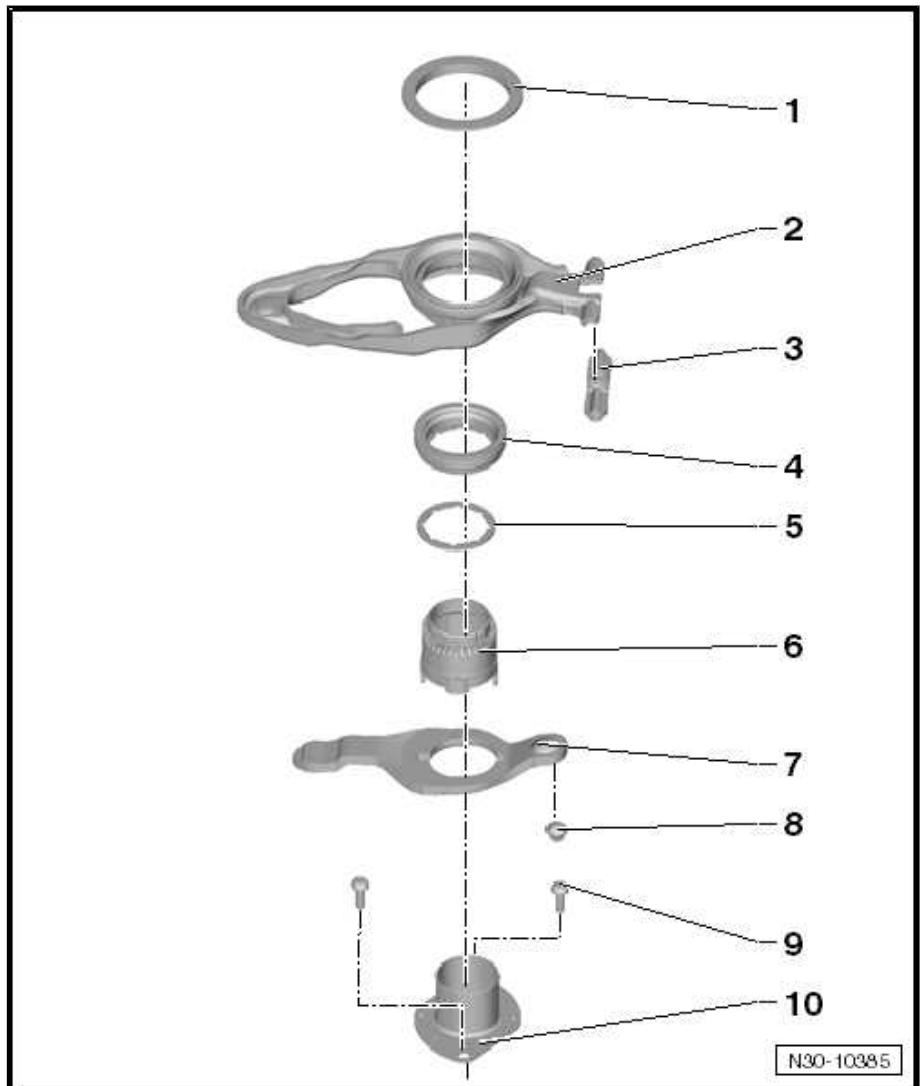
- Determine thickness
⇒ ["1.3.2 Adjusting the clutch release mechanism, gearbox as of 06.2011", page 51](#)

6 - Guide bushing-top part

- for small engaging lever
Pos. 7
- is removed and installed together with the guide bushing-bottom part
Pos. 7

7 - Small engaging lever for K2 clutch

- is removed and installed together with the top and bottom part of the guide bushing
- replace when replacing the double clutch



**8 - Ball pin**

- for small engaging lever Pos. 7
- replace when replacing the double clutch

9 - Screw

- Replace after disassembly
- 8 Nm + 90°

10 - Guide bushing-bottom part

- for small engaging lever Pos. 7
- is removed and installed together with the guide bushing-top part Pos. 6

1.2 Removing and installing clutch release mechanism

⇒ [“1.2.1 Removing and installing clutch release mechanism, version up to 05.2011”, page 34](#)

⇒ [“1.2.2 Removing and installing clutch release mechanism, version as of 06.2011”, page 37](#)

1.2.1 Removing and installing clutch release mechanism, version up to 05.2011**Caution**

If the double clutch has to be replaced, the following parts must always be replaced too:

- ◆ *The two engaging levers with the gear shift bearings*
- ◆ *Bearing of the engaging lever*
- ◆ *Shims for gear shift bearings*

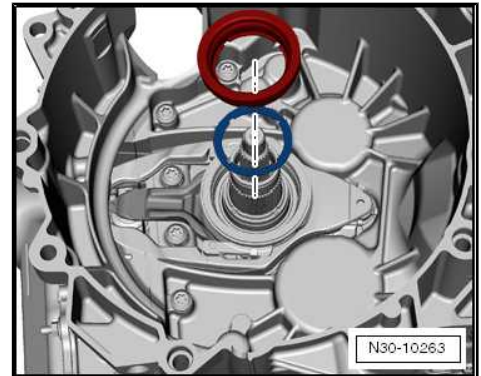
After replacing the double clutch and the corresponding parts, the position of the gear shift bearings for clutches K1 and K2 will always require re-adjusting
⇒ [“1.3.1 Adjust clutch release mechanism, gearbox up to 05.2011”, page 41](#)

**Note**

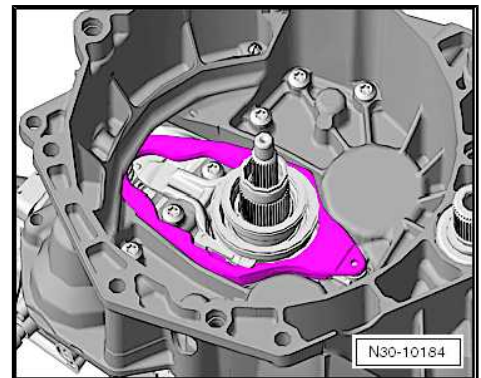
- ◆ *If all the listed parts are only removed and installed, no re-adjustment is necessary.*
- ◆ *The circlip must be replaced under all circumstances.*
- Double clutch gearbox removed
⇒ [“2.2 Remove double clutch”, page 66](#)
- The mechatronics for double clutch gearbox -J743- is installed on the gearbox

Removing

- Remove the small engaging bearing with the adjusting washer.



- Remove the large engaging lever.

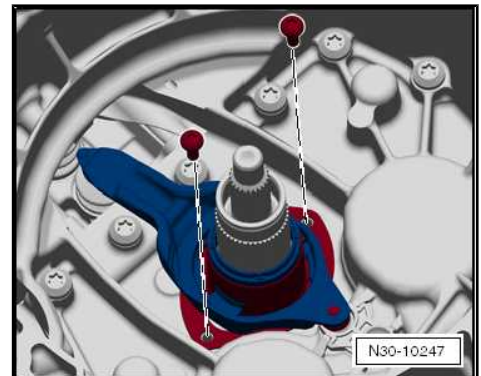


- Remove screws and remove the small engaging lever with clamp.



Note

Only some older gearboxes have no clamp.



- Remove the support for the engaging lever.

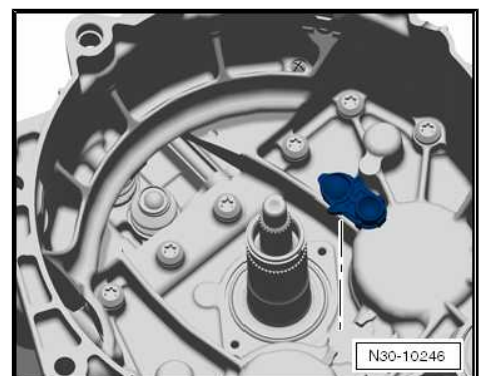
Installing

The large adjusting washer for the clutch K1 is installed on the large bearing, the small adjusting washer for the clutch K2 is installed under the small bearing.



Caution

Do not oil or grease!





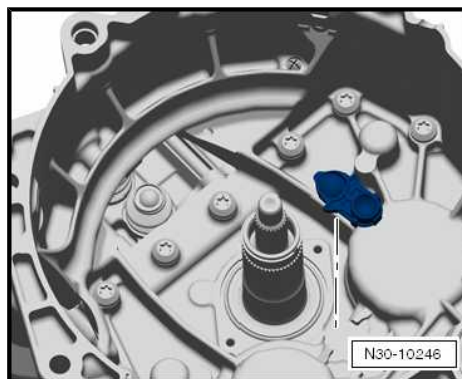
- Insert the plastic support of the engaging levers and check for correct fit.



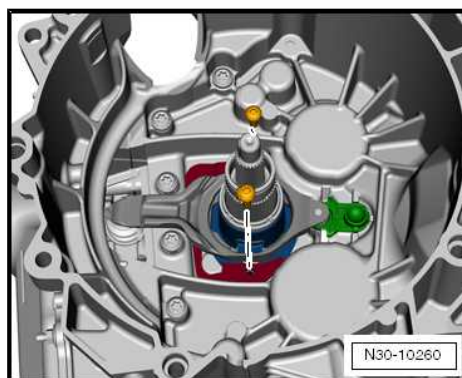
Note

Only some older gearboxes have no clamp. New gearboxes always have a clamp.

- Use two screws to install the small engaging lever with clamp.
- The support of the engaging levers and the complete mechanism for the engaging bearings must be dry and free of oil or grease.
- If necessary, clean these component parts with a clean cloth.



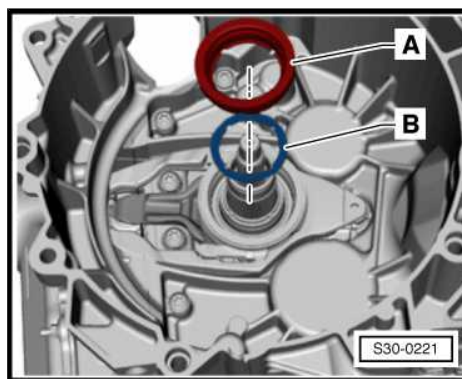
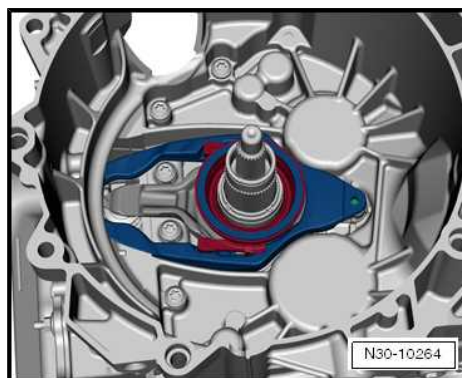
- Insert the large engaging lever.
- This larger engaging lever is for clutch K1.
- Check the correct fit of both engaging levers.



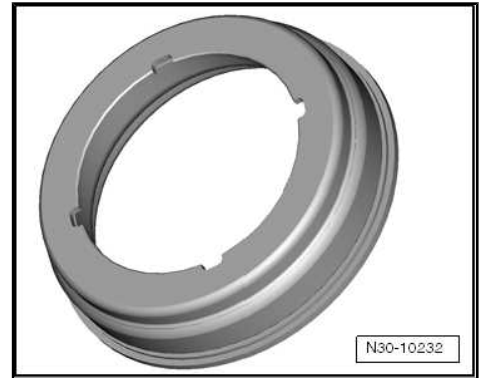
- Insert the small engaging bearing -A- for K2 with the measured adjusting washer -B-.

Determine the thickness of the adjusting washer
⇒ ["1.3 Adjust clutch release mechanism", page 41](#)

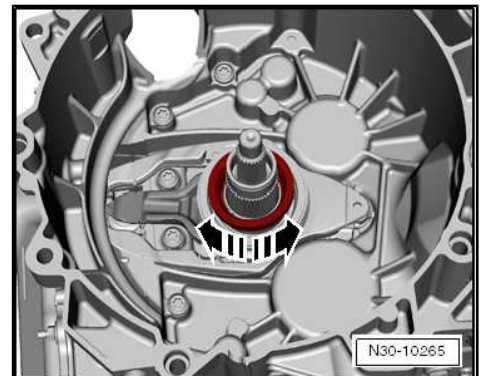
The adjusting washer -B- belongs under the small engaging bearing -A-. Therefore, insert the adjusting washer first.



- The small engaging bearing fits in only one position due to the 4 grooves.



- While turning in -direction of arrow-, check if the small engaging bearing is correctly installed and the grooves are correctly positioned.

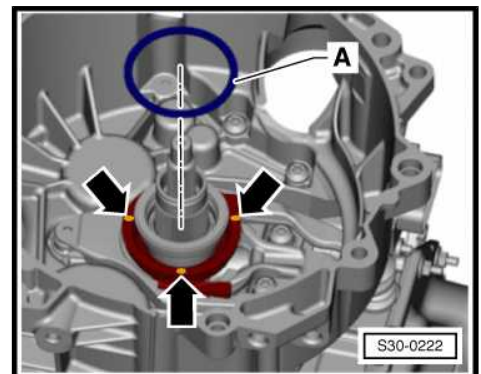


- Fix adjusting washer for K1 -A- with 3 drops of adhesive - AMV 195 KD1 01- -arrows- on the bearing.

This prevents that the washer slips out of its position when the clutch is inserted.

Specified torques

- ◆ Small engaging lever with clamp on gearbox
⇒ ["1.1.1 Summary of components - Clutch release mechanism, version up to 05.2011", page 32](#)



1.2.2 Removing and installing clutch release mechanism, version as of 06.2011



Caution

When replacing the double clutch, the following parts must always be replaced too:

- ◆ *the two engaging levers with engaging bearings*
- ◆ *Ball pin of the engaging lever for clutch K2*
- ◆ *Shims for engaging bearing*

After replacing the double clutch and the corresponding parts, the position of the engaging bearings for clutches K1 and K2 will always require re-adjusting
⇒ ["1.3.2 Adjusting the clutch release mechanism, gearbox as of 06.2011", page 51](#) .

**Note**

- ◆ *If all the mentioned parts are only removed and reinstalled, there is nothing to adjust.*
- ◆ *The circlip must be replaced under all circumstances.*
- Double clutch gearbox removed
⇒ ["2.2 Remove double clutch", page 66](#)
- Mechatronics for double clutch gearbox -J743- installed

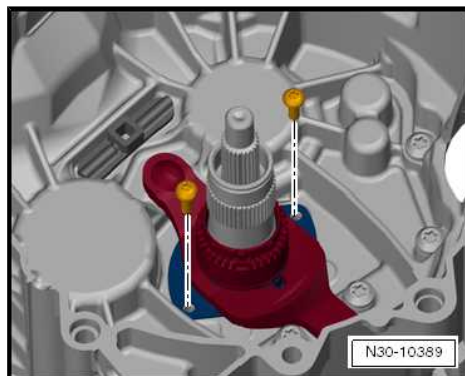
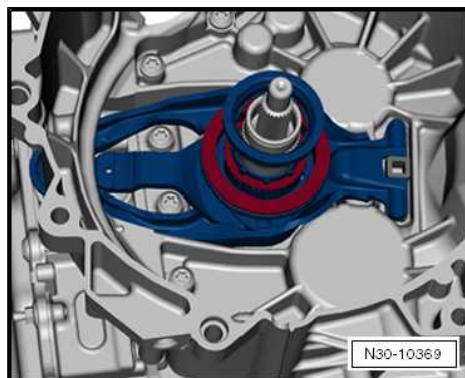
Removing

- Remove large engaging lever together with the shims and bearing.

**Note**

Guide bushing top part cannot be removed or installed individually. It is always removed and installed together with the guide bushing bottom part and small engaging bearing.

- Remove screws and remove the small engaging lever.



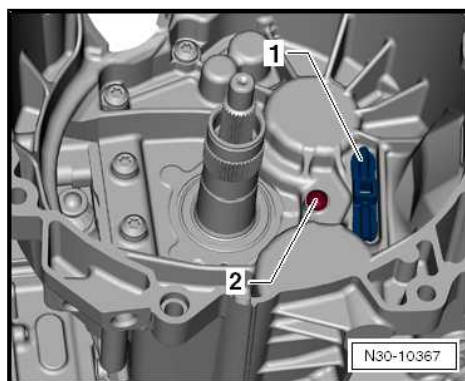
If no parts are replaced, the ball pin -2- remains installed.

**Note**

The hinge bearing -1- cannot be removed.

Installing

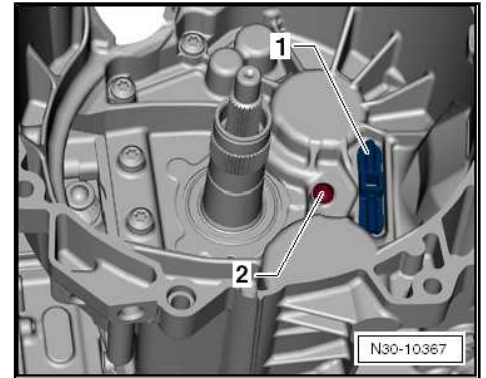
The large adjusting washer for the clutch K1 is inserted with the semispherical side downwards on the large bearing, the small adjusting washer for the clutch K2 is inserted under the small bearing.

**Caution**

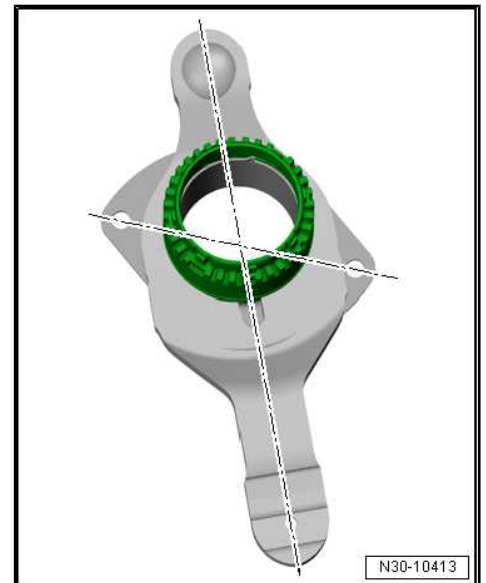
Do not oil or grease!

- Insert ball pin -2-.

Installation instructions for the new engaging lever K2

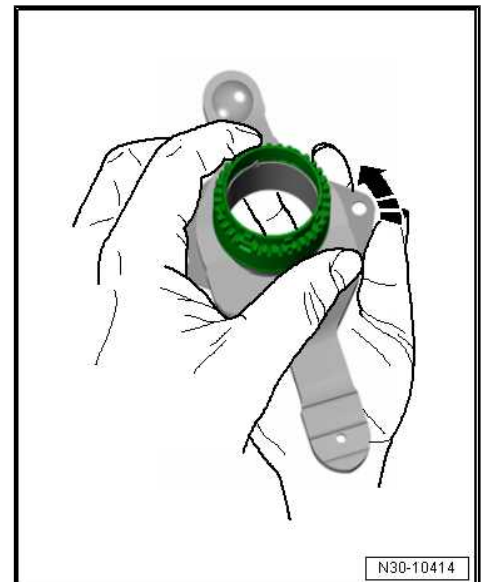


The new engaging lever K2 is delivered with guide bushing upper and lower part in the transport position. It must be brought to fitting position before installation.



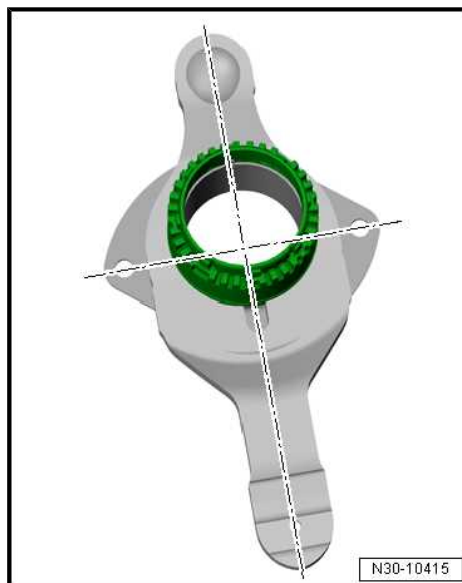
- Only guide bushing upper part by hand.
- Turn the guide bushing bottom part with your other hand in the -direction of arrow- at the same time so that the sleeve can be moved freely.

Since a large amount of force is needed to turn the guide bushing bottom part, hold the two parts of the engaging lever firm.

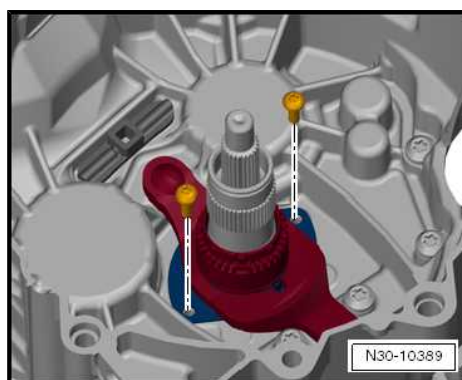




In the installation position, the openings of the guide bushing bottom part lie vertically to the engaging lever and the sleeve can be moved freely at the same time.



- Insert the small engaging lever with the top and bottom part of the guide bushing and tighten the screws.



- Insert the second, larger engaging lever with the measured adjusting washers for clutch K1 and K2.

The large adjusting washer for the clutch K1 is inserted with the semispherical side downwards on the large bearing, the small adjusting washer for the clutch K2 is inserted under the small bearing.

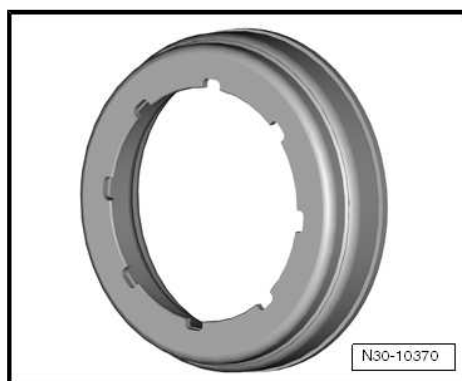


The small engaging bearing and the adjusting washer fit in only one position due to the 8 grooves.

- Insert the small engaging bearing.
- While turning the bearing, check if it is correctly installed and the grooves are correctly positioned.
- Check the correct fit of both engaging levers.

Specified torques

- ◆ Small engaging lever on gearbox
⇒ ["1.1.2 Summary of components - Clutch release mechanism, version as of 06.2011", page 33](#)



1.3 Adjust clutch release mechanism

⇒ [“1.3.1 Adjust clutch release mechanism, gearbox up to 05.2011”, page 41](#)

⇒ [“1.3.2 Adjusting the clutch release mechanism, gearbox as of 06.2011”, page 51](#)

1.3.1 Adjust clutch release mechanism, gearbox up to 05.2011

Special tools and workshop equipment required

- ◆ Gauge block - T10374-
- ◆ Straightedge - T40100-
- ◆ Adhesive - AMV 195 KD1 01-
- ◆ Digital depth gauge



Caution

When replacing the double clutch, the following parts must always be replaced too:

- ◆ *the two engaging levers with engaging bearings*
- ◆ *Bearing of the engaging lever*
- ◆ *Shims for engaging bearing*

After replacing the double clutch and the corresponding parts, the position of the engaging bearings for clutches K1 and K2 will always require re-adjusting.



Note

- ◆ *If all the mentioned parts are only removed and reinstalled, there is nothing to adjust.*
- ◆ *The circlip must be replaced under all circumstances.*

Conditions

- The mechatronics is installed.
- Double clutch gearbox removed
⇒ [“2.2 Remove double clutch”, page 66](#)
- Only use proper tools.
- The flange of the clutch housing must be free of irregularities, as the only way to ensure good contact with the straightedge.

Short description

The position of the engaging bearing is comparable with the clutch play of a mechanical manual gearbox. In the automatic gearbox DSG - 0AM, there are tolerances in the engaging system of the gearbox and in the gearbox itself. Tolerances also exist inside the double clutch. These tolerances must be considered separately when adjusting.

In the following procedure, you will first see how to determine all the necessary dimensions on the gearbox side in order to identify the suitable adjusting washer. This has an impact on the clutch tolerances determined earlier by the manufacturer. The toleran-



ces on the gearbox side and the tolerances in the clutch determine the thickness of the adjusting washer.

- The order of work steps must be observed!



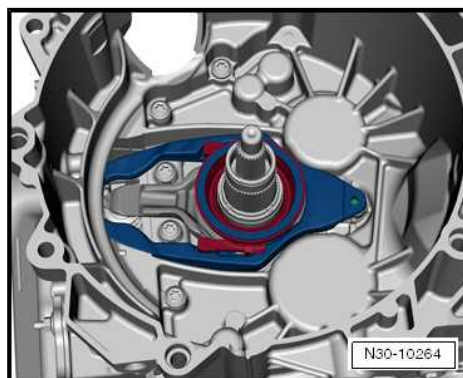
Caution

Risk of damage to the clutch as well as to other components.

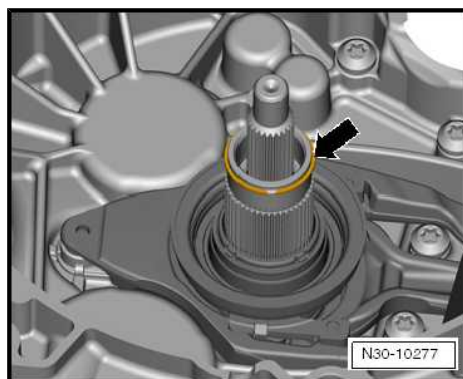
Bearing of the engaging lever and the entire engaging bearing mechatronics must be dry and free of oil and grease.

Preparation

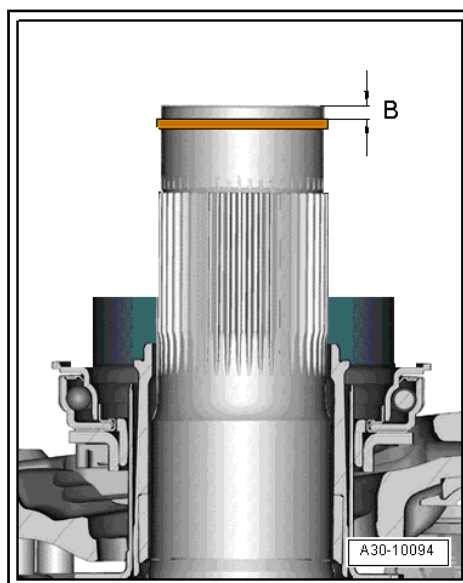
- Install the parts of the clutch up to the large engaging lever => ["1.2.1 Removing and installing clutch release mechanism, version up to 05.2011", page 34](#) .
- Do not install the small engaging bearing and do not insert an adjusting washer.



- Install the circlip of the outer drive shaft -arrow-.



Determine dimension -B-.



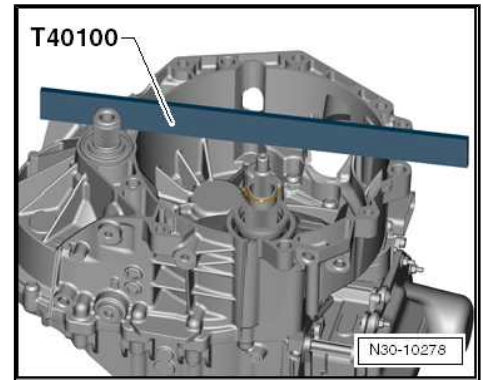
- Place the straightedge - T40100- upright on the flange of the clutch housing.



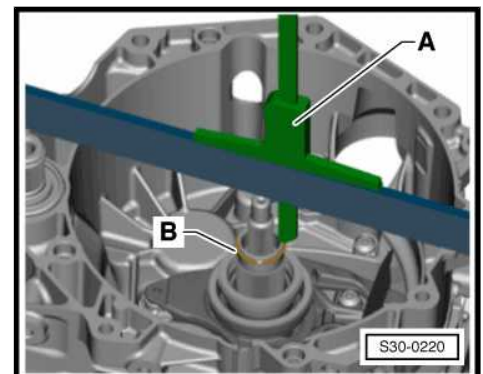
Caution

The straightedge - T40100- must remain in this position during the following measurements.

Do not turn or remove it.

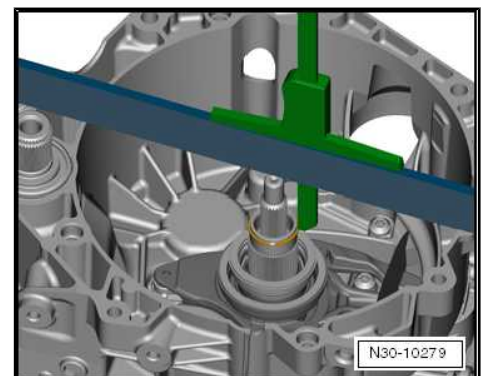


- Place the digital depth gauge -A- on the outer drive shaft -B-.
- Perform null balance of the depth gauge .



- Measure the distance to the circlip.
- Note the result and name it B₁.

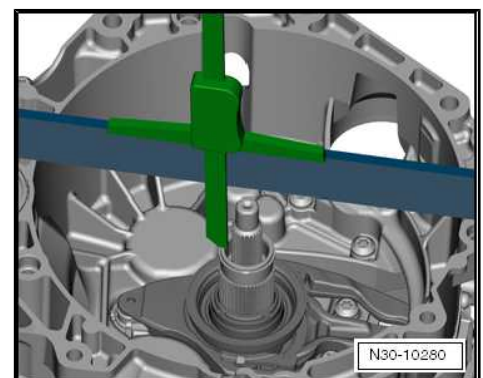
Example: B₁ = 2.91 mm



- Measure the dimension B once more at the opposite point.
- Note the result and name it B₂.
- Do not measure on the joint of the ring. The ring could be pressed off from the joint and thus the measuring result will be inaccurate.
- Remove circlip again.
- This ring must not be re-used!
- Determine the mean value from both measurement results.

Example:

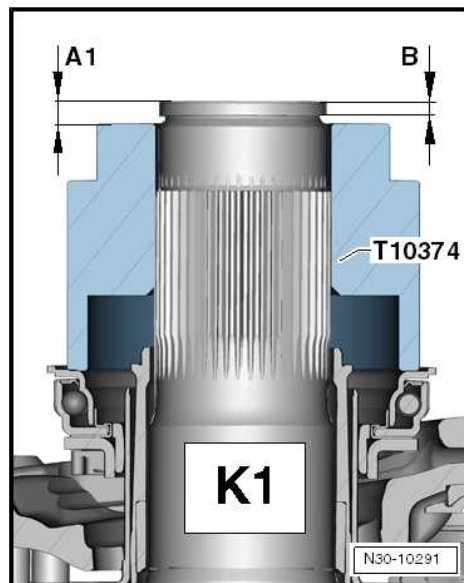
$$\text{Dimension B} = \frac{B_1 + B_2}{2} = \frac{2.91 + 3.02}{2} = 2.96$$





Determine dimension -A1- of the large engaging bearing for clutch K1.

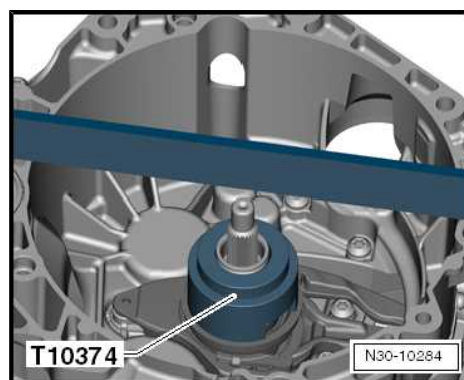
- Do not insert an adjusting washer!



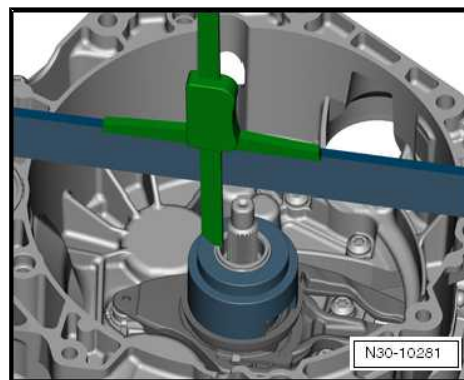
- Position the gauge block - T10374- on the large engaging bearing.

The flat side faces upwards.

- Press on the gauge block - T10374- , and simultaneously rotate to ensure correct seating.
- The gear shift bearing rotates with the gauge block - T10374- .



- Attach the digital depth gauge upwards on the straightedge and place the rod of the depth gauge on the outer driveshaft.
- The straightedge - T40100- is already positioned upright on the flange of the clutch housing.

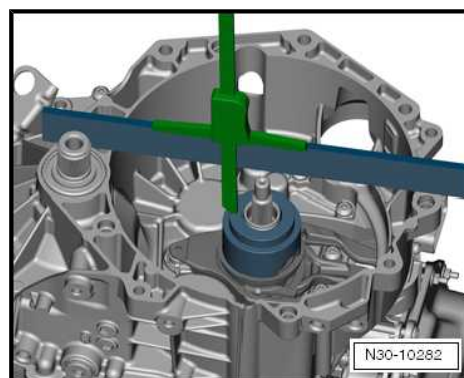


Caution

The straightedge - T40100- must remain in this position during the following measurements.

Do not turn or remove it.

- Perform null balance of the digital depth gauge .
- Position the rod of the digital depth gauge on the gauge block - T10374- , as shown in the figure, and measure the distance from the shaft end.



- Position the digital depth gauge twice at opposite-facing points for a precise measurement.

In this way, an even more precise value is determined as the inaccuracy resulting from the wobbling on the engaging bearing is thus minimised.

- Calculate the mean value of both measurements.
- Note this value and name it A1.

Example:

$$\text{Dimension A1} = 2.61 + 2.812 = 2.71$$

Result: Dimension A1 = 2.71 mm

Determining the installation depth of the gear shift bearing for clutch K1

On the basis of measured dimension A1 and dimension B, the actual value for the installation depth of the gear shift bearing for clutch K1 is determined by the following calculation.

	Dimension A1
-	Dimension B
+	Height of the gauge block - T10374- (fixed value 51.81 mm)
=	Actual value for the installation depth of the gear shift bearing K1

Example calculation:

- ◆ $2.71 \text{ mm} - 2.96 \text{ mm} + 51.81 \text{ mm} = 51.56 \text{ mm}$
- ◆ Value for the installation depth of gear shift bearing for clutch K1 = 51.56 mm

Determining the clutch play of K1

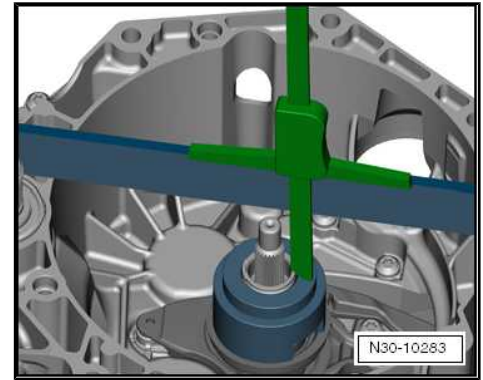
The clutch play of clutch K1 is now determined as follows on the basis of the actual value and the specified value for the installation depth of the gear shift bearing.

	Actual value for the installation depth of the gear shift bearing
-	Specified value for the installation depth of the gear shift bearing (50.08 mm, fixed value)
=	Clutch play of clutch K1

Example calculation:

- ◆ $51.56 \text{ mm} - 50.08 \text{ mm} = 1.48 \text{ mm}$
- ◆ Clutch play of clutch K1 = 1.48 mm

Determining the clutch tolerance of clutch K1





- Please read off the value of the clutch tolerance from the new clutch.
- ◆ The clutch tolerance value you have read off for clutch K1 is 0.0 mm

Determining the thickness of the adjusting washer SK1

The thickness of adjusting washer SK1 is now determined as follows on the basis of the determined clutch play and clutch tolerance for clutch K1.

	Clutch play of clutch K1
-/+	Clutch tolerance of clutch K1
=	Determined thickness of adjusting washer SK1

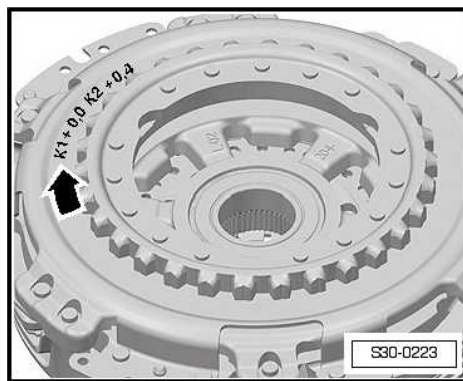
Example calculation:

- ◆ 1.48 mm + 0.0 mm = 1.48 mm
- ◆ Determined thickness of adjusting washer SK1 = 1.48 mm
- Select the correct washer from the table.

Determined thickness of the washer		Washer to be installed in mm
from	to	
0,31	0,90	0,8
0,91	1,10	1,0
1,11	1,30	1,2
1,31	1,50	1,4
1,51	1,70	1,6
1,71	1,90	1,8
1,91	2,10	2,0
2,11	2,30	2,2
2,31	2,50	2,4
2,51	2,70	2,6
2,71	3,30	2,8

Example:

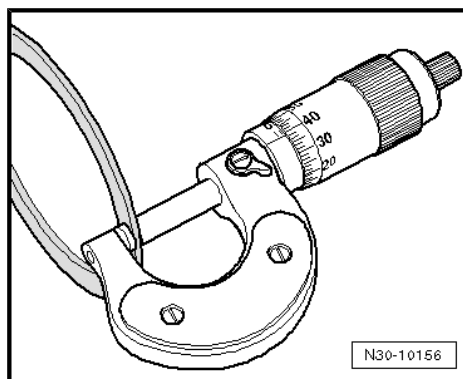
- ◆ Determined thickness of adjusting washer SK1 = 1.48 mm
- ◆ Selected thickness of the adjusting washer = 1.4 mm
- Measure all the adjusting washers and prepare the corresponding adjusting washer for installation.



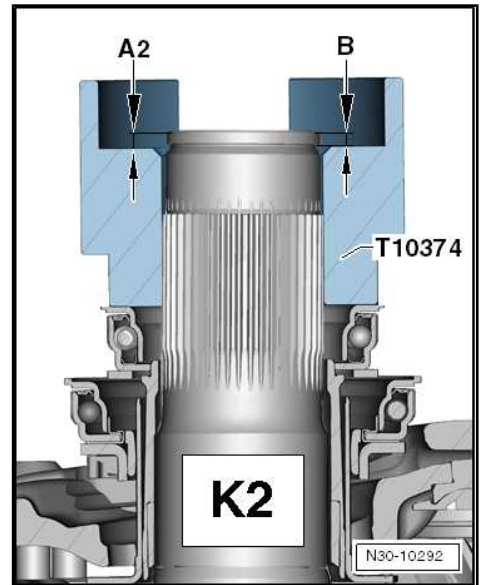
Caution

Risk of damage to gearbox!

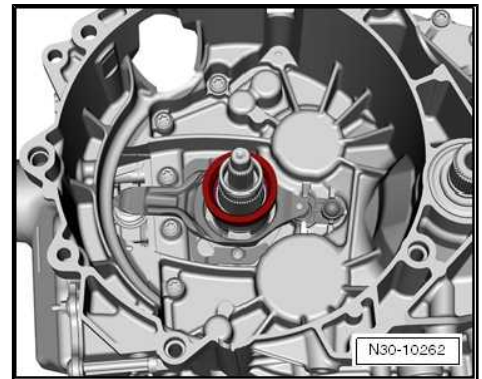
- ◆ ***Mark adjusting washer SK1 and prepare it as follows for installation.***
- ◆ ***Only this adjusting washer SK1 may be used for adjustment***



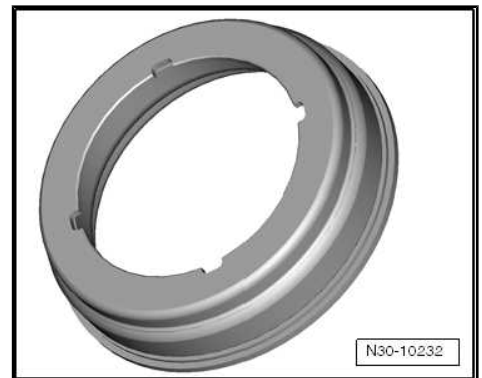
Determine dimension -A2- of the small engaging bearing for clutch K2.



- Only insert the small bearing.



The small engaging bearing fits in only one position due to the 4 grooves.

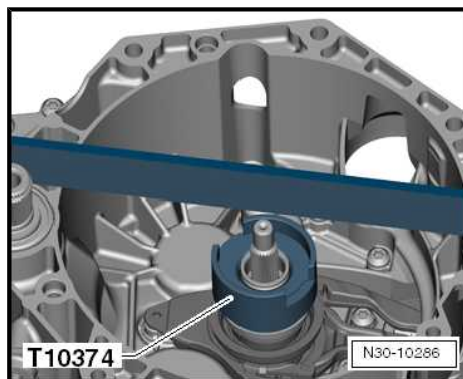


- While turning -arrows-, check if the small engaging bearing is correctly installed and the grooves are correctly positioned.
- Do not insert an adjusting washer!

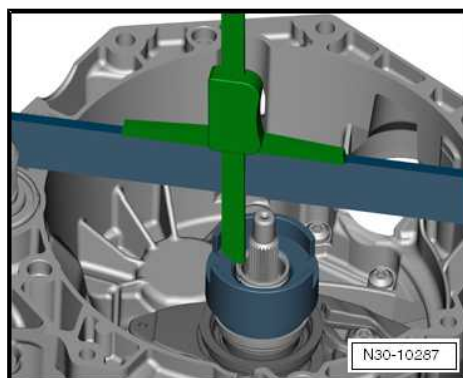





- Position the gauge block - T10374- with the large opening upwards on the small bearing.
- Lay the straightedge - T40100- at a right angle over the shaft end onto the gearbox flange.



- Attach the digital depth gauge upwards on the straightedge - T40100- and place the rod of the depth gauge onto the outer driveshaft.
- Perform null balance of the digital depth gauge .

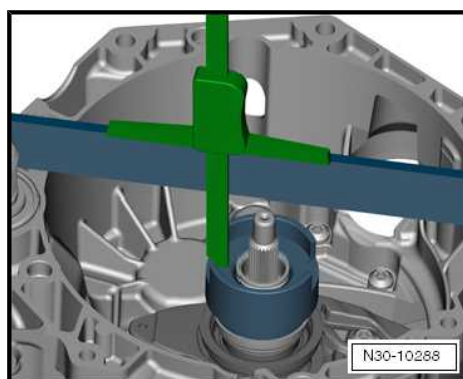


 **Caution**

The straightedge - T40100- must remain in this position during the following measurements.

Do not turn or remove it.

- Place the rod of the depth gauge on the gauge block - T10374- , as shown in the figure.
- Measure the distance of A2 from the shaft end to the gauge block - T10374- .



Position the digital depth gauge twice at opposite-facing points for a precise measurement.

In this way, an even more precise value is determined as the inaccuracy resulting from the wobbling on the engaging bearing is thus minimised.

- Calculate the mean value of both measurements to the gauge block - T10374- .
- Note this value and name it A2.

Example calculation:

- ◆ Dimension A2 = 2.50 + 2.542 = 2.52
- ◆ Result: A2 = 2.52 mm

Determining the installation depth of the gear shift bearing for clutch K2

On the basis of measured dimension A2 and dimension B, the actual value for the installation depth of the gear shift bearing for clutch K2 is determined by the following calculation.

	Dimension A2
-	Dimension B
+	Inside height of the gauge block - T10374- (fixed value 36.20 mm)
=	Actual value for the installation depth of the gear shift bearing K2

Example calculation:

- ◆ 2.52 mm – 2.96 mm + 36.20 mm = 35.76 mm
- ◆ Result: Actual value for the installation depth of the gear shift bearing K2 - 35.76 mm

Determining the clutch play of K2

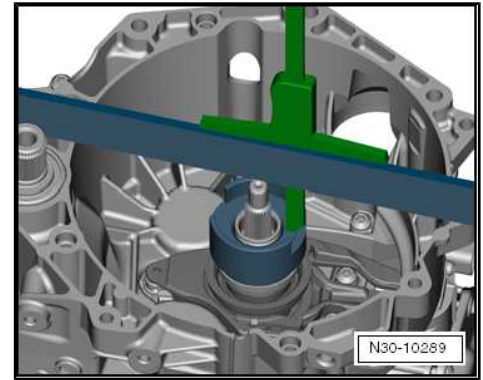
The clutch play of clutch K2 is now determined as follows on the basis of the actual value and the specified value for the installation depth of the gear shift bearing.

	Actual value for the installation depth of the gear shift bearing
-	Specified value for the installation depth of the gear shift bearing (34.35 mm, fixed value)
=	Clutch play of clutch K2

Example calculation:

- ◆ 35.76 mm – 34.35 mm = 1.41 mm
- ◆ Result: Clutch play of clutch K2 = 1.41 mm

Determining the clutch tolerance of clutch K2



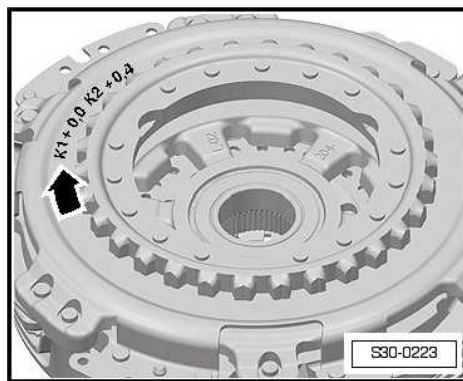


- Please read off the value of the clutch tolerance from the new clutch.
- ◆ The clutch tolerance value you have read off for clutch K2 is 0.4 mm

Determining the thickness of the adjusting washer SK2

The thickness of adjusting washer SK2 is now determined as follows on the basis of the determined clutch play and clutch tolerance for clutch K2.

	Clutch play of clutch K2
-/+	Clutch tolerance of clutch K2
=	Determined thickness of adjusting washer SK2



Example calculation:

- ◆ 1.41 mm minus +0.4 mm = 1.81 mm
- ◆ Determined thickness of adjusting washer SK2 = 1.81 mm
- Select the correct washer from the table.

Determined thickness of the washer		Shim to be installed in millimetres
from	to	
0,31	0,90	0,8
0,91	1,10	1,0
1,11	1,30	1,2
1,31	1,50	1,4
1,51	1,70	1,6
1,71	1,90	1,8
1,91	2,10	2,0
2,11	2,30	2,2
2,31	2,50	2,4
2,51	2,70	2,6
2,71	3,30	2,8

Example:

- ◆ Determined thickness of adjusting washer SK2 = 1.81 mm
- ◆ Selected thickness of the adjusting washer = 1.8 mm

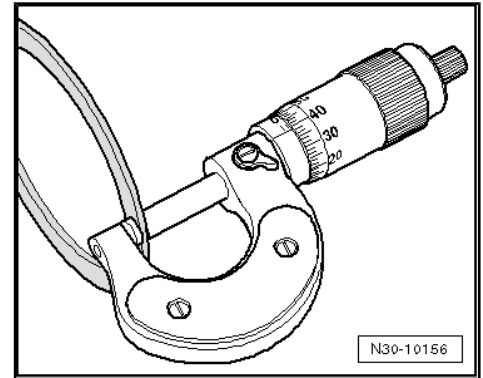
- Measure all the adjusting washers and prepare the corresponding adjusting washer for installation.



Caution

Risk of damage to gearbox!

- ◆ *Mark adjusting washer SK2 and prepare it as follows for installation.*
- ◆ *Only this adjusting washer SK2 may be used for adjustment.*



The adjusting washer for K2 is then also determined. Please install this adjusting washer when installing the clutch at a later stage. This washer belongs under the small engaging bearing.

The clutch can be installed
⇒ ["2.3 Install double clutch", page 69](#) .

1.3.2 Adjusting the clutch release mechanism, gearbox as of 06.2011

Special tools and workshop equipment required

- ◆ Gauge block - T10466-
- ◆ Straightedge - T40100-
- ◆ Digital depth gauge



Caution

When replacing the double clutch, the following parts must always be replaced too:

- ◆ *the two engaging levers with engaging bearings*
- ◆ *Ball pin of the engaging lever for clutch K2*
- ◆ *Shims for engaging bearing*

After replacing the double clutch and the corresponding parts, the position of the engaging bearings for clutches K1 and K2 will always require re-adjusting.



Note

- ◆ *If all the mentioned parts are only removed and reinstalled, there is nothing to adjust.*
- ◆ *The circlip must be replaced under all circumstances.*

Short description

The position of the engaging bearing is comparable with the clutch play of a mechanical manual gearbox. In the automatic gearbox DSG - 0AM, there are tolerances in the engaging system of the gearbox and in the gearbox itself. Tolerances also exist inside the double clutch. These tolerances must be considered separately when adjusting.

In the following procedure, you will first see how to determine all the necessary dimensions on the gearbox side in order to identify the suitable adjusting washer. The tolerances on the gearbox side



and the tolerances in the clutch determine the thickness of the adjusting washer.

Conditions

- Double clutch gearbox removed
⇒ ["2.2 Remove double clutch", page 66](#)
- The mechatronics is installed.
- Only use proper tools.
- The flange of the clutch housing must be free of irregularities, as the only way to ensure good contact with the straightedge.
- The order of work steps must be observed!



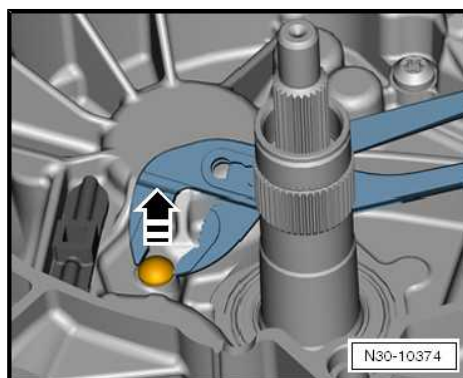
Caution

Risk of damage to the clutch as well as to other components.

Bearing of the engaging lever and the entire engaging bearing mechatronics must be dry and free of oil and grease.

Removing and installing the ball pin

- Remove the ball pin with the pliers.

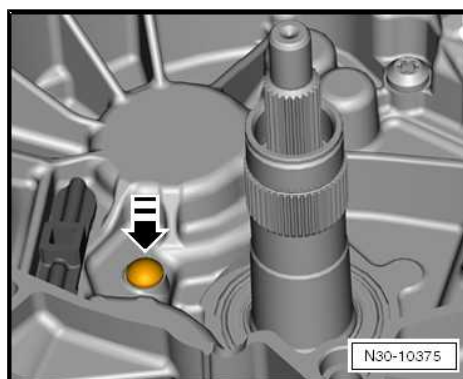


- Install a new ball pin.

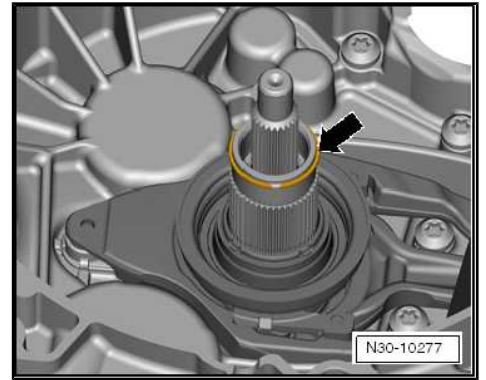


Note

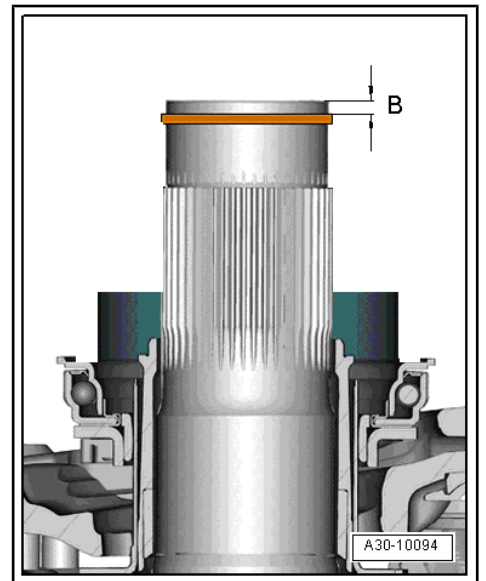
Press in the ball pin by hand, if necessary slightly drive in with a plastic hammer (in order not to damage the ball pin).




- Install the old circlip of the outer drive shaft -arrow-.

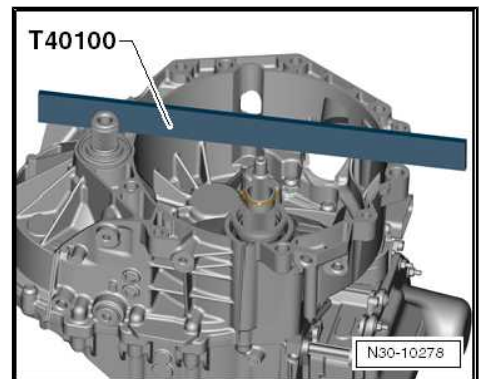


Determine dimension -B-.

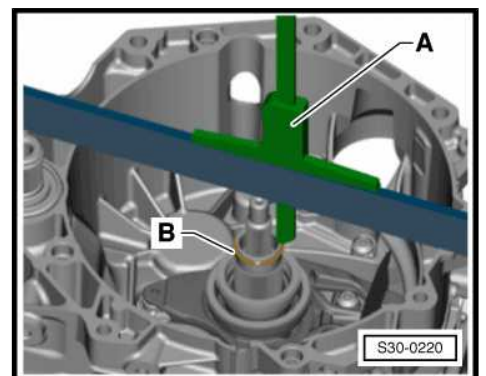


- Place the straightedge - T40100- upright on the flange of the clutch housing.

 **Caution**
The straightedge - T40100- must remain in this position during the following measurements.
Do not turn or remove it.



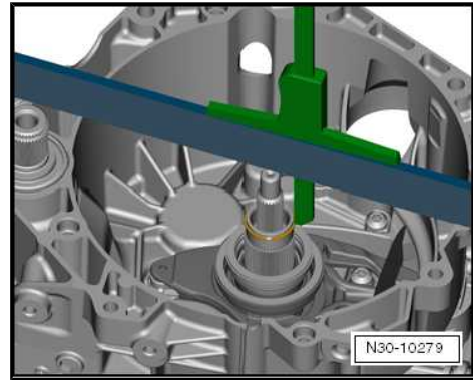
- Place the digital depth gauge -A- on the outer drive shaft -B-.
- Perform null balance of the digital depth gauge .





- Measure the distance to the circlip.
- Note the result and name it B₁.

Example: Dimension B₁ = 2.62 mm



- Measure the dimension B once more at the opposite point.
- Note the result and name it B₂.
- Do not measure on the joint of the ring. The ring could be pressed off from the joint and thus the measuring result will be inaccurate.

◆ Example: Dimension B₂ = 2.58 mm

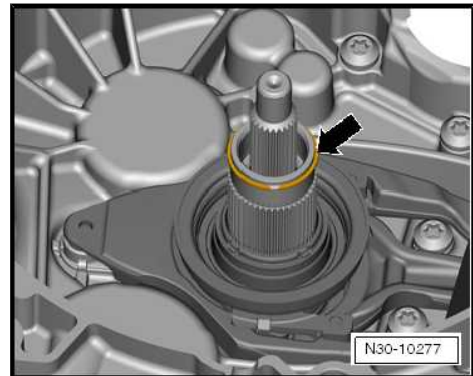
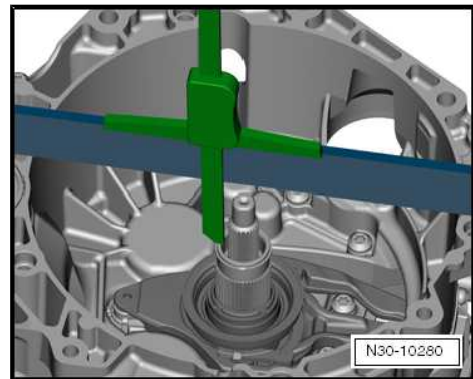
- Determine the mean value from both measurement results.

Example:

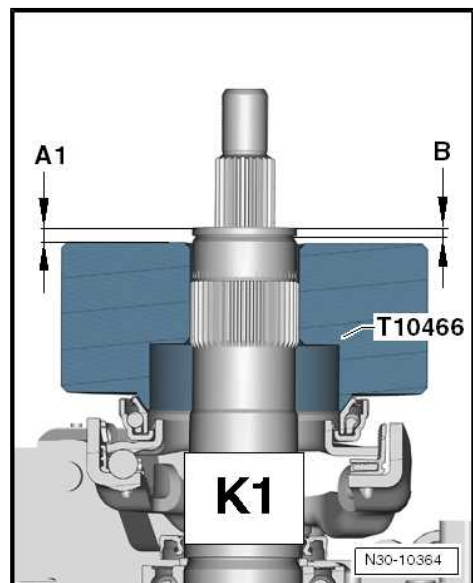
◆ Dimension B = $B_1 + B_2 \div 2 = 2.62 + 2.58 \div 2 = 2.60$

This dimension B is required for the following calculations.

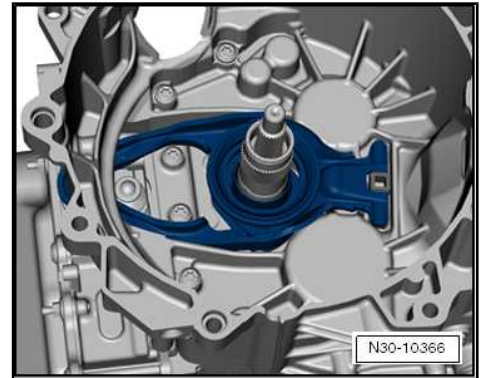
- Remove the circlip -arrow- again.
- The circlip may not be reused.



Determine dimension -A1- of the large engaging bearing for clutch K1.



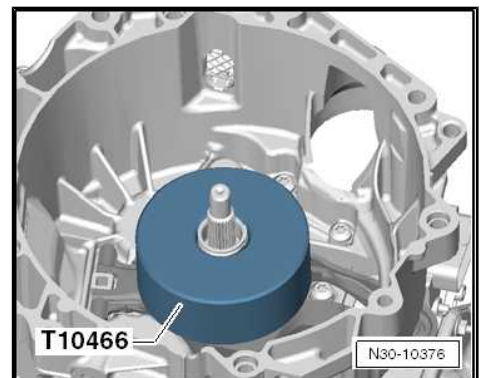
- Insert the large engaging lever.
- Do not insert an adjusting washer!




- Position the gauge block - T10466- on the large engaging bearing.

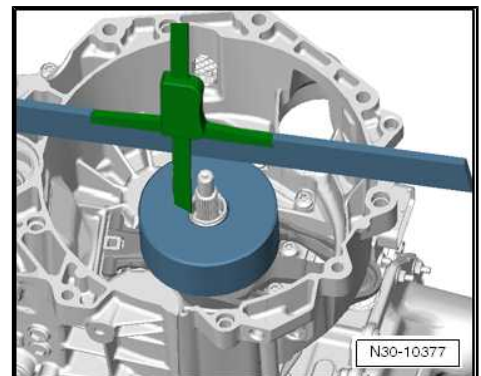
The flat side faces upwards.

- Press on the gauge block - T10466- , and simultaneously rotate to ensure correct seating.
- The gear shift bearing rotates with the gauge block - T10466- .



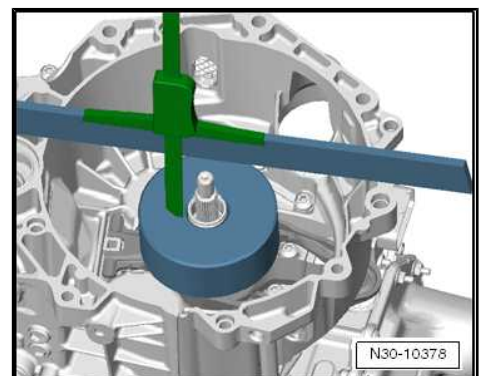
- Attach the digital depth gauge upwards on the straightedge and place the rod of the depth gauge on the outer driveshaft.
- The straightedge - T40100- is already positioned upright on the flange of the clutch housing.

 **Caution**
The straightedge - T40100- must remain in this position during the following measurements.
Do not turn or remove it.



- Perform null balance of the digital depth gauge .

- Position the rod of the digital depth gauge on the gauge block - T10466- , as shown in the figure, and measure the distance from the shaft end.





- Perform a second measurement at the opposite point of the gauge block - T10466- in the same way.

In this way, an even more precise value is determined as the inaccuracy resulting from the wobbling on the engaging bearing is thus minimised.

- Calculate the mean value A1 of both measurements to the gauge block - T10466- .
- Note this value and name it A1.

Example

- ◆ Dimension A1 = $4.93 + 4.912 = 4.92$
- ◆ Result: A1 = 4.92 mm

Determining the height tolerance of the gear shift bearing for clutch K1

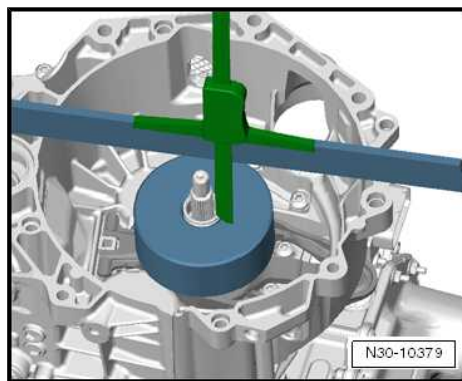
On the basis of measured dimension A1 and dimension B, the actual value for the height tolerance of the gear shift bearing for clutch K1 is determined by the following calculation.

	Dimension A1
-	Dimension B
=	Height tolerance of the gear shift bearing for clutch K1

Example

- ◆ $4.92 \text{ mm} - 2.60 \text{ mm} = 2.32 \text{ mm}$
- ◆ Height tolerance of gear shift bearing for clutch K1 = 2.32 mm

Determining the clutch tolerance of clutch K1



- Please read off the value of the clutch Tolerance -arrow- from the new clutch.

A value between minus 0.40 and plus 0.40 mm is marked on the new clutch.

- ◆ The clutch tolerance value you have read off for clutch K1 is 0.0 mm

Determining the thickness of the adjusting washer SK1

The thickness of adjusting washer SK1 is now determined as follows on the basis of the determined clutch tolerance for clutch K1.

	Height tolerance of the gear shift bearing for clutch K1
-/+	Clutch tolerance of clutch K1
=	Determined thickness of adjusting washer SK1

Example calculation:

- ◆ $2.32 \text{ mm} + 0.0 \text{ mm} = 2.32 \text{ mm}$
- ◆ Determined thickness of adjusting washer SK1 = 2.32 mm
- Select the correct washer from the table and put it aside until you are ready to install it.

Determined thickness of the adjusting washer mm	Available adjusting washers thickness in mm	Part number
1,21...1,60	1,50	0AM 141 383
1,61...1,80	1,70	0AM 141 383 A
1,81...2,00	1,90	0AM 141 383 B
2,01...2,20	2,10	0AM 141 383 C
2,21...2,40	2,30	0AM 141 383 D
2,41...2,60	2,50	0AM 141 383 E
2,61...2,80	2,70	0AM 141 383 F
2,81...3,00	2,90	0AM 141 383 G
3,01...3,20	3,10	0AM 141 383 H
3,21...3,40	3,30	0AM 141 383 J
3,41...3,80	3,50	0AM 141 383 K

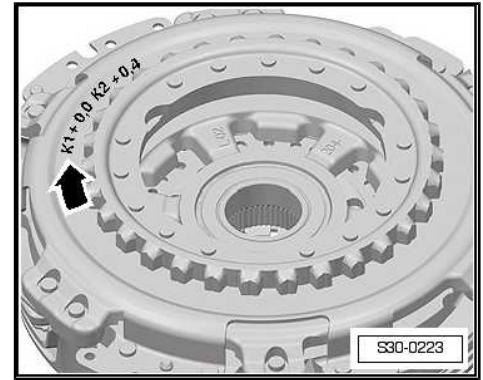
Example:

- ◆ Determined thickness of adjusting washer SK1 = 2.32 mm
- ◆ Selected thickness of the adjusting washer = 2.30 mm (part number 0AM 141 383 D)

Caution

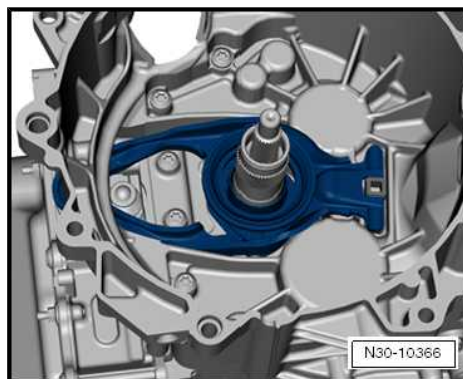
Risk of damage to gearbox!

- ◆ **Mark adjusting washer SK1 and prepare it as follows for installation.**
- ◆ **Only this adjusting washer SK1 may be used for adjustment**



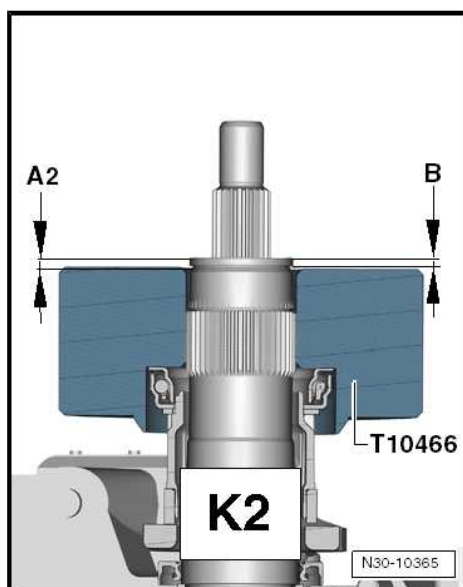


- Remove the gauge block - T10466- and remove the large engaging lever.

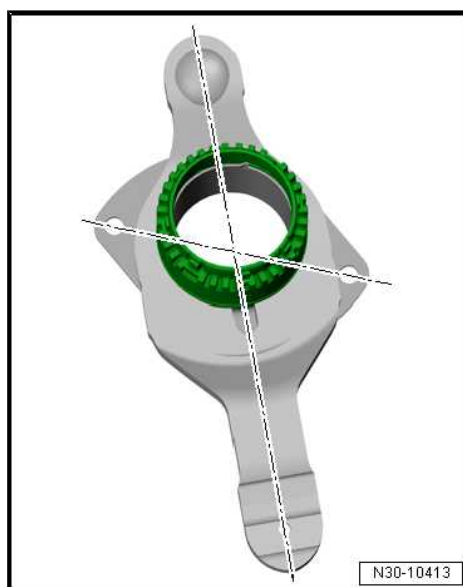


Determine dimension -A2- of the small engaging bearing for clutch K2.

Guide bushing top part cannot be removed or installed individually. It is always removed and installed together with the guide bushing bottom part and small engaging bearing.

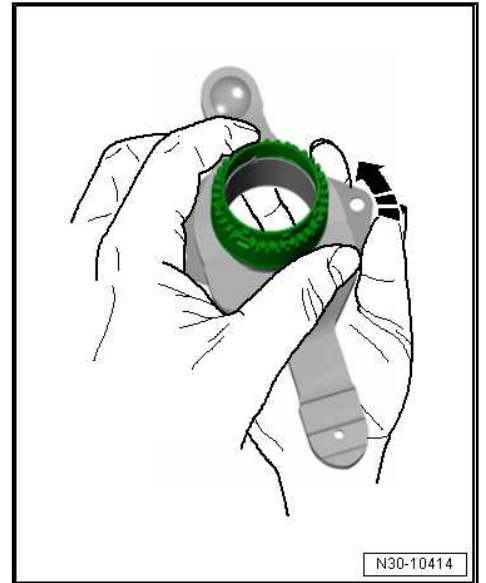


The new engaging lever K2 is delivered with guide bushing upper and lower part in the transport position. It must be brought to fitting position before installation.

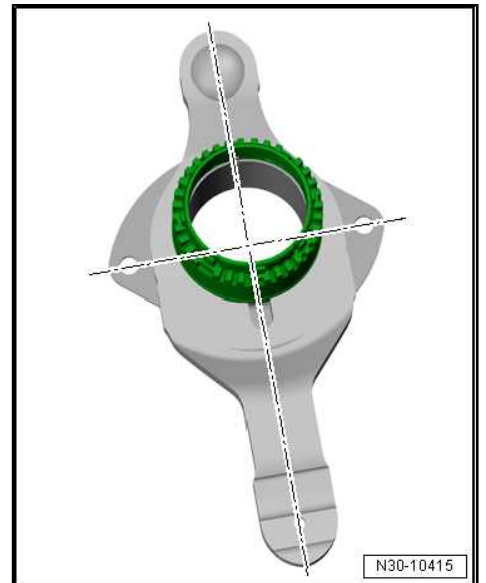


- Only guide bushing upper part by hand.
- Turn the guide bushing bottom part with your other hand in the -direction of arrow- at the same time so that the sleeve can be moved freely.

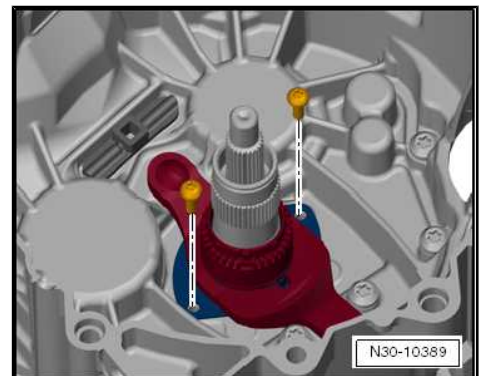
Since a large amount of force is needed to turn the guide bushing bottom part, hold the two parts of the engaging lever firm.



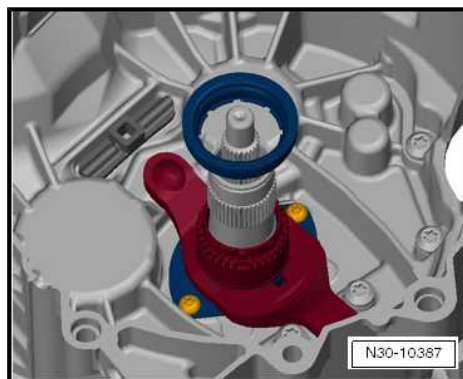
In the installation position, the openings of the guide bushing bottom part lie vertically to the engaging lever and the sleeve can be moved freely at the same time.



- Insert the small engaging lever with the top and bottom part of the guide bushing and tighten the screws.

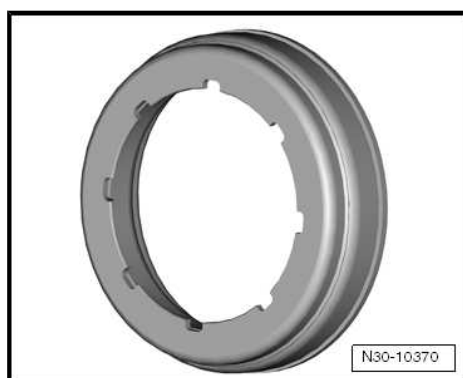


- Insert the small engaging bearing.

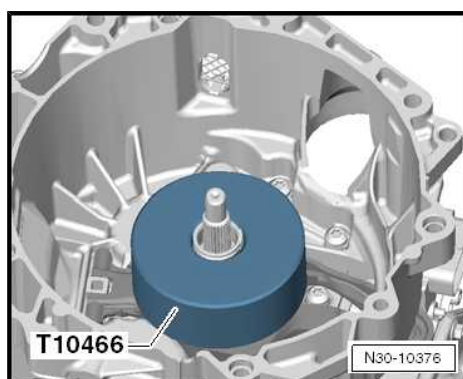


The small engaging bearing fits in only one position due to the 8 grooves.

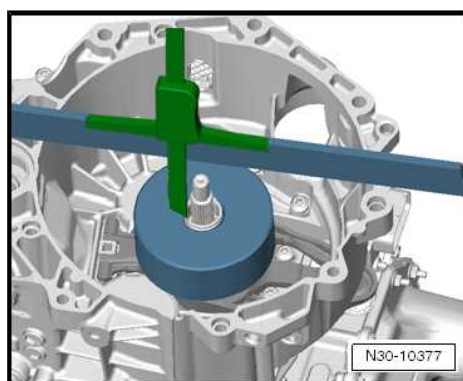
- While turning, check if the small engaging bearing is correctly installed and the grooves are correctly positioned.
- Do not insert an adjusting washer!



- Position the gauge block - T10466- on the small engaging bearing.
- The flat side faces upwards.
- Press on the gauge block - T10466- , and simultaneously rotate to ensure correct seating.
- The gear shift bearing rotates with the gauge block - T10466- .



- Attach the digital depth gauge upwards on the straightedge and place the rod of the depth gauge on the outer driveshaft.
- The straightedge - T40100- is already positioned upright on the flange of the clutch housing.



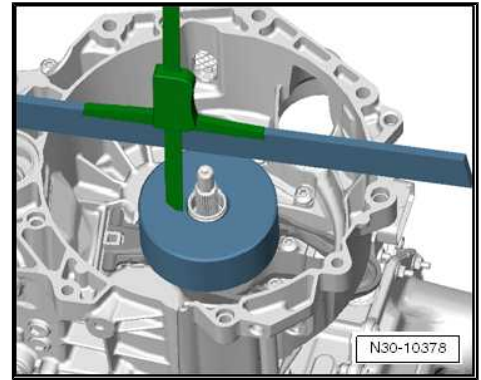
Caution

The straightedge - T40100- must remain in this position during the following measurements.

Do not turn or remove it.

- Perform null balance of the digital depth gauge .

- Position the rod of the digital depth gauge on the gauge block - T10466- , as shown in the figure, and measure the distance from the shaft end.



- Position the digital depth gauge twice at opposite-facing points for a precise measurement.

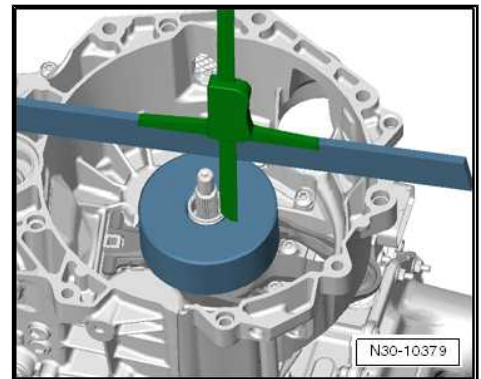
In this way, an even more precise value is determined as the inaccuracy resulting from the wobbling on the engaging bearing is thus minimised.

- Calculate the mean value of both measurements.
- Note this value and name it A2.

Example

$$\text{Dimension A2} = 4.79 + 4.752 = 4.77$$

Result: A2 = 4.77 mm



Determining the height tolerance of the gear shift bearing for clutch K2

On the basis of dimension A2 and dimension B, the tolerance of the gear shift bearing for clutch K2 is determined by the following calculation.

	Dimension A2
-	Dimension B
=	Height tolerance of the gear shift bearing for clutch K2

Example calculation:

- ◆ $4.77 \text{ mm} - 2.60 \text{ mm} = 2.17 \text{ mm}$
- ◆ Height tolerance of gear shift bearing for clutch K2 = 2.17 mm

Determining the clutch tolerance of clutch K2

- Please read off and note the value of the clutch tolerance from the new clutch -arrow-.

Example: K2 "+ 0.4 mm" is given on the clutch.

Determining the thickness of the adjusting washer "SK2"

The thickness of adjusting washer "SK2" is now determined as follows on the basis of the determined clutch play and clutch tolerance for clutch "K2".

	Height tolerance of the gear shift bearing for clutch "K2"
-/+	Clutch tolerance of clutch "K2"
=	Determined thickness of adjusting washer "SK2"

Example calculation:

- ◆ 2.17 mm + 0.4 mm = 2.57 mm
- ◆ Determined thickness of adjusting washer "SK2" = 2.57 mm
- Select the correct washer from the table.

Determined thickness of the washer		Shim to be installed in millimetres
from	to	
0,31	0,90	0,8
0,91	1,10	1,0
1,11	1,30	1,2
1,31	1,50	1,4
1,51	1,70	1,6
1,71	1,90	1,8
1,91	2,10	2,0
2,11	2,30	2,2
2,31	2,50	2,4
2,51	2,70	2,6
2,71	3,30	2,8

Example:

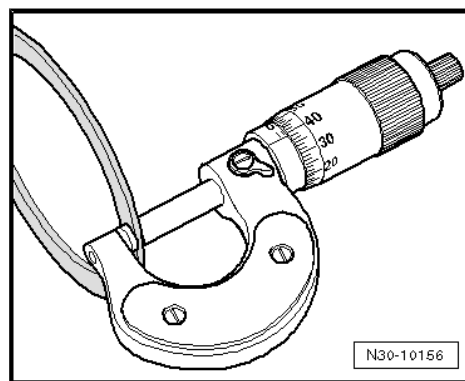
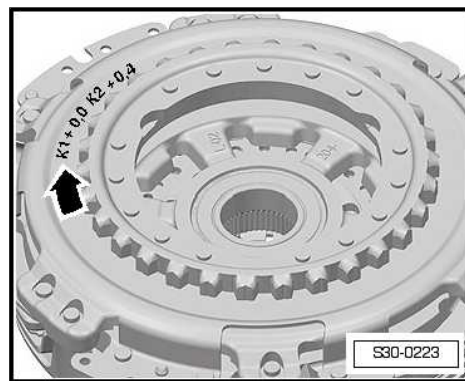
- ◆ Determined thickness of adjusting washer "SK2" = 2.57 mm
- ◆ Selected thickness of the adjusting washer = 2.60 mm
- From the delivered washers, determine the required adjusting washer and put it aside until you are ready to install it.



Caution

Risk of damage to gearbox!

- ◆ **Mark adjusting washer SK2 and prepare it as follows for installation.**
- ◆ **Only this adjusting washer SK2 may be used for adjustment.**



- Install clutch ⇒ ["2.3 Install double clutch", page 69](#) .

2 Clutch

⇒ [“2.1 Summary of components - double clutch”, page 63](#)

⇒ [“2.2 Remove double clutch”, page 66](#)

⇒ [“2.3 Install double clutch”, page 69](#)

⇒ [“2.4 Replacing the sealing ring for the outer drive shaft”, page 74](#)

⇒ [“2.5 Replace gasket ring for inner drive shaft”, page 75](#)

2.1 Summary of components - double clutch

⇒ [“2.1.1 Summary of components - double clutch up to 05.2011”, page 63](#)

⇒ [“2.1.2 Summary of components - double clutch as of 06.2011”, page 65](#)

2.1.1 Summary of components - double clutch up to 05.2011

1 - Circlip

- Replace after disassembly

2 - Hub

3 - Circlip

- Replace after disassembly

4 - Large engaging lever for K1 clutch

- with large engaging bearing
- Removing and installing ⇒ [“1.2.1 Removing and installing clutch release mechanism, version up to 05.2011”, page 34](#)
- replace when replacing the double clutch gearbox

5 - Small engaging lever for K2 clutch

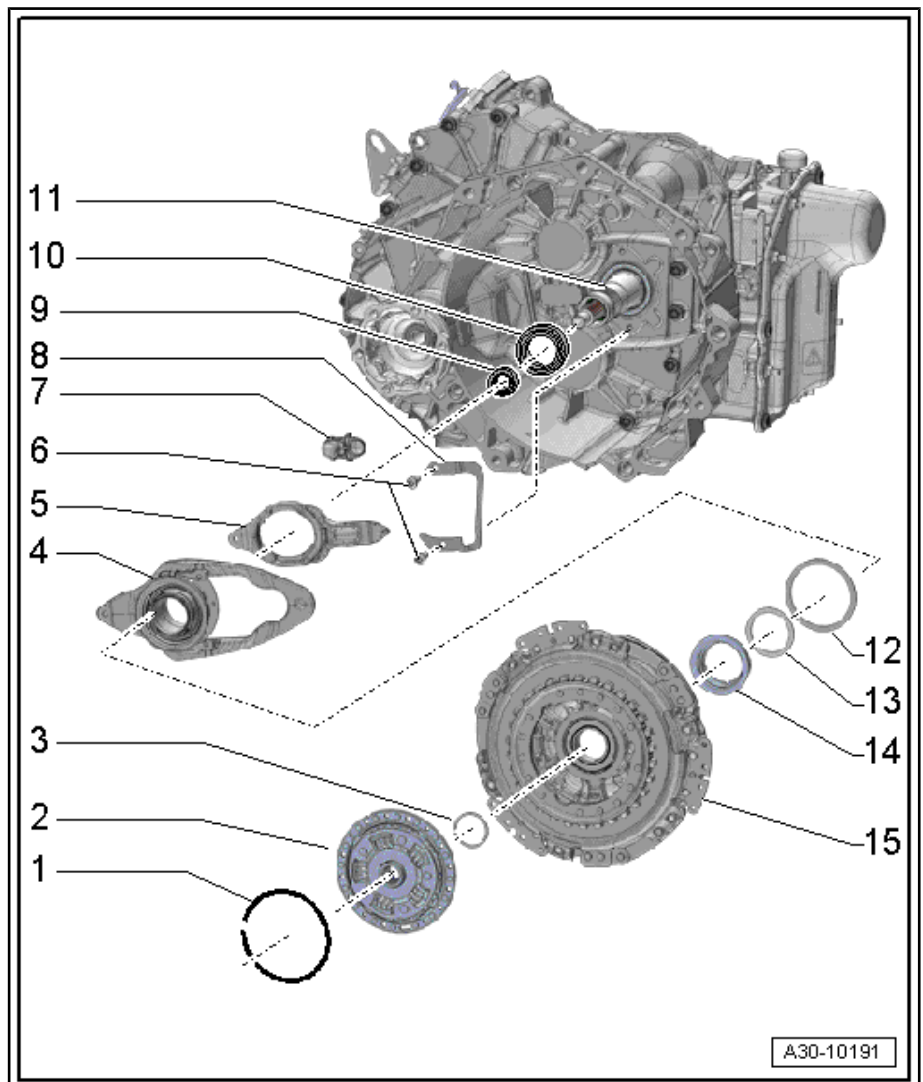
- replace when replacing the double clutch gearbox
- Removing and installing ⇒ [“1.2.1 Removing and installing clutch release mechanism, version up to 05.2011”, page 34](#)

6 - Screw

- Replace after disassembly
- 8 Nm + 90°

7 - Support

- for engaging lever
- replace when replacing the double clutch gearbox



**8 - Clamp**

- for small engaging lever
- not present on older versions
- replace when replacing the double clutch gearbox

9 - Sealing ring

- for inner drive shaft
- Renew ⇒ [“2.5 Replace gasket ring for inner drive shaft”, page 75](#) .

10 - Sealing ring

- for outer drive shaft
- Renew ⇒ [“2.4 Replacing the sealing ring for the outer drive shaft”, page 74](#) .

11 - Outer drive shaft**12 - Adjusting washer SK1**

- Determine thickness ⇒ [“1.3.1 Adjust clutch release mechanism, gearbox up to 05.2011”, page 41](#)

13 - Adjusting washer SK2

- Determine thickness ⇒ [“1.3.1 Adjust clutch release mechanism, gearbox up to 05.2011”, page 41](#)

14 - Small engaging bearing for K2 clutch

- Removing and installing
⇒ [“1.2.1 Removing and installing clutch release mechanism, version up to 05.2011”, page 34](#)
- replace when replacing the double clutch gearbox

15 - Double clutch

- removing ⇒ [“2.2 Remove double clutch”, page 66](#)
- installing ⇒ [“2.3 Install double clutch”, page 69](#)

2.1.2 Summary of components - double clutch as of 06.2011

1 - Hinge bearing

- for large engaging lever for K1 clutch
- is not replaced

2 - Ball pin

- for small engaging lever for K1 clutch
- Removing and installing
⇒ ["1.2.2 Removing and installing clutch release mechanism, version as of 06.2011", page 37](#)
- replace when replacing the double clutch gearbox

3 - Adjusting washer SK1

- Determine thickness
⇒ ["1.3.2 Adjusting the clutch release mechanism, gearbox as of 06.2011", page 51](#)

4 - Adjusting washer SK2

- Determine thickness
⇒ ["1.3.2 Adjusting the clutch release mechanism, gearbox as of 06.2011", page 51](#)

5 - Small engaging bearing for K2 clutch

- replace when replacing the double clutch gearbox

6 - Double clutch

- removing
⇒ ["2.2 Remove double clutch", page 66](#)
- installing ⇒ ["2.3 Install double clutch", page 69](#)

7 - Circlip

- Replace after disassembly

8 - Hub

9 - Circlip

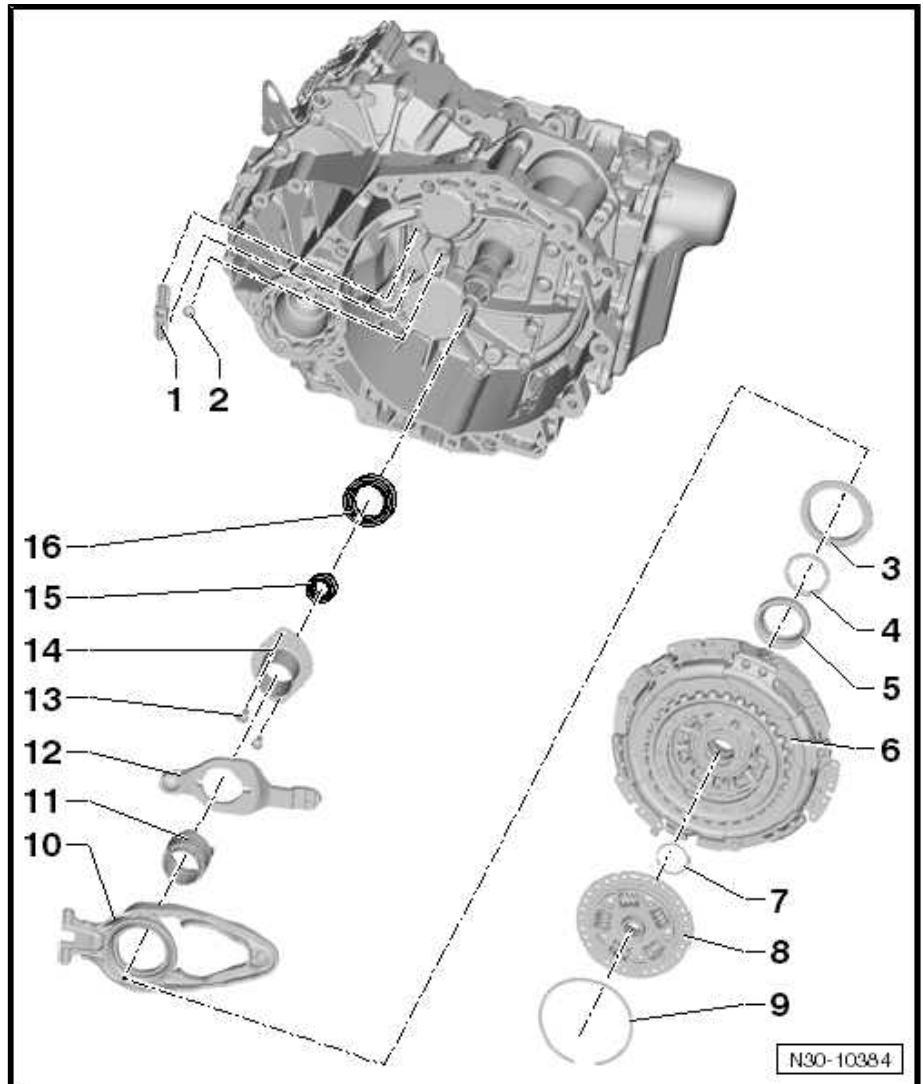
- Replace after disassembly

10 - Large engaging lever for K1 clutch

- with engaging bearing
- Removing and installing
⇒ ["1.2.2 Removing and installing clutch release mechanism, version as of 06.2011", page 37](#)
- replace when replacing the double clutch gearbox

11 - Guide bushing-top part

- for small engaging lever for K2
- remove and install together with the small engaging lever Pos. 12 and guide bushing bottom part Pos. 14



**12 - Small engaging lever for K2 clutch**

- is removed and installed together with the top and bottom part of the guide bushing Pos. 11 and 14
- Removing and installing
⇒ ["1.2.2 Removing and installing clutch release mechanism, version as of 06.2011", page 37](#)
- replace when replacing the double clutch gearbox

13 - Screw

- Replace after disassembly
- 8 Nm + 90°

14 - Guide bushing-bottom part

- for small engaging lever for K2
- remove and install together with the small engaging lever Pos. 12 and guide bushing top part Pos. 11

15 - Sealing ring

- for inner drive shaft
- Renew ⇒ ["2.5 Replace gasket ring for inner drive shaft", page 75](#) .

16 - Sealing ring

- for outer drive shaft
- Renew ⇒ ["2.4 Replacing the sealing ring for the outer drive shaft", page 74](#) .

2.2 Remove double clutch

Special tools and workshop equipment required

- ◆ Assembly stand - MP9-101-
- ◆ Hook - 3438-
- ◆ Supporting bridge - T10323-
- ◆ Thrust piece - T10368-
- ◆ Extractor - T10373-
- ◆ Thrust piece - T10376-
- ◆ Gearbox mount - T30108-
- ◆ Gearbox mount - T30109 (VW 353)-

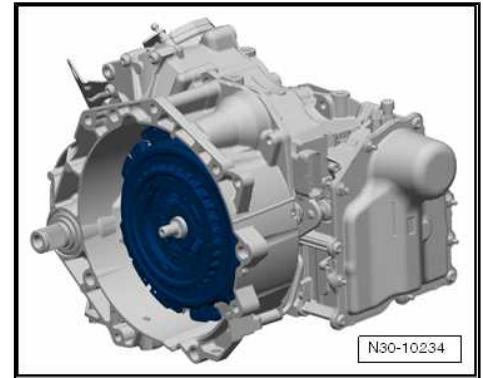
Detach the clutch upwards when the gearbox is removed. The mechatronics remains on the gearbox.

If a new clutch is installed, the positions of the engaging bearings for clutches K1 and K2 must be determined and adjusted
⇒ ["1.3 Adjust clutch release mechanism", page 41](#) .

Then the clutch is pressed onto the drive shaft.

When installing a clutch, most mechanics press the clutch onto the drive shaft up to the stop. This is not the optimum position of the clutch!

After installation, the clutch is therefore pulled slightly upwards against the circlip.



Caution

Risk of damage to the adjusting device of the clutch.

- ◆ *The clutch is self-adjusting. Vibrations can have a negative effect on the adjusting device. Therefore do not let the clutch fall. Do not let the clutch fall into the gearbox when installing it.*
- ◆ *A clutch that has been dropped on a hard surface, or which is otherwise damaged, must no longer be installed.*
- ◆ *Similarly when the mechatronics is removed, the removal of the drifts below the engaging levers can have a negative effect on the adjusting device.*

- Gearbox removed
⇒ ["3 Removing and installing the gearbox", page 132](#)
- Gearbox attached to assembly stand
⇒ ["4 Transport the gearbox and secure to the assembly support", page 172](#)
- The mechatronics for double clutch gearbox - J743- is installed on the gearbox
- Detach both ventilation caps -arrows- and close in an oil-tight manner with suitable screw plugs.

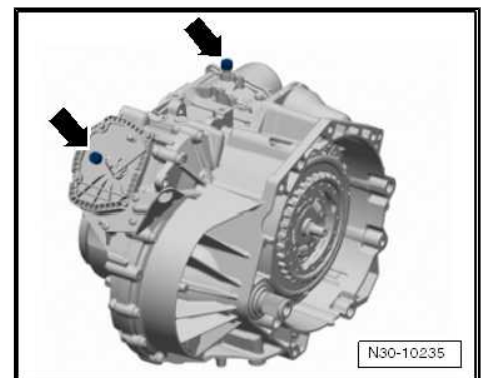


Caution

The ventilation cap on the mechatronics is damaged when removed and must be replaced!

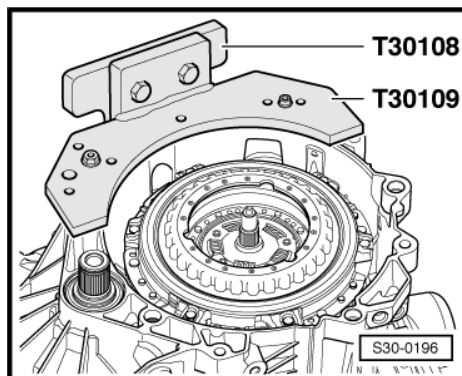
The oil filling in the area with the hydraulic oil for mechatronics can not be checked. Before assembly work, the ventilation of the mechatronics must be sealed oil-tight.

The oil escaping from the area with hydraulic oil for mechatronics cannot be refilled nor checked. In the event of an oil loss, the mechatronics must be replaced!

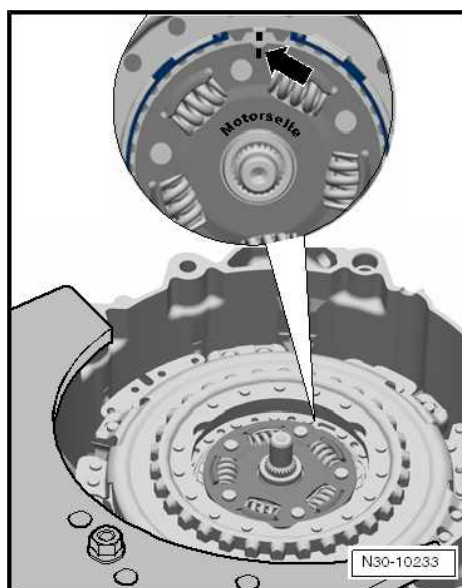




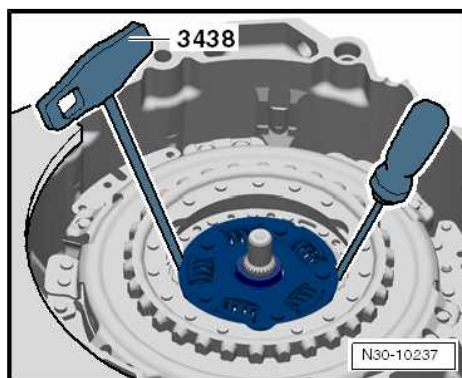
- Turn gearbox so that the clutch is facing up.



- Remove the circlip of the hub -arrow-.




- Use the hook - 3438- and a screwdriver to remove the hub.



- Remove the circlip for the clutch -arrow-.

It is possible that the clutch is resting on the circlip so that the circlip fits very tightly. In this case it is possible to press the clutch slightly downwards as described in the following work procedure. In doing so, the circlip is released.

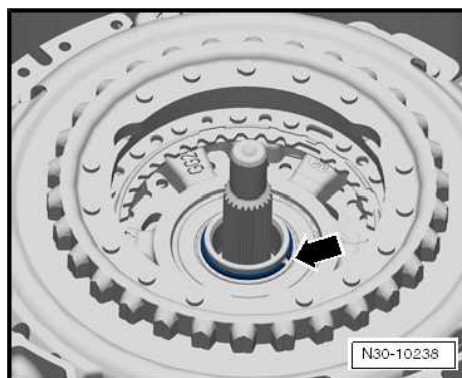


Caution

Do not knock on the clutch or the shaft with a hammer!

- Always replace circlip -arrow-.

Clutch circlip -arrow- cannot be removed

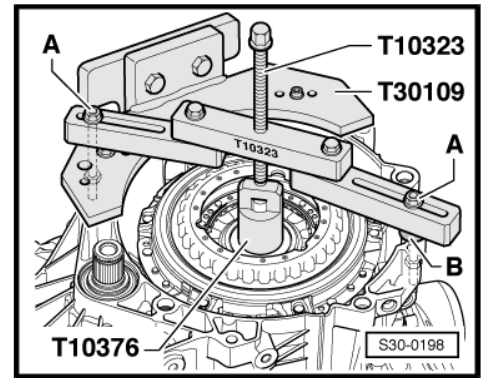


- Position the supporting bridge - T10323- parallel to the flange of the clutch housing.
- Equalise distances, e.g. using washers -B- with a total thickness of 15 mm.
- Attach the supporting bridge - T10323- with screws -A- and secure with nuts.



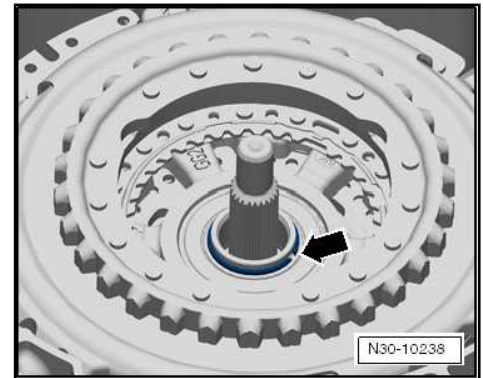
Caution

*Risk of damage to the clutch as well as to other components!
Press the clutch downwards with light force without pressing it.*

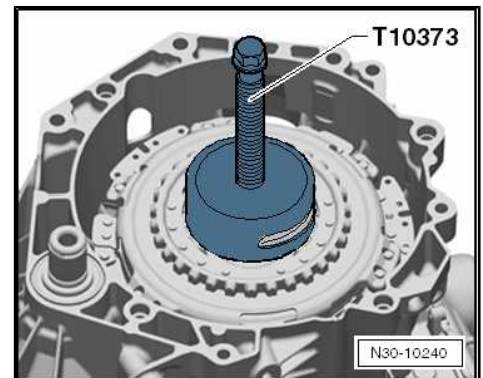


- Carefully press the clutch downwards via the spindle.
- Remove supporting bridge - T10323- .
- Remove the circlip for the clutch -arrow-.
- The circlip may not be reused.

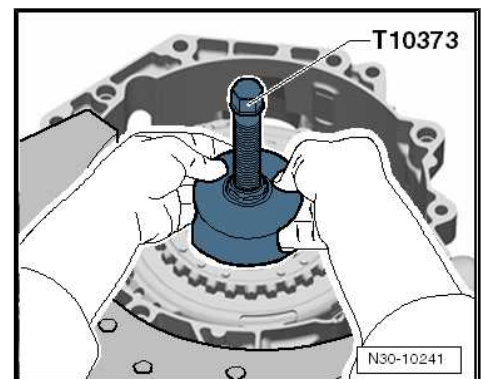
Continue after removing the clutch circlip.



- Insert the extractor - T10373- in the clutch and remove the clutch.



- Remove the clutch together with the extractor - T10373- .



2.3 Install double clutch

Special tools and workshop equipment required



- ◆ Extractor - T10373-
- ◆ Supporting bridge - T10323-
- ◆ Thrust piece - T10368-
- ◆ Thrust piece - T10376-
- ◆ Adhesive - AMV 195 KD1 01-

**Caution**

When replacing the double clutch, the following parts must always be replaced too:

- ◆ *the two engaging levers with engaging bearings*
- ◆ *on gearboxes up to production date 05.2011: Bearing of the engaging lever*
- ◆ *on gearboxes as of Production date 06.2011: Ball pin of the engaging lever for clutch K2*
- ◆ *Shims for engaging bearing*

*After replacing the double clutch and the corresponding parts, the position of the engaging bearings for clutches K1 and K2 will always require re-adjusting
⇒ **“1.3 Adjust clutch release mechanism”, page 41** .*

**Note**

- ◆ *If all the mentioned parts are only removed and reinstalled, there is nothing to adjust.*
- ◆ *The circlip must be replaced under all circumstances.*

**Caution**

Perform adjustment before installing the double clutch.

If not correctly adjusted, do not continue with further installation.

Only one adjusting washer may be installed on all bearings.

The parts of the clutch must be installed free of grease and oil!

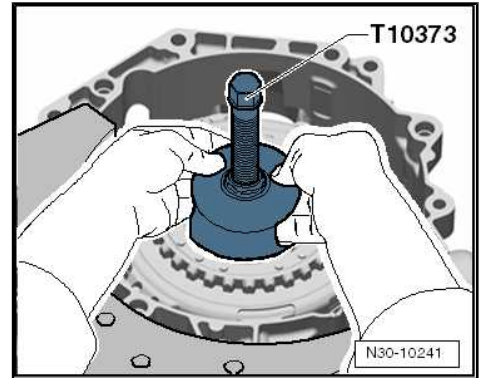
The clutch is self-adjusting. Vibrations can have a negative effect on the adjusting device. Therefore do not let the clutch fall.

Do not let the clutch fall into the gearbox when installing it.

A clutch that has been dropped on a hard surface, or which is otherwise damaged, must no longer be installed.

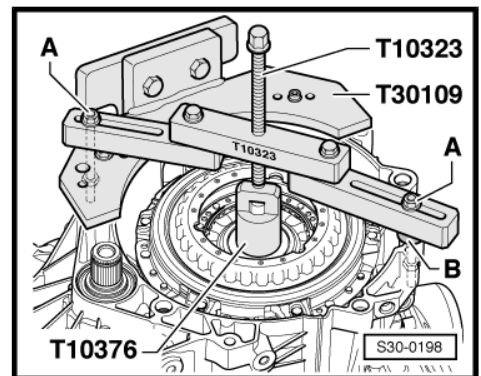
- The mechatronics for double clutch gearbox - J743- is installed on the gearbox
- The clutch release mechanism is installed
⇒ **“1.2 Removing and installing clutch release mechanism”, page 34**
- Screw out spindle of the extractor - T10373- .

- Position the extractor onto the clutch.
- Insert the clutch with extractor - T10373- into the gearbox and then remove the extractor.

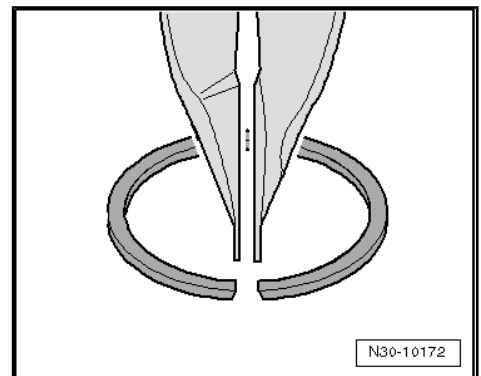


- Position the supporting bridge - T10323- parallel to the flange of the clutch housing.
- Equalise distances, e.g. using washers -B- with a total thickness of 15 mm.
- Secure the supporting bridge - T10323- with screws -A- and nuts.
- Press the clutch downwards via the spindle as far as it will go.

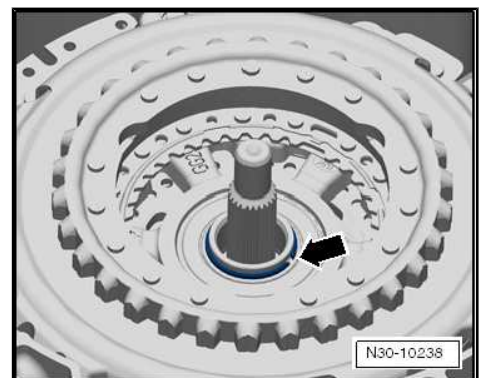
During press-in procedure, place a hand onto the clutch. A slight rattling can be felt. Rattling means that the clutch is pressed onto its press seat. The stop should be felt in this way when the clutch has reached its seat.



- The clutch is pressed in up to the stop if the circlip can be inserted.
- Hold the circlip with the circlip pliers, as shown in the figure.
- Fitting position of the circlip: The narrower impact side of the circlip facing upwards.



- Insert the new circlip -arrow-.

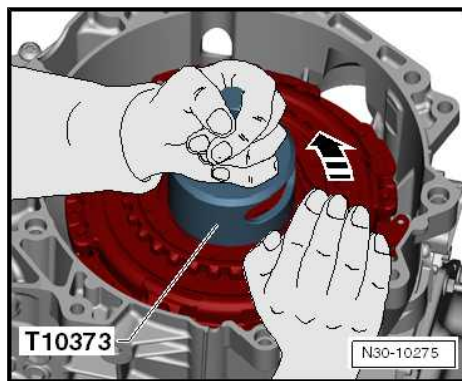




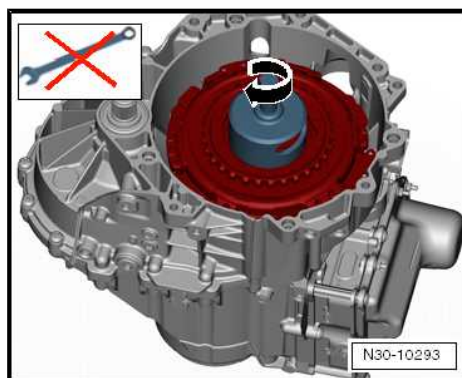
- Turn the clutch against the extractor - T10373- by hand so that the clutch finds its fitting position.

The clutch sits on the input shaft in the bottom part when it is pressed up to the stop, but this is not the optimum position.

The clutch should only be pulled up until it touches the circlip.



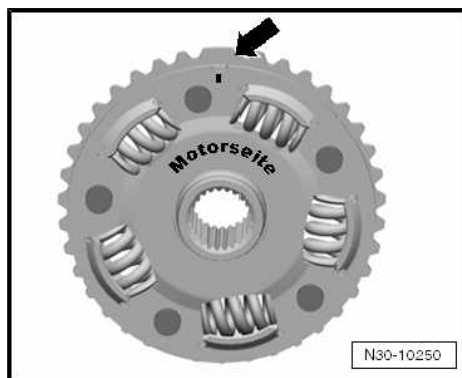
- Only rotate the clutch by hand, and do not use any other tool. The clutch then slides in place against the circlip.



- Place the hub in position.

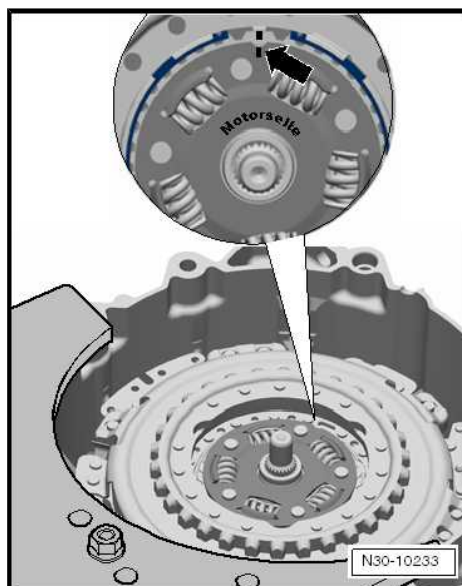
The hub has a large tooth and therefore only fits in one position.

On the -engine side-, the large tooth has a marking -arrow-.

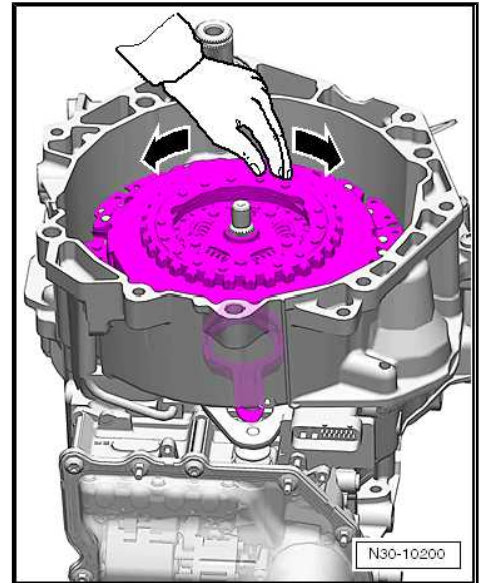


- Insert the circlip for the hub -arrow-.

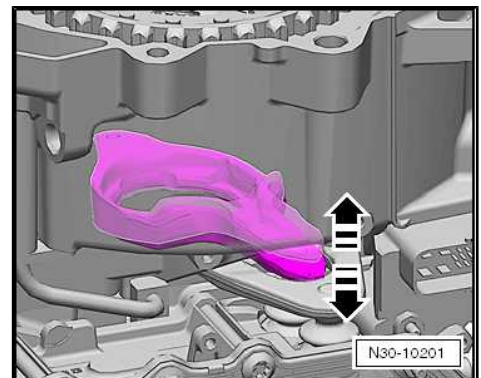
- Install the hub with the marking on the large tooth in such a way that it is flush with the marking on the drive plate -arrow-.
- Fitting position: The joint of the ring must point to the hub on the clutch.



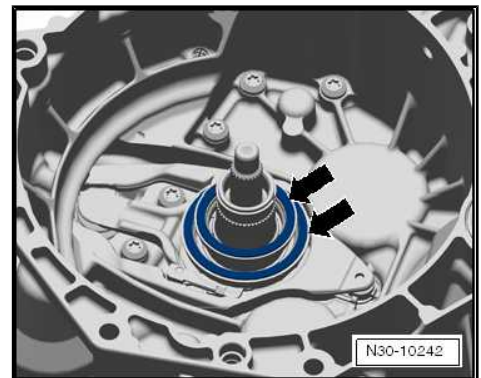
- Turn the clutch by hand and, while turning it, pay attention to the small engaging lever.



- During rotation, there should be no resistance or braking.
- During this process, the engaging lever must remain in its position without moving. It must not move up or down -arrows-.
- If any of these events occur when rotating the clutch, the adjusting washers are not seated correctly and the clutch must be removed again ⇒ [“2.2 Remove double clutch”, page 66](#) .

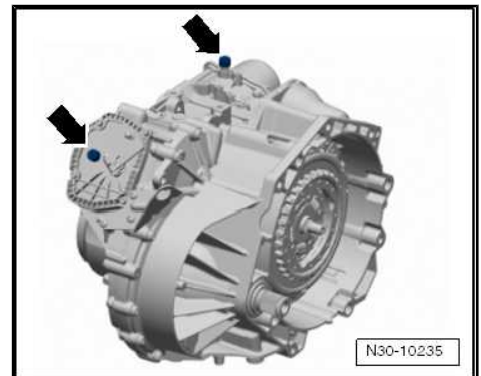


- Check the fitting position of the adjusting washers -arrows-.
- ◆ Have a close look at the adjusting washers -arrows-.
- ◆ The adjusting washers must be installed correctly and must not be damaged.
- ◆ It is possible that there has been an error in the calculation. In this case, check the measurement ⇒ [“1.3 Adjust clutch release mechanism”, page 41](#)



- Remove the screw plugs and position both ventilation caps -arrows- again.

Perform the **basic setting** after the gearbox has been fitted with the ⇒ Vehicle diagnostic tester.



2.4 Replacing the sealing ring for the outer drive shaft

Special tools and workshop equipment required

- ◆ Pipe section - MP3-450 (VW 415A)-
- ◆ Extractor tool - T20143-

2 shaft seals are located in the gearbox -arrows- on the clutch side. Both seals can be replaced without disassembling the gearbox. If only the shaft seals are replaced, the double clutch must not be adjusted.

In the event of a gearbox drive shaft "Leaks" error, the condition of the engine crankshaft sealing flange on the gearbox side must also be checked.

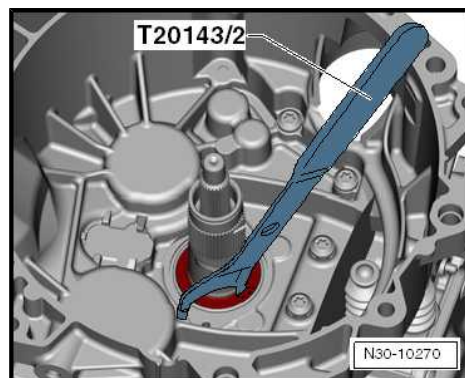
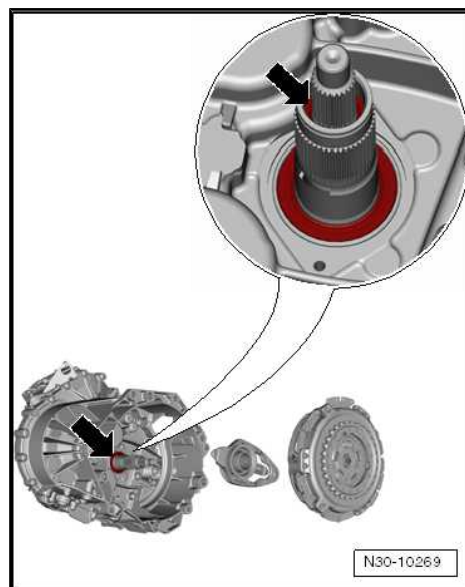
- Double clutch gearbox removed
⇒ ["2.2 Remove double clutch", page 66](#)
- Clutch release mechanism is removed
⇒ ["1.2 Removing and installing clutch release mechanism", page 34](#)



Caution

If there are leaks, you must check the double clutch. If the double clutch is covered in oil, it will need to be replaced.

- Lever out shaft seal for outer drive shaft.



- Drive in new shaft seal so that it is flush with the clutch housing. Use a plastic hammer for this purpose.
- The shoulder -arrow- on the pipe section - MP3-450- points upwards.

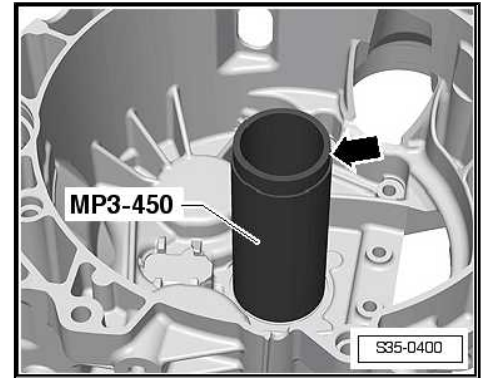
i Note

If the inner drive shaft is installed, position the pipe - T30055 (3296)- onto the pipe section - MP3-450- if necessary.



Caution

Touch the gasket ring until flush to ensure the oil bore underneath is not blocked. In this case, the bearing is not given a sufficient supply of oil.



- Install the clutch release mechanism
 ⇒ [“1.2 Removing and installing clutch release mechanism”, page 34](#) .
- Install double clutch ⇒ [“2.3 Install double clutch”, page 69](#) .

2.5 Replace gasket ring for inner drive shaft

Special tools and workshop equipment required

- ◆ Gasket ring extractor - T10420-
- ◆ Thrust piece - T10421-

2 shaft seals are located in the gearbox -arrows- on the clutch side. Both seals can be replaced without disassembling the gearbox. If only the shaft seals are replaced, the double clutch must not be adjusted.

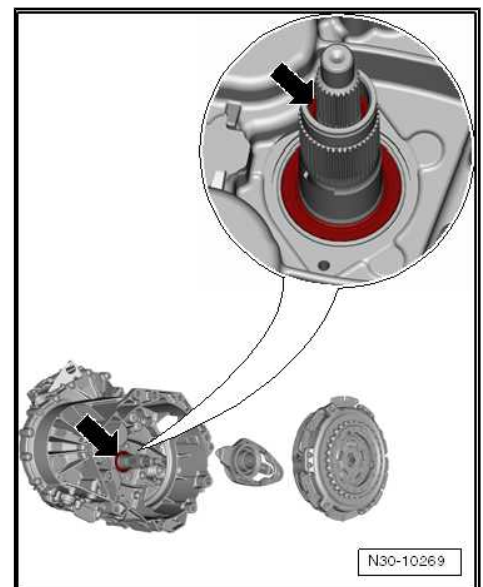
In the event of a gearbox drive shaft “Leaks” error, the condition of the engine crankshaft sealing flange on the gearbox side must also be checked.

- Double clutch gearbox removed
 ⇒ [“2.2 Remove double clutch”, page 66](#)
- Clutch release mechanism is removed
 ⇒ [“1.2 Removing and installing clutch release mechanism”, page 34](#)



Caution

If there are leaks, you must check the double clutch. If the double clutch is covered in oil, it will need to be replaced.

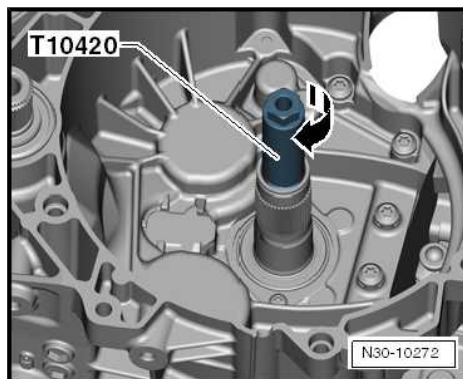


- Release the spindle of the gasket ring extractor - T10420- .

- Screw in gasket ring extractor for shaft seals - T10420- without spindle into the small inner shaft sealing ring.

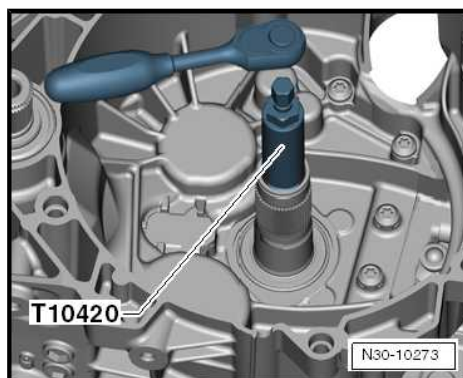
While doing so, press onto the gasket ring extractor for shaft seals - T10420- .

- Screw sealing ring extractor for shaft sealing ring - T10420- in until the sealing ring begins to turn in its bearing.



- Next, screw the spindle back into the gasket ring extractor for shaft seals . If necessary, hold the outer drive shaft while doing so.

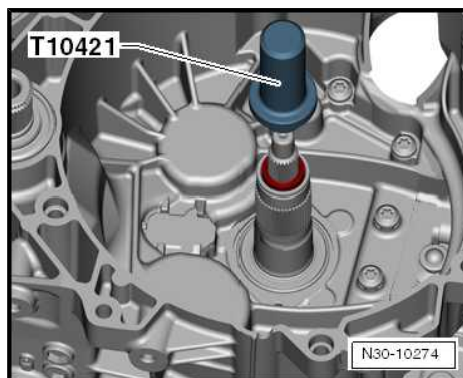
- Remove the shaft seal using the screws on the spindle.



- Drive in the new shaft sealing ring up to the stop of the thrust piece - T10421- .

Depth of installation of the gasket ring: 17.5 ± 0.2 mm

- Install the clutch release mechanism
⇒ [“1.2 Removing and installing clutch release mechanism”, page 34](#) .
- Install double clutch ⇒ [“2.3 Install double clutch”, page 69](#) .



34 – Controls, housing

1 Mechatronics for double clutch gearbox - J743-

⇒ [“1.1 Summary of components - mechatronics for double clutch gearbox J743”, page 77](#)

⇒ [“1.2 Remove mechatronics for double clutch gearbox J743 ; gearbox installed.”, page 79](#)

⇒ [“1.3 Bringing the mechatronics for double clutch gearbox J743 to the removal position by hand”, page 87](#)

⇒ [“1.4 Install mechatronics for double clutch gearbox J743 ; gearbox installed”, page 89](#)

1.1 Summary of components - mechatronics for double clutch gearbox - J743-

1 - Screw

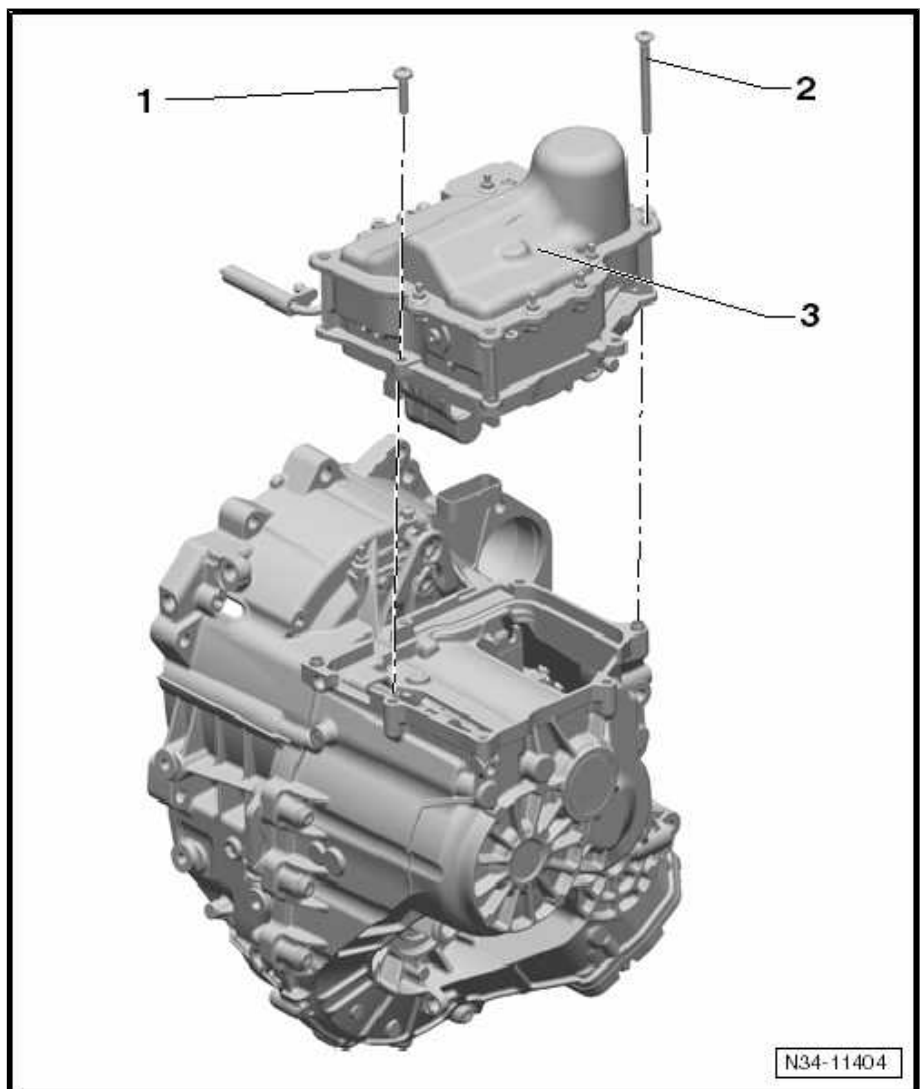
- for attaching the mechatronics for double clutch gearbox - J743- at gearbox housing
- 3 pieces, M8 x 35
- Replace after disassembly
- 10 Nm

2 - Screw

- for attaching the mechatronics for double clutch gearbox - J743- at gearbox housing
- 4 pieces, M8 x 90
- Replace after disassembly
- 10 Nm

3 - Mechatronics for double clutch gearbox - J743-

- The mechatronics is allocated according to the gearbox code letters ⇒ Electronic Catalogue of Original Parts .
- Bring the mechatronics to removal position by hand
⇒ [“1.3 Bringing the mechatronics for double clutch gearbox J743 to the removal position by hand”, page 87](#)
- Remove mechatronics
⇒ [“1.2 Remove mechatronics for double clutch gearbox J743 ; gearbox installed.”, page 79](#)
- Install mechatronics
⇒ [“1.4 Install mechatronics for double clutch gearbox J743 ; gearbox installed”, page 89](#)



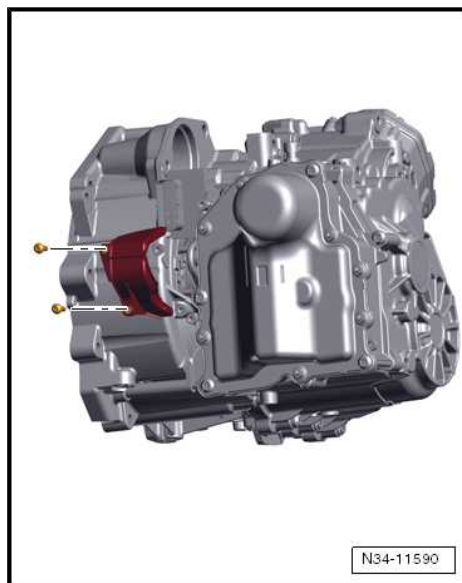


On some transmissions, a cover is present above the engaging lever.

The cover protects against contamination.

Tightening torque securing bolts: 8 Nm

View of the selector forks of the gearbox when the mechatronics is removed



N - Neutral

R - Reverse gear

When the reverse gear is engaged, the extended tappet of the mechatronics is hooked on the gearbox housing.

Therefore, the mechatronics must be put into the removal position by hand
⇒ ["1.3 Bringing the mechatronics for double clutch gearbox J743 to the removal position by hand"](#), page 87 .

1 - first gear

2 - second gear

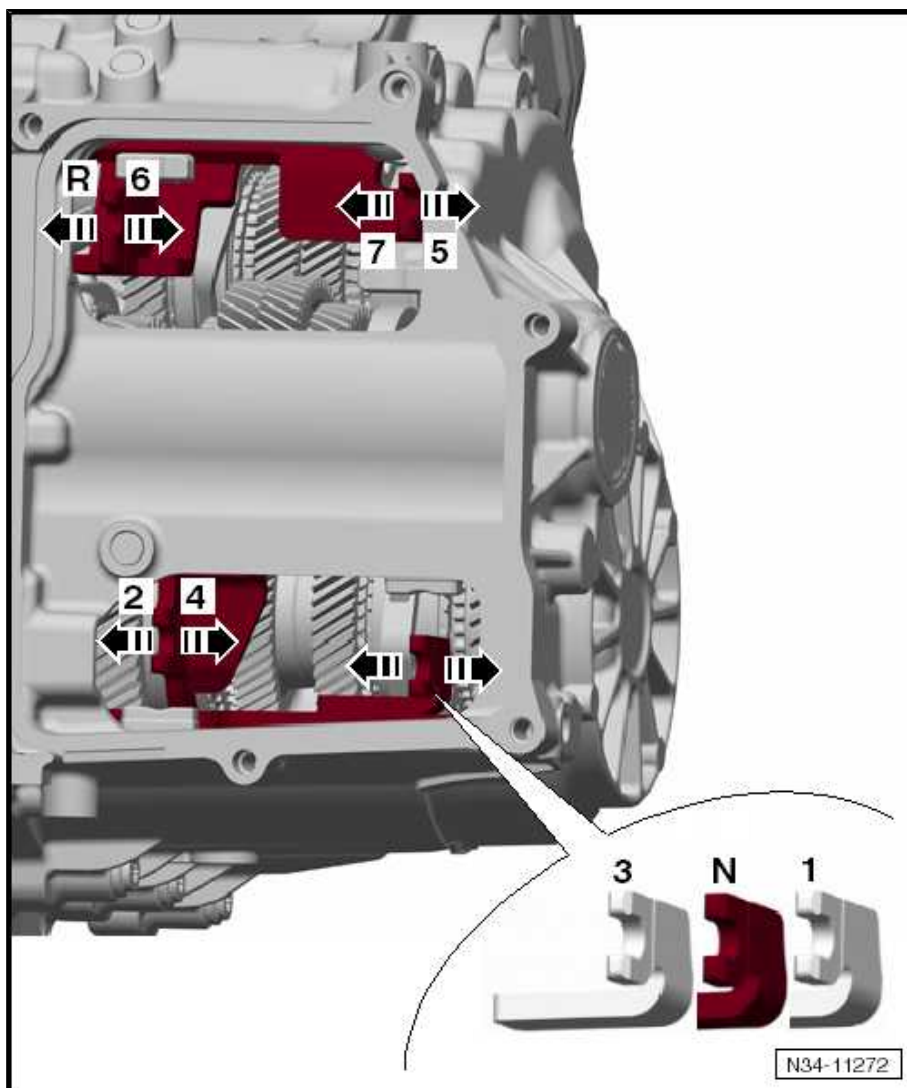
3 - third gear

4 - fourth gear

5 - fifth gear

6 - sixth gear

7 - seventh gear



1.2 Remove mechatronics for double clutch gearbox - J743- ; gearbox installed.

Special tools and workshop equipment required

- ◆ Assembly lever - T10407-
- ◆ Catch pan - VAS 6208-



WARNING

Follow the safety measures when working on the mechatronics for double clutch gearbox - J743- ⇒ "2.3 Safety measures for working on the mechatronics for double clutch gearbox J743", page 2.



Note

- ◆ *Observe general repair instructions and other instructions for automatic gearbox DSG - 0AM ⇒ "3 Repair instructions", page 4.*
 - ◆ *The new mechatronics for the gearbox is already precisely filled with oil at the factory, do not drain the oil.*
 - ◆ *The removed mechatronics is sent back with oil (close the ventilation opening with a suitable plug).*
 - ◆ *Pay attention to the ventilation when handling the mechatronics.*
 - ◆ *During assembly work, remove the air bleed valve and close the opening with a suitable screw plug. In case of oil leakage from the mechatronics, the mechatronics must be replaced ⇒ Electronic Catalogue of Original Parts.*
 - ◆ *The clutch is self-adjusting. Vibrations can have a negative effect on the adjusting device. Even when the mechatronics is removed, the sudden removal of the assembly lever - T10407- below the engaging levers can have a negative effect on the adjusting device.*
 - ◆ *Ensure adequate clearance in front of the gearbox in order to remove the mechatronics. Components, which are not directly connected with the gearbox, must be removed on some vehicles. Any brackets on the screw plugs of the mechatronics must be removed.*
 - ◆ *After the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27.*
 - ◆ *Before removing the mechatronics, basic setting of the neutral position of the gearbox must be performed ⇒ Vehicle diagnostic tester*
- Shift selector lever into position P.
 - Connect vehicle diagnosis, measurement and information system - VAS/ODIS- .
 - Select Targeted functions.

Under "7-speed double clutch gearbox", select bring gear actuator into neutral position.

- Switch off ignition.



- Disconnect the battery-earth strap with the ignition off ⇒ Electrical System; Rep. gr. 27 .
- Remove air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .
- Removing starter ⇒ Electrical System; Rep. gr. 27 .



Caution

- ◆ *Under no circumstances must the plug contacts in the plug of the gearbox be touched with the hands, because the control unit can be destroyed through static discharge as well as the mechatronics.*

- Grab with the hand (without gloves) at the mass, in order to discharge yourself electrostatically.
- Release the connector catch of the mechatronics by pulling it in -direction of arrow- and disconnect the plug.
- Unclip the electrical cables from the top bracket at the front of the gearbox.

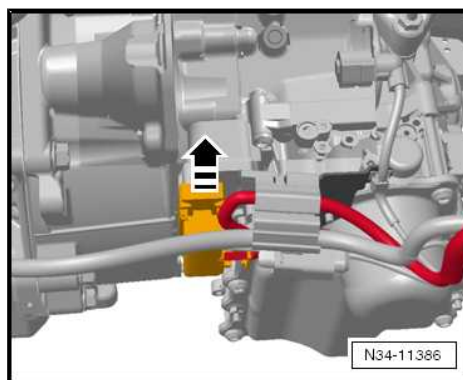


Caution

The ventilation cap on the mechatronics is damaged when removed and must be replaced!

The oil filling in the area with the hydraulic oil for mechatronics can not be checked. Before assembly work, the ventilation of the mechatronics must be sealed oil-tight.

The oil escaping from the area with hydraulic oil for mechatronics cannot be refilled nor checked. In the event of an oil loss, the mechatronics must be replaced!

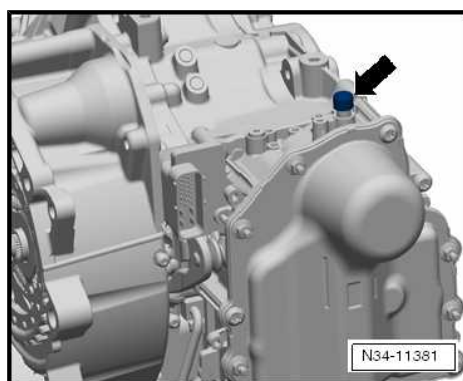


- Remove the cover from the ventilation and close the opening with a suitable screw plug so that no oil can escape.



WARNING

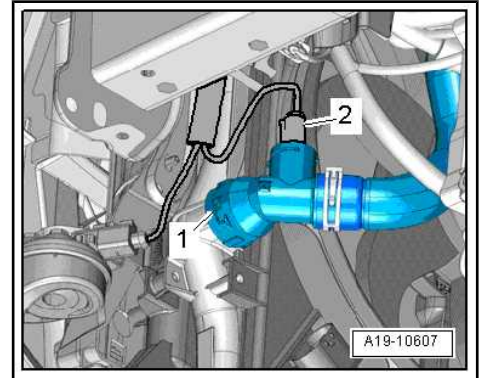
When the engine is warm the cooling system is under pressure. Slowly open the cap of the coolant expansion tank to first reduce pressure before pulling off the coolant hoses.



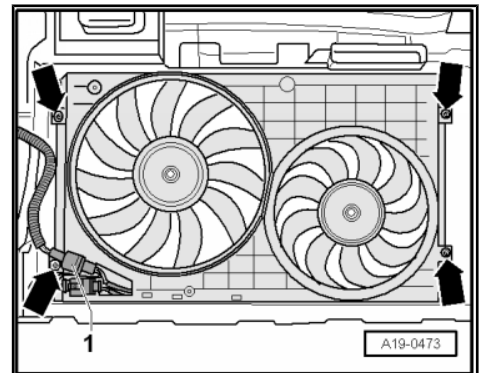
- Raise vehicle.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Remove the charge air hose from the bottom left charge air cooler and the charge air pipe ⇒ Engine; Rep. gr. 21 .
- Shut off the opening of the charge air cooler so that no coolant can penetrate.

Vehicles Octavia II, Superb II, Yeti, Rapid NH

- Disconnect plug -2- at the coolant temperature sender at radiator outlet - G83- .
- Place a catch pan for workshop crane - VAS 6208- under the radiator.
- Remove the bottom coolant hose -1- from the radiator, to do so raise the retaining clip => Engine; Rep. gr. 19 .



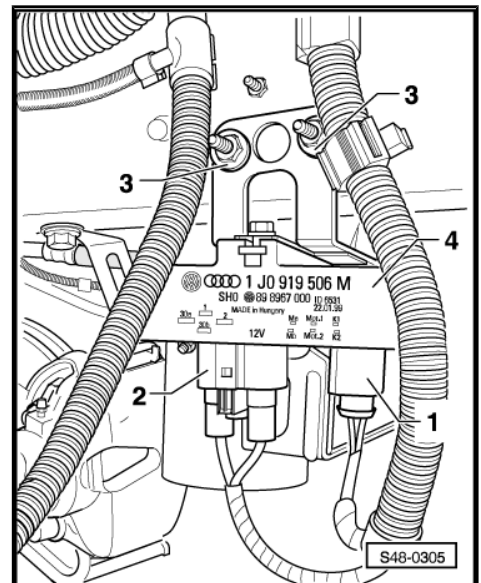
- Separate the plug connections -1- of the bottom radiator fan at the fan shroud.
- Screw out screws -arrows- and remove fan shroud with radiator fans downwards.



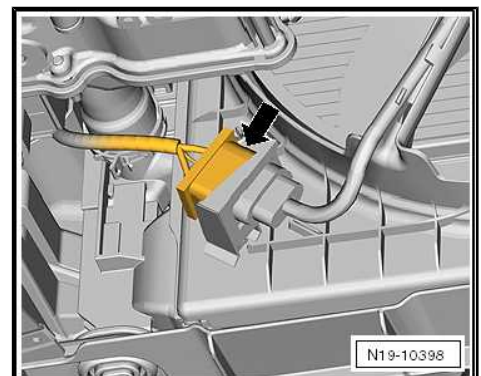
Fabia II and Roomster vehicles with radiator fan control unit - J293-

- Unscrew the nuts -3- from the left frame side rail and tie up the radiator fan control unit - J293- -4-.
- Do not disconnect the plugs -1- and -2-.

Continued for all Fabia II and Roomster vehicles

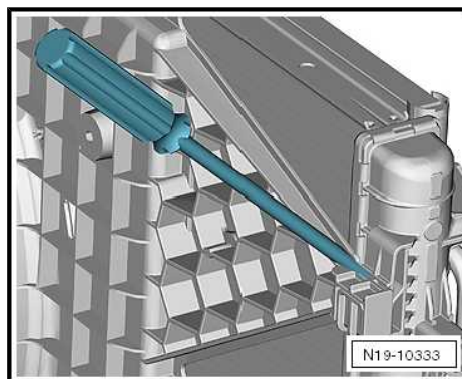


- Unplug connector -arrow-.





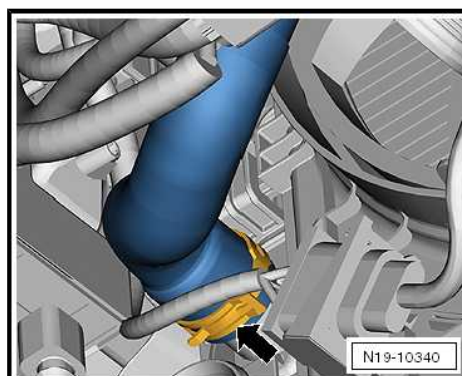
- Unclip the fan shroud e.g. using a screwdriver and remove ⇒ Engine; Rep. gr. 19 .
- Place a catch pan for workshop crane - VAS 6208- under the radiator.



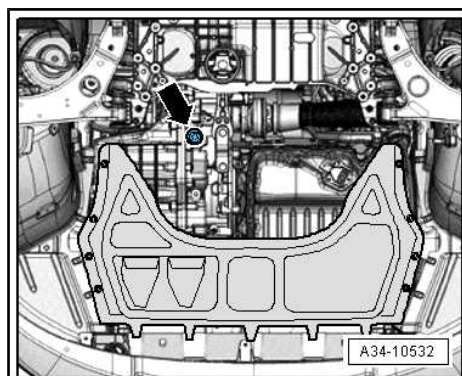
- Remove the bottom coolant hose from the radiator -arrow- and drain the coolant ⇒ Engine; Rep. gr. 19 .

Continued for all vehicles

- Position the catch pan under the gearbox.



- Release oil drain plug -arrow- at the gearbox.

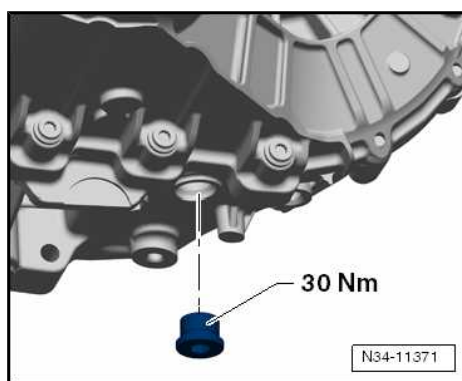


- Drain off oil.
- Install oil drain plug.



Note

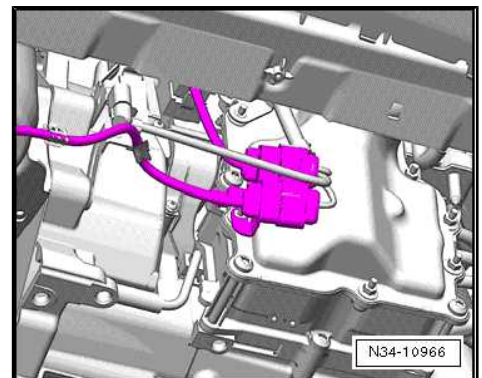
Suction off oil residues which do not escape from the gearbox after removing the mechatronics with the diesel extractor, e. g. - VAS 5226- .



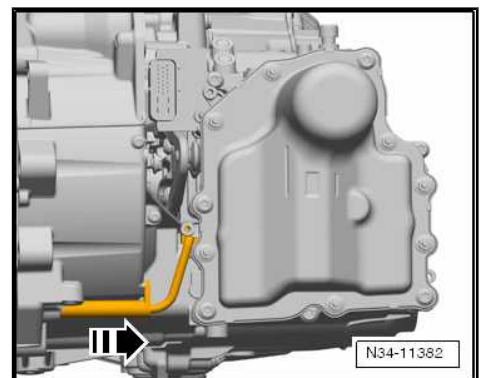
- Where present, remove the cover above the engaging lever.
- Remove the electrical lines from the bottom holder at the front of the mechatronics and tie up.



- Remove all the brackets from the gearbox.

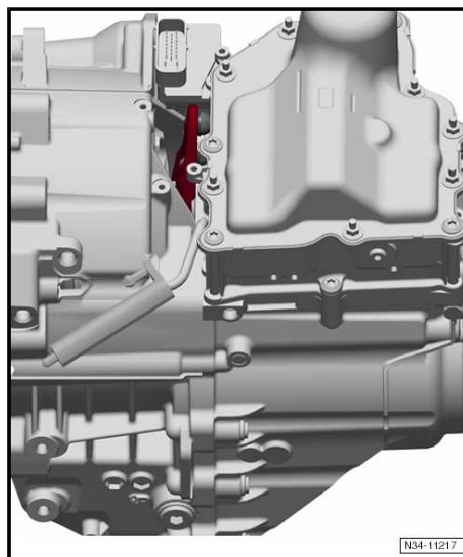


- Carefully unlock the gearbox input r.p.m. sender - G182- with a screwdriver and pull it out of the housing in the -direction of arrow-.

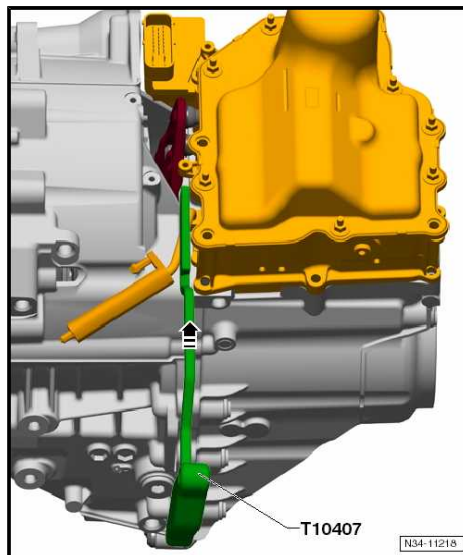




Now both levers of the clutch control must be pressed off the mechatronics with the assembly lever - T10407- . Otherwise the levers for mechatronics strike the tappets and the mechatronics cannot be removed.

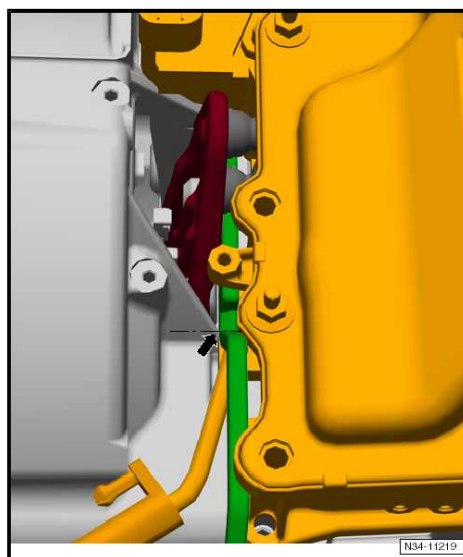


- Insert the assembly lever - T10407- between the two clutch engaging levers and the gearbox housing in the -direction of arrow-.

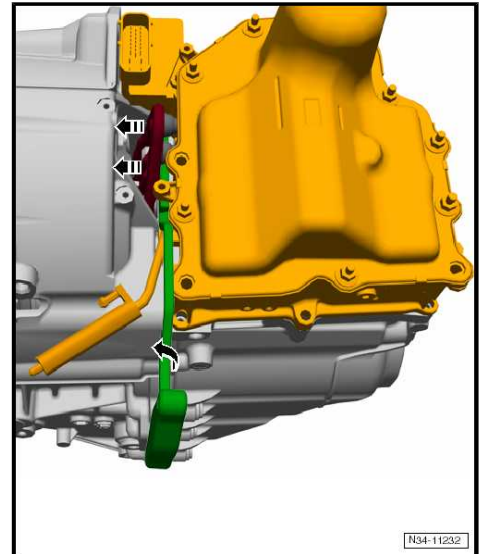


The assembly lever - T10407- should rest with the complete surface of the reverse side against the gearbox housing and the groove should form one level with the recess of the housing -arrow-.

- Do not insert the assembly lever - T10407- up to the stop.



- Turn the assembly lever - T10407- to the left in -direction of arrow- and thus press the engaging lever away from the tappets.
- Do not remove the assembly lever - T10407- .

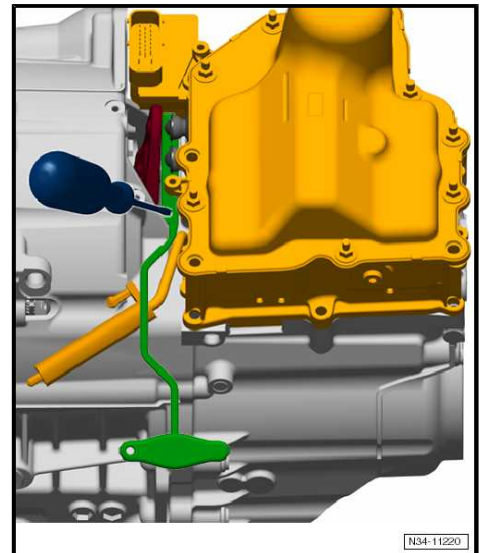


If necessary, press the assembly lever - T10407- against the gearbox using a screwdriver, thereby both levers of the double clutch gearbox are pressed off the mechatronics .

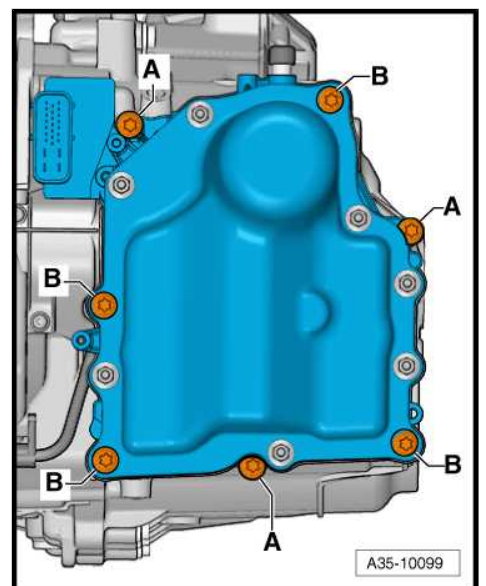


Caution

While doing so, the rubber grommets of the double clutch adjusters should not be damaged.



- Unscrew long screws -B- (4 screws, M8 x 90) crosswise in stages.





- Unscrew short screws -A- (3 screws, M8 x 35) crosswise in stages.



Caution

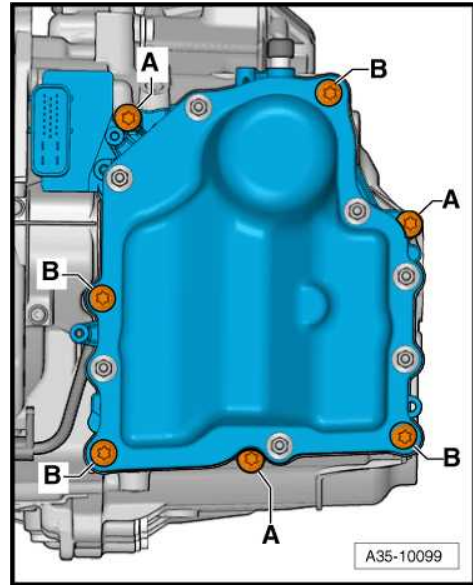
*Do not remove more than 7 screws!
There are 4 long and 3 short screws.
Do not loosen the screw plugs of the mechatronics .*

- Grab with the hand (without gloves) at the mass, in order to discharge yourself electrostatically.



Caution

- ◆ *Only then touch or remove the mechatronics for double clutch gearbox - J743- , after you have discharged yourself electrostatically at an earthed object beforehand, e.g. skin contact with mass.*
- ◆ *Under no circumstances must the plug contacts in the plug of the gearbox be touched with the hands, because the control unit can be destroyed through static discharge as well as the mechatronics.*



- Remove mechatronics.



Caution

Place down the removed mechatronics so that no oil is able to escape through the vent (seal ventilation opening with a suitable plug).

After removing the mechatronics, leave the assembly lever - T10407- inserted between the engaging levers of the double clutch and gearbox housing. Removing the assembly lever can produce negative effects on the automatic adjusting device of the clutch.

If the double clutch gearbox mechatronics - J743- "is fixed in place" and cannot be removed

It is possible that the mechatronics cannot be removed if the gear actuator top left on the gearbox housing jams -arrow-.

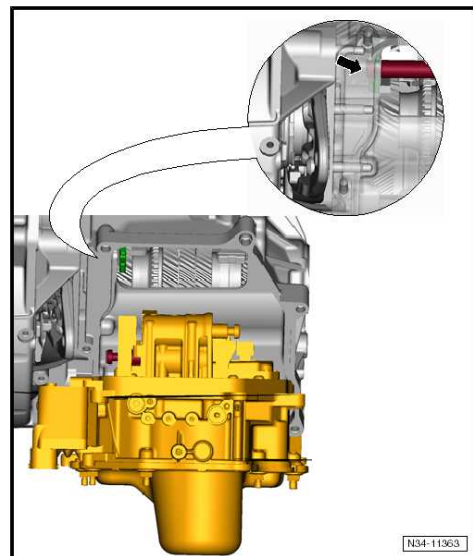


Caution

In this case, the mechatronics should not be removed with increased force.

- The mechatronics must be repositioned at the gearbox housing, fixed with a screw, and put into removal position by hand => ["1.3 Bringing the mechatronics for double clutch gearbox J743 to the removal position by hand", page 87](#) .

Removed double clutch gearbox mechatronics - J743- is returned with oil.

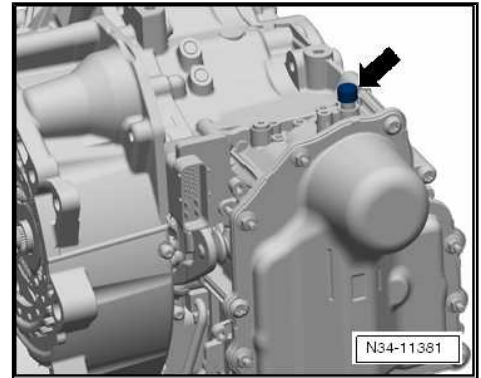


- Make sure that no oil flows out of the ventilation -arrow- (close the ventilation opening with a suitable screw plug).

The new double clutch gearbox mechatronics - J743- is filled with recycled oil.

Install mechatronics on installed gearbox

⇒ ["1.4 Install mechatronics for double clutch gearbox J743 : gearbox installed", page 89](#) .



1.3 Bringing the mechatronics for double clutch gearbox - J743- to the removal position by hand

Special tools and workshop equipment required

- ◆ Sealing grease - G 052 128 A1-

It is possible that the mechatronics cannot be removed. In this case, the gear actuator -arrow- jams on the gearbox housing.

If the removal position could not be set with the vehicle diagnosis, measurement and information system - VAS/ODIS- , the mechatronics must be brought to the removal position by hand.

The jammed gear actuator must now be pressed by hand into the removal position. To do so, remove the cover on the gearshift shaft.

Gearbox installed

- The mechatronics is located in the gearbox housing and is secured with a screw.
- Shift selector lever into position P.

Vehicles Octavia II, Superb II, Yeti and Rapid NH

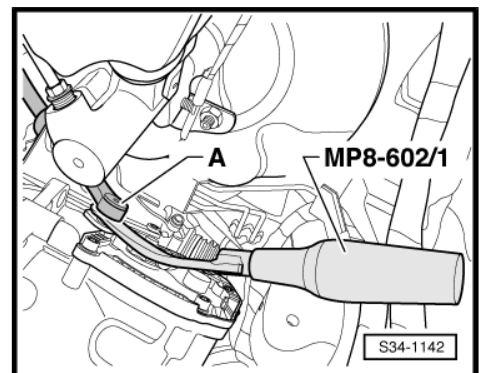
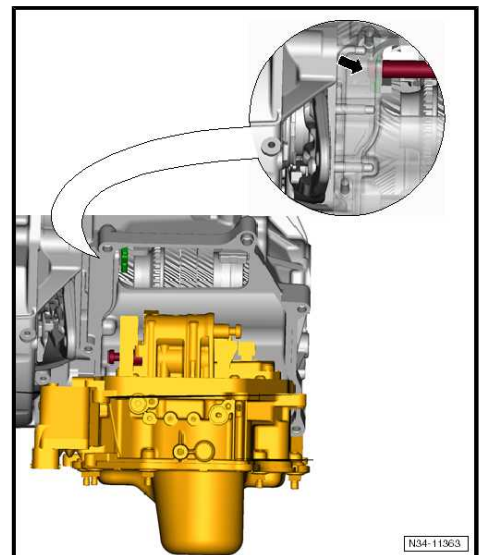
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 (if they were not yet removed).

Vehicles Fabia II and Roomster

- Remove air filter housing complete with air guide hose ⇒ Engine; Rep. gr. 24 .

Continued for all vehicles

- Expose the selector lever control cable -A- of the gearbox shift lever with the removal tool for the inner lining of the door panel -MP8-602/1- (if it has not yet been removed).



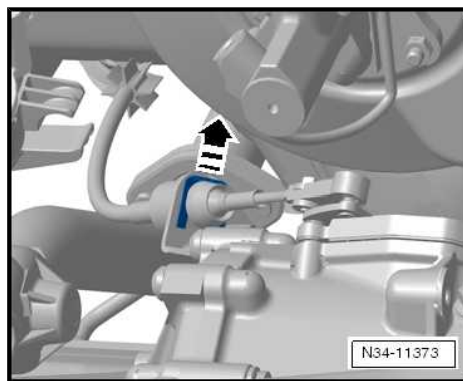


- Remove the lock washer -arrow- of the selector lever control cable, the selector lever control cable must be left in the fitting position.
- Carefully push the selector lever control cable to the rear, remove it from the cable support and tie up.



Note

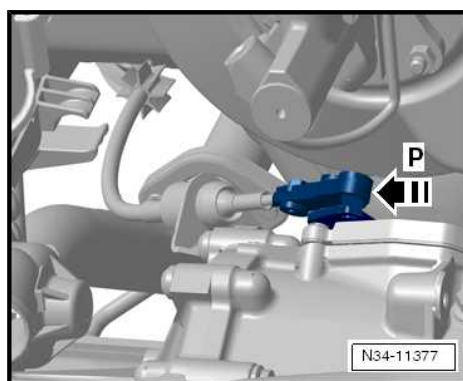
- ◆ *The lock washer -arrow- of the selector lever must always be replaced.*
- ◆ *Do not bend or buckle selector lever control cable.*



Gearbox removed

- Press the lever in -direction of arrow- by hand up to the stop and shift the gearshift lever to position P.

The gearbox is installed or removed

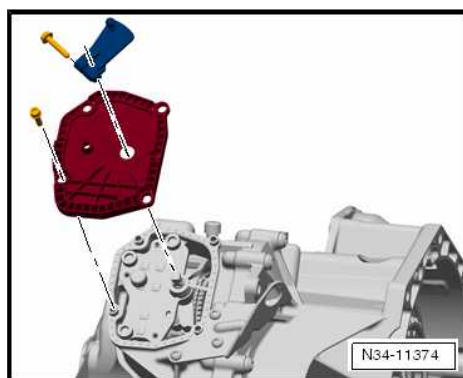


- Remove gearshift lever.
- Remove cover.



Caution

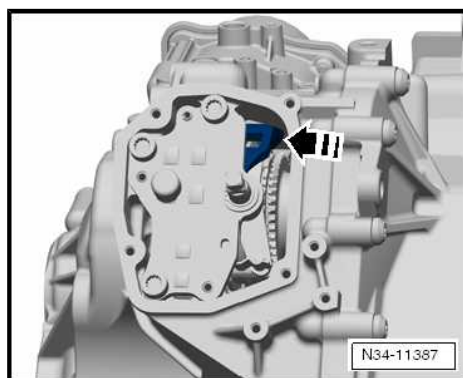
The mechatronics will no longer clamp at the next work step. This means, it will malfunction under certain circumstances. If not yet performed, the mechatronics must be secured at the gearbox with a screw against falling down.



- Push the shift lever to the side through the opening in the -direction of arrow-.

By doing so, the jammed gear actuator is now pressed back and the mechatronics can be removed.

- Clean the sealing surface on the gearbox and the cover.
- Grease the shaft seal in the cover with sealing grease - G 052 128 A1- .



Note

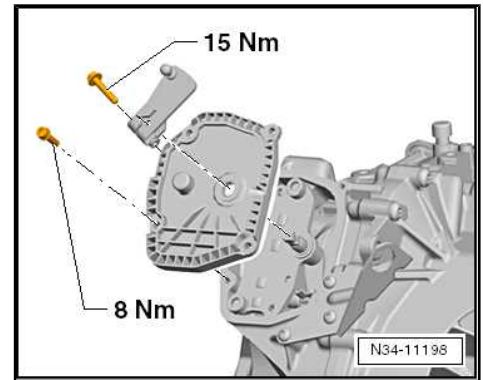
Replace the screw of the gearshift lever after removal.

– Install the cover and the gearshift lever again.

Fill gearbox with gear oil ⇒ [“5 Change gearbox oil”, page 174](#) .

Specified torques

Component	Nm
Screw for gearbox shift lever to gearshift shaft	15 Nm
Screw for gearbox cover to gearbox	8 Nm



1.4 Install mechatronics for double clutch gearbox - J743- ; gearbox installed

Special tools and workshop equipment required

- ◆ Assembly lever - T10407-
- ◆ Guide bolt - T10406-
- ◆ Catch pan for workshop cranes - VAS 6208-
- ◆ Diesel extractor , e. g. -VAS 5226-



Caution

In case of oil leakage from the mechatronics, the mechatronics must be replaced ⇒ Electronic Catalogue of Original Parts .

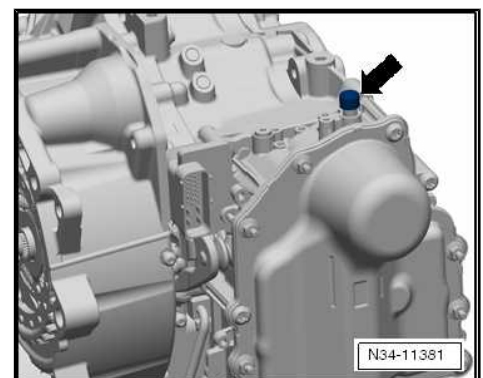
The new mechatronics for double clutch gearbox - J743- is already precisely filled with oil at the factory.

Therefore, it is only possible to fill the mechatronics with oil at the factory.



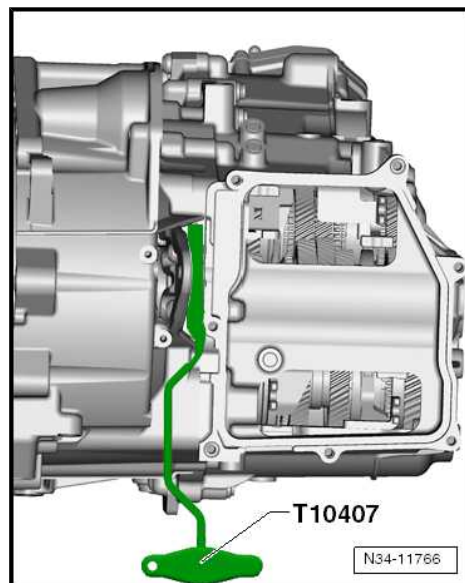
Note

- ◆ *The mechatronics for double clutch gearbox - J743- is assigned to the gearbox identification characters ⇒ Electronic Catalogue of Original Parts .*
 - ◆ *The removed mechatronics for double clutch gearbox - J743- is sent back with oil (close the ventilation opening with a suitable plug).*
- If this is not yet the case, close the ventilation with a suitable screw plug -arrow- so that no oil can flow out.

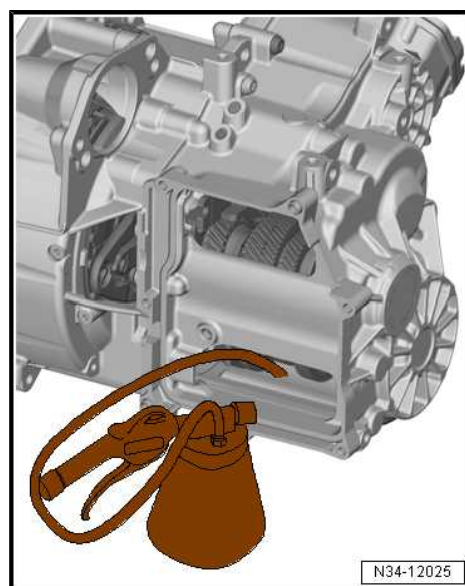




- Before installing the mechatronics, make sure that no oil is in the gearbox.
- The assembly lever - T10407- is inserted between the engaging levers of the double clutch gearbox and the gearbox housing.



- Suction off residual oil from the gearbox with diesel suction device, e. g. -VAS 5226- .



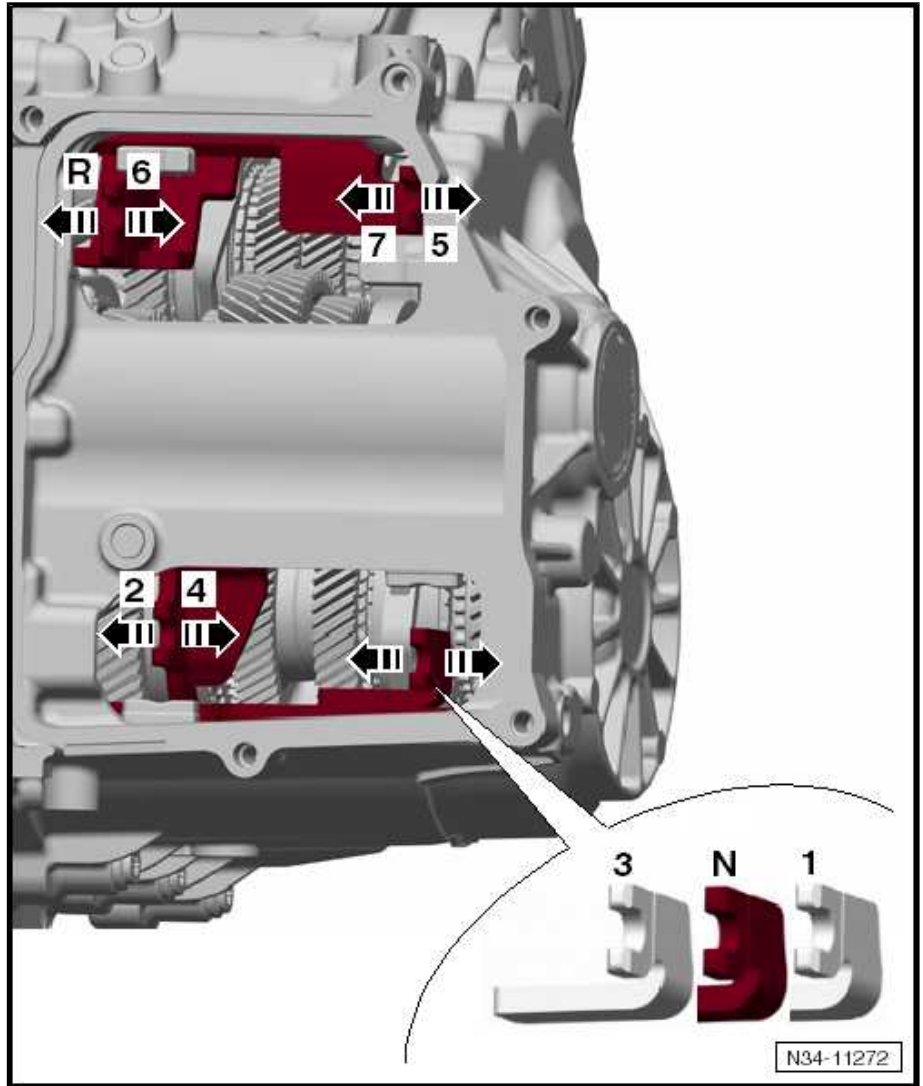
All shift forks have 3 positions:

The centre position is shown in the figure as position -N- (neutral).

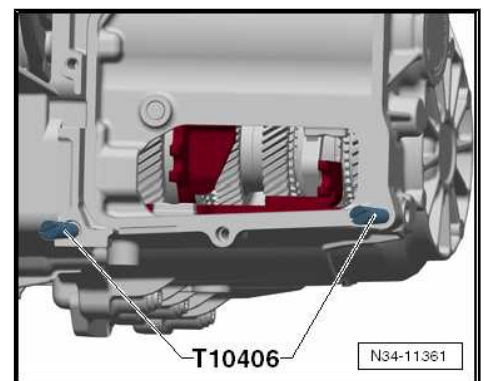
No gear is engaged in this position, i.e neutral (neutral position) is engaged.

- First check all 4 shift forks by hand.
- Consecutively bring all 4 shift forks once into each position -arrows-, if necessary turn a little on the pinions.
- Then bring all the shift forks back to the centre position, position -N-.

- N - Neutral
- R - Reverse gear
- 1 - first gear
- 2 - second gear
- 3 - third gear
- 4 - fourth gear
- 5 - fifth gear
- 6 - sixth gear
- 7 - seventh gear



– Screw in guide bolts - T10406- by hand.



Adjust gear actuator:



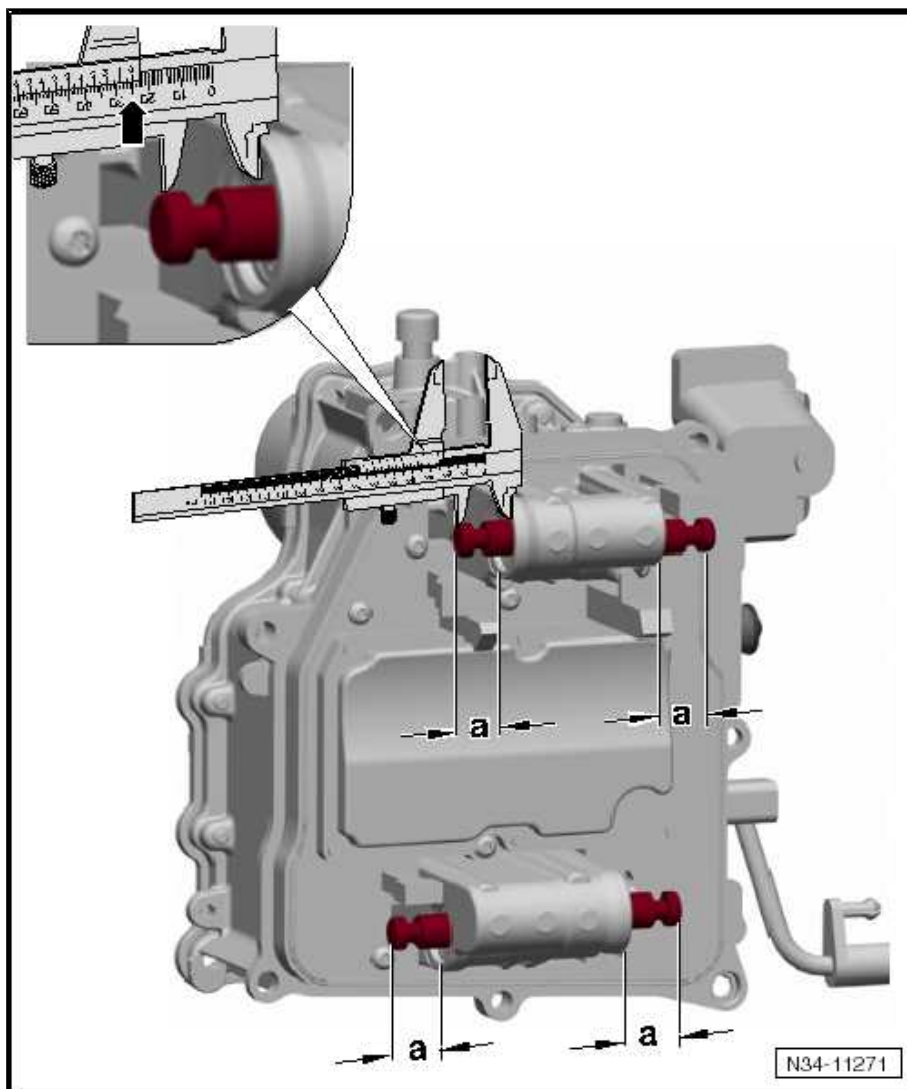
Caution

Risk of damage mechatronics for double clutch gearbox - J743-.

When removing the pins, do not press the senders.



- Set the 4 gear switches on the rear side of the mechatronics for double clutch gearbox - J743- into the specified position.



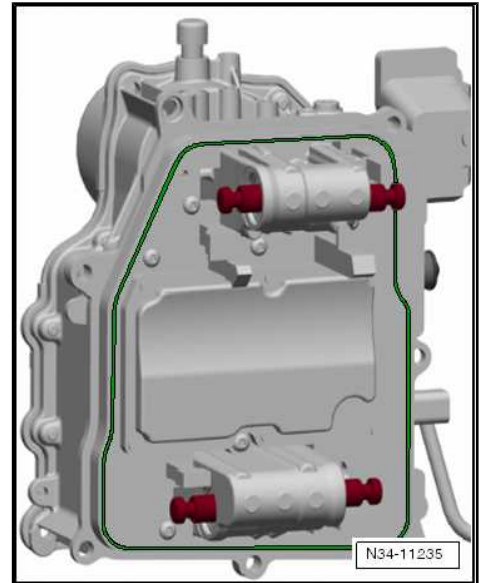
Specified position: -a- = 25 mm

- Clean the sealing surface on the gearbox housing on which the mechatronics will rest at a later stage.

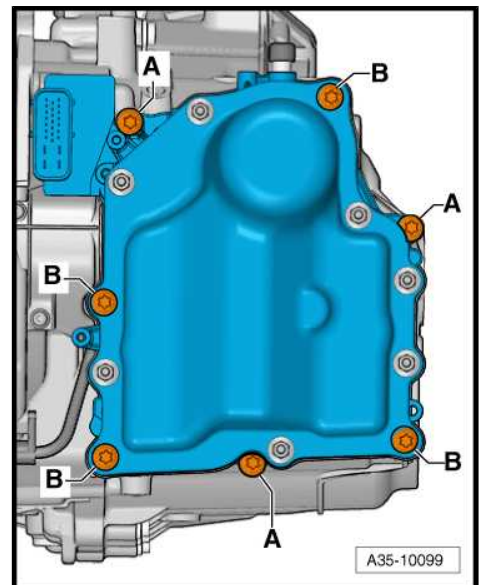
Oil residues on the sealing surface can lead to the wrong diagnosis »leaking« at a later stage.

- The seal for mechatronics for double clutch gearbox - J743- must be attached all around.
- Check the sender. The clip must not be damaged.
- Install mechatronics.

When handling and installing, make sure that the shift forks are not unintentionally pressed out of their position. Also pay attention to the engaging lever and the tappet of the mechatronics.



- Screw in the screws -A- (3 pieces, M8 x 35) and -B- (2 pieces, M8 x 90) crosswise by hand.
- Remove guide bolts - T10406- .
- Screw in the remaining screws -B- (2 pieces, M8 x 90) by hand.



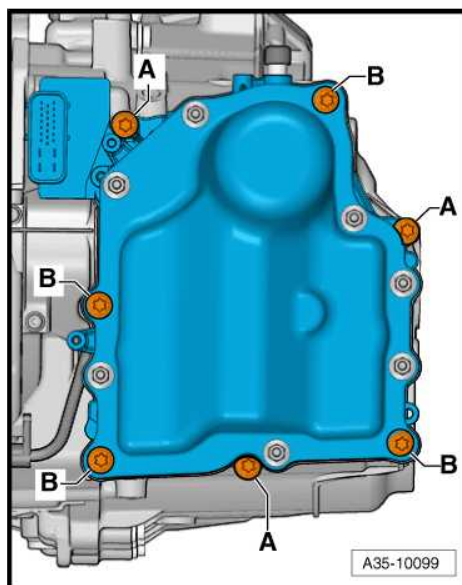
- Make sure that the tappets grip precisely into the engaging lever bearing. Pull out the tappets by hand until they fit in these bearings.
- Check the position of the tappets once again.



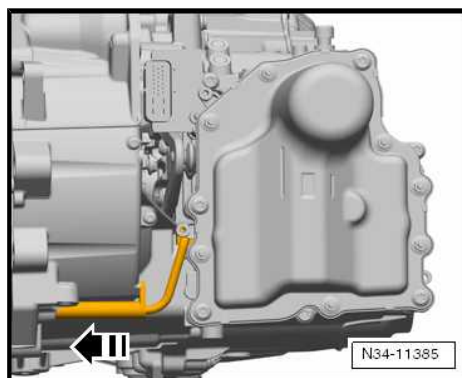
Incorrectly mounted tappets will damage the mechatronics.

The tappets can be put into their correct positions by means of a hook made from welding wire.

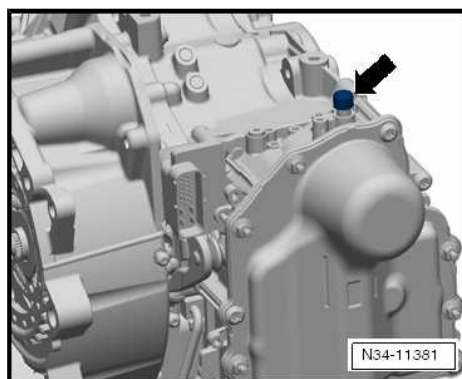
- Tighten all the screws for the mechatronics for double clutch gearbox - J743- crosswise to the specified tightening torque.
- Turn the assembly lever - T10407- slowly and carefully to the right and remove it.
- Both clutch adjusters must correctly lock in the recesses of the engaging levers of the double clutch.
- While doing so, the rubber grommets of the double clutch adjusters should not be damaged.
- The rubber grommets must rest on the mechatronics.
- An incorrect assembly or damage to the rubber grommets leads to oil leakage in the mechatronics.



- Position the gearbox input r.p.m. sender - G182- in the -direction of arrow- on the gearbox housing.
- Check gearbox input r.p.m. sender - G182- . The clip must not be damaged.
- The gearbox input r.p.m. sender - G182- must be positioned completely and tightly with its tab on the gearbox housing.
- If the sender is loose, the clip of the mechatronics is broken must be replaced.



- Remove the screw plug from the ventilation and position the ventilation cap.



- Install the cover against contamination above the engaging lever.



Caution

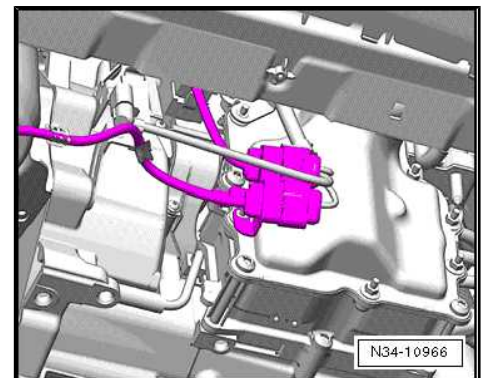
- ◆ *Under no circumstances must the plug contacts in the plug of the gearbox be touched with the hands, because the control unit can be destroyed through static discharge as well as the mechatronics.*

- Grab with the hand (without gloves) at the mass, so that it discharges electrostatically.

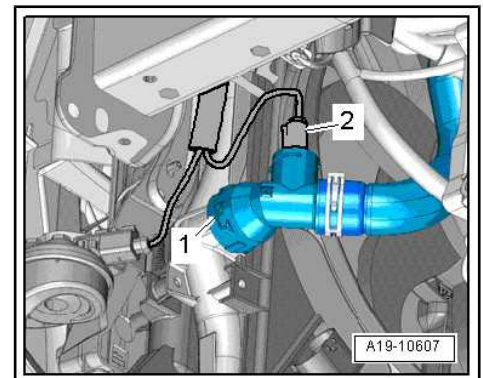


- Mount the plug of the mechatronics and lock.
- Reattach all brackets and cables to the gearbox.
- Install fan shroud with fans ⇒ Engine; Rep. gr. 19 .

Vehicles Octavia II, Superb II, Yeti and Rapid NH



- Attach the bottom coolant hose -1- at the radiator ⇒ Engine; Rep. gr. 19 .
- Fit on plug -2- and fill up with coolant ⇒ Engine; Rep. gr. 19 .
- Install charge air hose ⇒ Engine; Rep. gr. 21 .
- Install the noise insulation ⇒ Body Work; Rep. gr. 50 .
- Pour in gear oil ⇒ [“5 Change gearbox oil”, page 174](#) .
- Inspect setting of selector lever control cable; adjust if necessary
⇒ [“2.3 Inspecting and adjusting the selector lever control cable”, page 105](#) .
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .
- Install air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .



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

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

Vehicles Fabia II and Roomster



- Attach the bottom coolant hose at the radiator -arrow- and fill up with coolant ⇒ Engine; Rep. gr. 19 .
- If removed, install the radiator fan control unit - J293- on the left frame side rail.
- Install the noise insulation ⇒ Body Work; Rep. gr. 50 .
- Pour in gear oil ⇒ [“5 Change gearbox oil”, page 174](#) .
- Install the starter motor ⇒ Electrical System; Rep. gr. 27 .
- 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 .

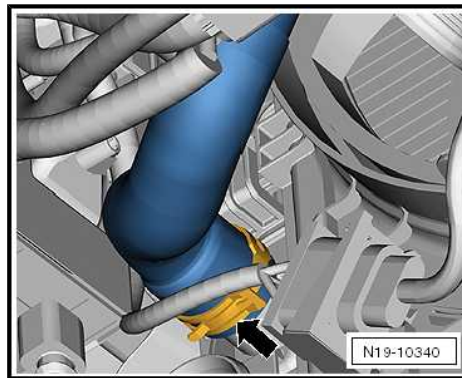
- Inspect setting of selector lever control cable; adjust if necessary ⇒ [“2.3 Inspecting and adjusting the selector lever control cable”, page 105](#) .
- Install air filter ⇒ Engine; Rep. gr. 24 .

Continued for all vehicles

After the installation of the mechatronics , perform a basic setting with the ⇒ Vehicle diagnostic tester.

Specified torques

Component	Nm
Mechatronics for double clutch gearbox - J743- on gearbox	⇒ “1.1 Summary of components - mechatronics for double clutch gearbox J743”, page 77
Cover to prevent contamination on gearbox	8 Nm





2 Shift mechanism

⇒ [“2.1 Summary of components - Gearshift mechanism”, page 97](#)

⇒ [“2.2 Inspecting the gearshift mechanism”, page 104](#)

⇒ [“2.3 Inspecting and adjusting the selector lever control cable”, page 105](#)

⇒ [“2.4 Check the function of the ignition key removal lock”, page 108](#)

⇒ [“2.5 Removing and Installing the cover for the shift mechanism”, page 109](#)

⇒ [“2.6 Removing and installing handle for shift mechanism”, page 112](#)

⇒ [“2.7 Installing the lock button at the selector lever handle”, page 116](#)

⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”, page 118](#)

⇒ [“2.9 Removing and installing selector lever control cable, vehicles up to 05.2009 \(Octavia II, Superb II, Yeti\)”, page 123](#)

⇒ [“2.10 Emergency release of gearshift mechanism out of position P”, page 127](#)

⇒ [“2.11 Removing and installing the Tiptronic switch F189”, page 130](#)

⇒ [“2.12 Removing and installing selector lever lock solenoid N110”, page 130](#)

⇒ [“2.13 Removing and installing selector lever switch locked in P F319”, page 130](#)

⇒ [“2.14 Removing and installing the selector lever sensor control unit J587”, page 130](#)

⇒ [“2.15 Checking the plug connections at the shift mechanism \(Octavia II, Superb II, Yeti\)”, page 131](#)

2.1 Summary of components - Gearshift mechanism

⇒ [“2.1.1 Summary of components - Gearshift mechanism up to 05.2009 - \(Octavia II, Superb II, Yeti\)”, page 97](#)

⇒ [“2.1.2 Summary of components - Gearshift mechanism as of 06.2009 - \(Octavia II, Superb II, Yeti, Rapid NH\)”, page 99](#)

⇒ [“2.1.3 Summary of components - Shift mechanism \(Fabia II, Roomster\)”, page 101](#)

⇒ [“2.1.4 Summary of components - Gearshift mechanism \(Rapid India\)”, page 103](#)

2.1.1 Summary of components - Gearshift mechanism up to 05.2009 - (Octavia II, Superb II, Yeti)



1 - Cover with handle

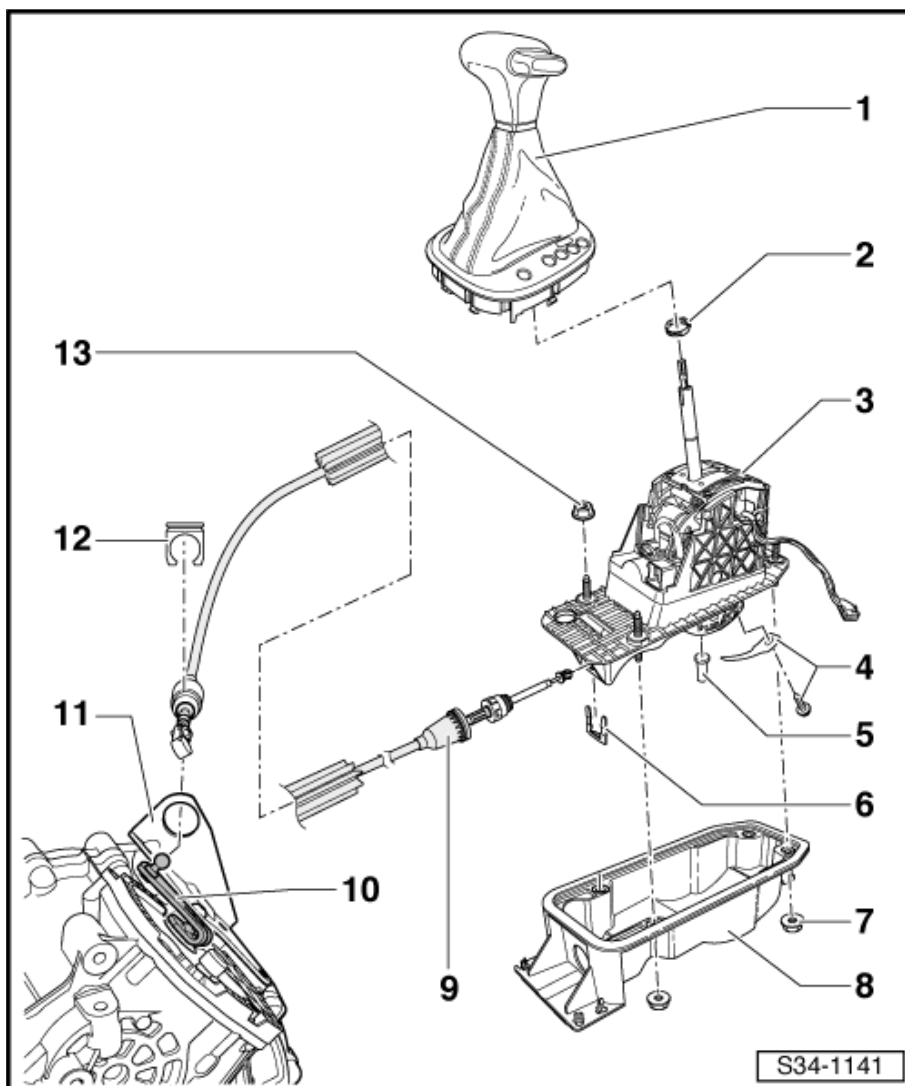
- removing
⇒ [“2.5 Removing and Installing the cover for the shift mechanism”](#), page 109
- for the emergency release only the cover needs to be unclipped
⇒ [“2.10 Emergency release of gearshift mechanism out of position P”](#), page 127
- the symbol insert and the circuit board with the lamp for selector lever scale illumination - L101- are integrated in the cover

2 - Open warm-type clamp

- Replace after disassembly
- tighten using hose binding claw - V.A.G 1275-

3 - Selector lever and shift mechanism

- with selector lever lock solenoid - N110-
- Emergency release
⇒ [“2.10 Emergency release of gearshift mechanism out of position P”](#), page 127
- Removing and installing
⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”](#), page 118



- after the installation adjust the selector lever control cable
⇒ [“2.3 Inspecting and adjusting the selector lever control cable”](#), page 105

4 - Screw with spring

- 3 Nm

5 - Bolt

- removing
⇒ [“2.9 Removing and installing selector lever control cable, vehicles up to 05.2009 \(Octavia II, Superb II, Yeti\)”](#), page 123
- do not grease

6 - Lock washer

- Replace after disassembly

7 - Nut

- 4 pieces
- 9 Nm

8 - Shift housing

- with gasket

9 - Selector lever control cable

- Do not grease selector lever control cable

- Removing and installing
⇒ [“2.9 Removing and installing selector lever control cable, vehicles up to 05.2009 \(Octavia II, Superb II, Yeti\)”](#), page 123
- testing and adjusting ⇒ [“2.3 Inspecting and adjusting the selector lever control cable”](#), page 105

10 - Gearshift lever

11 - Cable support

- for selector lever control cable

12 - Lock washer

- when installing, make sure that it locks correctly into place
- Replace after disassembly

13 - Nut

- 4 pieces
- 9 Nm

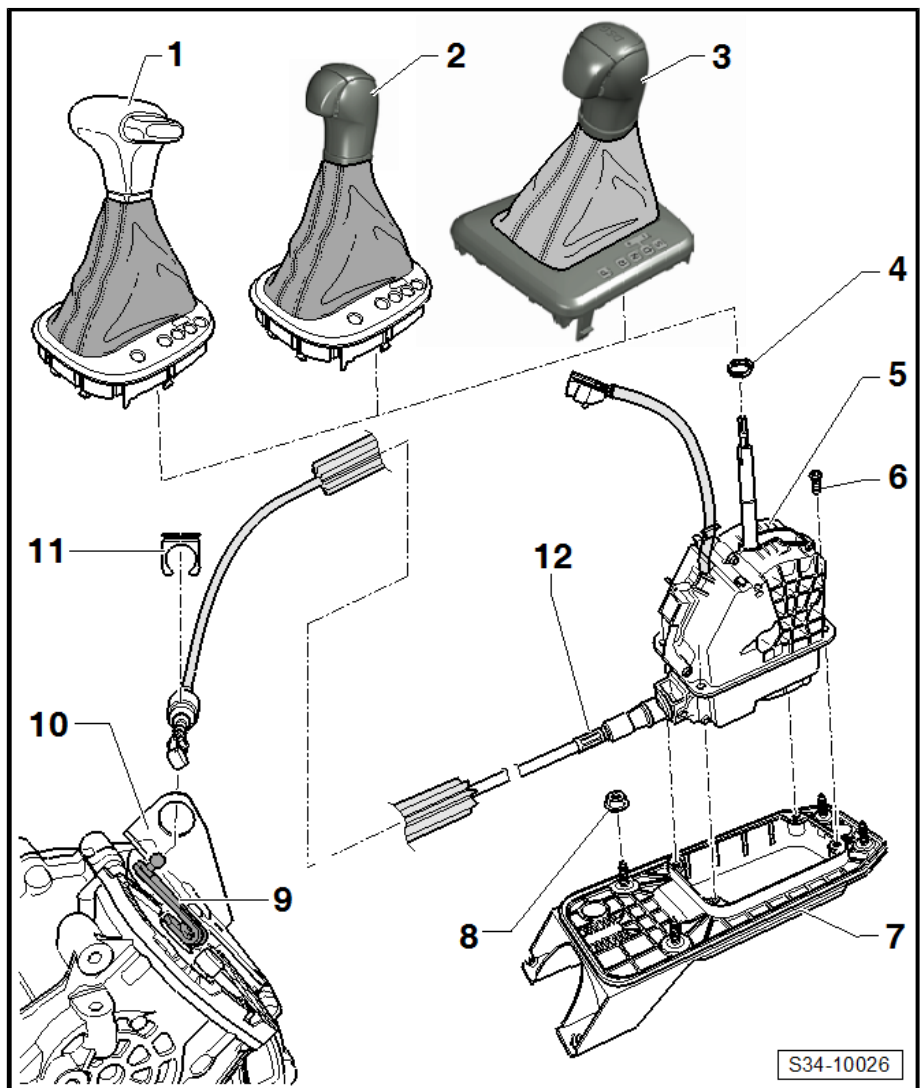
2.1.2 Summary of components - Gearshift mechanism as of 06.2009 - (Octavia II, Superb II, Yeti, Rapid NH)

1 - Cover with handle up to 11.2012 (CW 45) (Octavia II, Superb II, Yeti)

- Removing and installing cover
⇒ [“2.5 Removing and Installing the cover for the shift mechanism”](#), page 109
- Removing and installing handle up to 11.2012 (CW 45)
⇒ [“2.6 Removing and installing handle for shift mechanism”](#), page 112
- As of 11.2012 (CW 45), the selector handle was changed, see Pos. 2
- for the emergency release only the cover needs to be unclipped
⇒ [“2.10 Emergency release of gearshift mechanism out of position P”](#), page 127
- the symbol insert and the circuit board with the lamp for selector lever scale illumination - L101- are integrated in the cover

2 - Cover with handle as of 11.2012 (CW 45) (Octavia II, Superb II, Yeti)

- Removing and installing cover
⇒ [“2.5 Removing and Installing the cover for the shift mechanism”](#), page 109





- Removing and installing handle as of 11.2012 (CW 45)
⇒ [“2.6 Removing and installing handle for shift mechanism”, page 112](#)
- for the emergency release only the cover needs to be unclipped
⇒ [“2.10 Emergency release of gearshift mechanism out of position P”, page 127](#)
- the symbol insert and the circuit board with the lamp for selector lever scale illumination - L101- are integrated in the cover

3 - Cover with handle (Rapid NH)

- Removing and installing cover
⇒ [“2.5 Removing and Installing the cover for the shift mechanism”, page 109](#)
- Removing and installing handle ⇒ [“2.6 Removing and installing handle for shift mechanism”, page 112](#)
- for the emergency release only the cover needs to be unclipped
⇒ [“2.10 Emergency release of gearshift mechanism out of position P”, page 127](#)
- the symbol insert and the circuit board with the lamp for selector lever scale illumination - L101- are integrated in the cover

4 - Open warm-type clamp

- Replace after disassembly
- tighten using hose binding claw - V.A.G 1275-

5 - Selector lever and shift mechanism

- with selector lever lock solenoid - N110-
- Emergency release ⇒ [“2.10 Emergency release of gearshift mechanism out of position P”, page 127](#)
- Removing and installing
⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”, page 118](#)
- after the installation adjust the selector lever control cable
⇒ [“2.3 Inspecting and adjusting the selector lever control cable”, page 105](#)
- Remove the shift mechanism from the shift housing ⇒ [page 101](#)

6 - Screw

- 8 Nm

7 - Shift housing with gasket

- Remove shift housing ⇒ [page 101](#)

8 - Nut

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

9 - Gearshift lever

10 - Cable support

- for selector lever control cable

11 - Lock washer

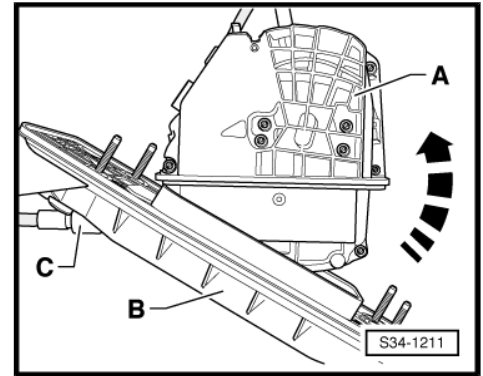
- Replace after disassembly

12 - Selector lever control cable

- testing and adjusting ⇒ [“2.3 Inspecting and adjusting the selector lever control cable”, page 105](#)
- The selector lever control cable must not be removed from the shift mechanism Pos. 5 and it must be replaced together as one component part.
- Do not grease selector lever control cable
- remove from the shift housing and install ⇒ [page 101](#)

Remove the shift mechanism together with the selector lever control cable from the shift housing

Remove the shift mechanism -A- together with the selector lever control cable -C- from the shift housing -B- in -direction of arrow-. Do so by unscrewing 4 screws Pos. 6 from the shift housing Pos. 7.



2.1.3 Summary of components - Shift mechanism (Fabia II, Roomster)

1 - Cover with handle up to 11.2012 (CW 45) (Fabia II, Roomster)

- Removing and installing cover
⇒ [“2.5 Removing and Installing the cover for the shift mechanism”, page 109](#)
- Removing and installing handle
⇒ [“2.6 Removing and installing handle for shift mechanism”, page 112](#)
- As of 11.2012 (CW 45), the selector handle was changed, see Pos. 2
- for the emergency release only the cover needs to be unclipped from the centre console
⇒ [“2.10 Emergency release of gearshift mechanism out of position P”, page 127](#)
- the symbol insert and the circuit board with the lamp for selector lever scale illumination - L101- are integrated in the cover

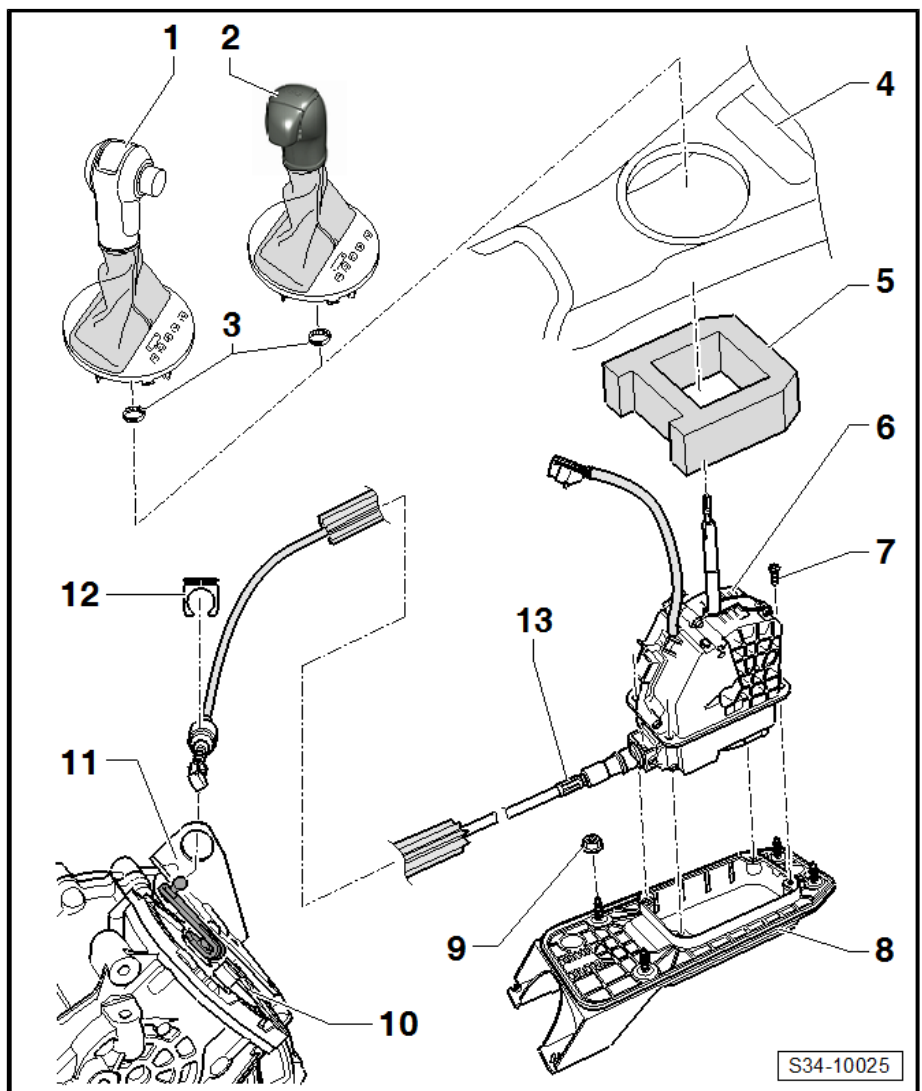
2 - Cover with handle as of 11.2012 (CW 45) (Fabia II, Roomster)

- Removing and installing cover
⇒ [“2.5 Removing and Installing the cover for the shift mechanism”, page 109](#)

- Removing and installing handle ⇒ [“2.6 Removing and installing handle for shift mechanism”, page 112](#)
- for the emergency release only the cover needs to be unclipped from the centre console
⇒ [“2.10 Emergency release of gearshift mechanism out of position P”, page 127](#)
- the symbol insert and the circuit board with the lamp for selector lever scale illumination - L101- are integrated in the cover

3 - Open warm-type clamp

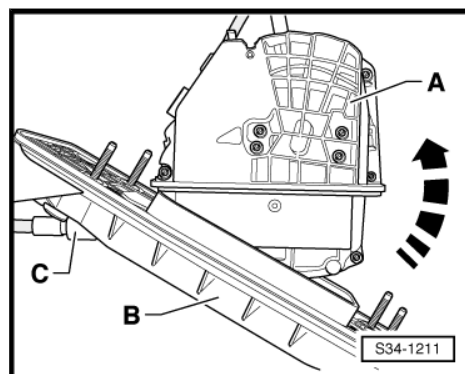
- Replace after disassembly



- tighten using hose binding claw - V.A.G 1275-
- 4 - Centre console**
 - remove it for the removal and installation procedure of the gearshift mechanism
- 5 - Noise insulation**
 - can only be removed after the removal of the centre console
- 6 - Gearshift mechanism with selector lever and selector lever control cable**
 - with selector lever lock solenoid - N110-
 - Emergency release ⇒ [“2.10 Emergency release of gearshift mechanism out of position P”](#), page 127
 - Removing and installing
⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”](#), page 118
 - after the installation adjust the selector lever control cable
⇒ [“2.3 Inspecting and adjusting the selector lever control cable”](#), page 105
 - Remove the shift mechanism from the shift housing ⇒ [page 102](#)
- 7 - Screw**
 - 4 pieces
 - 8 Nm
- 8 - Shift housing with gasket**
 - Remove shift housing ⇒ [page 102](#)
- 9 - Nut**
 - 4 pieces
 - M6 - 8 Nm
 - M8 - 25 Nm
- 10 - Gearshift lever**
- 11 - Cable support**
 - for selector lever control cable
- 12 - Circlip**
 - Replace after disassembly
- 13 - Selector lever control cable**
 - The selector lever control cable must not be removed from the gearshift mechanism Pos. 6 and it must be replaced together with the gearshift mechanism.
 - Do not grease selector lever control cable
 - remove from the shift housing and install ⇒ [page 102](#)
 - testing and adjusting ⇒ [“2.3 Inspecting and adjusting the selector lever control cable”](#), page 105

Remove the shift mechanism together with the selector lever control cable from the shift housing

Remove the shift mechanism -A- together with the selector lever control cable -C- from the shift housing -B- in -direction of arrow-. To do so, unscrew 4 screws Position 7 from the shift housing Position 8.



2.1.4 Summary of components - Gearshift mechanism (Rapid India)

1 - Cover with handle

- Depending upon vehicle equipment
- for the emergency release only the cover needs to be unclipped
⇒ [“2.5 Removing and Installing the cover for the shift mechanism”](#), page 109
- the symbol insert and the circuit board with the lamp for selector lever scale illumination - L101- are integrated in the cover

2 - Cover with handle

- Depending upon vehicle equipment
- for the emergency release only the cover needs to be unclipped
⇒ [“2.5 Removing and Installing the cover for the shift mechanism”](#), page 109
- the symbol insert and the circuit board with the lamp for selector lever scale illumination - L101- are integrated in the cover

3 - Open warm-type clamp

- Replace after disassembly
- tighten using hose binding claw - V.A.G 1275-

4 - Shift mechanism

- with selector lever lock solenoid - N110-
- Remove shift housing
⇒ [Fig. “Remove the shift mechanism together with the selector lever control cable from the shift housing”](#), page 104

5 - Screw

- 8 Nm

6 - Shift housing with gasket

- Remove the shift mechanism from the shift housing ⇒ [page 104](#)

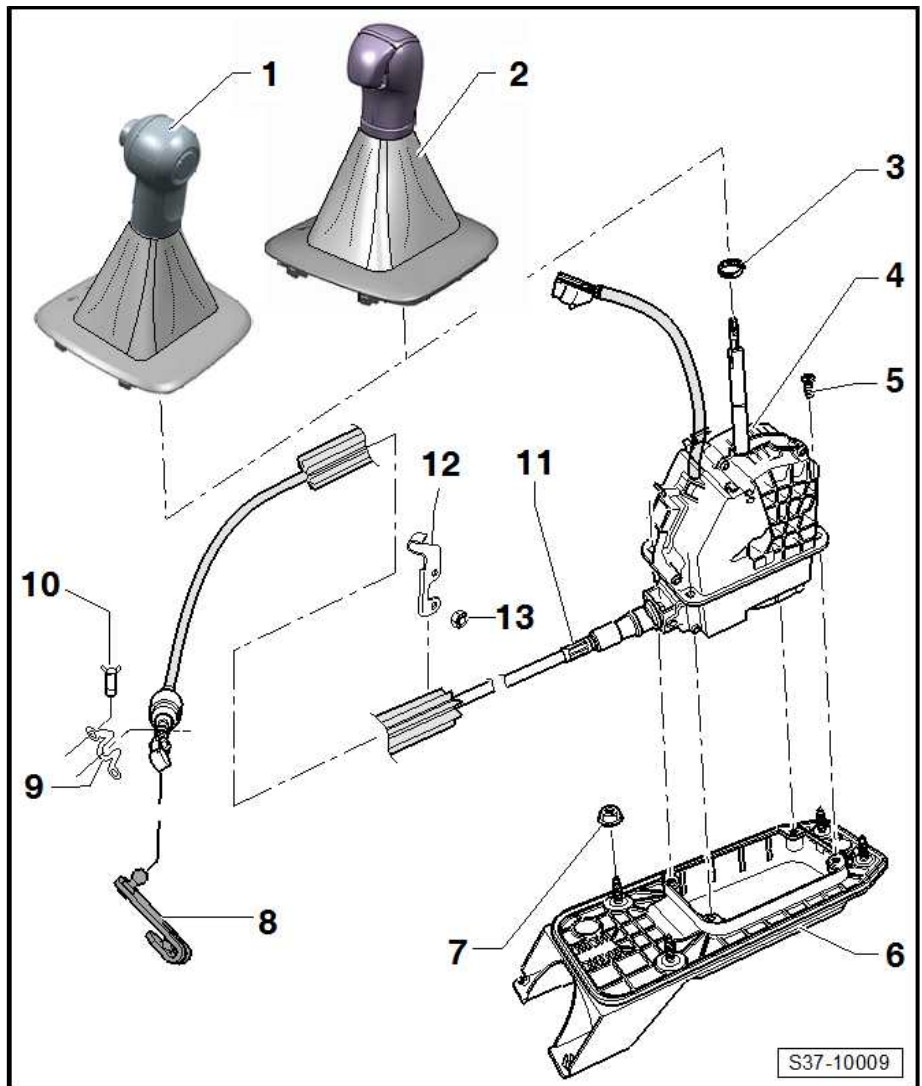
7 - Nut

- 4 pieces
- 25 Nm

8 - Gearshift lever

9 - Cable support

- for selector lever control cable



10 - Screw

- for cable support to gearbox
- 2 pieces
- 23 Nm

11 - Selector lever control cable

- The selector lever control cable must not be removed from the shift mechanism Pos. 4 and must be replaced together as one component part.
- when installing in the vehicle, clamp on the gearbox side with the fixing part to the heat shield of the exhaust system
- Do not grease selector lever control cable

12 - Support

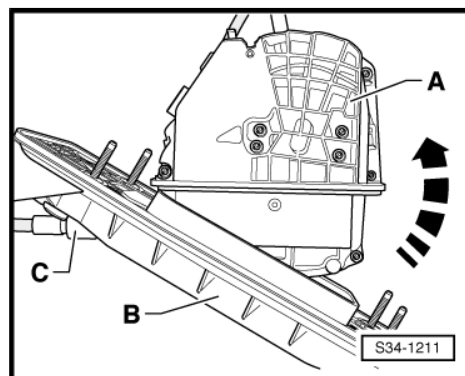
- for selector lever control cable

13 - Nut

- for holder Pos. 12 at gearbox
- 13 Nm

Remove the shift mechanism together with the selector lever control cable from the shift housing

Remove the shift mechanism -A- together with the selector lever control cable -C- from the shift housing -B- in -direction of arrow-. To do so, unscrew the 4 screws Pos. 5.



2.2 Inspecting the gearshift mechanism

- ◆ In selector lever positions S, D, R and Tiptronic position it must not be possible to activate the starter.
- ◆ At speeds above 5 km/h and shifting in selector lever position N, the selector lever lock solenoid must not engage and block the selector lever. Selector lever can be shifted in a driving position.
- ◆ At speeds below 5 km/h (virtual standstill) and shifting in selector lever position N, the selector lever lock solenoid must only engage after approx. 1 s. The selector lever can only be shifted from position N by activating the brake pedal.

Selector lever in position P, button on selector lever pressed and ignition switched on

- Brake pedal is not operated.

The selector lever is locked when the button is pressed and cannot be shifted out of position P.

The selector lever lock solenoid blocks the selector lever.

- Brake pedal is operated.

The selector lever lock solenoid releases the selector lever. It is possible to engage a driving gear position. Slowly shift selector lever from P through R, N, D, S; while doing so check whether the selector lever position in the dash panel insert corresponds with the actual selector lever position.

Selector lever in position N, button on selector lever pressed and ignition switched on

- Brake pedal is not operated.

The selector lever is locked and cannot be moved out of position N. The selector lever lock solenoid blocks the selector lever.

- Brake pedal is operated.

The selector lever lock solenoid releases the selector lever. It is possible to engage a driving gear position.



Note

Shifting out of the position N to D by activating the brake pedal is also possible without pressing the button on the selector lever. From position N to R the button on the selector lever also must be pressed.

Selector lever in position D, ignition switched on

The selector lever is locked and cannot be shifted from position D to position S.

- Button pressed on selector lever.

The selector lever is released and can be shifted from position D to position S.

Selector lever in position D, ignition and light switched on

- Guide selector lever in the Tiptronic gear.

The light for D on the lamp for selector lever scale illumination - L101- must go out and the + and – symbols should light up.

When the selector lever is shifted to the Tiptronic gate, the selector lever position indicator - Y6- in the dash panel insert must change from P R N D S to 7 6 5 4 3 2 1.

- Shift selector lever in the Tiptronic gear to + and –.

The display of the selector lever position 7 6 5 4 3 2 1 in the dash panel insert must indicate (select) a higher or a lower gear when shifting the selector lever to + or to –.

If the gearshift mechanism does not function as described:

- Inspecting and adjusting the selector lever control cable
⇒ [“2.3 Inspecting and adjusting the selector lever control cable”, page 105](#) .
- Check ignition key anti-removal lock
⇒ [“2.4 Check the function of the ignition key removal lock”, page 108](#) .

Selector lever position indicator

If all parts of the selector lever position display are lit, it indicates that the gearbox is in emergency operation mode.

2.3 Inspecting and adjusting the selector lever control cable

- The gearshift mechanism is checked
⇒ [“2.2 Inspecting the gearshift mechanism”, page 104](#) .
- Pull selector lever back approx. 5 mm out of position P with the button pressed, and hold, but do not shift into position R.
- Release the selector lever.



- The selector lever must automatically jump back again to position P.

If this is not the case, then the gearshift mechanism must be set
 ⇒ [page 106](#) .

- Push selector lever to position N.
- Pull selector lever approx. 5 mm back out of position N with the button pressed and hold, but do not shift into position D.
- Release the selector lever.
- The selector lever must automatically jump back again into the position "N"

If this is not the case, then the gearshift mechanism must be set
 ⇒ [page 106](#) .

- Pull selector lever forward approx. 5 mm out of position N with the button pressed and hold, but do not shift into position R.
- Release the selector lever.
- The selector lever must automatically jump back again into the position "N"

If this is not the case, then the gearshift mechanism must be set
 ⇒ [page 106](#) .

Adjusting selector lever control cable

The selector lever control cable must always be set, if:

- ◆ the selector lever control cable was removed from the gearbox.
- ◆ Remove and install engine and (or) gearbox.
- ◆ Removed and installed parts of the unit mounting.
- ◆ the selector lever control cable or the shift mechanism was removed and installed.
- ◆ the position of the engine/gearbox was changed, e.g. during a stress-free adjustment of the assembly bracket.
- Remove air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .

- Check if the lock washer -arrow- is correctly fitted and secured towards the bottom.

i Note

The lock washer -arrow- must be replaced after each removal ⇒ Electronic Catalogue of Original Parts .

- Slide the selector lever from position P to position S.
- Check the protective cover at the front gearshift mechanism on the selector lever control cable for damage. The selector lever control cable must be replaced if damaged.
- Gearshift mechanism and selector lever control cable must move smoothly when shifting gears. If this is not the case, replace the selector lever control cable or repair the gearshift mechanism:

◆ ⇒ ["2.1 Summary of components - Gearshift mechanism", page 97](#)

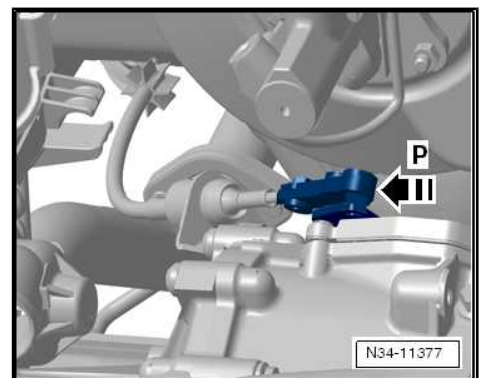
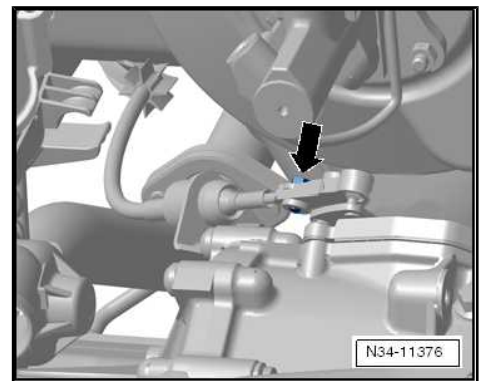
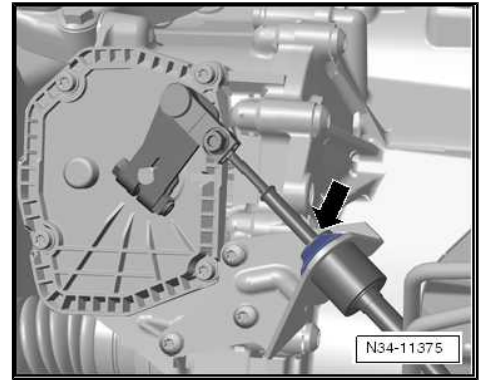
Setting

- Shift selector lever in the vehicle to position P.
- Switch off ignition.
- Release screw -arrow-.

i Note

If the clamping screw -arrow- is released, the selector lever of the gearshift mechanism must remain in position P, otherwise the setting is not correct.

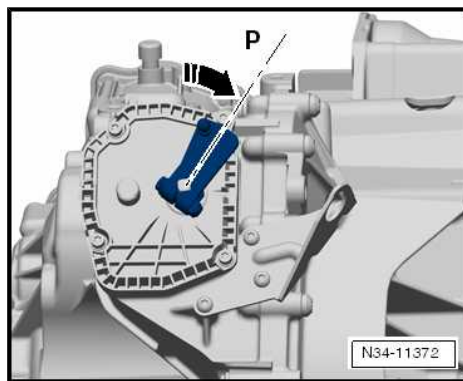
- Set the gearbox gearshift lever to position P. To do so, pushed the gearshift lever in -direction of arrow- towards the cable support.





The figure shows the gearbox from the rear. -P- position is in the direction towards the cable support -arrow-.

- Turn both front wheels in one direction, e.g. by rolling the vehicle forwards, until the parking lock in the gearbox engages into the parking gear.
- Only if both front wheels cannot be simultaneously turned in one direction, the parking lock is engaged.
- Slightly move the selector lever towards the front and rear, without shifting into another selector lever position.



Note

The selector lever control cable is therefore released.

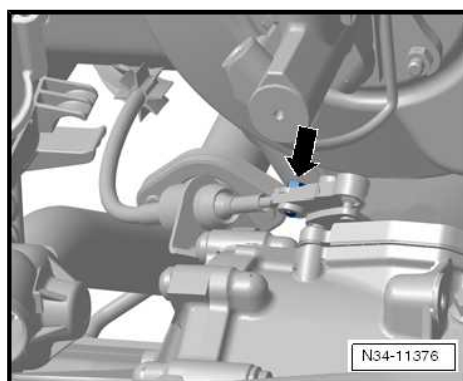
- Tighten screw -arrow- at selector lever cable without jolting to tightening torque.



Note

Pay attention when tightening the screw -arrow- that the selector lever control cable no longer shifts.

- Install air filter => Engine; Rep. gr. 24 or => Engine; Rep. gr. 23 .



Specified torques

Component	Nm
Screw for selector lever control cable (Octavia II, Superb II and Yeti) ◆ up to 11.2008	13
Screw for selector lever control cable (Octavia II, Superb II and Yeti) ◆ from 12.2008	12
Screw for selector lever control cable (Fabia II, Roomster and Rapid NH)	12

2.4 Check the function of the ignition key removal lock

- Turn the ignition key slightly to the right (do not start the engine) in order to set the position "ignition on".
- Depress brake pedal and hold pressed.
- Shifting the selector lever out of the position P when the lock button is pressed at the grip of the selector lever must be possible without jerking.
- Switch off ignition.
- The ignition key should only be removable when the selector lever is in P.

i Note

Up to 10.2011, this condition is not valid for the vehicles Fabia II and Roomster, where there is no ignition key anti-removal lock and the key can be withdrawn in any selector lever position. On all vehicles as of 11.2011, the key cannot be withdrawn in any selector lever position, except position P.

- Shift selector lever into position P.
- Withdraw ignition key.
- Only withdraw the key from the ignition starter switch if the selector lever is in position P.
- The selector lever cannot be shifted out of position P when the button is pressed and the brake pedal is actuated.

If the ignition key removal lock does not function as described:

- ◆ Inspecting and adjusting the selector lever control cable
⇒ ["2.3 Inspecting and adjusting the selector lever control cable", page 105](#) .
- ◆ Check the vehicle with the vehicle diagnosis, measurement and information system - VAS/ODIS- in the function "targeted fault finding".

2.5 Removing and Installing the cover for the shift mechanism

Special tools and workshop equipment required

- ◆ Unlocking tool - T30098- (Octavia II, Superb II, Yeti, Rapid NH)
- ◆ Disassembly wedge - 3409- (Fabia II, Roomster)

i Note

As of 11.2012 (CW 45), the selector lever was changed:

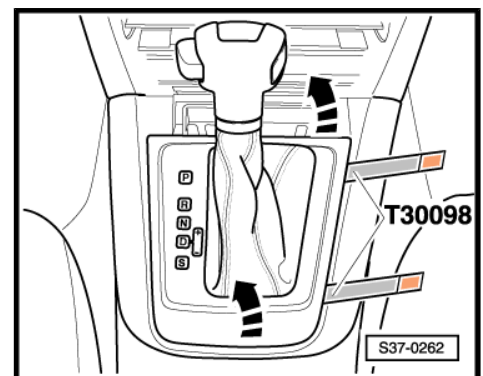
Removing

- Push selector lever to position N.
- Switch off ignition.
- Open ashtray in the centre console (if required).

Vehicles Octavia II and Yeti

- Use the release tool - T30098- to unlock the cover at front right -arrow-, then rear right and centre -arrow-, in stages.

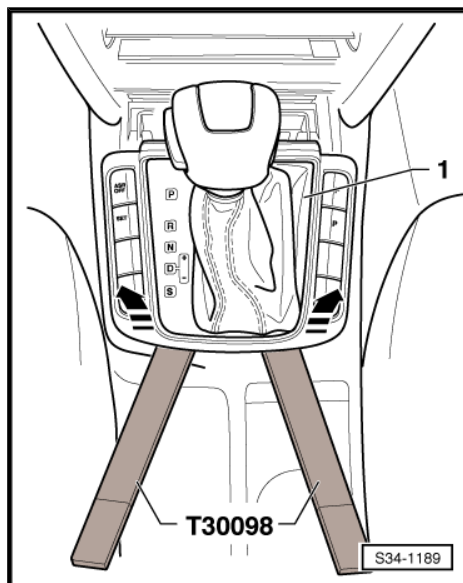
Vehicles Superb II





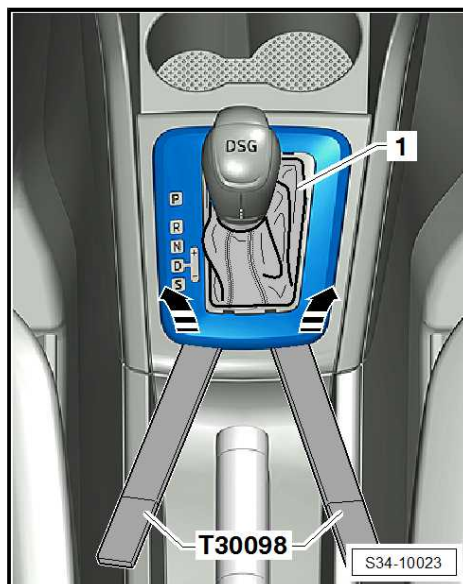
- Remove cover using the release tool - T30098- . Pull up rear left and right cover -arrows-.

Vehicles Rapid NH



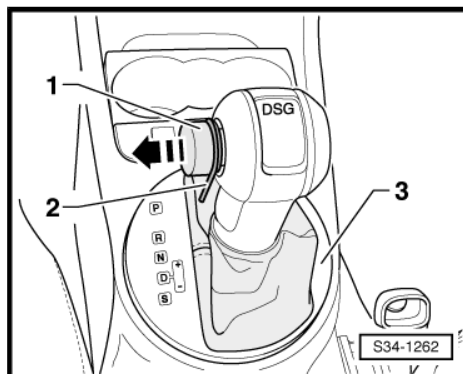
- Remove cover using the release tool - T30098- . Pull up rear left and right cover -arrows-.

Vehicles Fabia II and Roomster



- Release cover -3- from the centre console using the disassembly wedge - 3409- .

For Rapid vehicles



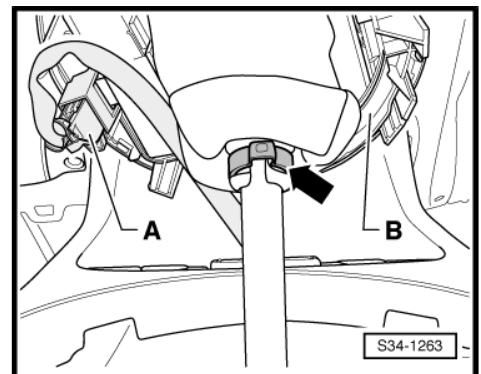
- Carefully press the release tool - T30098- in -direction of arrow- and subsequently clip the cover out of the centre console.



- Pull the cover -B- upwards over the handle.
- Detach the plug connection -A- for lamp for selector lever scale illumination - L101- .
- Clip cover for shift mechanism into centre console.

Continued for all vehicles

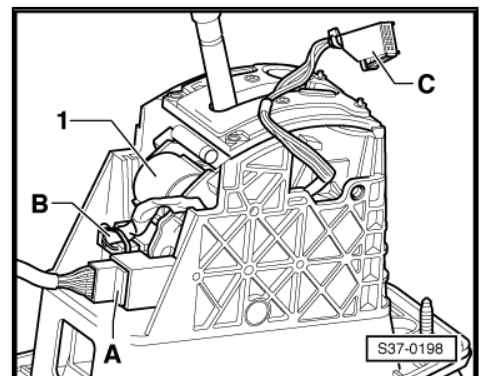
- Pull the cover upwards over the handle.



- Release plug connection -C- from the lamp for selector lever scale illumination - L101- and disconnect.

i Note

- ◆ Ignore pos. -A-, -B- and -1-.
- ◆ As of production date 06.2009 the shift mechanism is changed, the 4-pin plug connection -B- and the selector lever lock solenoid - N110- -1- are already located in the shift mechanism
 ⇒ ["2.1 Summary of components - Gearshift mechanism", page 97](#).



Installing

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

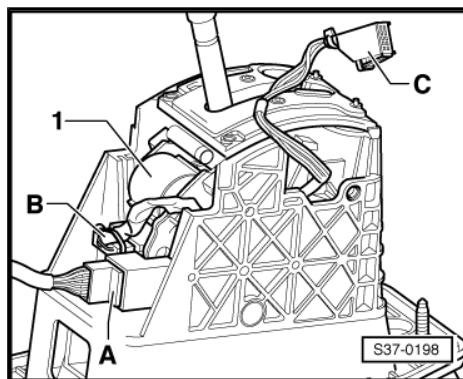


- Insert the plug connection -C- for lamp for selector lever scale illumination - L101- .



Note

- ◆ *When inserting the plug connection -C- ensure that the contact pins of the lamp for selector lever scale illumination - L101- are not bent and that the retaining lugs of the cover do not break off.*
- ◆ *Ignore pos. -A-, -B- and -1-.*
- ◆ *As of production date 06.2009 the shift mechanism is changed, the 4-pin plug connection -B- and the selector lever lock solenoid - N110- -1- are already located in the shift mechanism*
⇒ ["2.1 Summary of components - Gearshift mechanism", page 97](#) .



- Clip cover for shift mechanism into centre console.

2.6 Removing and installing handle for shift mechanism

⇒ ["2.6.1 Removing and installing handle for shift mechanism up to 11.2012 \(CW 45\)", page 112](#)

⇒ ["2.6.2 Removing and installing handle for shift mechanism as of 11.2012 \(CW 45\)", page 114](#)

2.6.1 Removing and installing handle for shift mechanism up to 11.2012 (CW 45)

Special tools and workshop equipment required

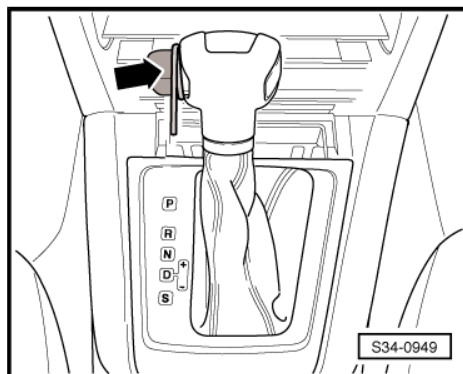
- ◆ Hose binding claw - V.A.G 1275-

Removing

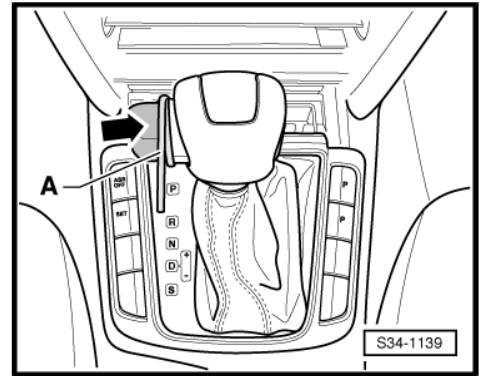
- Removing the cover for the shift mechanism
⇒ ["2.5 Removing and Installing the cover for the shift mechanism", page 109](#) .
- Pull out the lock button above its pressure point and secure it with a cable strap or a suitable wire.

This can prevent the button being inadvertently pressed into the handle.

Vehicles Octavia II and Yeti



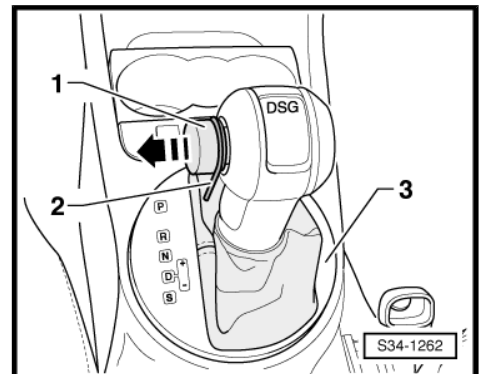
Vehicles Superb II



Vehicles Fabia II, Roomster and Rapid

Continued for all vehicles

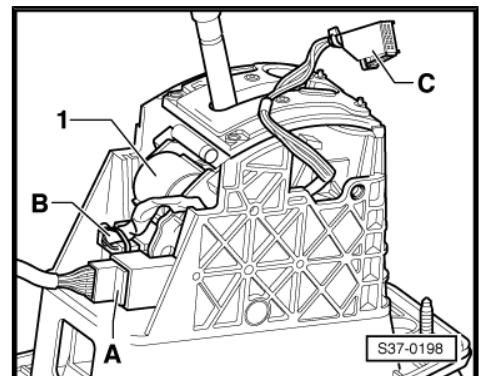
- Pull the cover upwards over the handle.



- Release plug connection -C- from the lamp for selector lever scale illumination - L101- and disconnect.

Note

- ◆ Ignore pos. -A-, -B- and -1-.
- ◆ As of production date 06.2009 the shift mechanism is changed, the 4-pin plug connection -B- and the selector lever lock solenoid - N110- -1- are already located in the shift mechanism
⇒ [“2.1.2 Summary of components - Gearshift mechanism as of 06.2009 - \(Octavia II, Superb II, Yeti, Rapid NH\)”](#), page 99 .





- Open the warm-type clamp below the handle -arrow- and pull off handle with cover.

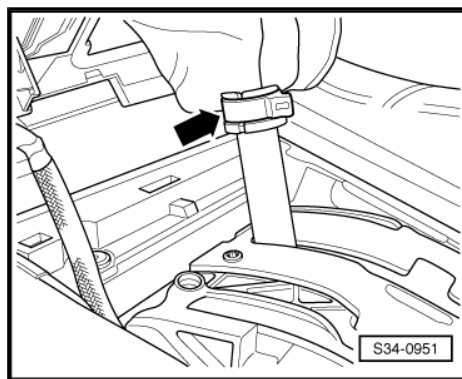
Installing

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

- ◆ To install the selector lever handle, the lock button must be removed as far as the stop and secured with cable ties or an assembly aid, which is delivered with the new handle in the factory.
- ◆ If the lock button is not secured, this can no longer be removed from the selector lever handle with mechanical aids. Press out the lock button if necessary by positioning a compressed air pistol on the underside of the grip.
- Press the selector lever handle completely onto the selector lever with a new warm-type clamp.
- The selector lever handle must be positioned with the lock button in the direction of the driver.
- The handle must latch into the groove on the selector.
- Remove the cable strap or the assembly aid.

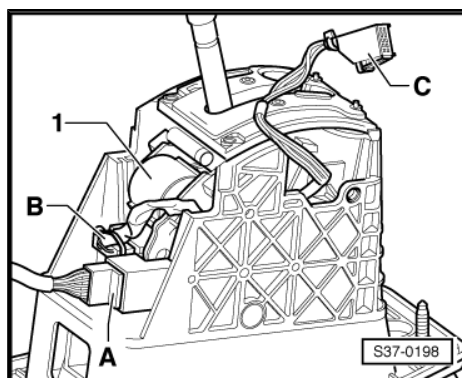
After removal, the lock button engages into the vertical groove on the selector. Where necessary, press the lock button into the selector lever handle.

- Tighten warm-type clamp using hose binding claw .
- Insert the plug connection -C- for lamp for selector lever scale illumination - L101- .



Note

- ◆ *When inserting the plug connection -C- ensure that the contact pins of the lamp for selector lever scale illumination - L101- are not bent and that the retaining lugs of the cover do not break off.*
- ◆ *Ignore pos. -A-, -B- and -1-.*
- ◆ *As of production date 06.2009 the shift mechanism is changed, the 4-pin plug connection -B- and the selector lever lock solenoid - N110- -1- are already located in the shift mechanism*
⇒ ["2.1.2 Summary of components - Gearshift mechanism as of 06.2009 - \(Octavia II, Superb II, Yeti, Rapid NH\)", page 99](#) .



2.6.2 Removing and installing handle for shift mechanism as of 11.2012 (CW 45)

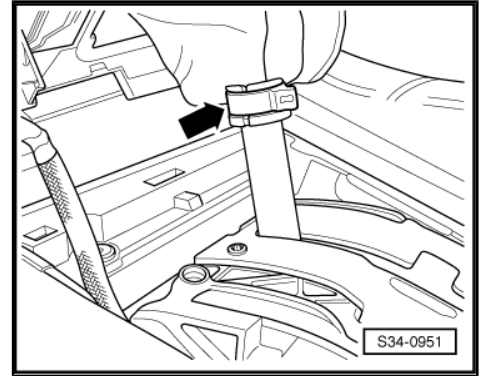
Special tools and workshop equipment required

- ◆ Hose binding claw - V.A.G 1275-

Removing

- Removing the cover for the shift mechanism
⇒ ["2.5 Removing and Installing the cover for the shift mechanism", page 109](#) .

- Open the warm-type clamp below the handle -arrow-.

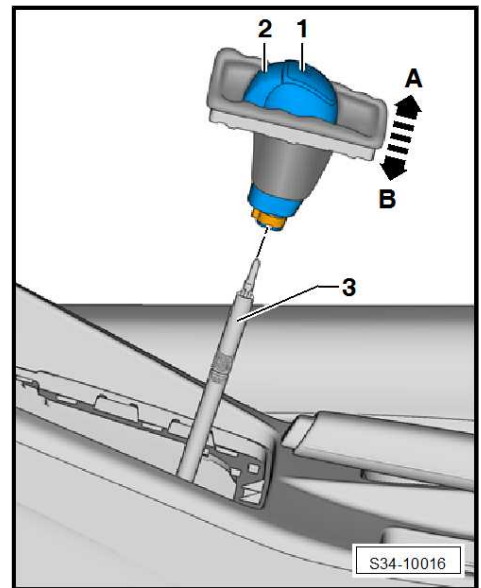


- Detach the selector lever handle -1- together with the selector lever collar from the selector lever towards the top -arrow A- so that the lock button -2- is not pressed in.

i Note

Ignore -arrow B-.

Installing



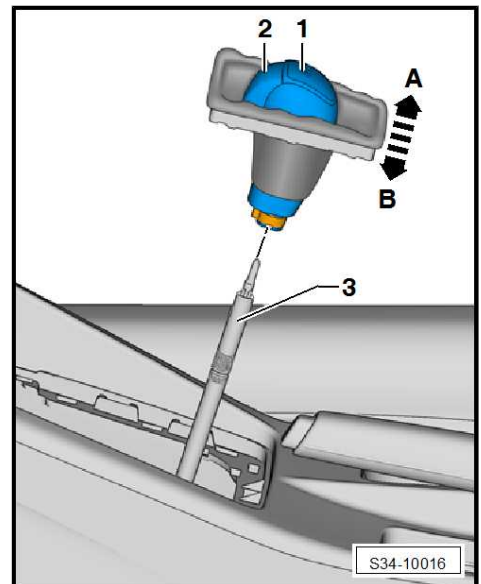
Installation is performed in the reverse order, pay attention to the following points:

- The lock button -2- is located in direction of travel.

⚠ Caution

The shift mechanism can be damaged.

- ◆ *The lock button at the selector lever handle can protrude when installing. If the lock button is inadvertently pressed in when removing the selector lever handle, it must be re-positioned*
⇒ ***2.7 Installing the lock button at the selector lever handle**, page 116.*
- ◆ *If the selector lever handle is installed with the lock button pressed in, then the selector lever handle as well as the selector lever control cable can be destroyed.*



- Press the selector lever handle -1- onto the selector lever in -direction of arrow B- in such a way that the lock button -2- is not touched.
- The selector lever handle must latch into the round slot of the selector lever.

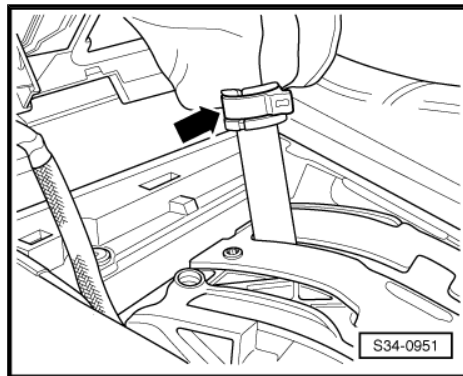


- Tighten warm-type clamp -arrow- using the hose binding claw .



Note

- ◆ *The selector lever handle is correctly locked only if the warm-type clamp is tensioned. Only then the lock button at the handle may be pressed.*
- ◆ *The lock button may be slightly sluggish when pressing it for the first time after installing the selector lever handle.*
- Press lock button at selector lever handle.
- Install trim panel for selector lever position indicator - Y6-
⇒ ["2.5 Removing and Installing the cover for the shift mechanism", page 109](#) .
- Inspect gearshift mechanism
⇒ ["2.2 Inspecting the gearshift mechanism", page 104](#) .

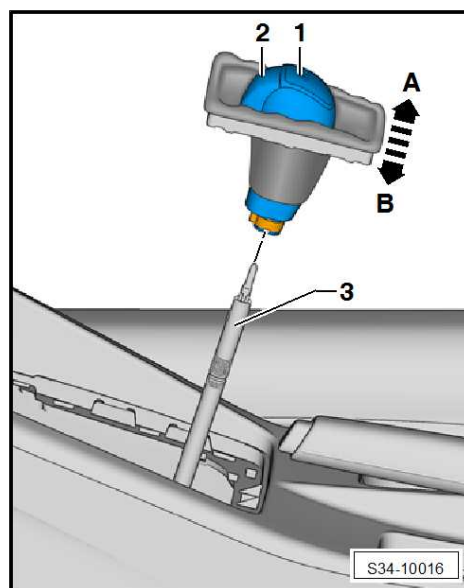


2.7 Installing the lock button at the selector lever handle

Special tools and workshop equipment required

- ◆ Release tool - T40203-
- The lock button -2- at the selector lever handle protrudes in its installed position.

If the lock button -2- was inadvertently pressed in, it must then be repositioned in order to fit the selector lever handle.

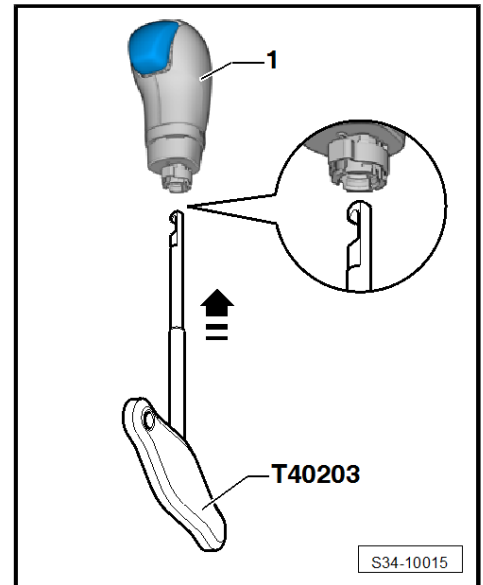


- Carefully guide the release tool - T40203- in -direction of arrow- into the selector lever handle up to the stop -1-.

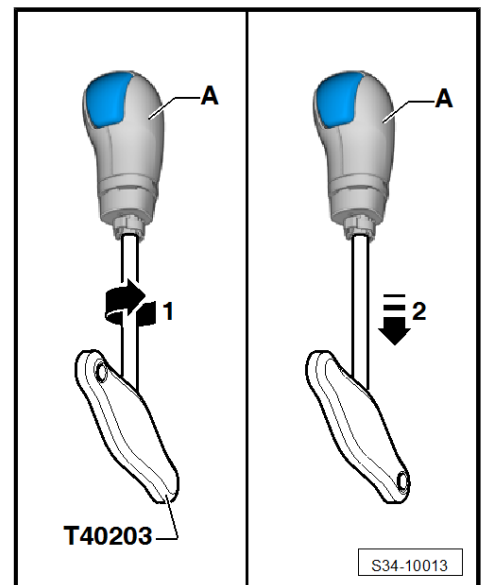
i Note

The selector lever handle in the illustration is shown without the selector lever collar. The selector lever collar does not separate from the handle.

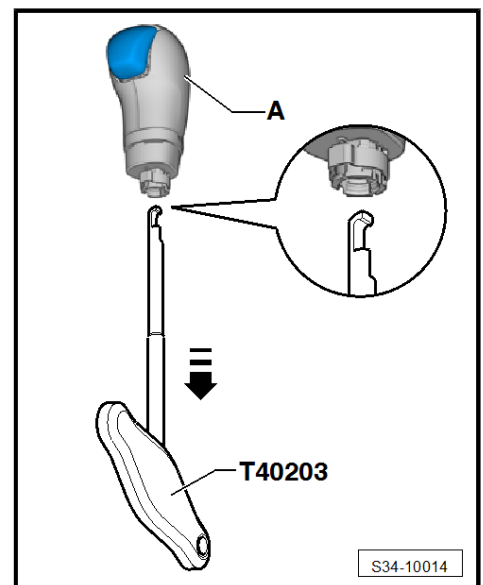
- The recess at the release tool - T40203- points to the lock button and the hook points to the left.



- Hold the selector lever handle -A- and turn the release tool - T40203- by 180° in -direction of arrow 1-.
- Hold the selector lever handle and carefully pull out the release tool - T40203- -arrow 2-.



- When pulling out the release tool - T40203- , the lock button at the selector lever handle -A- is pressed in and locked.
- Do not touch and press in the lock button again before installing the selector lever handle.



2.8 Removing and installing shift mechanism with selector lever control cable

Special tools and workshop equipment required

- ◆ Removal tool for the inner lining of the door panel -MP8-602/1-

The selector lever control cable was replaced as a separate component part up to production date 05.2009

⇒ [“2.1 Summary of components - Gearshift mechanism”, page 97](#) .

As of production date 06.2009, this is no longer possible. The selector lever control cable must not be removed (separated) from the shift mechanism and must be replaced together as one component part ⇒ Electronic Catalogue of Original Parts .

Removing

- Remove handle for shift mechanism:
 - ◆ up to production date 11.2012 (CW 45)
⇒ [“2.6.1 Removing and installing handle for shift mechanism up to 11.2012 \(CW 45\)”, page 112](#) .
 - ◆ as of production date 11.2012 (CW 45)
⇒ [“2.6.2 Removing and installing handle for shift mechanism as of 11.2012 \(CW 45\)”, page 114](#) .
- Shift selector lever into position P.
- Switch off ignition.

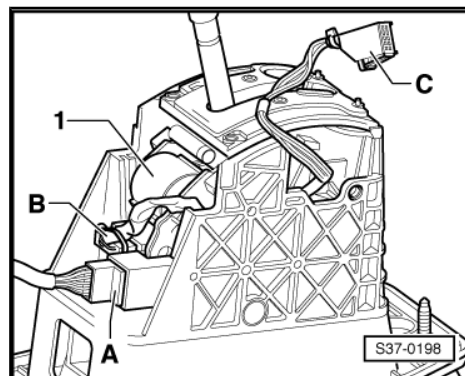
Vehicles Octavia II, Superb II, Yeti, Rapid NH

- Remove ashtray or storage area in front of the shift mechanism ⇒ Body Work; Rep. gr. 68 .
- Remove the centre console and air guide ⇒ Body Work; Rep. gr. 68 .
- Pull out the plug connector housing of the plug connection -A- towards the front.
- Disconnect plug connection -A- from the shift mechanism to the vehicle wiring harness.



Note

- ◆ Ignore pos. -B-, -C- and -1-.
- ◆ As of production date 06.2009 the shift mechanism is changed, the 4-pin plug connection -B- and the selector lever lock solenoid -N110- -1- are already located in the shift mechanism
⇒ [“2.1.2 Summary of components - Gearshift mechanism as of 06.2009 - \(Octavia II, Superb II, Yeti, Rapid NH\)”, page 99](#) .



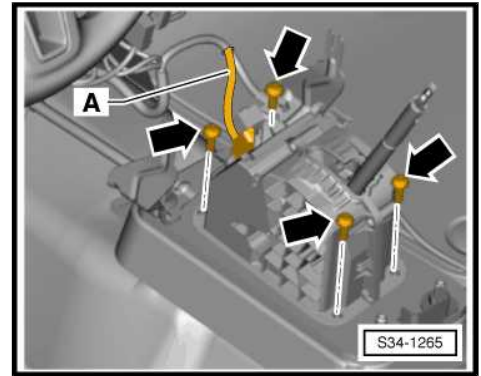
Vehicles Fabia II, Roomster

- Remove the centre console ⇒ Body Work; Rep. gr. 68 .
- Remove the noise insulation from the gearshift mechanism.

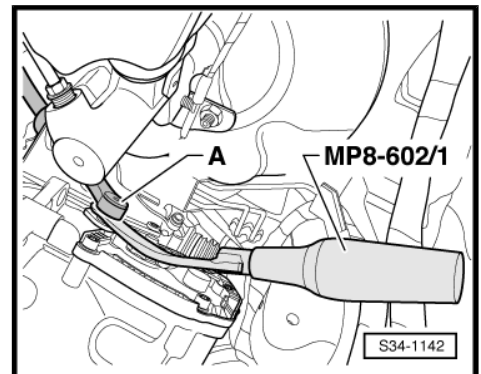
- Disconnect the plug connection -A- from the gearshift mechanism.
- Unscrew the screws -arrows- from the shift housing.

Continued for all vehicles

- Remove air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .



- Expose the selector lever control cable -A- from the gearbox shift lever with the removal tool for the inner lining of the door panel -MP8-602/1- .

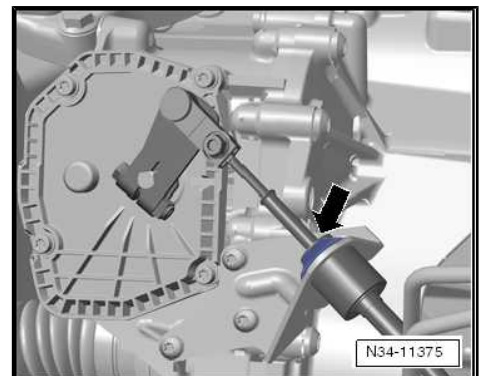


- Remove lock washer -arrow- of the selector lever control cable and leave the selector lever control cable must be left in the fitting position.



Note

- ◆ *The lock washer -arrow- of the selector lever control cable must always be replaced ⇒ Electronic Catalogue of Original Parts .*
- ◆ *Do not bend or buckle selector lever control cable.*
- ◆ *Do not press the selector lever control cable out of the cable support towards the rear. The selector lever control cable is only guided out of the cable support when removing the gearshift mechanism.*



- Raise vehicle.



- Remove the rear tunnel bridge -1- and the front tunnel bridge -2- from the body (if present).
- Slacken the trim panels for the underfloor on left -6- and right -7- from the body.



Caution

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

- Detach the bracket -3- for exhaust system from the assembly carrier.
- Separate exhaust system at the clamping sleeve -4- → Engine; Rep. gr. 26 .

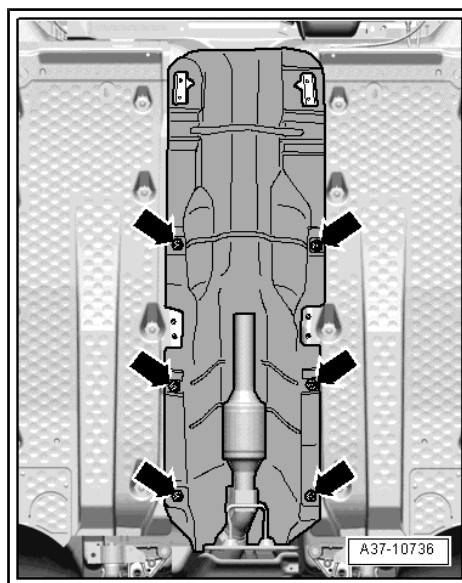
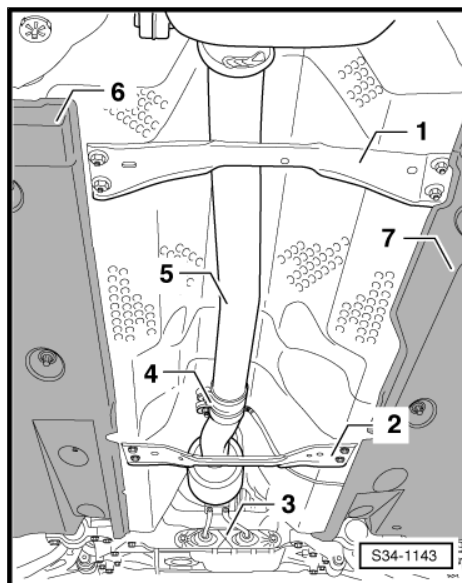
Vehicles Octavia II, Superb II, Yeti, Rapid NH



Note

The aid of a 2nd mechanic is required to remove the rear silencer.

- Remove the rear part of the exhaust system -5- as from the clamping sleeve → Engine; Rep. gr. 26 .
- Unclip lambda probe cable at heat shield.
- Loosen the clips -arrows- and remove the heat shield to the rear.



- Release the nuts -1- and -2-.



Note

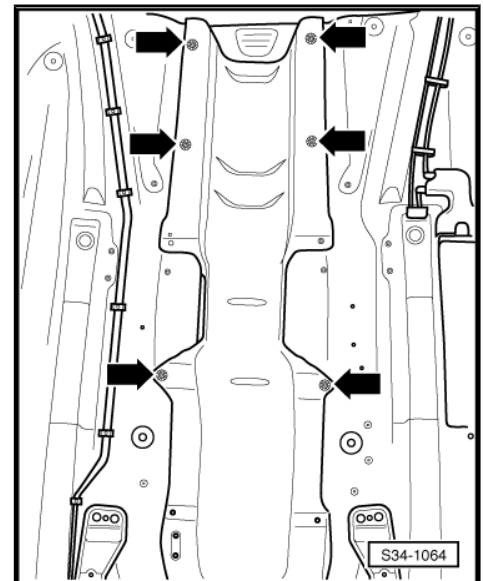
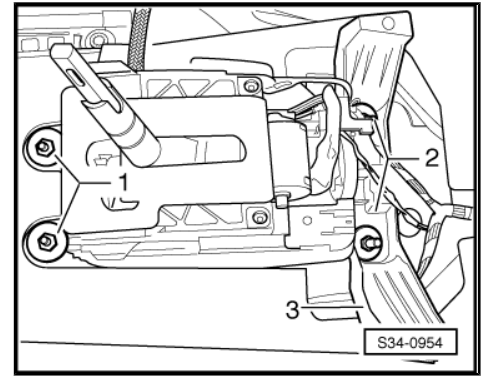
A second mechanic is needed under the vehicle to remove the shift mechanism.

- Lower the shift mechanism together with the selector lever control cable downwards and simultaneously guide the selector lever control cable out of the cable support.
- Do not bend or buckle selector lever control cable.

The shift mechanism (only vehicles up to production date 05.2009 => ["2.1 Summary of components - Gearshift mechanism", page 97](#)) can also be replaced without selector lever control cable. To do so the selector lever control cable must be separated from the shift mechanism and the selector lever control cable must be removed => ["2.9 Removing and installing selector lever control cable, vehicles up to 05.2009 \(Octavia II, Superb II, Yeti\)", page 123](#) .

Vehicles Fabia II, Roomster

- Unhook rear silencer in such a way that it does not come in contact with the rear axle.
- Clip off clips -arrows- and remove heat shield.

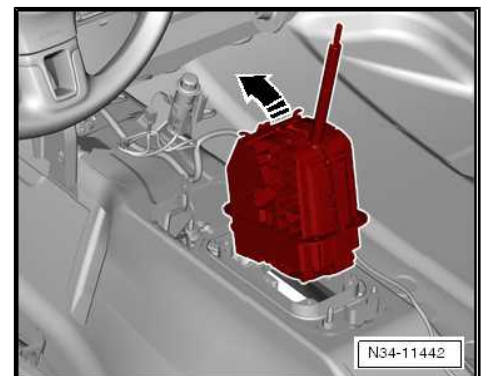


- Remove shift mechanism -arrow-.
- Do not bend or buckle selector lever control cable.

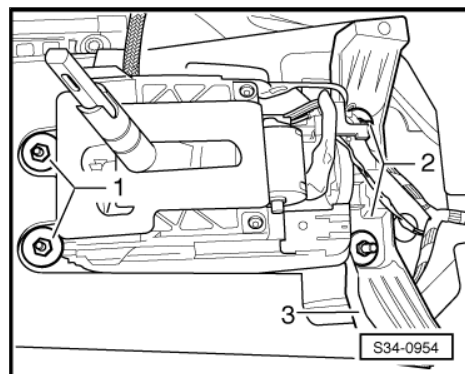
Installing

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

Vehicles Octavia II, Superb II, Yeti, Rapid NH



- Insert the shift mechanism and tighten the rear nuts -1- by hand.
- Mount the strut for centre console -3- onto the shift mechanism as illustrated in the fig.
- Tighten nuts -1- and -2-.



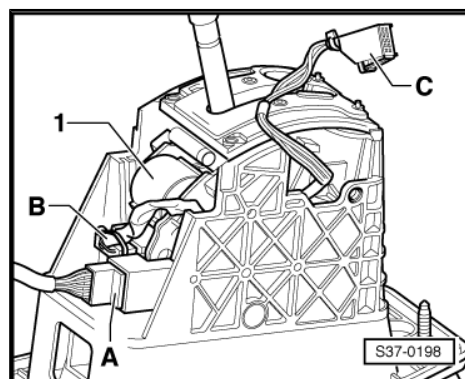
The fitting together of the plug connection -A- must not be performed, if the plug connector housing is latched into the shift mechanism. When fitting together (high resistance because of the spring) the catch of the plug connector housing breaks off.

- Connect plug -A- and plug connector housing and then latch into the shift mechanism.



Note

As of production date 06.2009 the shift mechanism is changed, the 4-pin plug connection -B- and the selector lever lock solenoid -N110- -1- are already located in the shift mechanism
⇒ ["2.1.2 Summary of components - Gearshift mechanism as of 06.2009 - \(Octavia II, Superb II, Yeti, Rapid NH\)", page 99](#) .



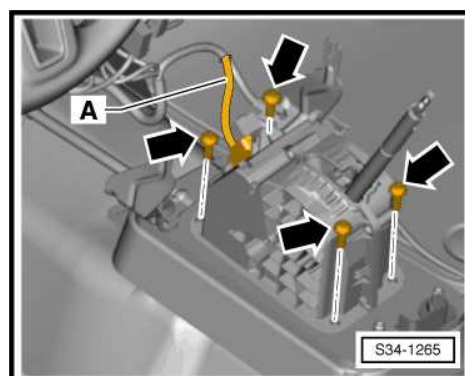
- Install the air guide and the centre console ⇒ Body Work; Rep. gr. 68 .
- Install ashtray or storage area in front of the shift mechanism ⇒ Body Work; Rep. gr. 68 .

Vehicles Fabia II, Roomster

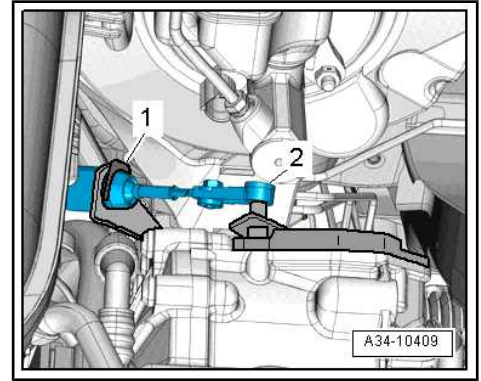
- Install the gearshift mechanism with selector lever control cable and attach it to the shift housing with screws -arrows-.
- Mount the plug connection -A- and position the noise insulation on the gearshift mechanism.
- Install centre console ⇒ Body Work; Rep. gr. 68 .

Continued for all vehicles

- Install handle for shift mechanism.
- ◆ up to production date 11.2012 (CW 45)
⇒ ["2.6.1 Removing and installing handle for shift mechanism up to 11.2012 \(CW 45\)", page 112](#)
- ◆ as of production date 11.2012 (CW 45)
⇒ ["2.6.2 Removing and installing handle for shift mechanism as of 11.2012 \(CW 45\)", page 114](#)
- Installing the cover for the shift mechanism
⇒ ["2.5 Removing and Installing the cover for the shift mechanism", page 109](#) .



- Carefully press the selector lever control cable -2- onto the gearshift lever and secure in the cable support with a new lock washer -1-.
- Check the function of the ignition key anti-removal lock
⇒ [“2.4 Check the function of the ignition key removal lock”, page 108](#) .
- Setting selector lever control cable
⇒ [“2.3 Inspecting and adjusting the selector lever control cable”, page 105](#) .
- Install air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .
- Inspect gearshift mechanism
⇒ [“2.2 Inspecting the gearshift mechanism”, page 104](#) .
- Install the heat shield below the shift mechanism and fasten the trim panels for the underfloor on the body ⇒ Body Work; Rep. gr. 50 .
- Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .
- Install the tunnel bridges below the exhaust system ⇒ Engine; Rep. gr. 26 .



Specified torques

- ◆ ⇒ [“2.1 Summary of components - Gearshift mechanism”, page 97](#)

2.9 Removing and installing selector lever control cable, vehicles up to 05.2009 (Octavia II, Superb II, Yeti)

Special tools and workshop equipment required

- ◆ Removal tool for the inner lining of the door panel -MP8-602/1-

The selector lever control cable was replaced as a separate component part up to production date 05.2009

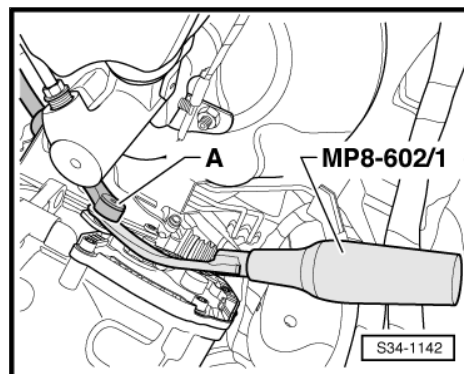
⇒ [“2.1.1 Summary of components - Gearshift mechanism up to 05.2009 - \(Octavia II, Superb II, Yeti\)”, page 97](#) .

As of production date 06.2009, this is no longer possible. The selector lever control cable must not be removed (separated) from the shift mechanism and must be replaced together as one component part ⇒ Electronic Catalogue of Original Parts .

Removing

- Shift selector lever into position S.
- Switch off ignition.
- Remove air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .

- Expose the selector lever control cable -A- from the gearbox shift lever with the removal tool for the inner lining of the door panel -MP8-602/1- .

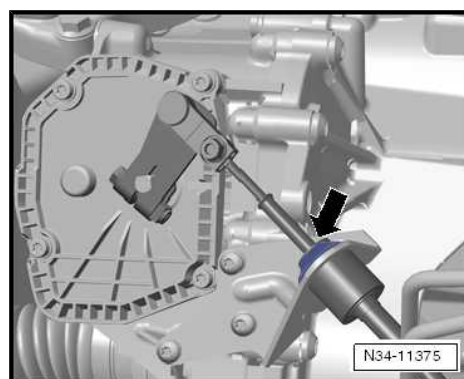


- Remove the lock washer -arrow- of the selector lever control cable, the selector lever control cable must be left in the fitting position.



Note

- ◆ *The lock washer -arrow- of the selector lever control cable must always be replaced → Electronic Catalogue of Original Parts .*
- ◆ *Do not bend or buckle selector lever control cable.*



- Raise vehicle.
- Remove the rear tunnel bridge -1- and the front tunnel bridge -2- from the body (if present).
- Detach the bracket -3- for exhaust system from the assembly carrier.
- Slacken clamping sleeve -4-.



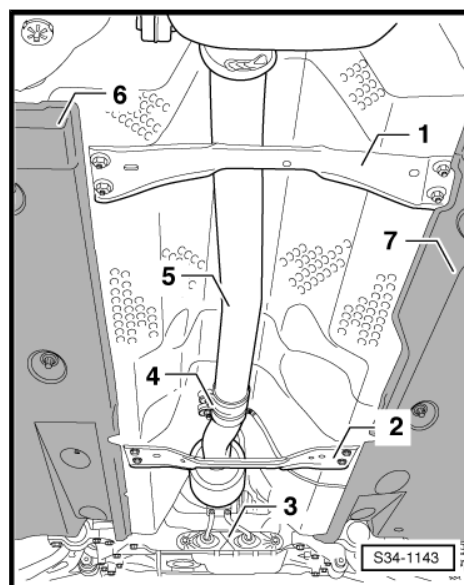
Note

The aid of a 2nd mechanic is required to remove the rear silencer.



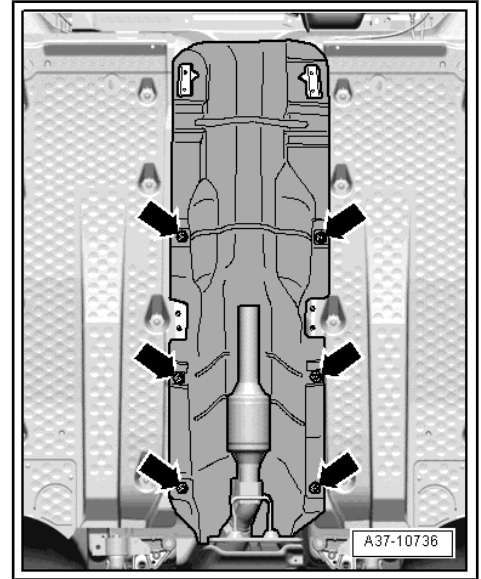
Caution

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

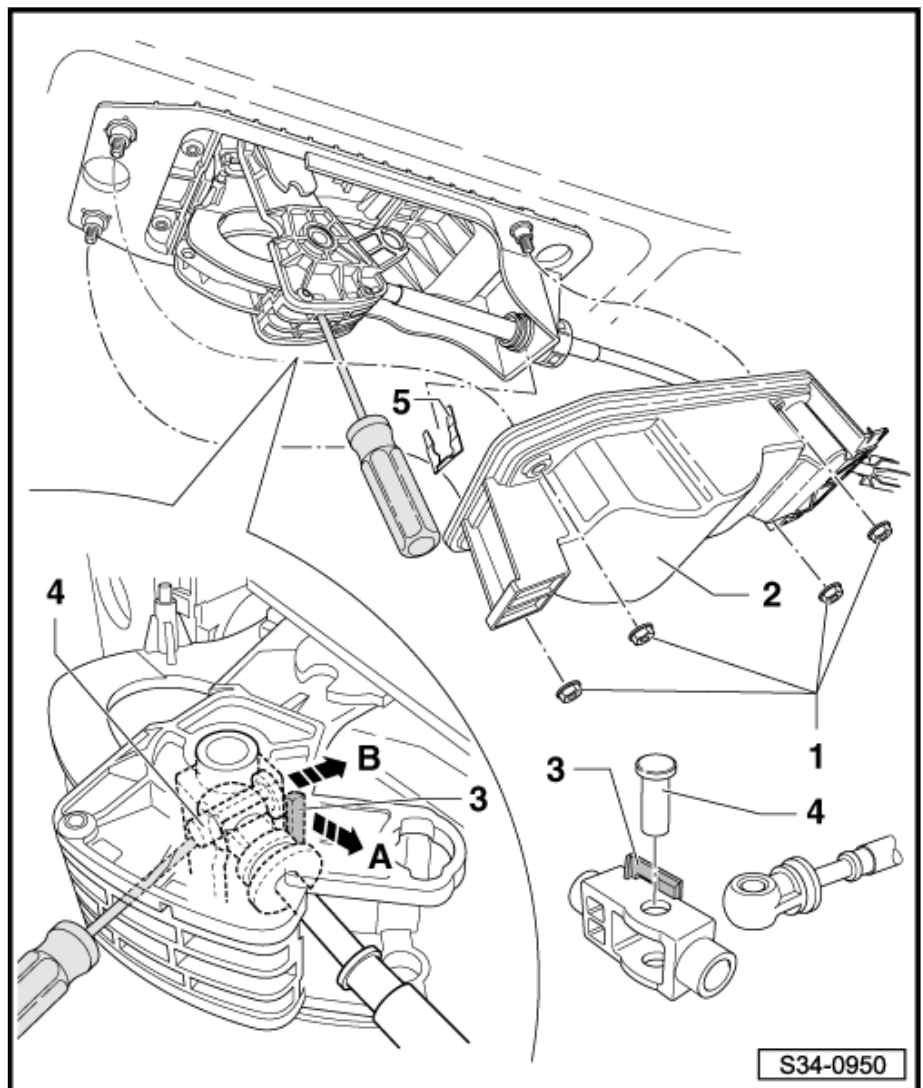


- Remove the rear part of the exhaust system -5- as from the clamping sleeve ⇒ Engine; Rep. gr. 26 .
- Slacken the trim panels for the underfloor on left -6- and right -7- from the body.
- Unclip lambda probe cable at heat shield.

- Loosen the clips -arrows- and remove the heat shield to the rear.



- Unscrew the nuts -1- and push the shift housing -2- as far as possible onto the selector lever control cable towards the front.



**Caution**

- Pull the locking tab -3-, which secures the bolt -4-, carefully in the -direction of arrow A-.
- Insert the screwdriver into the right opening of the shift mechanism, as shown, and press on the bolt.
- Remove lock washer -5-.
- Remove selector lever control cable.

Installing

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

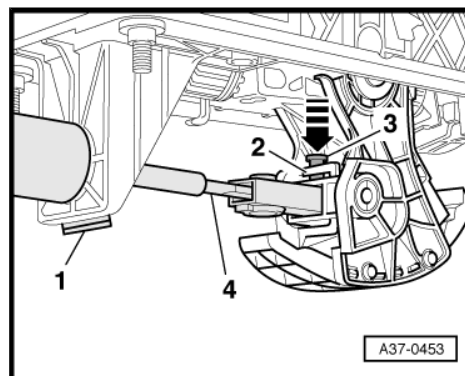
- ◆ Inspect boot of selector lever control cable for damage; the boot can only be replaced together with the selector lever control cable.
- ◆ Check correct fitting of the boot and do not install the boot twisted.

Do not grease ball socket of the selector lever control cable and ball head/selector lever.

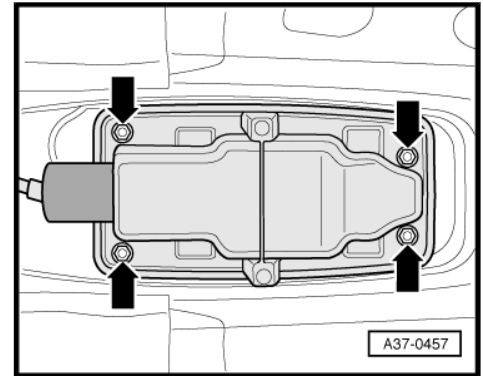
**Caution**

- ◆ *Under no circumstances touch the circuit board of the gearshift mechanism with the fingers, because static discharge can destroy the electrical components and the circuit board.*
- ◆ *The circuit board can only be replaced together with the gearshift mechanism!*

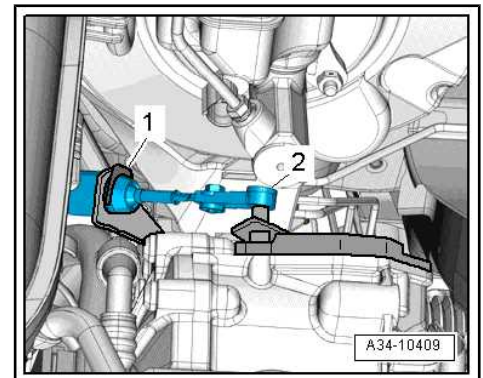
- Insert the selector lever control cable with protective cover into the shift housing. Do not damage the boot.
- Insert the end of the selector lever control cable -4- into the joint of the selector lever.
- Press bolt -3- downwards in -direction of arrow- and check if the locking tab -2- is locked.
- Insert the lock washer -1- for the selector lever control cable.
- Fitting position: angled end towards the gearshift mechanism.



- Screw the gear shift housing onto the shift mechanism -arrows-.



- Carefully press the selector lever control cable -2- onto the gearshift lever and secure in the cable support with a new lock washer -1-.
- Shift selector lever from S to P.
- Gearshift mechanism and selector lever control cable must move smoothly when shifting gears.
- Setting selector lever control cable
⇒ ["2.3 Inspecting and adjusting the selector lever control cable", page 105](#) .
- Inspect gearshift mechanism
⇒ ["2.2 Inspecting the gearshift mechanism", page 104](#) .
- Install air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .
- Install the heat shield below the shift mechanism and fasten the trim panels for the underfloor on the body ⇒ Body Work; Rep. gr. 50 .
- Install exhaust system and align free of stress ⇒ Engine; Rep. gr. 26 .
- Install the tunnel bridges below the exhaust system ⇒ Engine; Rep. gr. 26 .



Specified torques

- ◆ ⇒ ["2.1.1 Summary of components - Gearshift mechanism up to 05.2009 - \(Octavia II, Superb II, Yeti\)", page 97](#)

2.10 Emergency release of gearshift mechanism out of position P

Selector lever lock solenoid - N110- locks the selector lever in position P.

The selector lever can only be shifted out of P when the ignition is on or the engine is started, the brake pedal is actuated and the button on the selector lever handle is pressed.

If there are faults in the voltage supply to the selector lever lock solenoid (battery discharged or fuse defective) or in case of defective solenoids, the selector lever cannot be moved out of the position P; i.e. the vehicle cannot be moved because the parking position is engaged.

If this is the case:

- Test fuse ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.
- Check the battery voltage ⇒ Electrical System; Rep. gr. 27 .



If the selector lever cannot be moved out of position P despite the checks, emergency release of the solenoids must be performed.

If the selector lever is then shifted again into the position P, it is locked again in position P.

2.10.1 Perform emergency release (Octavia II, Superb II, Yeti)

Special tools and workshop equipment required

- ◆ Release tool - T30098-
- Open ashtray in the centre console.

Vehicles Octavia II and Yeti

- Use the release tool - T30098- to unlock the cover at front right -arrow-, then rear right and centre -arrow-, in stages.

Vehicles Superb II

- Remove cover using the release tool - T30098- . Pull up rear left and right cover -arrows-.

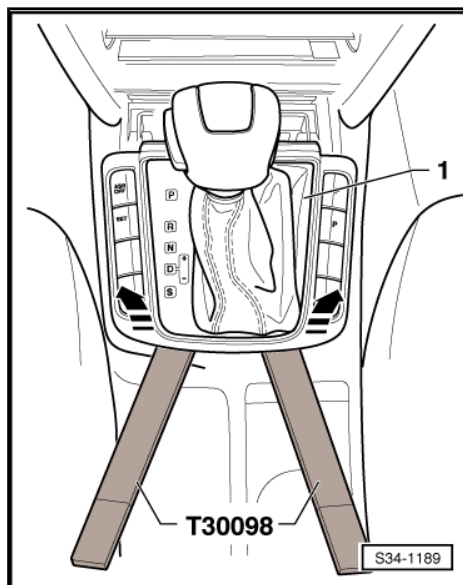
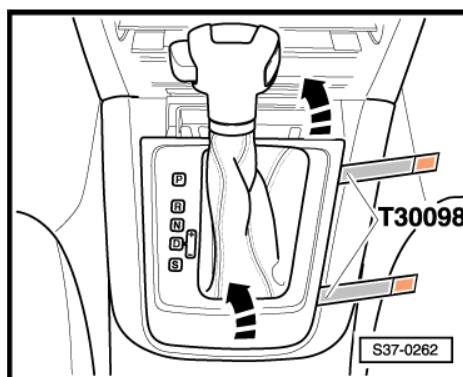
Continued for all vehicles



Note

Do not remove grip of selector lever.

- Depress the brake pedal or pull on the handbrake.

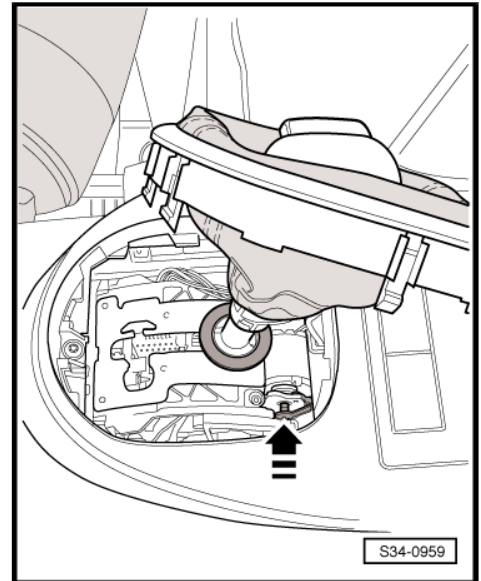


Vehicles up to production date 05.2009

- Press from right to left -arrow- on the yellow plastic wedge.
- Now press the button on the selector lever knob and shift the selector lever out of the position P.

i Note

If the selector lever is then shifted again into the position P, it is locked again in position P.

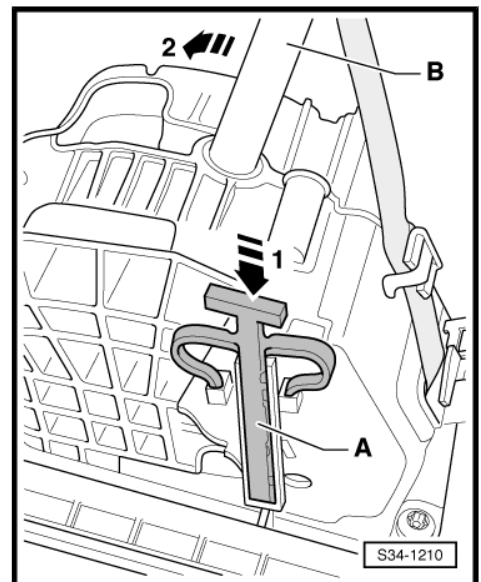


Vehicles as of production date 06.2009

- Press the yellow plastic wedge -A- in -direction of arrow 1-.
- Now press the button on the selector lever handle and shift the selector lever -B- in -direction of arrow 2- out of the position P.

i Note

If the selector lever is then shifted again into the position P, it is locked again in position P.



2.10.2 Performing emergency release (Fabia II, Roomster, Rapid NH)

- Removing the cover for the shift mechanism
⇒ [“2.5 Removing and Installing the cover for the shift mechanism”, page 109](#) .

i Note

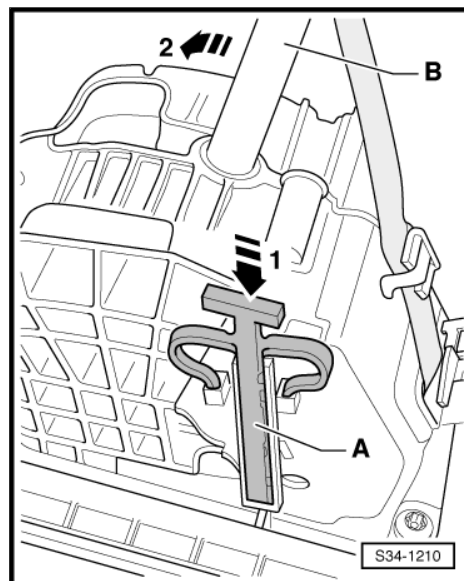
Do not remove grip of selector lever.

- Depress the brake pedal or pull on the handbrake.
- Press the yellow plastic wedge -A- in -direction of arrow 1-.
- Now press the button on the selector lever handle and shift the selector lever -B- in -direction of arrow 2- out of the position P.



Note

If the selector lever is then shifted again into the position P, it is locked again in position P.



2.11 Removing and installing the Tiptronic switch - F189-

The Tiptronic switch - F189- is integrated firmly in the gearshift mechanism and cannot be replaced separately.

If the Tiptronic switch - F189- is defective, the gearshift mechanism must be replaced
⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”, page 118](#) .

2.12 Removing and installing selector lever lock solenoid - N110-

The selector lever lock solenoid - N110- is integrated firmly in the gearshift mechanism and cannot be replaced separately.

If the selector lever lock solenoid - N110- is defective, the gearshift mechanism must be replaced
⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”, page 118](#) .

2.13 Removing and installing selector lever switch locked in P - F319-

The selector lever switch locked in P - F319- is integrated firmly in the gearshift mechanism and cannot be replaced separately.

If the selector lever switch locked in P - F319- is defective, the gearshift mechanism must be replaced
⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”, page 118](#) .

2.14 Removing and installing the selector lever sensor control unit - J587-

Selector lever sensor control unit - J587- is integrated firmly in the gearshift mechanism and cannot be replaced separately.

If the selector lever sensor control unit - J587- is defective, the gearshift mechanism must be replaced
⇒ [“2.8 Removing and installing shift mechanism with selector lever control cable”, page 118](#) .

2.15 Checking the plug connections at the shift mechanism (Octavia II, Superb II, Yeti)

Before repairing or checking the plug connections, try to determine the origin of the damage via the "targeted fault finding" using the ⇒ Vehicle diagnostic tester.

Before checking the plug connections, all control units in the vehicle should be checked with the ⇒ Vehicle diagnostic tester, if necessary the faults must be rectified.

- Check plug connections ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

A - 10-pin plug for connection lines from the gearshift mechanism to the gearbox (with CAN databus line)

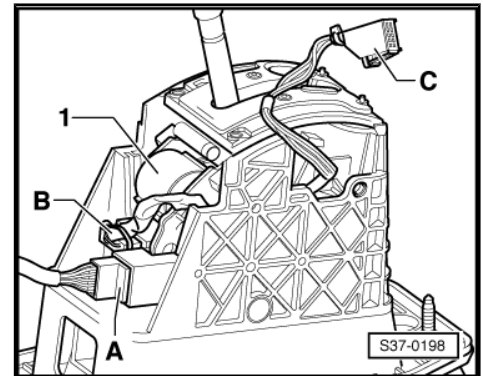
B - 4-pin plug to selector lever lock solenoid - N110- , selector lever sensor control unit - J587- and selector lever switch locked in P - F319-

C - 10-pin plug to lamp for selector lever scale illumination - L101- in the cover for the shift mechanism



Note

As of production date 06.2009 the shift mechanism is changed, the 4-pin plug connection -B- and the selector lever lock solenoid - N110- -1- are already located in the shift mechanism ⇒ ["2.1.2 Summary of components - Gearshift mechanism as of 06.2009 - \(Octavia II, Superb II, Yeti, Rapid NH\)", page 99](#) .





3 Removing and installing the gearbox

⇒ [“3.1 Removing the gearbox”, page 132](#)

⇒ [“3.2 Installing the gearbox”, page 165](#)

⇒ [“3.3 Tightening torques”, page 169](#)

3.1 Removing the gearbox

⇒ [“3.1.1 Removing the gearbox \(Octavia II, Yeti\)”, page 132](#)

⇒ [“3.1.2 Remove gearbox \(Superb II\)”, page 140](#)

⇒ [“3.1.3 Removing the gearbox \(Fabia II, Roomster\)”, page 148](#)

⇒ [“3.1.4 Removing gearbox \(Rapid NH\)”, page 157](#)

3.1.1 Removing the gearbox (Octavia II, Yeti)

Special tools and workshop equipment required

- ◆ Supporting device - T30099-
- ◆ Wedge - T10161-
- ◆ Hook for MP9-200 and T30099 - MP9-200/10 (10-222A/10)-
- ◆ Removal tool for the inner lining of the door panel -MP8-602/1-
- ◆ Gearbox mount - 3282-
- ◆ Bolt - 3282/29-
- ◆ Adjusting plate - 3282/59-
- ◆ Tensioning strap - T10038-
- ◆ Socket insert - T10107 A-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383 A-
- ◆ Spring strap clips , e.g. -VAS 6340-
- ◆ Socket insert , e.g. -T10035- or socket insert XZN 14 - T10061-

Observe instructions and safety instructions for automatic gearbox DSG - 0AM.

◆ ⇒ [“2 Safety instructions”, page 2](#)

◆ ⇒ [“3 Repair instructions”, page 4](#)

All cable straps which are detached or cut open when removing, should be fitted on again in the same place when installing.

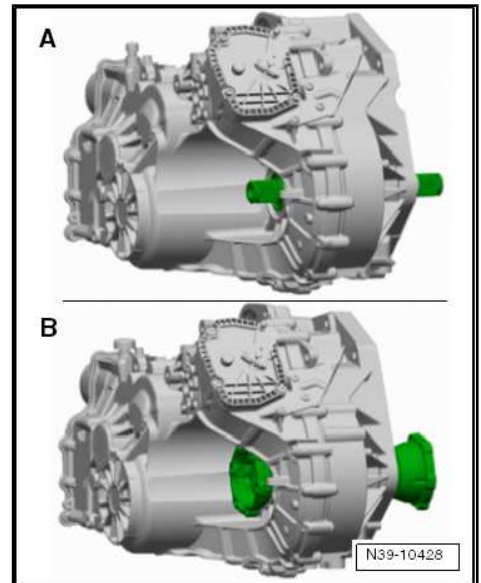
If the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

Gearbox with different output shafts.

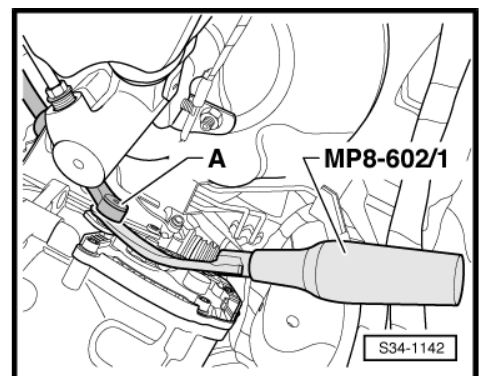
A - Rigid shafts up to 11.2008

B - flange shafts as of 11.2008

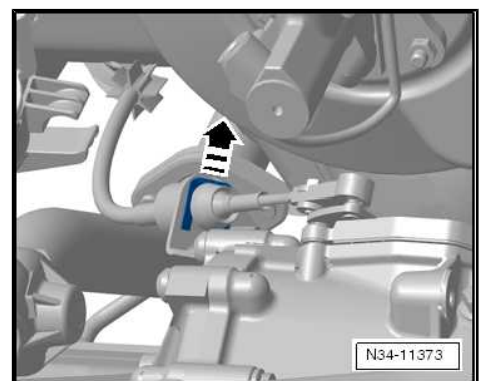
- Shift selector lever into position P.
- Do not take out ignition key.
- If present, remove engine cover ⇒ Engine; Rep. gr. 10 .
- Remove air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .



- Use disassembly tool for inner door trim panel -MP8-602/1- to release selector lever control cable -A- from the gearshift lever.



- Remove the lock washer -arrow- of the selector lever control cable, the selector lever control cable must be left in the fitting position.
- The lock washer -arrow- of the selector lever control cable must always be replaced ⇒ Electronic Catalogue of Original Parts .
- Do not bend or buckle selector lever control cable.
- Do not press the selector lever control cable out of the cable support towards the rear. The selector lever control cable is only guided out of the cable support once the gearbox was removed.
- Removing starter ⇒ Electrical System; Rep. gr. 27 .
- Remove the earth cable from the holding down bolt of the gearbox console.
- Release all the upper connecting screws of the gearbox/engine.



To this end, use if necessary socket insert - T10035- or socket insert - T10061- .



On some engines, one of the screws is located in the assembly opening for the starter -arrow-.

- Unscrew engine/gearbox connecting screw -arrow-.



Caution

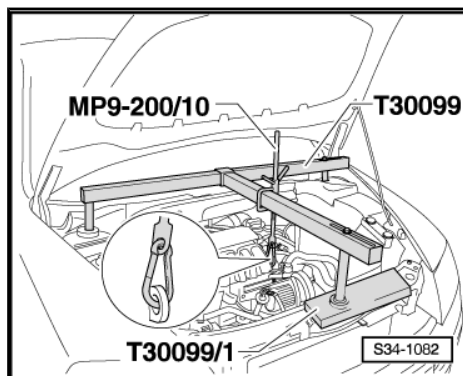
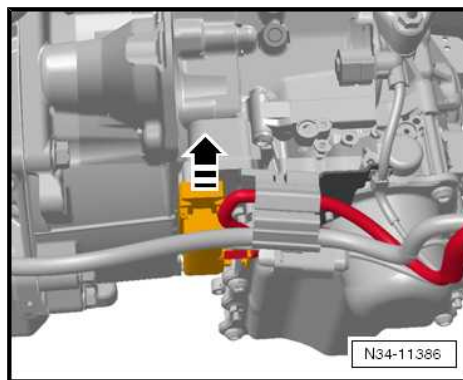
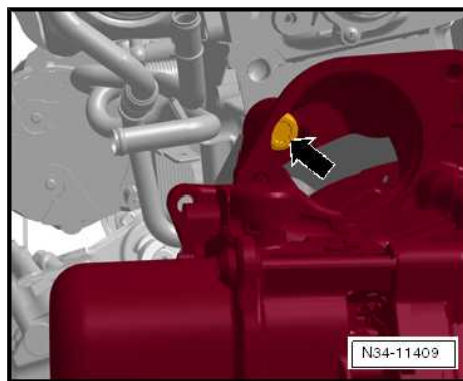
◆ *Under no circumstances must the plug contacts in the plug of the gearbox be touched with the hands, because the control unit can be destroyed through static discharge as well as the mechatronics.*

- Grab with the hand (without gloves) at the mass, in order to discharge yourself electrostatically.
- Unlock the cap of the plug on the mechatronics by pulling in -direction of arrow- and disconnect the plug.
- Remove the cooling water tank cover => Body Work; Rep. gr. 66 .

Vehicles Octavia II

- Position supporting device -T30099- with base - T30099/1- .

Vehicles Yeti



- Fit supporting device -T30099- .

i Note

Use only one spindle of the supporting device on 1.2/77 kW engine.

Continued for all vehicles

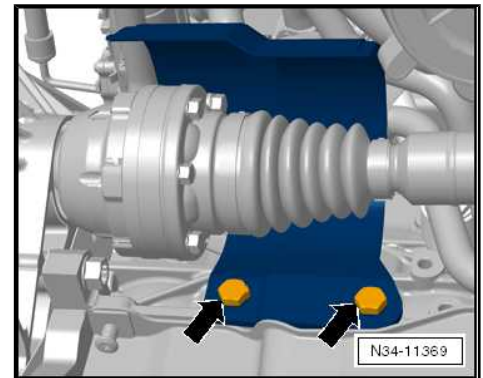
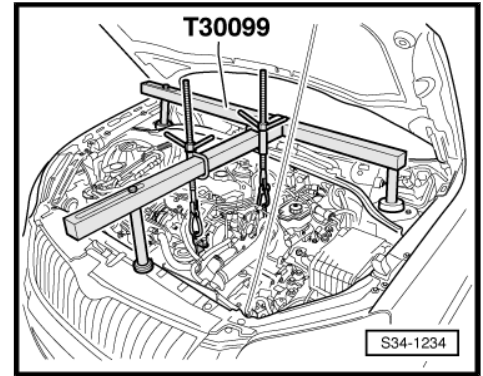
- Slightly pre-tension the engine/gearbox unit via the spindles, do not raise.
- Loosen the front left wheel bolts.

Vehicles with the rigid shafts (up to 11.2008)

- Loosen the front right wheel bolts.
- Raise vehicle.
- Remove right front wheel.

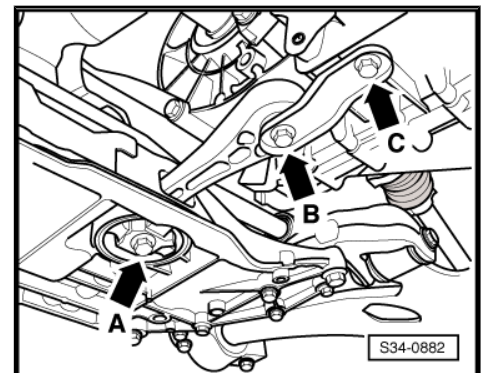
Continued for all vehicles

- Raise vehicle.
- Remove front left wheel.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Remove the front left wheelhouse liner ⇒ Body Work; Rep. gr. 66 .
- Remove the charge air hose from the bottom left charge air cooler and the charge air pipe ⇒ Engine; Rep. gr. 21 .
- Remove the protective cap for right drive shaft from the engine -arrows-.



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

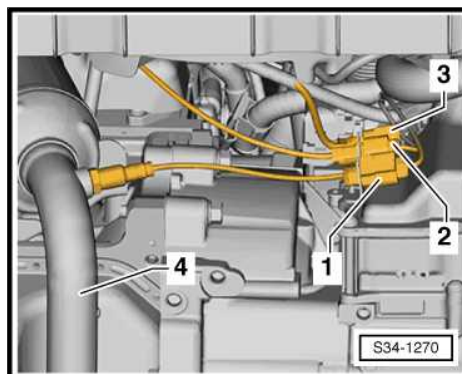
Vehicles with 1.2/77 kW engines



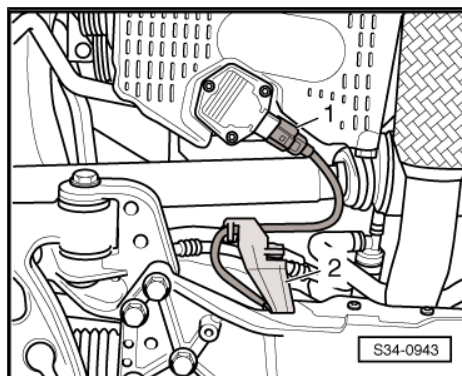
- Unhook the plug connections -1 ... 3- from the bottom bracket at the front of the gearbox and disconnect.
- Remove pre-exhaust pipe with catalytic converter -4- => Engine; Rep. gr. 26 .

Continued for all vehicles

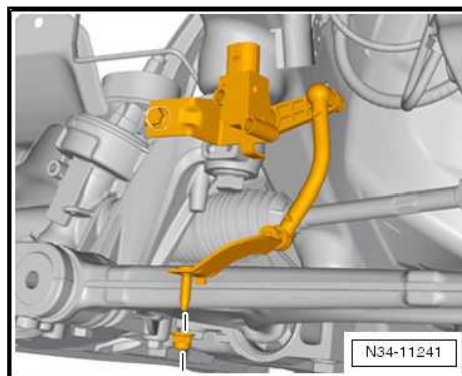
- Separate exhaust system at the clamping sleeve and remove bracket for the exhaust system from the assembly carrier => Engine; Rep. gr. 26 .
- Tie up pre-exhaust pipe.



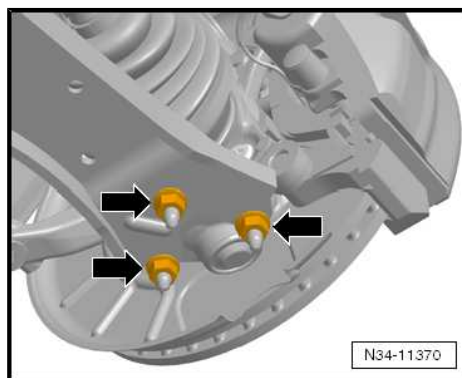
- If present, disconnect the electrical plug connection -1- on the oil level and oil temperature sender - G266- .
- Unclip the wiring loom from the holder -2-.



- If present, remove front left vehicle level sensor - G78- .



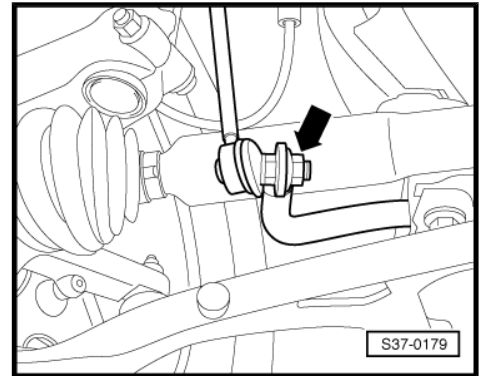
- Unscrew the nuts -arrows- from the steering joint to the left track control arm.
- Unhook the steering joint from the track control arm.



- Remove the screw -arrow- and release the coupling rod from the anti-roll bar on the left side.

Vehicles with the rigid shafts (up to 11.2008)

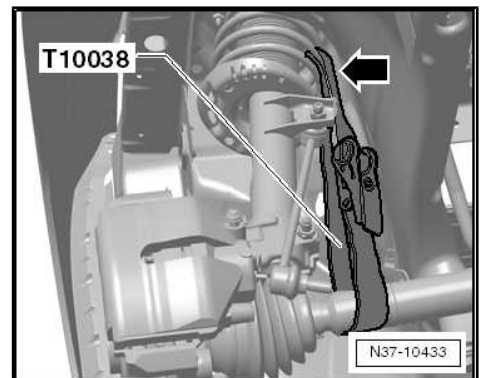
- Unhook the steering joint from the track control arm and release the coupling rods from the anti-roll bar on both sides of the vehicle.
- Press off the left and right rigid drive shafts from the rigid shafts of the gearbox, e.g. with wedge - T10161- or tyre iron => Chassis; Rep. gr. 40 .



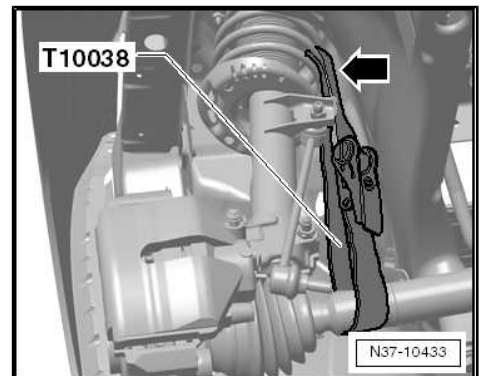
- Tie up the drive shafts as far as possible. Avoid damaging the paintwork of the drive shafts during this operation.

Vehicles with flange shafts (as of 11.2008)

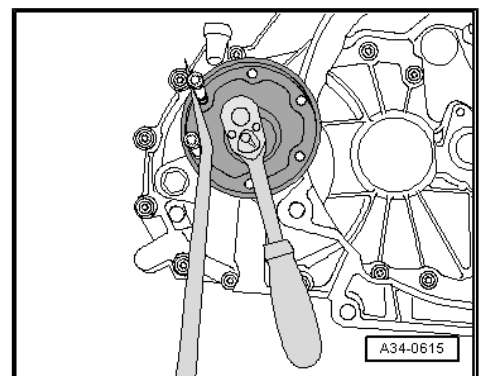
- Remove drive shafts from flange shafts => Chassis; Rep. gr. 40 .



- Tie up the drive shafts as far as possible. Avoid damaging the paintwork of the drive shafts during this operation.

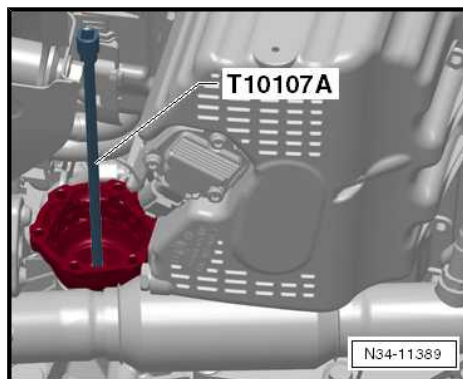


- To remove, insert 2 screws in the right flange and counterhold the flange shaft using an assembly lever.

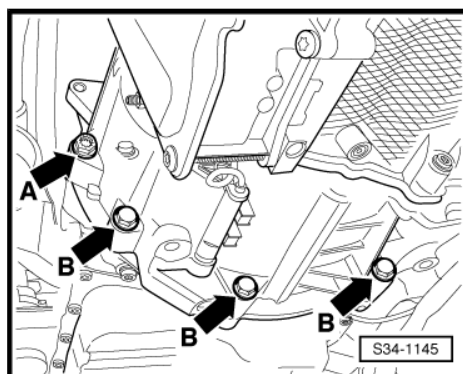


- Remove the right flange shaft with the pressure spring from the gearbox with the socket insert - T10107 A- .
- Seal the gearbox with suitable screw plugs.

Continued for all vehicles

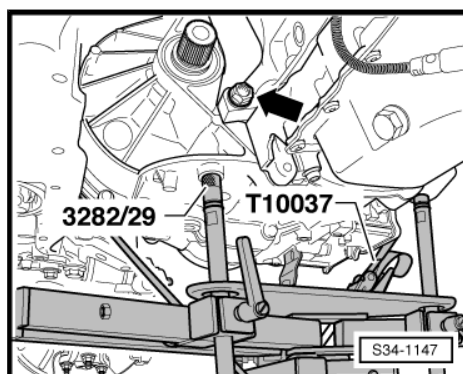


- Unscrew bottom connecting screws -arrow°A- and -arrow°B- from engine/gearbox.

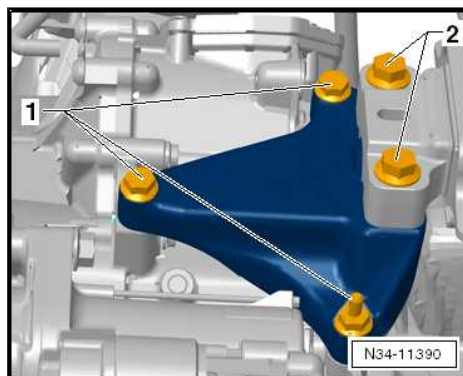


Do not undo screw -arrow- yet on the engine side in the vicinity of the right rigid shaft or right flange shaft.

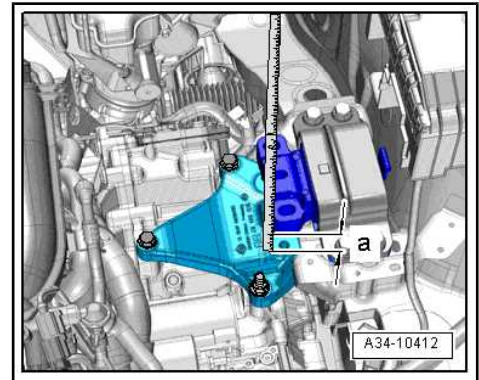
On diesel engines, this screw is underneath the shaft, on petrol engines, above it.



- Slacken the screws -1- of the gearbox console by approx. one turn and screw out the screws -2-.

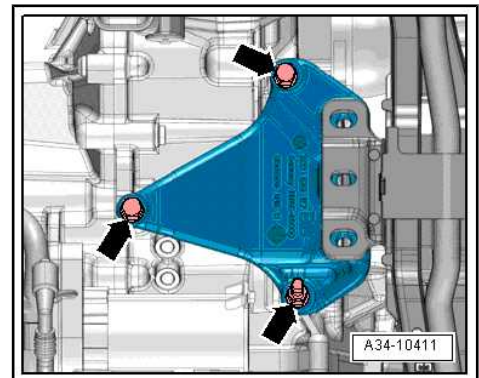


- Then lower the engine and gearbox via the spindles of the supporting device - MP9-200 (10-222 A)- as far as necessary so that there is a gap of dimension -a- between the gearbox console and the gearbox mount.
- Dimension -a- = 60 - 70 mm

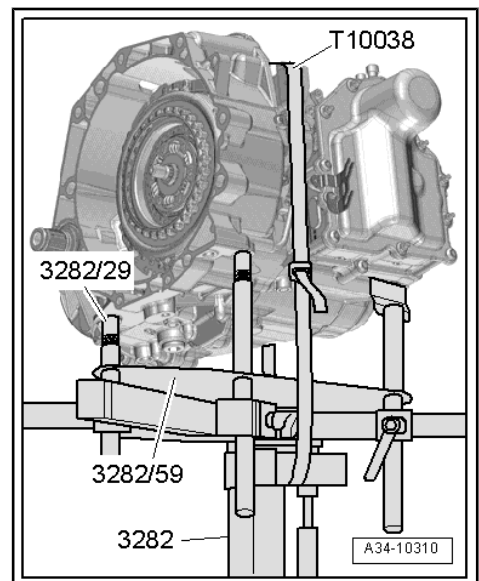


- Screw out screws -arrows- and remove gearbox console.

The gearbox mount - 3282- is placed on the engine/gearbox jack - V.A.G 1383 A- and is aligned using the adjusting plate - 3282/59- to remove the gearbox.



- Align arms of the gearbox mount - 3282- to match the holes in the adjusting plate - 3282/59- .
- Screw in the mounting elements as shown on adjusting plate - 3282/59- .
- Position the engine/gearbox jack - V.A.G 1383 A- below the vehicle with the gearbox mount - 3282- .
- The arrow symbol on the adjusting plate - 3282/59- points in the direction of travel.
- Align the gearbox mount - 3282- parallel to the gearbox.
- Screw the bolt - 3282/29- into the gearbox.
- Place both remaining mounting elements on the gearbox as shown.
- To do so, place the panel of the drift under the gearbox housing and not under the mechatronics.
- Secure the gearbox with the tensioning strap - T10038- .
- Support the gearbox with engine/gearbox jack - V.A.G 1383 A- from underneath.





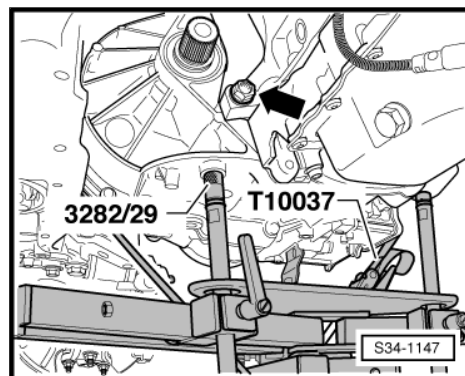
- Unscrew the last connecting screw -arrow- at engine and gearbox.
- Separate the gearbox from the engine and carefully lower it.
- When lowering the gearbox, guide the selector lever control cable out of the cable support.



Caution

Observe all lines and coolant hoses when lowering the gearbox.

Do not bend or buckle selector lever control cable.



Vehicles with flange shafts (as of 11.2008)

- Reinstall the right flange shaft.

Continued for all vehicles

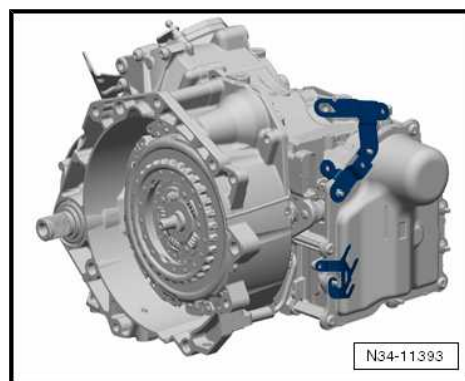
In some cases, they are installed at the front holder on the gearbox.



Note

If a new gearbox is installed, the holders must be modified to the new gearbox holder

Transport the gearbox and secure it to the assembly stand
 ⇒ ["4 Transport the gearbox and secure to the assembly support", page 172](#) .



3.1.2 Remove gearbox (Superb II)

Special tools and workshop equipment required

- ◆ Supporting device - MP9-200 (10-222 A)-
- ◆ Adapter - MP9 200/18 (10-222 A /18)-
- ◆ Mounting bracket - T10346-
- ◆ Wedge - T10161-
- ◆ Hook for MP9-200 and T30099 - MP9-200/10 (10-222A/10)-
- ◆ Removal tool for the inner lining of the door panel -MP8-602/1-
- ◆ Gearbox mount - 3282-
- ◆ Bolt - 3282/29-
- ◆ Adjusting plate - 3282/59-
- ◆ Tensioning strap - T10038-
- ◆ Socket insert - T10107 A-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383 A-
- ◆ Spring strap clips , e.g. -VAS 6340-
- ◆ Socket insert , e.g. -T10035- or socket insert XZN 14 - T10061-

Observe instructions and safety instructions for automatic gearbox DSG - 0AM.

- ◆ ⇒ ["2 Safety instructions", page 2](#)

◆ ⇒ **“3 Repair instructions”, page 4**

All cable straps which are detached or cut open when removing, should be fitted on again in the same place when installing.

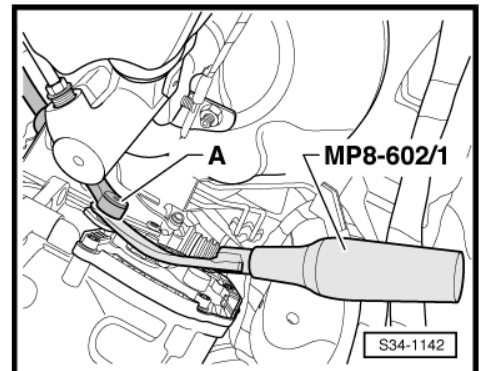
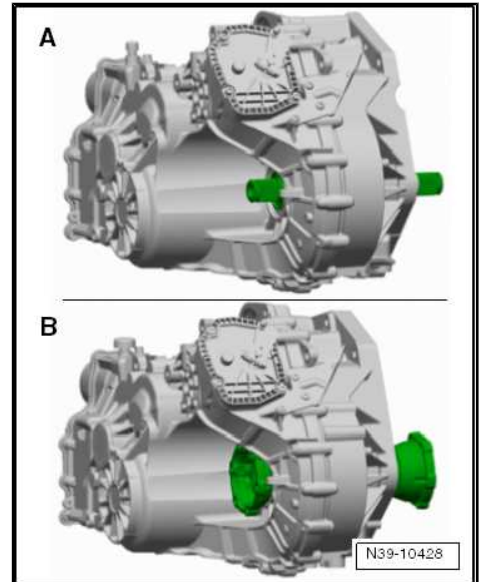
If the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

Gearbox with different output shafts:

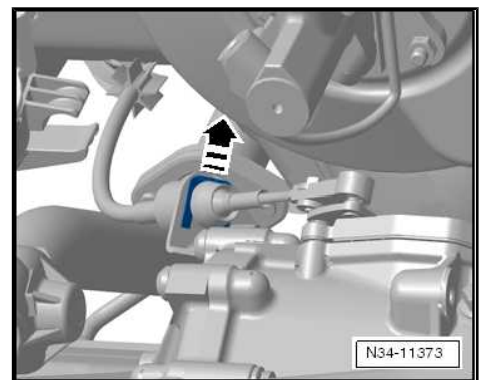
A - Rigid shafts up to 11.2008

B - flange shafts as of 11.2008

- Shift selector lever into position P.
- Do not take out ignition key.
- If present, remove engine cover ⇒ Engine; Rep. gr. 10 .
- Remove air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .
- Use disassembly tool for inner door trim panel -MP8-602/1- to release selector lever control cable -A- from the gearshift lever.



- Remove the lock washer -arrow- of the selector lever control cable, the selector lever control cable must be left in the fitting position.
- The lock washer -arrow- of the selector lever control cable must always be replaced ⇒ Electronic Catalogue of Original Parts .
- Do not bend or buckle selector lever control cable.
- Do not press the selector lever control cable out of the cable support towards the rear. The selector lever control cable is only guided out of the cable support once the gearbox was removed.
- Removing starter ⇒ Electrical System; Rep. gr. 27 .
- Remove the earth cable from the holding down bolt of the gearbox console.
- Release all the upper connecting screws of the gearbox/engine.



To this end, use if necessary socket insert - T10035- or socket insert - T10061- .



On some engines, one of the screws is located in the assembly opening for the starter -arrow-.

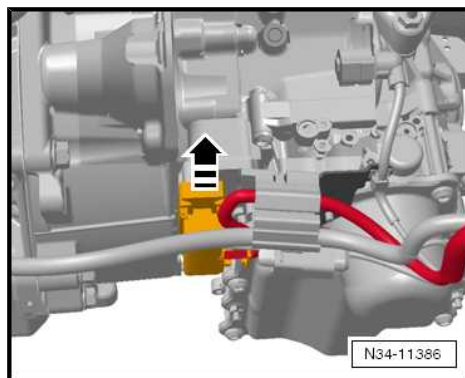
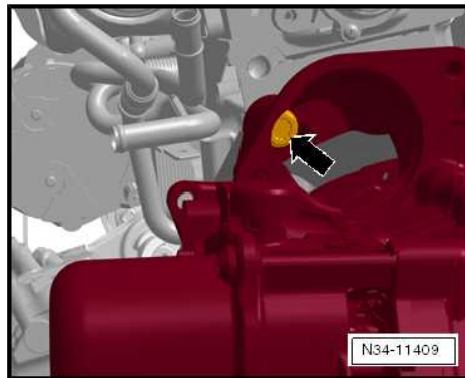
- Unscrew engine/gearbox connecting screw -arrow-.



Caution

- ◆ *Under no circumstances must the plug contacts in the plug of the gearbox be touched with the hands, because the control unit can be destroyed through static discharge as well as the mechatronics.*

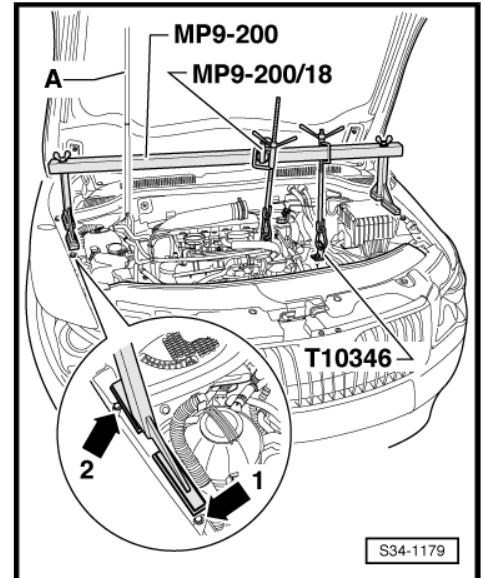
- Grab with the hand (without gloves) at the mass, in order to discharge yourself electrostatically.
- Unlock the cap of the plug on the mechatronics by pulling in -direction of arrow- and disconnect the plug.
- Remove the filling pieces from both upper edges of the wings.



- Screw on the bracket - T10346- into the rear opening for fastening 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 supports of the supporting device - MP9-200 (10-222 A)- must be placed on the wheelhouse frame side rail, as shown in the figure.
- The supports must be placed behind the screw -arrow 1- and to the side and touching screw -arrow 2-.
- Connect the holder - T10346- with the supporting device - MP9-200 (10-222 A)- .
- 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.

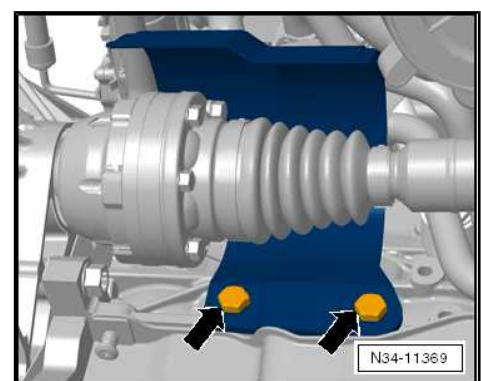


Vehicles with the rigid shafts (up to 11.2008)

- Loosen the front right wheel bolts.
- Raise vehicle.
- Remove right front wheel.

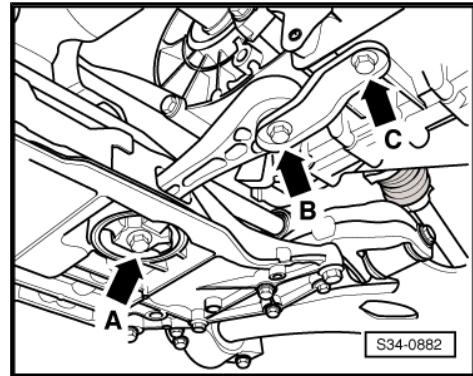
Continued for all vehicles

- Raise vehicle.
- Remove front left wheel.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Remove the front left wheelhouse liner ⇒ Body Work; Rep. gr. 66 .
- Remove the charge air hose from the bottom left charge air cooler and the charge air pipe ⇒ Engine; Rep. gr. 21 .
- Remove the protective cap for right drive shaft from the engine -arrows-.

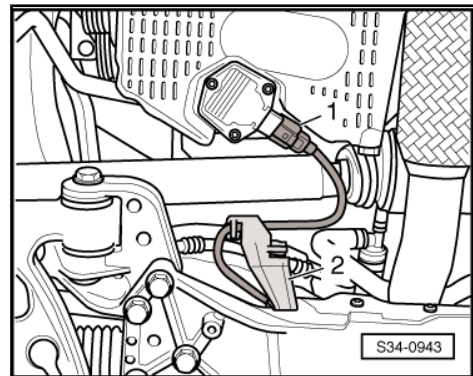




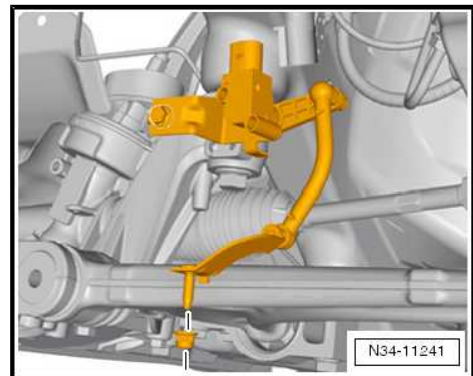
- Remove pendulum support from gearbox, to do so, release the bolts -arrows B and C-.
- Separate exhaust system at the clamping sleeve and remove bracket for the exhaust system from the assembly carrier => Engine; Rep. gr. 26 .
- Tie up pre-exhaust pipe.



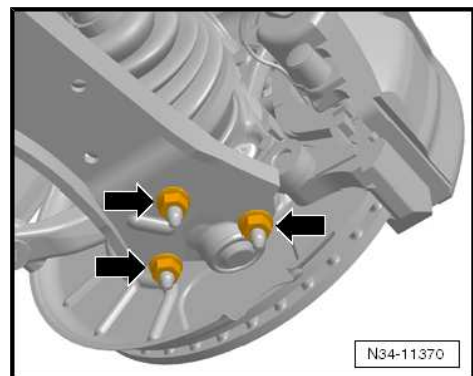
- If present, disconnect the electrical plug connection -1- on the oil level and oil temperature sender - G266- .
- Unclip the wiring loom from the holder -2-.



- If present, remove front left vehicle level sensor - G78- .



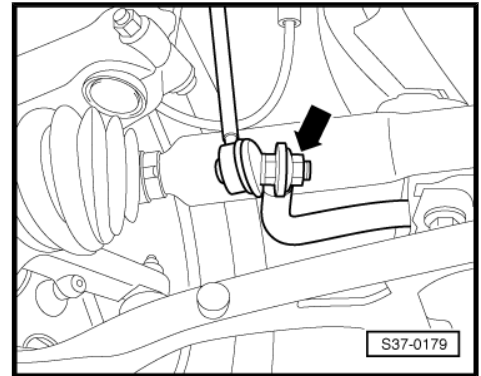
- Unscrew the nuts -arrows- from the steering joint to the left track control arm.
- Unhook the steering joint from the track control arm.



- Remove the screw -arrow- and release the coupling rod from the anti-roll bar on the left side.

Vehicles with the rigid shafts (up to 11.2008)

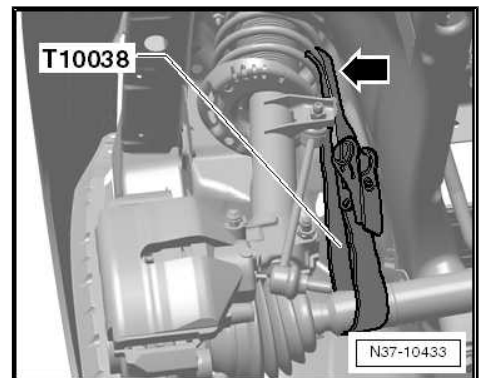
- Unhook the steering joint from the track control arm and release the coupling rods from the anti-roll bar on both sides of the vehicle.
- Press off the left and right rigid drive shafts from the rigid shafts of the gearbox, e.g. with wedge - T10161- or tyre iron => Chassis; Rep. gr. 40 .



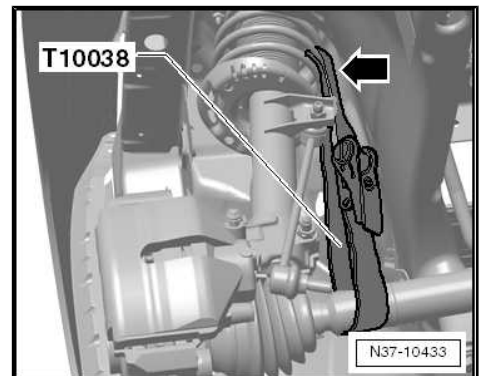
- Tie up the drive shafts as far as possible. Avoid damaging the paintwork of the drive shafts during this operation.

Vehicles with flange shafts (as of 11.2008)

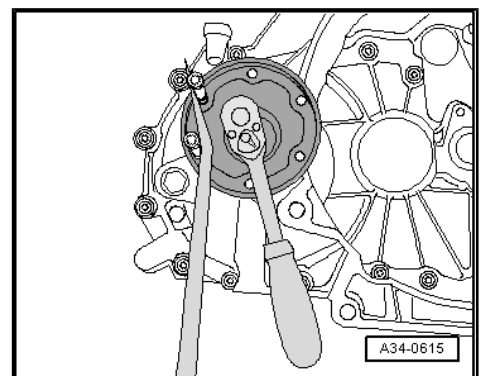
- Remove drive shafts from flange shafts => Chassis; Rep. gr. 40 .



- Tie up the drive shafts as far as possible. Avoid damaging the paintwork of the drive shafts during this operation.

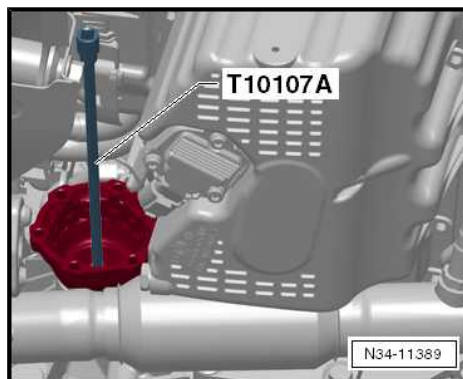


- To remove, insert 2 screws in the right flange and counterhold the flange shaft using an assembly lever.

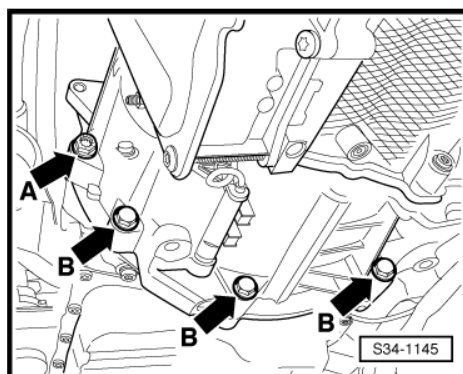


- Remove the right flange shaft with the pressure spring from the gearbox with the socket insert - T10107 A- .
- Seal the gearbox with suitable screw plugs.

Continued for all vehicles

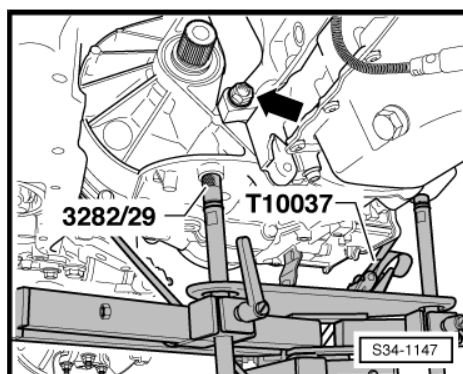


- Unscrew bottom connecting screws -arrow°A- and -arrow°B- from engine/gearbox.

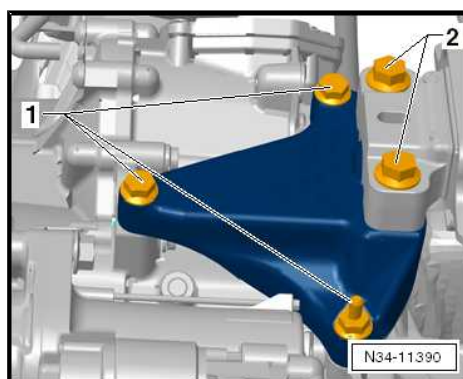


Do not undo screw -arrow- yet on the engine side in the vicinity of the right rigid shaft or right flange shaft.

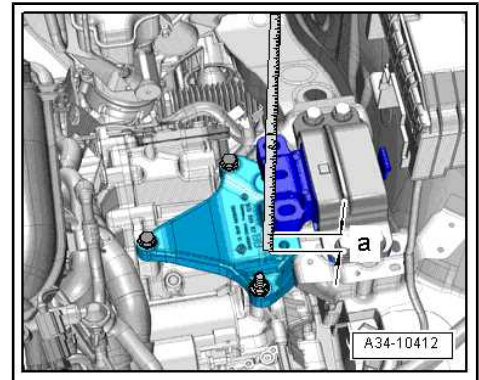
On diesel engines, this screw is underneath the shaft, on petrol engines, above it.



- Slacken the screws -1- of the gearbox console by approx. one turn and screw out the screws -2-.

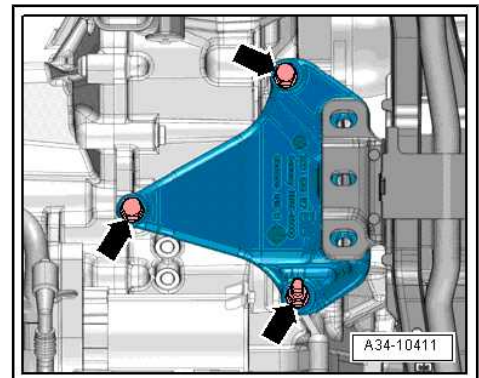


- Then lower the engine and gearbox via the spindles of the supporting device - MP9-200 (10-222 A)- as far as necessary so that there is a gap of dimension -a- between the gearbox console and the gearbox mount.
- Dimension -a- = 60 ... 70 mm.

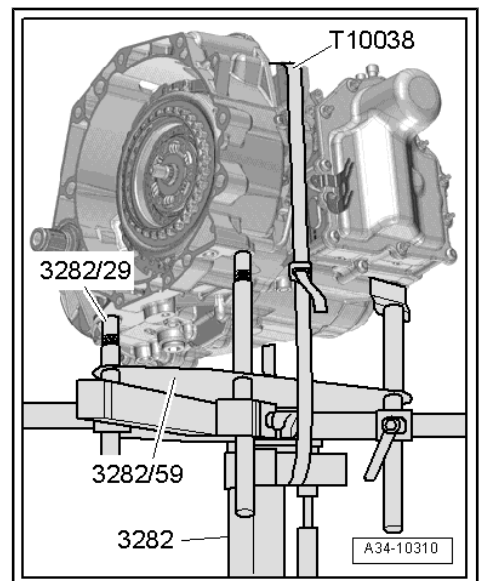


- Screw out screws -arrows- and remove gearbox console.

The gearbox mount - 3282- is placed on the engine/gearbox jack - V.A.G 1383 A- and is aligned using the adjusting plate - 3282/59- to remove the gearbox.



- Align arms of the gearbox mount - 3282- to match the holes in the adjusting plate - 3282/59- .
- Screw in the mounting elements as shown on adjusting plate - 3282/59- .
- Position the engine/gearbox jack - V.A.G 1383 A- below the vehicle with the gearbox mount - 3282- .
- The arrow symbol on the adjusting plate - 3282/59- points in the direction of travel.
- Align the gearbox mount - 3282- parallel to the gearbox.
- Screw the bolt - 3282/29- into the gearbox.
- Place both remaining mounting elements on the gearbox as shown.
- To do so, place the panel of the drift under the gearbox housing and not under the mechatronics.
- Secure the gearbox with the tensioning strap - T10038- .
- Support the gearbox with engine/gearbox jack - V.A.G 1383 A- from underneath.





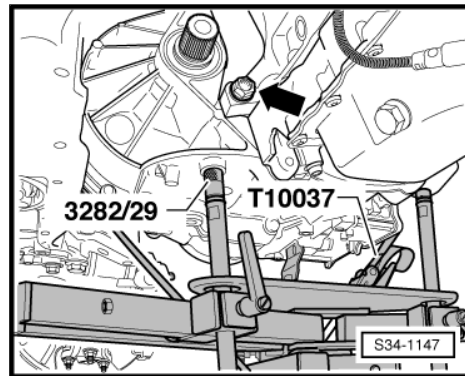
- Unscrew the last connecting screw -arrow- at engine and gearbox.
- Separate the gearbox from the engine and carefully lower it.
- When lowering the gearbox, guide the selector lever control cable out of the cable support.



Caution

Observe all lines and coolant hoses when lowering the gearbox.

Do not bend or buckle selector lever control cable.



Vehicles with flange shafts (as of 11.2008)

- Reinstall the right flange shaft.

Continued for all vehicles

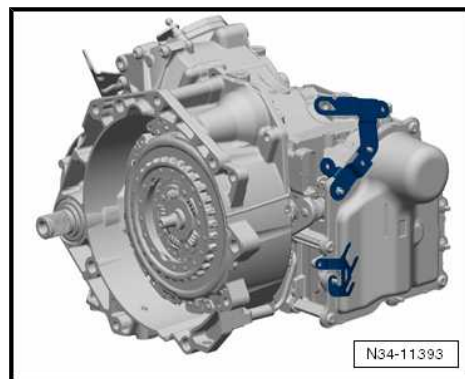
In some cases, they are installed at the front holder on the gearbox.



Note

If a new gearbox is installed, the holders must be modified to the new gearbox holder

Transport the gearbox and secure it to the assembly stand
 ⇒ ["4 Transport the gearbox and secure to the assembly support", page 172](#) .



3.1.3 Removing the gearbox (Fabia II, Roomster)

Special tools and workshop equipment required

- ◆ Supporting device - MP9-200 (10-222 A)-
- ◆ Adapter - MP9-200/3 (10-222A/3)-
- ◆ Adapter - MP9-200/18 (10-222A/18)-
- ◆ Extractor - T10037-
- ◆ Hook for MP9-200 and T30099 - MP9-200/10 (10-222A/10)-
- ◆ Removal tool for the inner lining of the door panel -MP8-602/1-
- ◆ Gearbox mount - 3282-
- ◆ Bolt - 3282/29-
- ◆ Adjusting plate - 3282/59-
- ◆ Tensioning strap - T10038-
- ◆ Socket insert - T10107 A-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383 A-
- ◆ Spring strap clips , e.g. -VAS 6340-
- ◆ Socket insert , e.g. -T10035- or socket insert XZN 14 - T10061-

Observe instructions and safety instructions for automatic gearbox DSG - 0AM.

◆ ⇒ [“2 Safety instructions”, page 2](#)

◆ ⇒ [“3 Repair instructions”, page 4](#)

All cable straps which are detached or cut open when removing, should be fitted on again in the same place when installing.

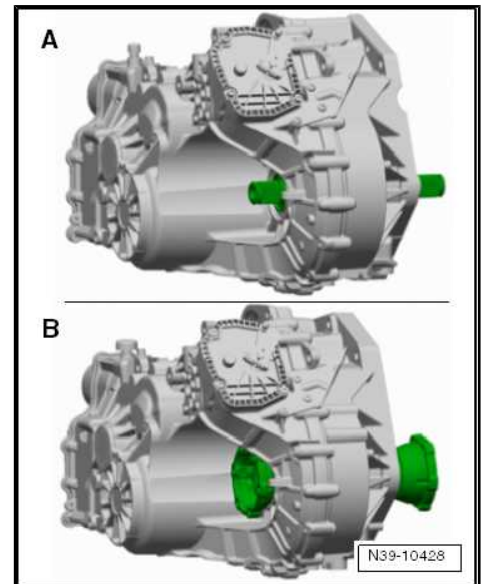
If the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

Gearbox with different output shafts:

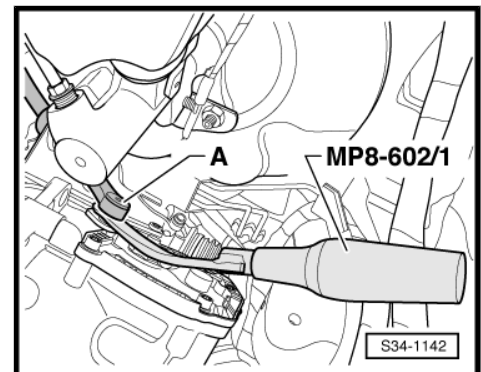
A - Rigid shafts up to 11.2008

B - flange shafts as of 11.2008

- Shift selector lever into position P.
- Do not take out ignition key.
- If present, remove engine cover ⇒ Engine; Rep. gr. 10 .
- Remove air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .



- Use disassembly tool for inner door trim panel -MP8-602/1- to release selector lever linkage-A- from the gearshift lever.



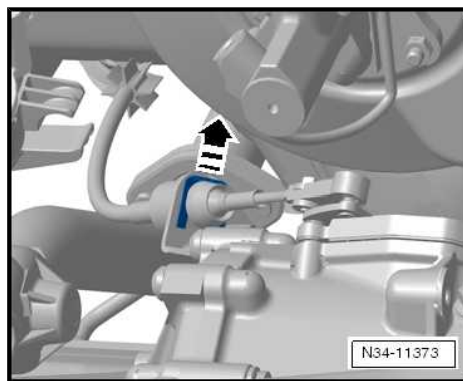



- Remove the lock washer -arrow- of the selector lever control cable, the selector lever control cable must be left in the fitting position.
- The lock washer -arrow- of the selector lever control cable must always be replaced ⇒ Electronic Catalogue of Original Parts .
- Do not bend or buckle selector lever control cable.
- Do not press the selector lever control cable out of the cable support towards the rear. The selector lever control cable is only guided out of the cable support once the gearbox was removed.
- Removing starter ⇒ Electrical System; Rep. gr. 27 .
- Remove the earth cable from the holding down bolt of the gearbox console.
- Release all the upper connecting screws of the gearbox/engine.

To this end, use if necessary socket insert - T10035- or socket insert - T10061- .

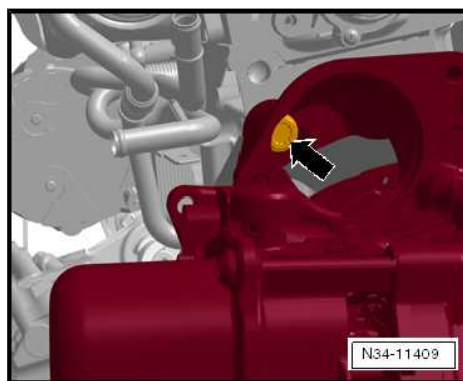
On some engines, one of the screws is located in the assembly opening for the starter -arrow-.

- Unscrew engine/gearbox connecting screw -arrow-.

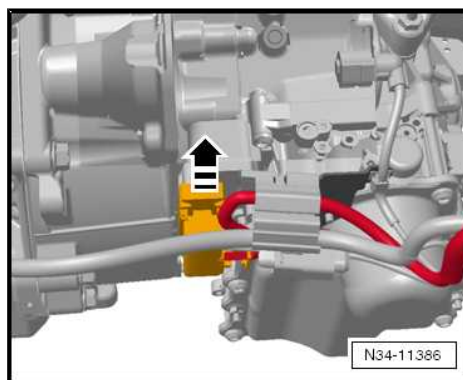


 **Caution**

◆ *Under no circumstances must the plug contacts in the plug of the gearbox be touched with the hands, because the control unit can be destroyed through static discharge as well as the mechatronics.*



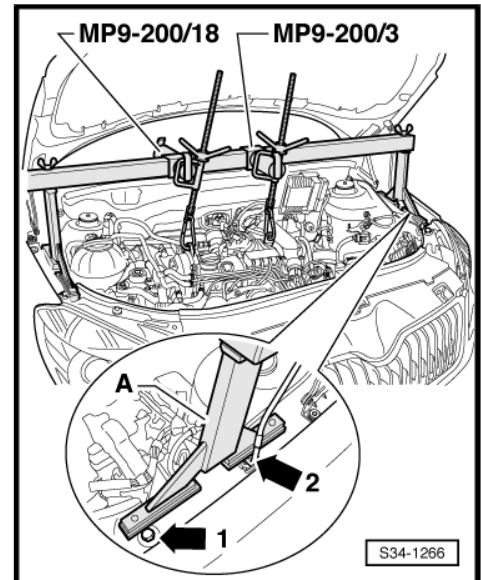
- Grab with the hand (without gloves) at the mass, in order to discharge yourself electrostatically.
- Unlock the cap of the plug on the mechatronics by pulling in -direction of arrow- and disconnect the plug.



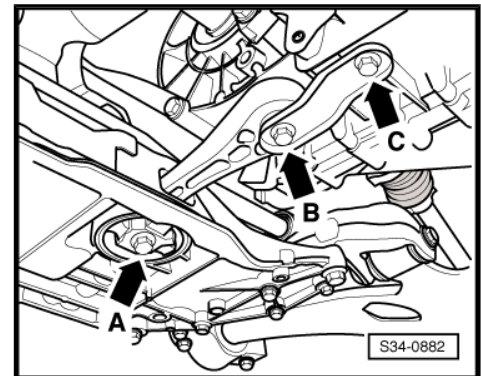
- Position the supporting device - MP9-200 (10-222A)- as shown.

Position the supporting device - MP9-200 (10-222A)- so that the supports -A- are located next to screw -arrow 1- and the support for the front flap -arrow 2-.

- If hose and cable connections are located in the area of the lifting eye of the engine for the supporting device - MP9-200 (10-222A)- , these must now be removed.
- Slightly pre-tension the engine/gearbox unit via spindles (do not raise).
- Loosen the wheel bolts and the drive shaft bolts on front left and front right.
- Raise vehicle.
- Remove both front wheels.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Remove the front left wheelhouse liner ⇒ Body Work; Rep. gr. 66 .
- Unscrew screws -arrow B- and -arrow C- and disconnect the pendulum support from the gearbox.

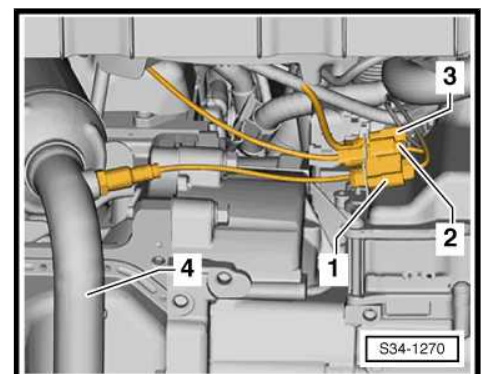


Vehicles with 1.2/77 kW engines

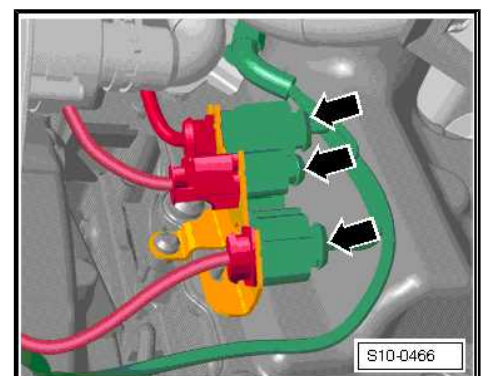


- Unhook the plug connections -1-, -2- and -3- from the bottom bracket at the front of the gearbox and disconnect.
- Remove pre-exhaust pipe with catalytic converter -4- ⇒ Engine; Rep. gr. 26 .

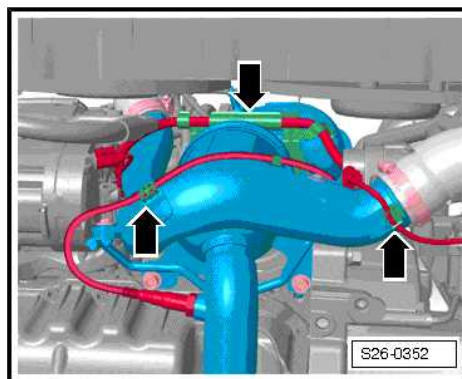
Fabia II vehicles with 1.4/132 kW engines



- Disconnect the two bottom plug connections -arrows- of the lambda probe - G39- and lambda probe after catalytic converter - G130- .



- Disconnect the wiring loom of the generator, of the lambda probe after catalytic converter - G130- and of the lambda probe - G39- from the supports -arrows-.

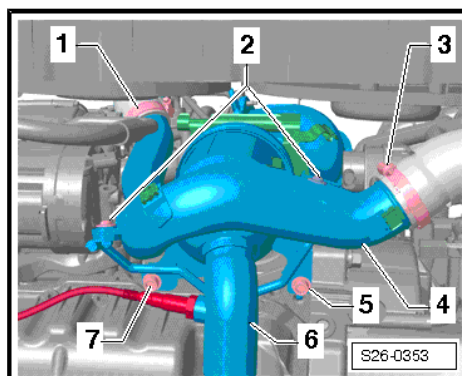


- Release clamps -1- and -3- on the charge air pipe -4-.
- Unscrew screws -2- from bracket for coolant pipe and remove bracket.

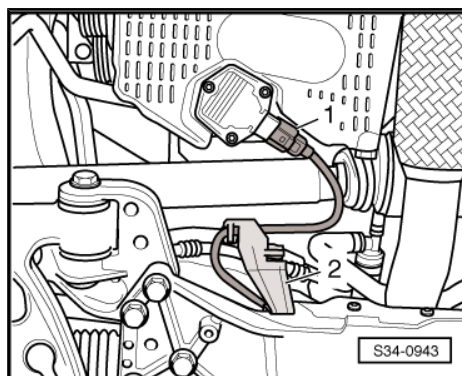
The charge air pipe is removed subsequently together with the pre-exhaust pipe.

- Unscrew screws -5- and -7- from the bracket of the pre-exhaust pipe.
- Remove pre-exhaust pipe => Engine; Rep. gr. 26 .

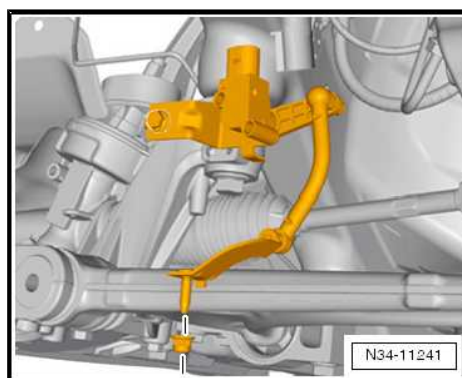
Continued for all vehicles



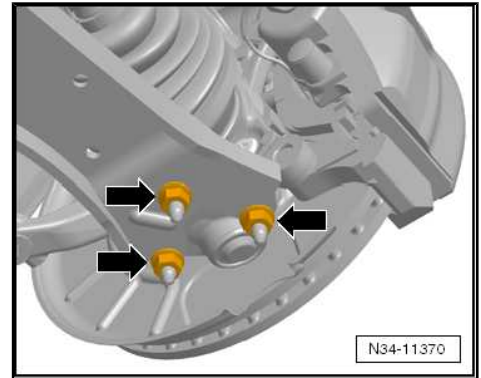
- If present, disconnect the electrical plug connection -1- on the oil level and oil temperature sender - G266- .
- Unclip the wiring loom from the holder -2-.



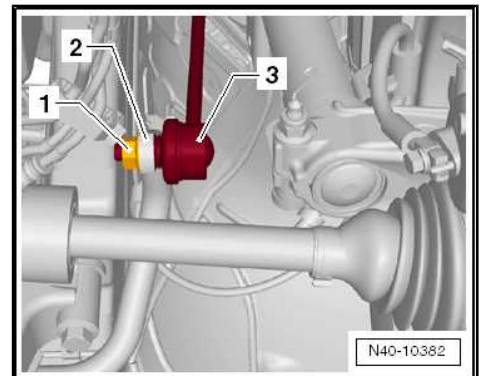
- If present, remove front left vehicle level sensor - G78- .



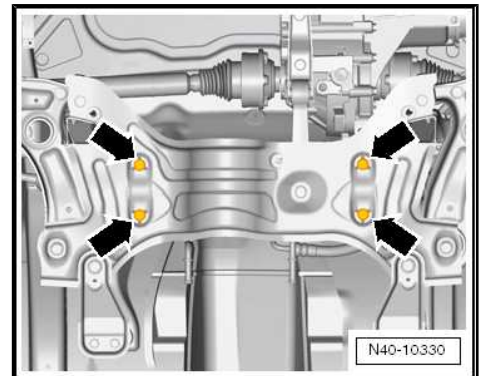
- Unscrew the nuts -arrows- from the steering joint on the track control arm on both sides.
- Unhook the steering joint from the two track control arms.



- Unscrew nut -1- from both sides of coupling rod -3-.
- On both sides, remove the coupling rod -3- from the anti-roll bar -2- and press to the rear.



- Release and unscrew screws -arrows- for steering gear from assembly carrier.
- Tie up the steering gear.
- Fix the assembly carrier before removing => Chassis; Rep. gr. 40 .
- Remove assembly carrier with console without a steering gear => Suspension; Rep. gr. 40 .

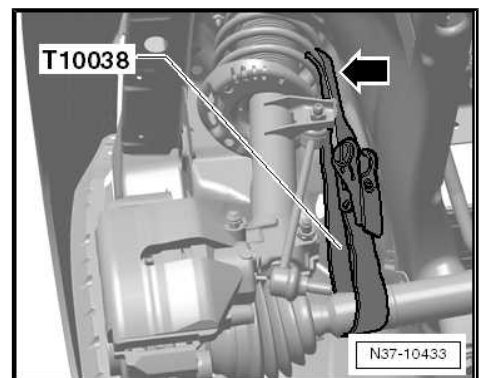


Vehicles with the rigid shafts (up to 11.2008)

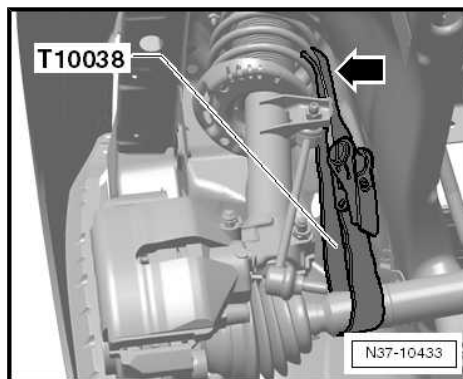
- Press off the left and right rigid drive shafts from the rigid shafts of the gearbox, e.g. with wedge - T10161- or tyre iron => Chassis; Rep. gr. 40 .
- Tie up the drive shafts as far as possible. Avoid damaging the paintwork of the drive shafts during this operation.

Vehicles with flange shafts (as of 11.2008)

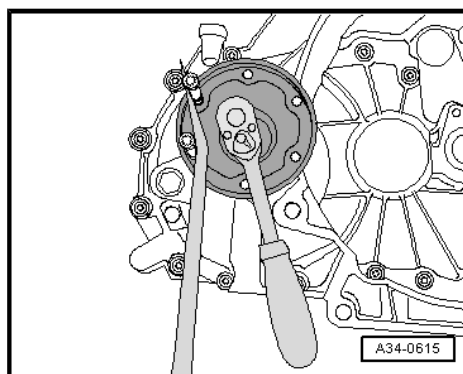
- Remove drive shafts from flange shafts => Chassis; Rep. gr. 40 .



- Tie up the drive shafts as far as possible. Avoid damaging the paintwork of the drive shafts during this operation.

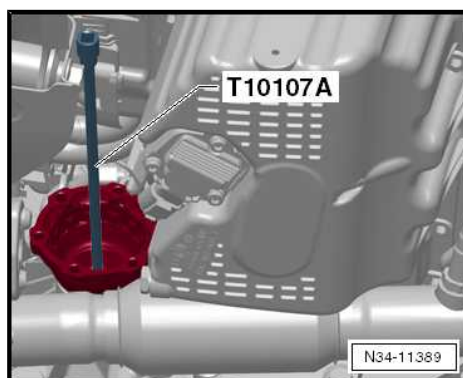


- To remove, insert 2 screws in the right flange and counterhold the flange shaft using an assembly lever.

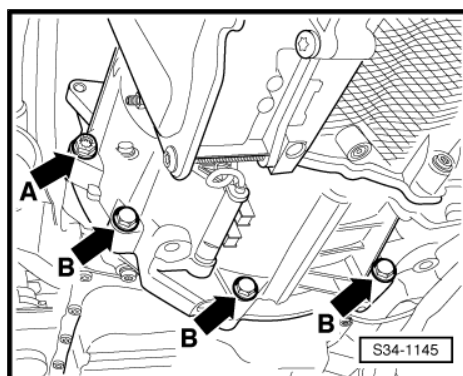


- Remove the right flange shaft with the pressure spring from the gearbox with the socket insert - T10107 A- .
- Seal the gearbox with suitable screw plugs.

Continued for all vehicles



- Unscrew bottom connecting screws -arrow°A- and -arrow°B- from engine/gearbox.



Do not undo screw -arrow- yet on the engine side in the vicinity of the right rigid shaft or right flange shaft.

On diesel engines, this screw is underneath the shaft, on petrol engines, above it.

Vehicles with radiator fan control unit - J293-

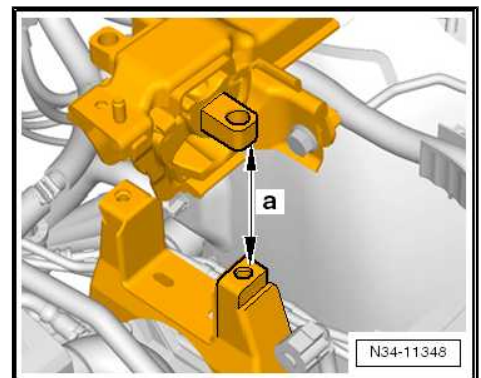
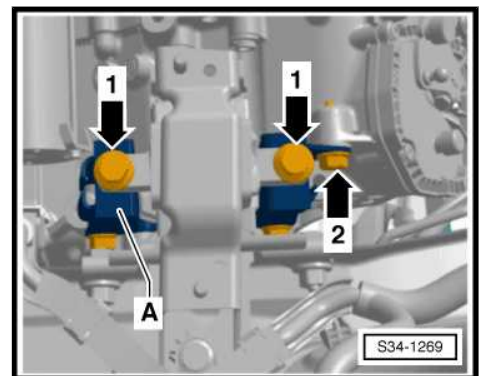
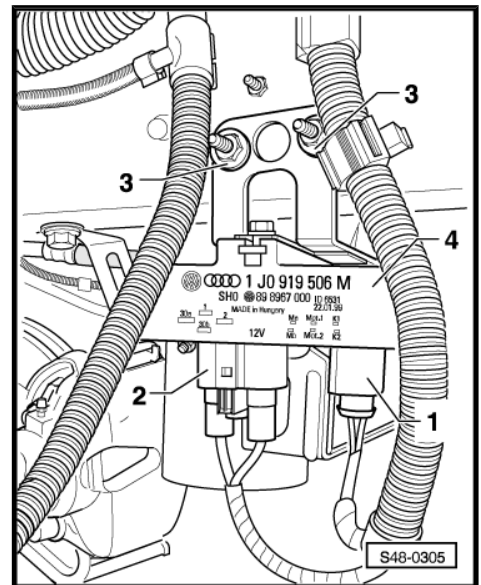
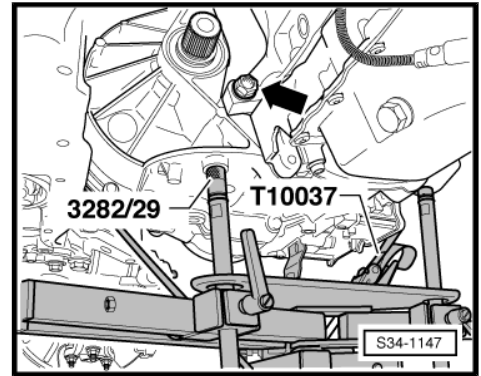
- Unscrew the nuts -3- from the left frame side rail and tie up the radiator fan control unit - J293- -4-.

Do not disconnect the plugs -1- and -2-.

Continued for all vehicles

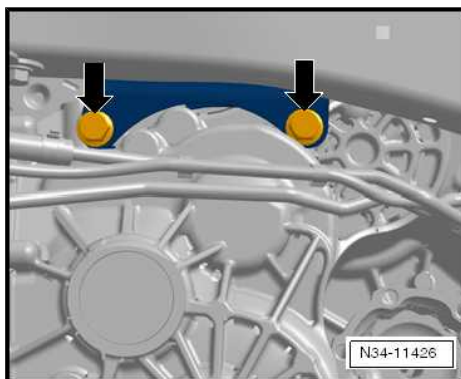
- Unscrew the fixing screws -arrows 1- for the gearbox mount at the console -A-.
- Screw out the rear fixing screw -arrow 2- for the console -A- at the gearbox.

- Lower the engine/gearbox assembly via the spindles to the dimension -a- by approx. 85 mm.
- The engine/gearbox assembly must be lowered so that the fixing screws of the console/gearbox are loosened and can be unscrewed (following figure).

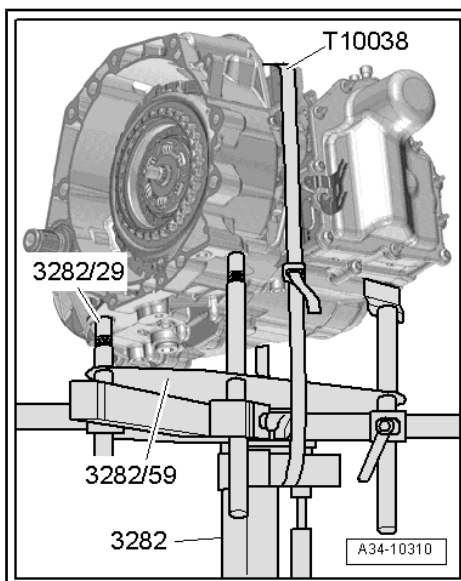


- Unscrew the fixing screws -arrows- for the console on the gearbox.
- Remove the gearbox console.


The gearbox mount - 3282- is placed on the engine/gearbox jack - V.A.G 1383 A- and is aligned using the adjusting plate - 3282/59- to remove the gearbox.



- Align arms of the gearbox mount - 3282- to match the holes in the adjusting plate - 3282/59- .
- Screw in the mounting elements as shown on adjusting plate - 3282/59- .
- Position the engine/gearbox jack - V.A.G 1383 A- below the vehicle with the gearbox mount - 3282- .
- The arrow symbol on the adjusting plate - 3282/59- points in the direction of travel.
- Align the gearbox mount - 3282- parallel to the gearbox.
- Screw the bolt - 3282/29- into the gearbox.
- Place both remaining mounting elements on the gearbox as shown.
- To do so, place the panel of the drift under the gearbox housing and not under the mechatronics.
- Secure the gearbox with the tensioning strap - T10038- .
- Support the gearbox with engine/gearbox jack - V.A.G 1383 A- from underneath.

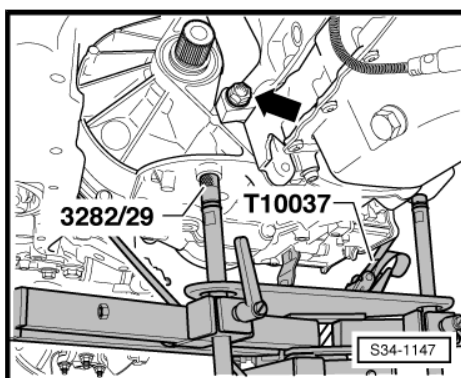


- Unscrew the last connecting screw -arrow- at engine and gearbox.
- Separate the gearbox from the engine and carefully lower it.
- When lowering the gearbox, guide the selector lever control cable out of the cable support.

 **Caution**

Observe all lines and coolant hoses when lowering the gearbox.

Do not bend or buckle selector lever control cable.



Vehicles with flange shafts (as of 11.2008)

- Reinstall the right flange shaft.

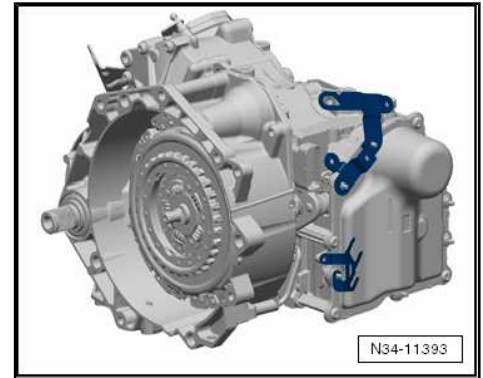
Continued for all vehicles

In some cases, they are installed at the front holder on the gearbox.

i Note

If a new gearbox is installed, the holders must be modified to the new gearbox holder

Transport the gearbox and secure it to the assembly stand
⇒ [“4 Transport the gearbox and secure to the assembly support”, page 172](#) .



3.1.4 Removing gearbox (Rapid NH)

Special tools and workshop equipment required

- ◆ Supporting device - T30099-
- ◆ Surface - T30099/1-
- ◆ Extractor - T10037-
- ◆ Hook for MP9-200 and T30099 - MP9-200/10 (10-222A/10)-
- ◆ Removal tool for the inner lining of the door panel -MP8-602/1-
- ◆ Gearbox mount - 3282-
- ◆ Bolt - 3282/29-
- ◆ Adjusting plate - 3282/59-
- ◆ Tensioning strap - T10038-
- ◆ Socket insert - T10107 A-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383 A-
- ◆ Spring strap clips , e.g. -VAS 6340-
- ◆ Socket insert , e.g. -T10035- or socket insert XZN 14 - T10061-

Observe instructions and safety instructions for automatic gearbox DSG - 0AM.

◆ ⇒ [“2 Safety instructions”, page 2](#)

◆ ⇒ [“3 Repair instructions”, page 4](#)

All cable straps which are detached or cut open when removing, should be fitted on again in the same place when installing.

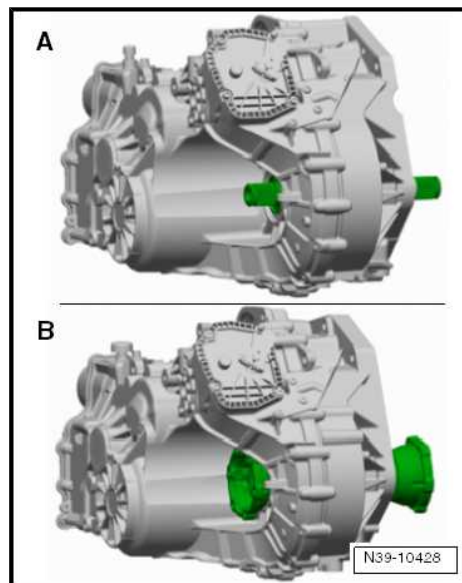
If the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

Gearbox with different output shafts:

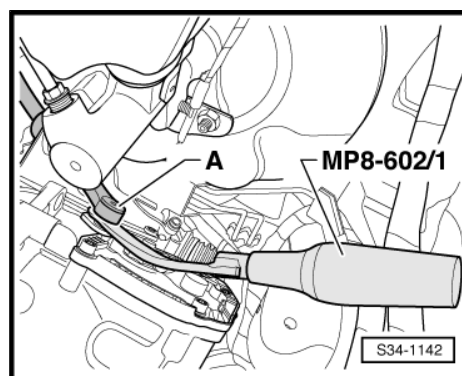
A - Rigid shafts up to 11.2008

B - flange shafts as of 11.2008

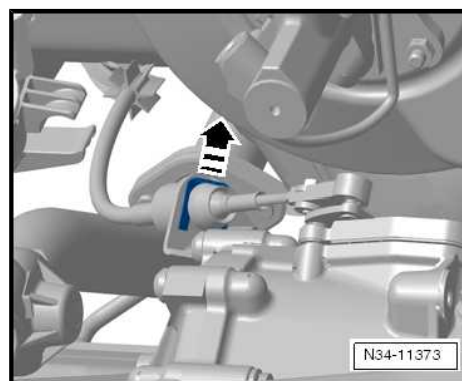
- Shift selector lever into position P.
- Do not take out ignition key.
- If present, remove engine cover ⇒ Engine; Rep. gr. 10 .
- Remove air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .



- Use disassembly tool for inner door trim panel -MP8-602/1- to release selector lever linkage-A- from the gearshift lever.



- Remove the lock washer -arrow- of the selector lever control cable, the selector lever control cable must be left in the fitting position.
- The lock washer -arrow- of the selector lever control cable must always be replaced ⇒ Electronic Catalogue of Original Parts .
- Do not bend or buckle selector lever control cable.
- Do not press the selector lever control cable out of the cable support towards the rear. The selector lever control cable is only guided out of the cable support once the gearbox was removed.
- Removing starter ⇒ Electrical System; Rep. gr. 27 .
- Remove the earth cable from the holding down bolt of the gearbox console.
- Release all the upper connecting screws of the gearbox/engine.



To this end, use if necessary socket insert - T10035- or socket insert - T10061- .

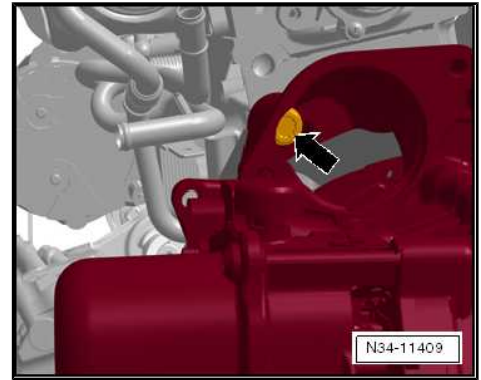
On some engines, one of the screws is located in the assembly opening for the starter -arrow-.

- Unscrew engine/gearbox connecting screw -arrow-.

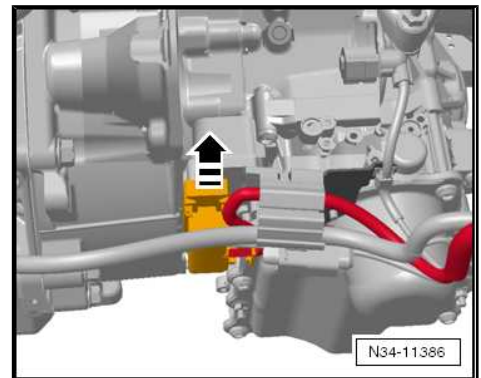


Caution

- ◆ *Under no circumstances must the plug contacts in the plug of the gearbox be touched with the hands, because the control unit can be destroyed through static discharge as well as the mechatronics.*



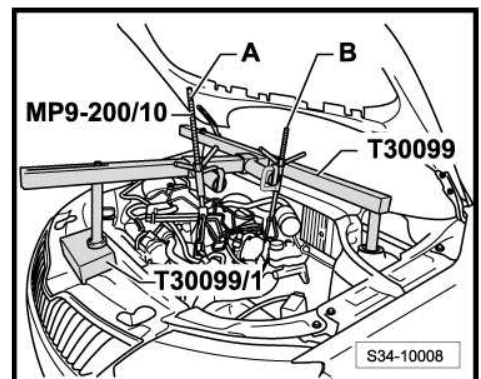
- Grab with the hand (without gloves) at the mass, in order to discharge yourself electrostatically.
- Unlock the cap of the plug on the mechatronics by pulling in -direction of arrow- and disconnect the plug.
- Remove the cooling water tank cover => Body Work; Rep. gr. 66 .



- Position supporting device - T30099- with base - T30099/1- . Support supporting device - T30099- with base - T30099/1- and lock carrier.

- Position original spindle -A- on adapter - MP9-200/3 (10-222A/3)- and hook it into the front engine lifting eye.

In order for the spindle -B- of the supporting device - MP9-200 (10-222A)- not to touch the front flap, it must be shortened to the dimension -x- (100 mm).



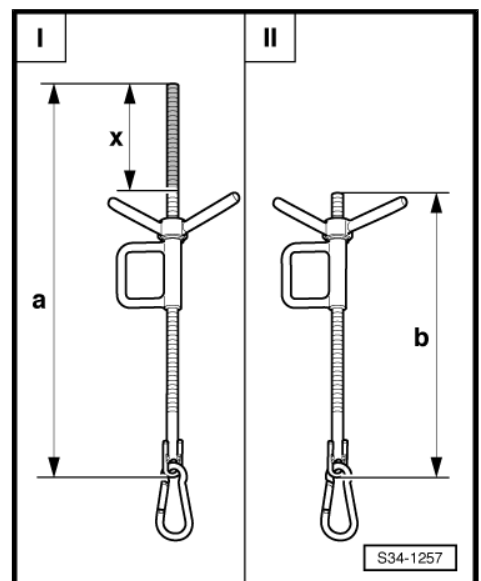
Reduce length of support bracket spindle - MP9-200/10 (10-222A/10)- by 100 mm

I - Original spindle MP9-200/10 (10-222A/10)

- ◆ Dimension -a- = 442 mm
- ◆ Dimension -x- = 100 mm

II - shortened spindle MP9-200/10 (10-222A/10)

- ◆ Dimension -b- = 342 mm
- Position the shortened spindle -B- on the rear adapter - MP9-200/3 (10-222A/3)- .





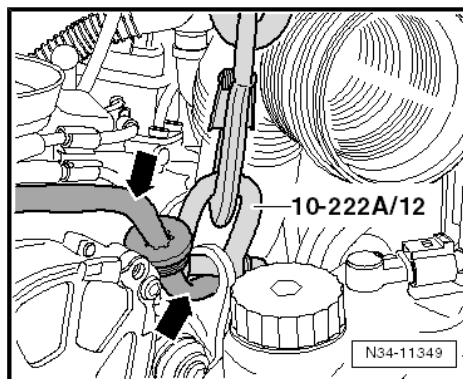
- Unclip the rubber grommet and hook the shackle - 10-222 A/12- into the rear engine lifting eye.



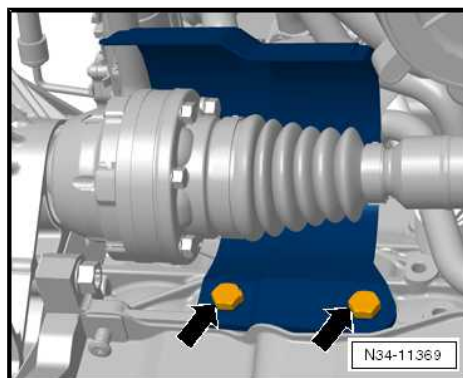
Caution

The vacuum hose must move freely in the lifting eye -arrows-.

It must not be damaged.

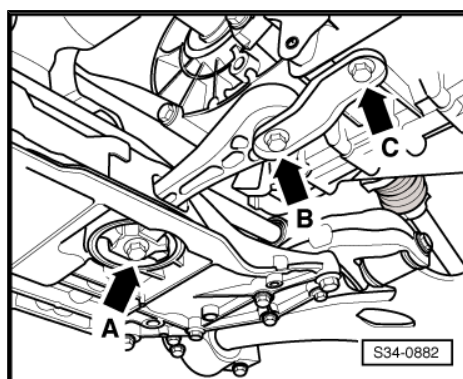


- Then hook the shackle - 10-222 A/12- into the shortened spindle => [page 159](#) .
- Slightly pre-tension the engine/gearbox unit via spindles (do not raise).
- Loosen the wheel bolts and the drive shaft bolts on front left and front right.
- Raise vehicle.
- Remove both front wheels.
- Remove the sound dampening system => Body Work; Rep. gr. 50 .
- Remove the front left wheelhouse liner => Body Work; Rep. gr. 66 .
- Remove the charge air hose from the bottom left charge air cooler and the charge air pipe => Engine; Rep. gr. 21 .
- Remove the protective cap for right drive shaft from the engine -arrows-.



- Unscrew screws -arrow B- and -arrow C- and disconnect the pendulum support from the gearbox.

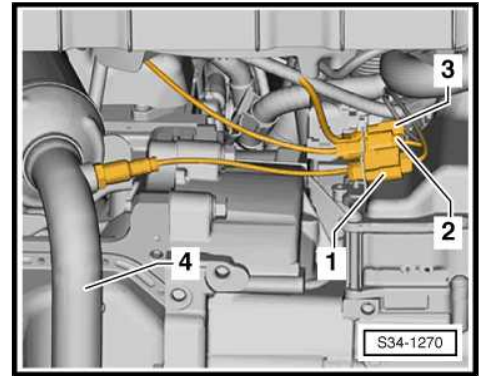
Vehicles with 1.2/77 kW engines



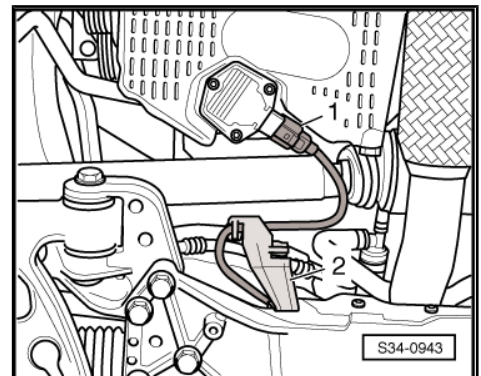
- Unhook the plug connections -1-, -2- and -3- from the bottom bracket at the front of the gearbox and disconnect.
- Remove pre-exhaust pipe with catalytic converter -4- → Engine; Rep. gr. 26 .

Continued for all vehicles

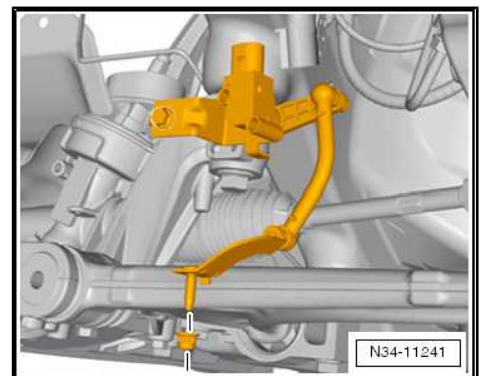
- Separate exhaust system at the clamping sleeve and remove bracket for the exhaust system from the assembly carrier → Engine; Rep. gr. 26 .
- Tie up pre-exhaust pipe.



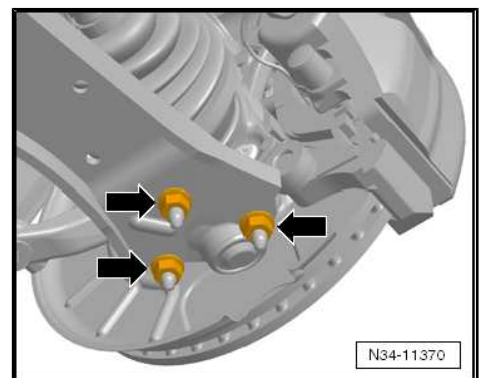
- If present, disconnect the electrical plug connection -1- on the oil level and oil temperature sender - G266- .
- Unclip the wiring loom from the holder -2-.



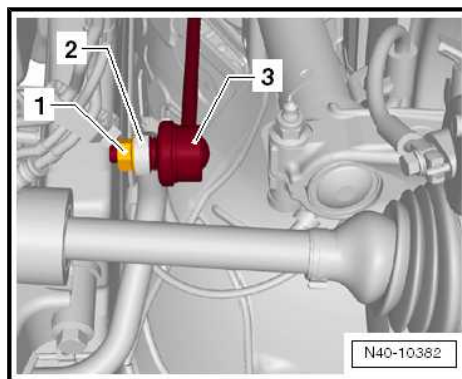
- If present, remove front left vehicle level sensor - G78- .



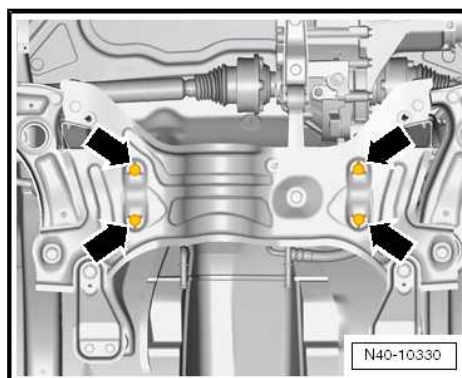
- Unscrew the nuts -arrows- from the steering joint on the track control arm on both sides.
- Unhook the steering joint from the two track control arms.



- Unscrew nut -1- from both sides of coupling rod -3-.
- On both sides, remove the coupling rod -3- from the anti-roll bar -2- and press to the rear.



- Release and unscrew screws -arrows- for steering gear from assembly carrier.
- Tie up the steering gear.
- Fix the assembly carrier before removing => Chassis; Rep. gr. 40 .
- Remove assembly carrier with console without a steering gear => Suspension; Rep. gr. 40 .

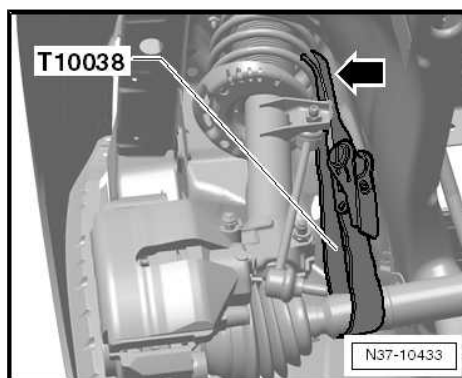


Vehicles with the rigid shafts (up to 11.2008)

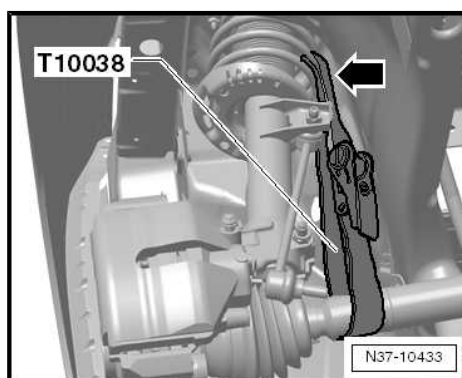
- Press off the left and right rigid drive shafts from the rigid shafts of the gearbox, e.g. with wedge - T10161- or tyre iron => Chassis; Rep. gr. 40 .
- Tie up the drive shafts as far as possible. Avoid damaging the paintwork of the drive shafts during this operation.

Vehicles with flange shafts (as of 11.2008)

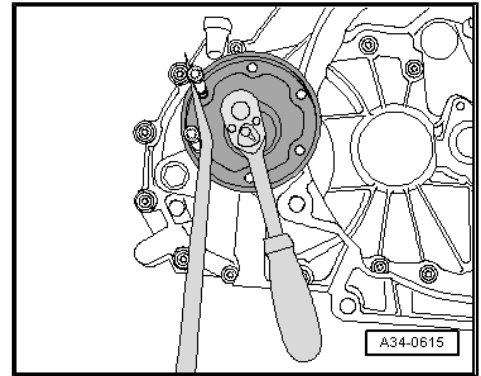
- Remove drive shafts from flange shafts => Chassis; Rep. gr. 40 .



- Tie up the drive shafts as far as possible. Avoid damaging the paintwork of the drive shafts during this operation.

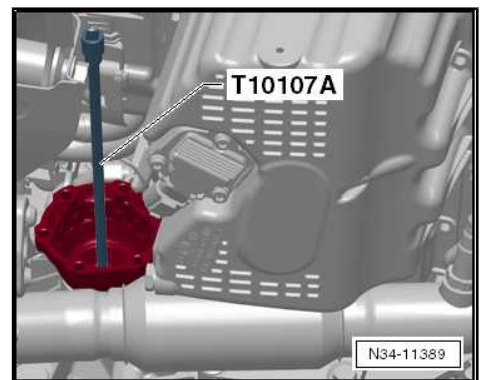


- To remove, insert 2 screws in the right flange and counterhold the flange shaft using an assembly lever.

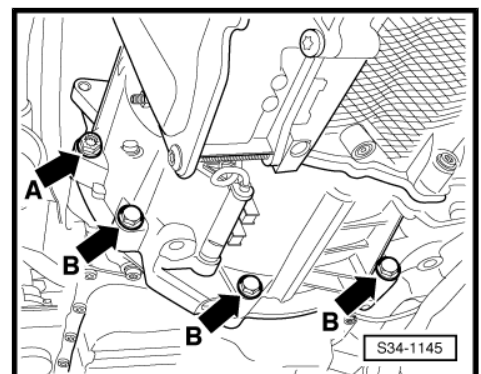


- Remove the right flange shaft with the pressure spring from the gearbox with the socket insert - T10107 A- .
- Seal the gearbox with suitable screw plugs.

Continued for all vehicles



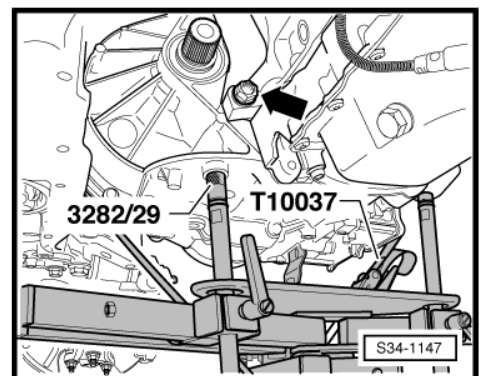
- Unscrew bottom connecting screws -arrow°A- and -arrow°B- from engine/gearbox.



Do not undo screw -arrow- yet on the engine side in the vicinity of the right rigid shaft or right flange shaft.

On diesel engines, this screw is underneath the shaft, on petrol engines, above it.

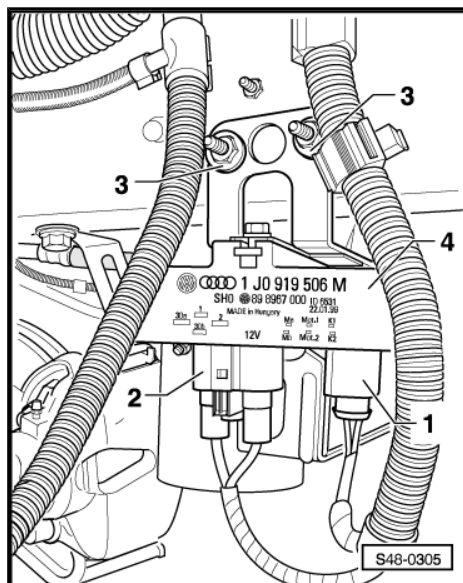
Vehicles with radiator fan control unit - J293-



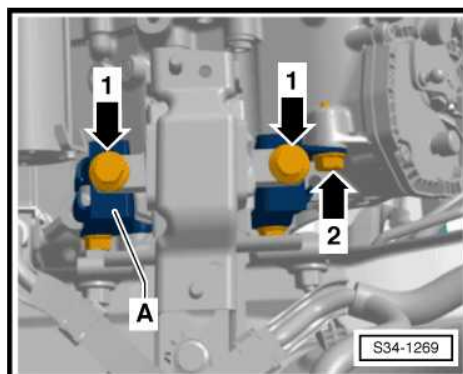
- Unscrew the nuts -3- from the left frame side rail and tie up the radiator fan control unit - J293- -4-.

Do not disconnect the plugs -1- and -2-.

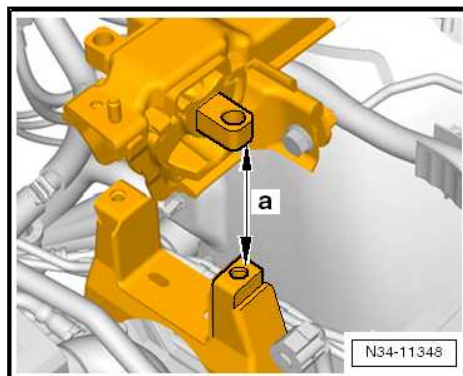
Continued for all vehicles



- Unscrew the fixing screws -arrows 1- for the gearbox mount at the console -A-.
- Screw out the rear fixing screw -arrow 2- for the console -A- at the gearbox.

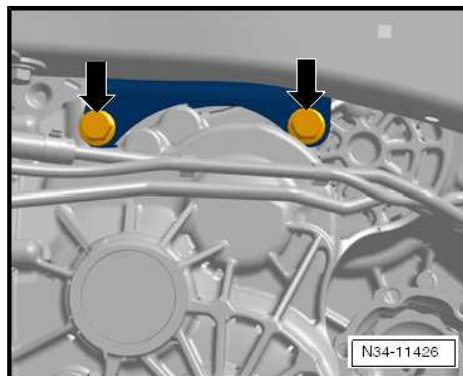


- Lower the engine/gearbox assembly via the spindles to the dimension -a- by approx. 85 mm.
- The engine/gearbox assembly must be lowered so that the fixing screws of the console/gearbox are loosened and can be unscrewed (following figure).

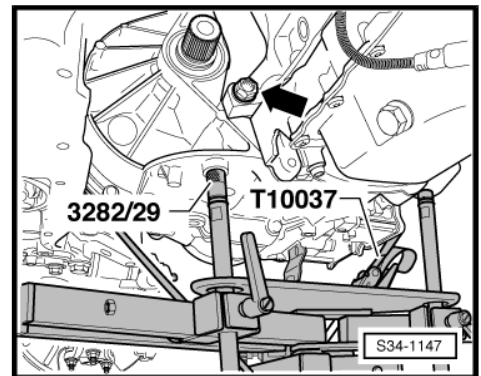
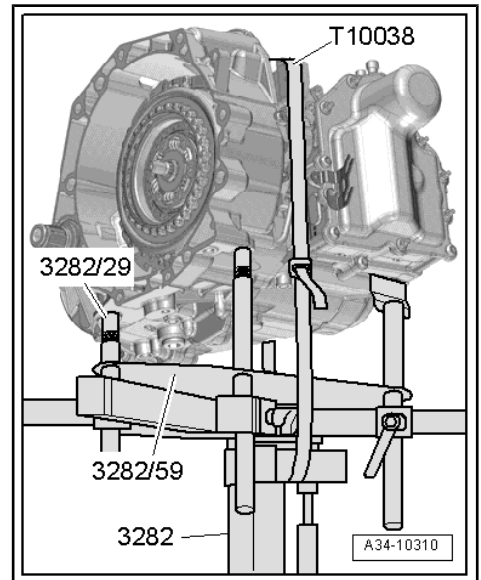


- Unscrew the fixing screws -arrows- for the console on the gearbox.
- Remove the gearbox console.

The gearbox mount - 3282- is placed on the engine/gearbox jack - V.A.G 1383 A- and is aligned using the adjusting plate - 3282/59- to remove the gearbox.



- Align arms of the gearbox mount - 3282- to match the holes in the adjusting plate - 3282/59- .
- Screw in the mounting elements as shown on adjusting plate - 3282/59- .
- Position the engine/gearbox jack - V.A.G 1383 A- below the vehicle with the gearbox mount - 3282- .
- The arrow symbol on the adjusting plate - 3282/59- points in the direction of travel.
- Align the gearbox mount - 3282- parallel to the gearbox.
- Screw the bolt - 3282/29- into the gearbox.
- Place both remaining mounting elements on the gearbox as shown.
- To do so, place the panel of the drift under the gearbox housing and not under the mechatronics.
- Secure the gearbox with the tensioning strap - T10038- .
- Support the gearbox with engine/gearbox jack - V.A.G 1383 A- from underneath.
- Unscrew the last connecting screw -arrow- at engine and gearbox.
- Separate the gearbox from the engine and carefully lower it.
- When lowering the gearbox, guide the selector lever control cable out of the cable support.



Caution

Observe all lines and coolant hoses when lowering the gearbox.

Do not bend or buckle selector lever control cable.

Vehicles with flange shafts (as of 11.2008)

- Reinstall the right flange shaft.

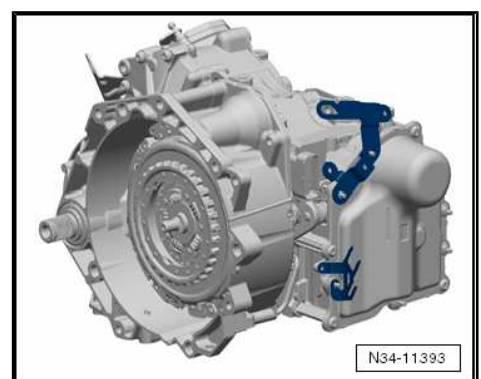
Continued for all vehicles

In some cases, they are installed at the front holder on the gearbox.

Note

If a new gearbox is installed, the holders must be modified to the new gearbox. holder

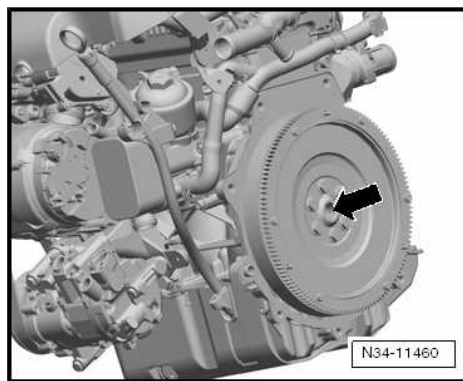
Transport the gearbox and secure it to the assembly stand
 ⇒ [“4 Transport the gearbox and secure to the assembly support”, page 172](#) .



3.2 Installing the gearbox

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

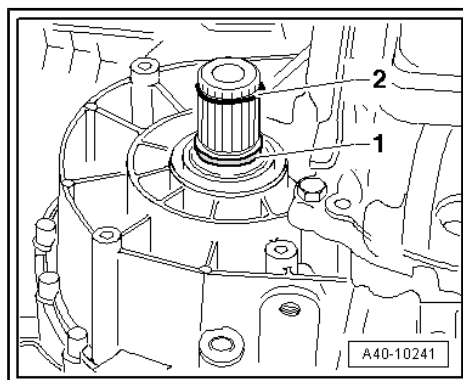
- ◆ Replace the self-locking nuts and screws when undertaking assembly work.
- ◆ Replace screws which have been tightened to a torquing angle as well as gasket rings and seals.
- ◆ Secure all hose connections with hose clamps which comply with the series design ⇒ Electronic Catalogue of Original Parts .
- ◆ All cable straps which are detached or cut open when removing, should be fitted on again in the same place when installing.
- ◆ The lock washer of the selector lever control cable must always be replaced ⇒ Electronic Catalogue of Original Parts .
- ◆ Replace the needle bearing -arrow- in the crankshaft ⇒ Engine; Rep. gr. 13 .
- ◆ Check whether the dowel sleeves for centering the gearbox are present in the cylinder block, insert if necessary.
- ◆ If the gearbox is inserted, ensure the intermediate plate between the engine and gearbox is correctly installed.



Vehicles with the rigid shafts (up to 11.2008)

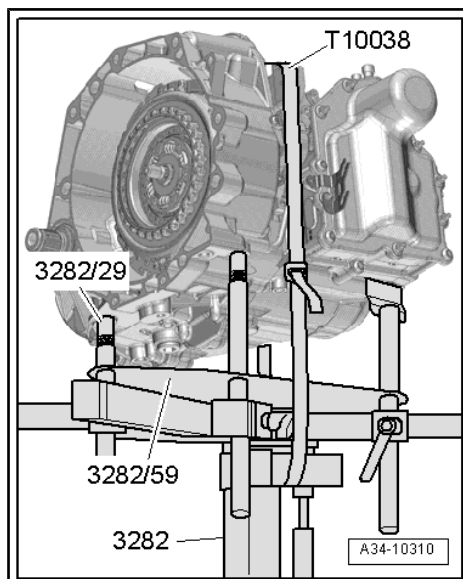
- Replace O-Rings -1- and circlips -2- to rigid shafts when a new gearbox is to be fitted.

Continued for all vehicles



- Carefully raise gearbox with the engine/gearbox jack - V.A.G 1383 A- and put in its installation position using the spindles of the gearbox mount - 3282- .
- Carefully insert the selector lever control cable in the cable support when raising the gearbox.
- Do not bend or buckle selector lever control cable.
- Observe all lines and coolant hoses when raising the gearbox.
- Adjust the gearbox mount - 3282- via the spindles in such a way that the engine and the gearbox are aligned.
- Position the gearbox carefully onto the engine until the gearbox flange touches the entire scope of the engine flange, turn the crankshaft where necessary.
- Screw on gearbox to the engine
⇒ ["3.3 Tightening torques", page 169](#) .

Vehicles Octavia II, Superb II and Yeti

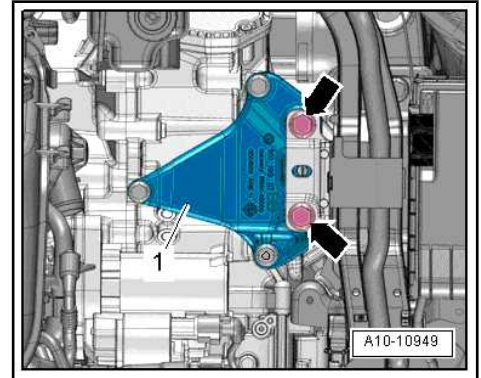


- Insert the gearbox console -1- between the gearbox and the supporting arm of the gearbox mount.
- Screw the gearbox console -1- with new screws to the gearbox.
- Lift up the gearbox via the spindles of the supporting device - MP9-200 (10-222 A)- to the supporting arm of the gearbox mount.



Caution

Before screwing in the screws -arrows- the gearbox console must be absolutely parallel to the supporting arm of the gearbox mount, otherwise the thread is damaged.



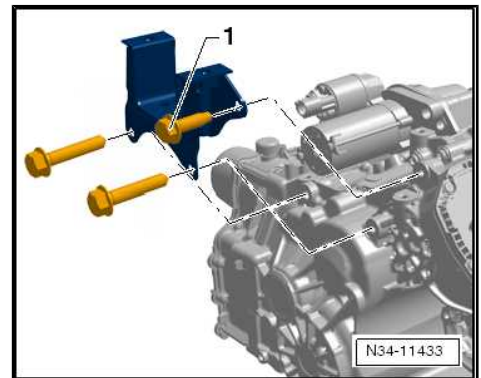
- Screw new screws -arrows- by hand initially and then tighten to the specified tightening torque
⇒ [“3.3 Tightening torques”, page 169](#) .

For vehicles Fabia II, Roomster and Rapid NH

- Install the console at the gearbox with the fixing screws -1-.
- Raise the engine/gearbox assembly via spindles, align it in the installation position, and install with new screws for the gearbox mount.

Continued for all vehicles

- Remove the gearbox mount - 3282- from the gearbox.
- Mount the right flange shaft
⇒ [“1.5 Replacing the right flange shaft seal ring”, page 188](#) .
- Install the left drive shaft and the right drive shaft ⇒ Chassis; Rep. gr. 40 .

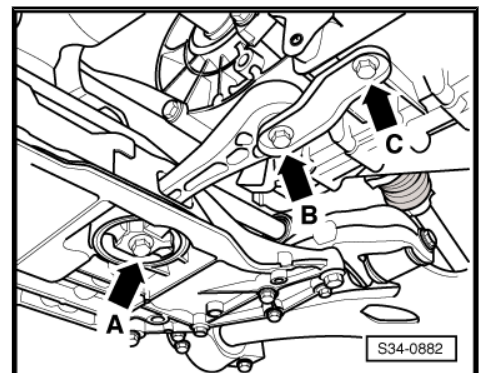


For vehicles Fabia II, Roomster and Rapid NH

- Install the assembly carrier ⇒ Chassis; Rep. gr. 40 .
- Screw the steering gear to the assembly carrier ⇒ Chassis; Rep. gr. 48 .

Continued for all vehicles

- Install the pendulum support with new screws -arrows B, and C- ⇒ Chassis; Rep. gr. 40 .



- Screw the steering joints to the track control arms -arrows- => Chassis; Rep. gr. 40 .

Vehicles with removed pre-exhaust pipe

- Install pre-exhaust pipe with catalytic converter => Engine; Rep. gr. 26 .
- Install charge air pipe (if available) => Engine; Rep. gr. 21 .

Continued for all vehicles

- Install protective cap for right drive shaft on the engine (if available). To do so tighten the screws -arrows-.
- Install the charge air hose at bottom left between the charge air cooler and the charge air pipe => Engine; Rep. gr. 21 .
- Install the bracket for the pre-exhaust pipe to the assembly carrier and install the exhaust system free of stress => Engine; Rep. gr. 26 .
- The supporting device - MP9-200 (10-222 A)- , where necessary, remove supporting device - T30099- .

Vehicles Octavia II, Yeti and Rapid NH

- Install the plenum chamber cover => Body Work; Rep. gr. 66 .

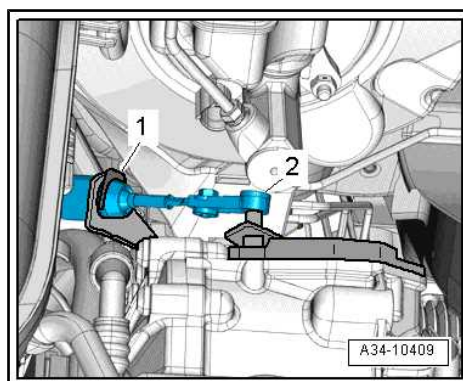
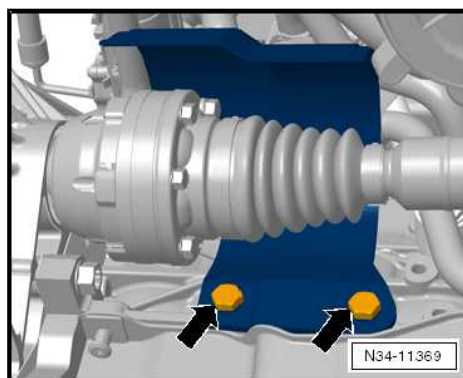
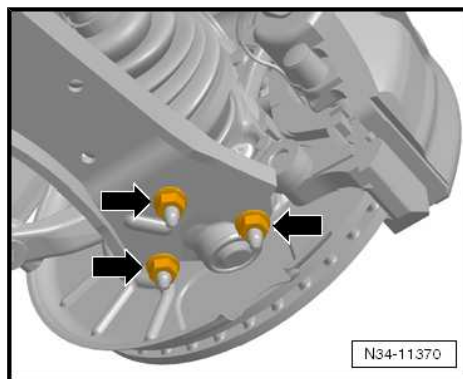
Continued for all vehicles

- Carefully press the selector lever control cable -2- onto the gearshift lever and secure in the cable support with a new lock washer -1-.
- Inspect setting of selector lever control cable and adjust if necessary
=> ["2.3 Inspecting and adjusting the selector lever control cable", page 105](#) .
- Install the starter motor => Electrical System; Rep. gr. 27 .
- Install the battery tray and battery => Electrical System; Rep. gr. 27 .
- Install air filter => Engine; Rep. gr. 24 or => Engine; Rep. gr. 23 .
- Install the front left wheelhouse liner => Body Work; Rep. gr. 66 .
- Install the noise insulation => Body Work; Rep. gr. 50 .
- Install front wheel => Chassis; Rep. gr. 44 .
- If present, install the front left vehicle level sensor - G78- .
- Check the headlight beams setting => Electrical System; Rep. gr. 94 .

Perform the basic setting after the gearbox has been fitted with the => Vehicle diagnostic tester.

Specified torques

- ◆ Protective cap for drive shaft on engine - 35 Nm



3.3 Tightening torques

Fastening of gearbox to engines

1.6 I/77 kW TDI CR+; 1.8 I/118 kW TFSI on Octavia II vehicles

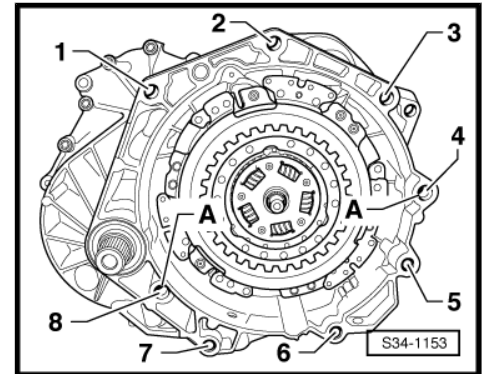
1.6 I/77 kW TDI CR+; 1.8 I/112;118 kW TFSI on Superb II vehicles

1.6 I/77 kW TDI CR+ on Yeti vehicles

1.6 I/66 kW TDI CR on Rapid NH vehicles

1.5 I/77 kW TDI CR on Rapid India vehicles

Pos.	Screw	Nm
1, 3	M12 x 55	80
2 ¹⁾	M12 x 155	80
3	M12 x 55	80
4	M12 x 65	80
5	M10 x 55	40
6	M10 x 55	40
7	M10 x 55	40
8 ²⁾	M12 x 65	80
A	Dowel sleeves	



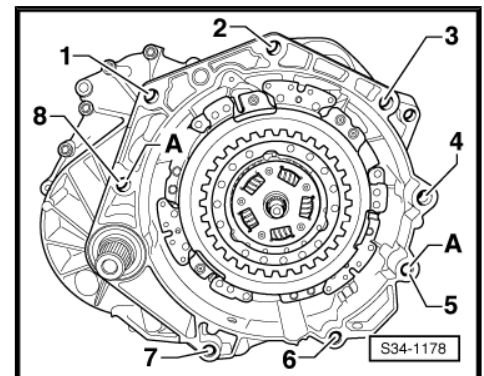
1) At the same time, fasten the starter.

2) Screwed in from the engine side.

Fastening of gearbox to engines

1.4 I/90 kW TSI on Yeti and Rapid NH vehicles

Pos.	Screw	Nm
1	M12 x 55	80
2	M12 x 55	80
3 ¹⁾	M12 x 35	80
4	M12 x 65	80
5	M12 x 65	80
6 ²⁾	M10 x 55	40
7 ²⁾	M10 x 55	40
8 ²⁾	M12 x 65	80
A	Dowel sleeves	



1) Screw is located in the opening of the housing for the starter.

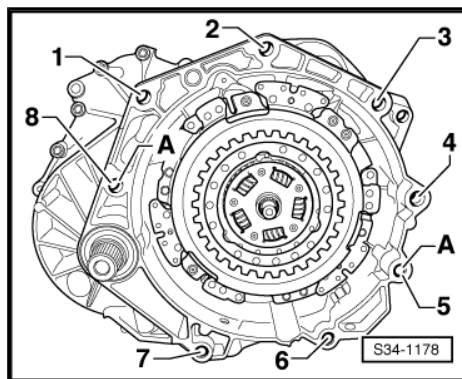
2) Screwed in from the engine side.

Attachment of gearbox to engine



1.2 I/77 kW TSI on Octavia II, Fabia II, Roomster and Yeti vehicles

Pos.	Screw	Nm
1	M12 x 65	80
2	M12 x 65	80
3 ¹⁾	M12 x 50	80
4	M12 x 65	80
5	M12 x 65	80
6 ²⁾ 3)	M10 x 25	40
7 ²⁾ 3)	M10 x 25	40
8 ²⁾	M12 x 65	80
A	Dowel sleeves	



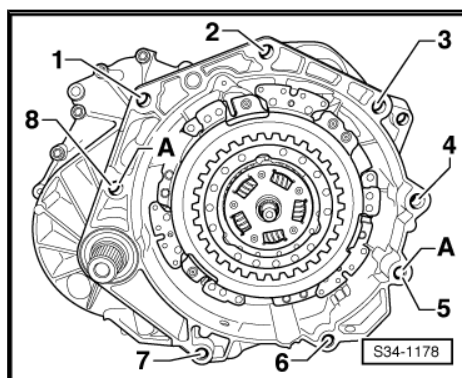
- 1) Screw is located in the opening of the housing for the starter.
- 2) Screwed in from the engine side.
- 3) Cover plate for flywheel to gearbox.

Attachment of gearbox to engine

1.4 I/90 kW TSI on Octavia II vehicles

1.4 I/132 kW TSI on Fabia II vehicles

Pos.	Screw	Nm
1	M12 x 55	80
2	M12 x 55	80
3 ¹⁾	M12 x 35	80
4	M12 x 65	80
5	M12 x 65	80
6 ²⁾	M10 x 50	40
7 ²⁾	M10 x 50	40
8 ²⁾	M12 x 65	80
A	Dowel sleeves	



- 1) Screw is located in the opening of the housing for the starter.
- 2) Screwed in from the engine side.

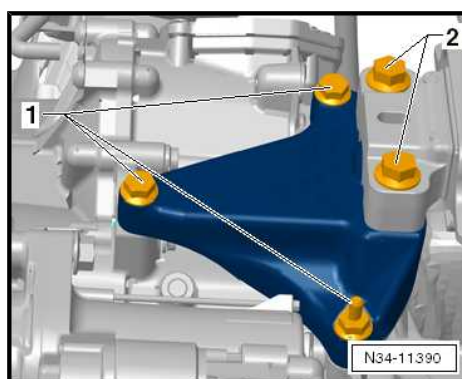
Gearbox console to gearbox and gearbox mount to gearbox console

Vehicles Octavia II, Superb II and Yeti

- ◆ Screw -1- tightening torque 40 Nm + 90°
- ◆ Screw -2- tightening torque 60 Nm + 90°

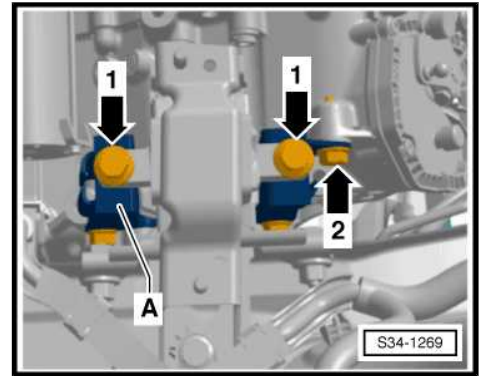
Replace screws -1- and -2- ⇒ Electronic Catalogue of Original Parts .

For vehicles Fabia II, Roomster and Rapid NH



- ◆ Screw -arrow 2- (3 pieces) tightening torque 40 Nm + 90°
- ◆ Screws -arrow 1- (2 pieces) tightening torque 40 Nm + 90°

Always replace screws -1- and -2- → Electronic Catalogue of Original Parts .



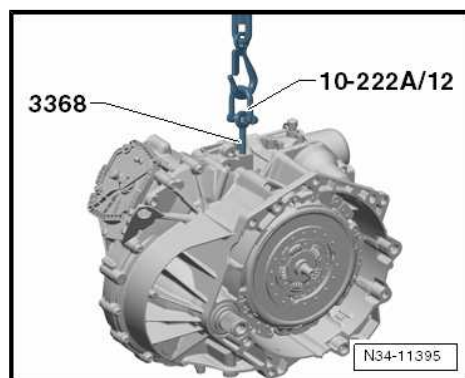
4 Transport the gearbox and secure to the assembly support

Special tools and workshop equipment required

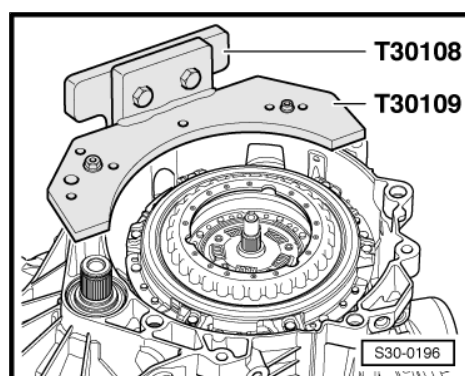
- ◆ Ring bolt - 3368- (2 pieces)
- ◆ Shackle - 10-222 A/12-
- ◆ Gearbox mount - T30109 (VW 353)-
- ◆ Gearbox mount - T30108-
- ◆ Lifting device - MP9-201 (2024 A)-
- ◆ Assembly stand - MP9-101-

Transporting the gearbox

- Screw the ring bolt - 3368- into the threaded bore of the gearbox up to the stop and secure with nut M10.
- Insert hook of the workshop crane into the shackle - 10-222 A/12- .

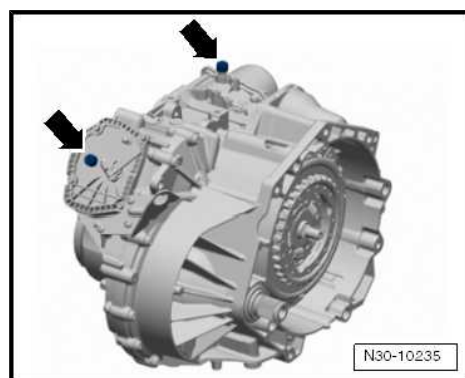


Secure the gearbox in the gearbox mount - T30109 (VW 353)-

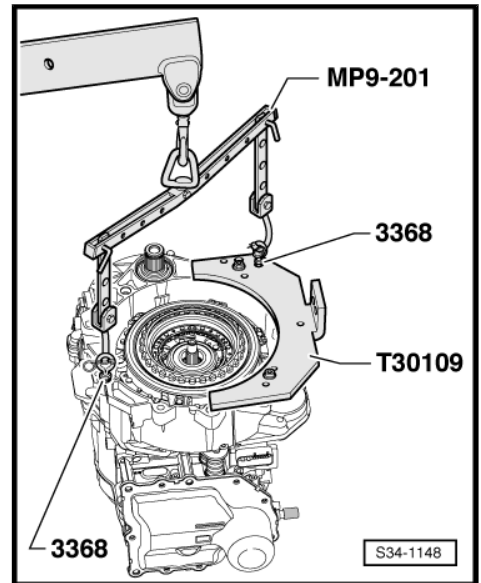


Before the gearbox can be turned horizontally, both ventilation caps -arrows- must be removed and the openings must be closed with suitable screw plugs so that no oil can flow out. In case of oil leakage from the mechatronics, the mechatronics must be replaced ⇒ Electronic Catalogue of Original Parts .

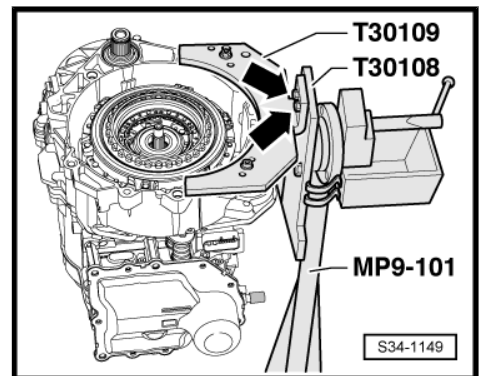
The new mechatronics for the gearbox is already precisely filled with oil at the factory. Therefore, it is only possible to fill the mechatronics with oil at the factory.



Raise the gearbox on the assembly stand - MP9-101-
Attach gearbox to assembly stand - MP9-101-



- Screw the gearbox mount - T30109 (VW 353)- with screws -arrows- onto the gear mount - T30108- .





5 Change gearbox oil

Special tools and workshop equipment required

- ◆ Adapter -VAS 6262A-
- ◆ Adapter -VAS 6262/4-
- ◆ Adapter -VAS 6262/6-
- ◆ Catch pan for workshop cranes

The gear oil filling is permanent for the 7-speed double clutch gearbox 0AM (oils are designed to be filled for life).

For this reason the oil level is not checked and the inspection plug is not present on this gearbox.

- Observe the general repair instructions
 ⇒ ["3 Repair instructions", page 4](#) .

Vehicles Octavia II, Superb II and Yeti



Note

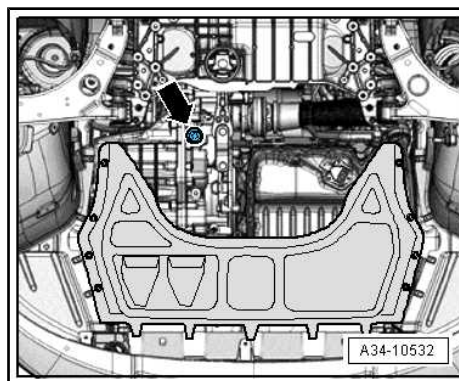
If the battery earth strap is disconnected and connected, carry out additional operations ⇒ Electrical System; Rep. gr. 27 .

Continued for all vehicles

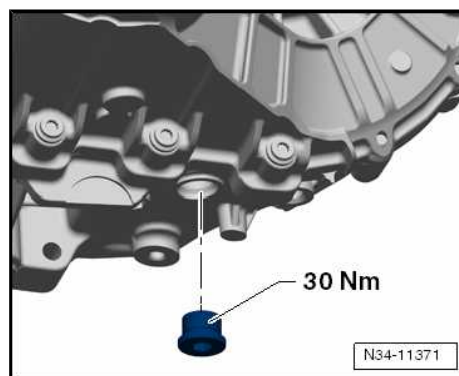
In case of leaks on the gearbox, the cause must be determined and the fault rectified.

Then the oil must be completely drained and filled up with new oil.

- Raise vehicle.
- Position the catch pan under the gearbox.
- Release oil drain plug -arrow- at the gearbox.



- Drain off oil.
- Install oil drain plug.

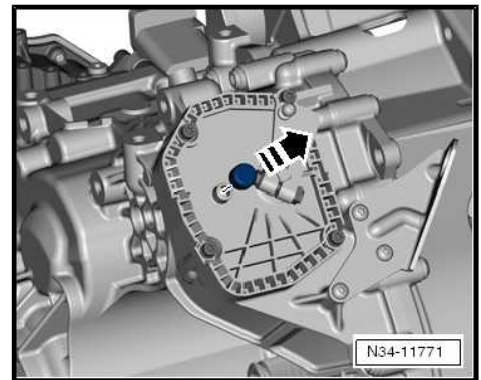
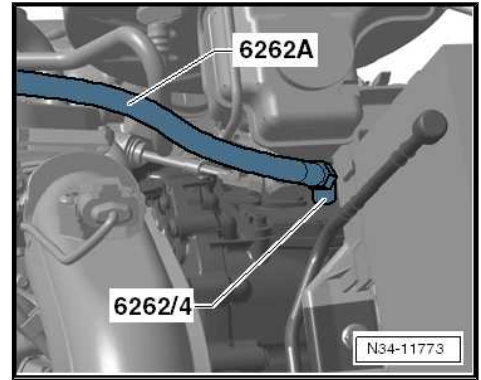


The new oil is filled via the air release hole.

i Note

If the gearbox is installed, the air filter or the battery with the battery tray must be removed when filling up the oil, depending on the model and engine.

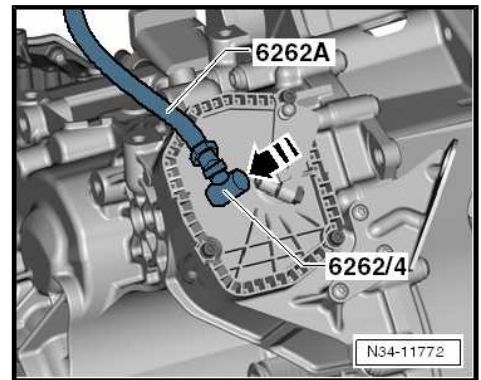
- Remove air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .
- Remove battery and battery tray ⇒ Electrical System; Rep. gr. 27 .
- Detach the cap from the air release hole.



- Fit on adapter -VAS 6262A- and adapter -VAS 6262/4- .

i Note

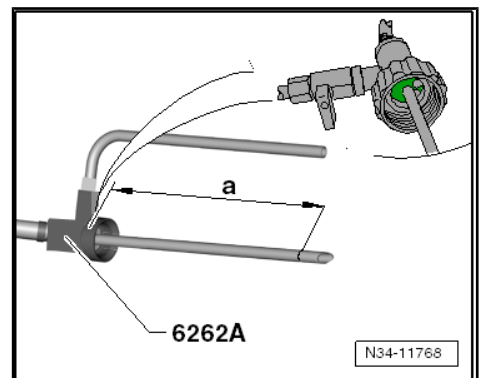
- ◆ *The gear oil level cannot be checked.*
- ◆ *The prescribed filling capacity must be precisely respected.*
- ◆ *Only then the gearbox is correctly filled.*
- ◆ *An over-filling as well as an under-filling impairs the proper working of the gearbox.*
- ◆ *Shake oil reservoir before filling.*



Before screwing the adapter - VAS 6262A- onto the oil dispenser, measure the length of the vent pipe, dimension -a-, and if necessary cut the pipe length to match dimension -a-: Lengthen off 210 mm.

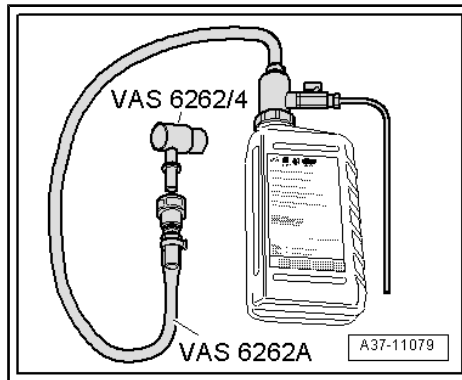
i Note

The dimension -a- is measured on the shaft (starting with the green area in the detail) of the adapter for oil filling - VAS 6262A- .





- Screw the oil bottle onto the adapter - VAS 6262 A- .



Note

If the oil dispenser thread does not match the adapter - VAS 6262 A- thread, the adapter must also -VAS 6262/6- be used.

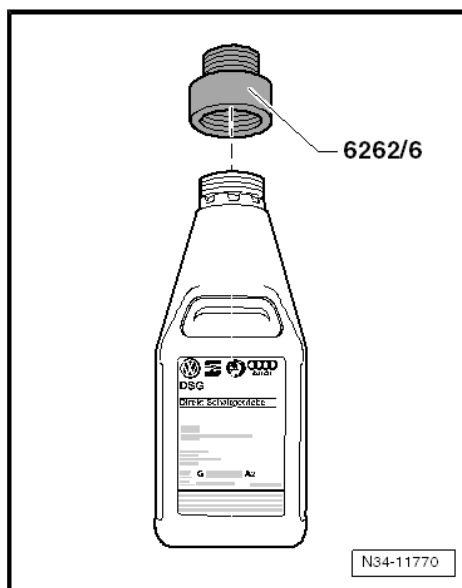
- Fill with 1.7 liter of oil.



Note

- ◆ *The gear oil level cannot be checked.*
- ◆ *The prescribed filling capacity must be precisely respected.*
- ◆ *Only then the gearbox is correctly filled.*
- ◆ *An over-filling as well as an under-filling impairs the proper working of the gearbox.*

- Remove the adapter from the gearbox after filling up.
- Wipe the area around the air release hole clean using a cloth.
- Fit on the ventilation cap.
- Install the battery tray and battery ⇒ Electrical System; Rep. gr. 27 .
- Install air filter ⇒ Engine; Rep. gr. 24 or ⇒ Engine; Rep. gr. 23 .





35 – Gears, shafts

1 Pinions and shafts

At present no repairs are carried out on the pinions and shafts.

39 – Final drive - differential

1 Replace gasket rings for rigid shafts and flange shafts

⇒ [“1.1 Summary of components - gasket rings and output shafts”, page 178](#)

⇒ [“1.2 Replacing gasket ring for left rigid shaft \(Octavia II, Superb II, Yeti\)”, page 179](#)

⇒ [“1.3 Replacing gasket ring for right rigid shaft \(Octavia II, Superb II, Yeti\)”, page 182](#)

⇒ [“1.4 Replacing the left flange shaft gasket ring”, page 185](#)

⇒ [“1.5 Replacing the right flange shaft seal ring”, page 188](#)

1.1 Summary of components - gasket rings and output shafts

1 - Sealing ring

- for the right rigid shaft
- Renew.
⇒ [“1.3 Replacing gasket ring for right rigid shaft \(Octavia II, Superb II, Yeti\)”, page 182](#) .
- for right flange shaft
- Renew.
⇒ [“1.5 Replacing the right flange shaft seal ring”, page 188](#) .

2 - Right rigid shaft up to 11.2008

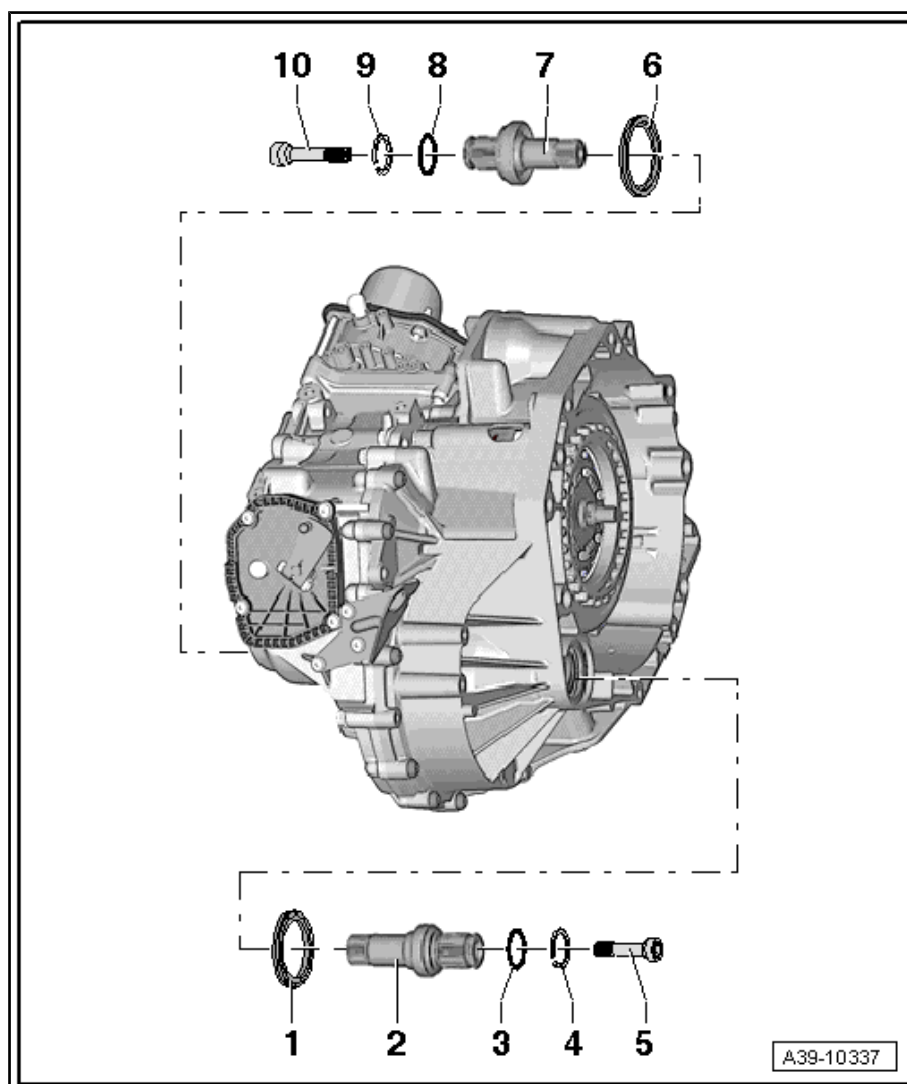
- Removing and installing
⇒ [“1.3 Replacing gasket ring for right rigid shaft \(Octavia II, Superb II, Yeti\)”, page 182](#)
- as of “11.2008” replaced by flange shaft
⇒ [page 179](#)
- Removing and installing
⇒ [“1.5 Replacing the right flange shaft seal ring”, page 188](#)

3 - O-ring

- Replace after disassembly
- not present if the flange shaft is installed

4 - Circlip

- insert into the round slot of the rigid shaft
- Replace after disassembly
- not present if the flange shaft is installed



5 - Conical screw

- Replace after disassembly
- 30 Nm

6 - Sealing ring

- for the left rigid shaft
- Renew. ⇒ [“1.2 Replacing gasket ring for left rigid shaft \(Octavia II, Superb II, Yeti\)”, page 179](#) .
- for left flange shaft
- Renew. ⇒ [“1.4 Replacing the left flange shaft gasket ring”, page 185](#) .

7 - Left rigid shaft up to 11.2008

- Removing and installing
⇒ [“1.2 Replacing gasket ring for left rigid shaft \(Octavia II, Superb II, Yeti\)”, page 179](#)
- as of “11.2008” replaced by flange shaft ⇒ [page 179](#)
- Removing and installing ⇒ [“1.4 Replacing the left flange shaft gasket ring”, page 185](#)

8 - O-ring

- Replace after disassembly
- not present if the flange shaft is installed

9 - Circlip

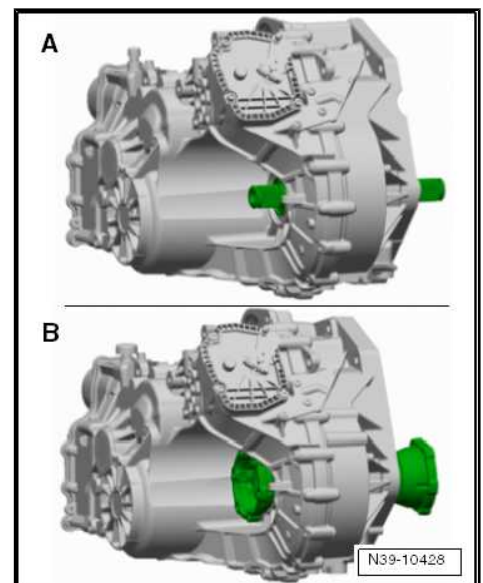
- insert into the round slot of the rigid shaft
- Replace after disassembly
- not present if the flange shaft is installed

10 - Conical screw

- Replace after disassembly
- 30 Nm

Different output shafts of gearbox 0AM

- ◆ -A- - Rigid shafts up to 11.2008
- ◆ -B- - Flange shafts as of 11.2008



1.2 Replacing gasket ring for left rigid shaft (Octavia II, Superb II, Yeti)

Special tools and workshop equipment required

- ◆ Inertia extractor - MP9-501 (VW 771)-
- ◆ Extractor - MP3-419/37 (VW 771/37)-
- ◆ Socket insert - T10107A- or socket insert 6 mm, commercially available



- ◆ Thrust piece - T30028 (3305)-
- ◆ Sealing grease - G 052 128 A1-
- ◆ Catch pan

Removing

- Observe the general repair instructions
⇒ ["3 Repair instructions", page 4](#) .
- Do not remove both drive shafts simultaneously from the gearbox. There is no other possibility to hold the opposite wheel in order to remove or install the screws of the rigid shafts.
- Do not undo the two securing bolts in the left and right rigid shafts at the same time, and do not remove both rigid shafts from the gearbox at the same time. If the differential bevel gears twist, it will be difficult to reinstall the rigid shafts.



Note

The assistance of a second mechanic is required for the next step.

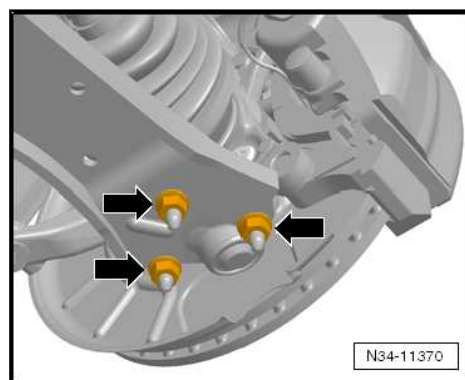
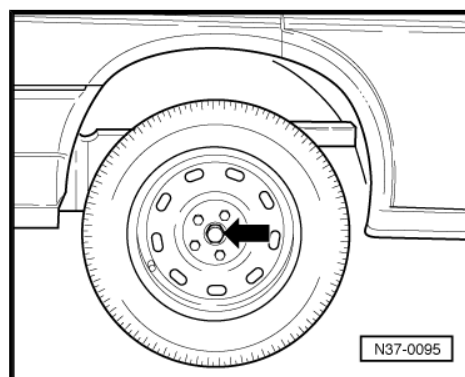
- Actuate the brake pedal and slacken the drive shaft flange -arrow- on the left by 90°.



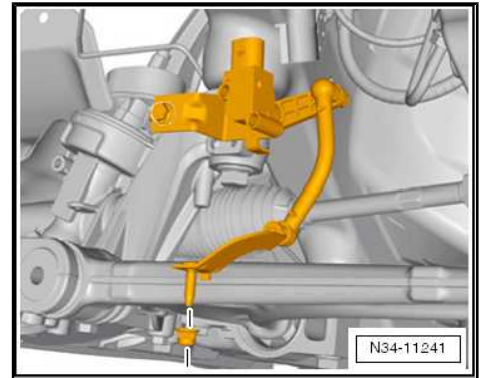
Caution

After slackening the drive shaft flange -arrow- by more than 90°, the vehicle must no longer be lowered onto the floor.

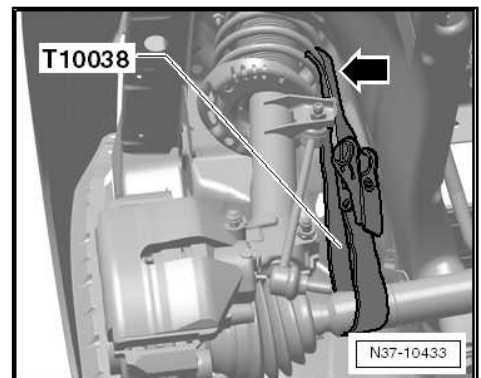
- Loosen the front left wheel bolts.
- Raise vehicle.
- Remove front wheel on the left.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Remove coupling rod from anti-roll bar.
- Unscrew the nuts -arrows- from the steering joint to the left track control arm.



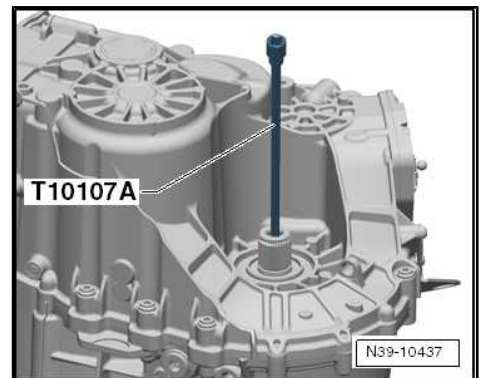
- If present, remove front left vehicle level sensor - G78- .
- Unhook the steering joint from the track control arm.
- Press off the left drive shaft from the rigid shaft of the gearbox e.g with wedge - T10161- or tyre iron => Chassis; Rep. gr. 40 .



- 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.



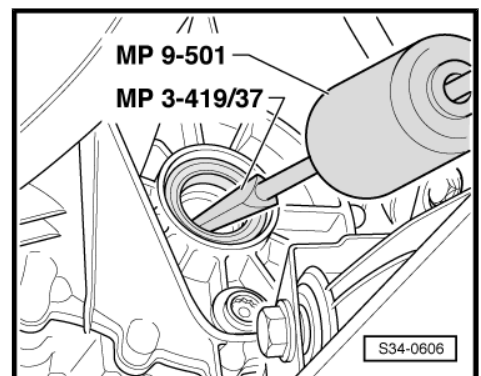
- Release the screw in the rigid shaft with the socket insert - T10107A- or a commercially available 6°mm socket insert.
- Pull out rigid shaft.



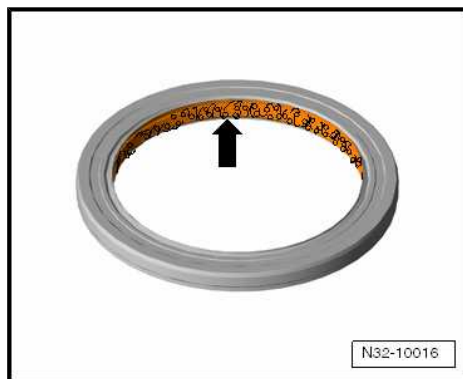
- Remove gasket ring for flange shaft with inertia extractor - MP9-501 (VW 771)- and extractor - MP3-419/37 (VW 771/37)- .

Installing

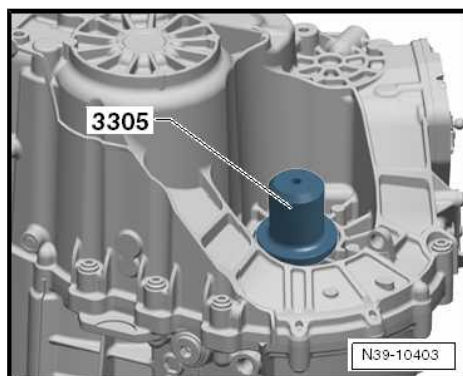
- Lightly oil new gasket ring at outer surface.



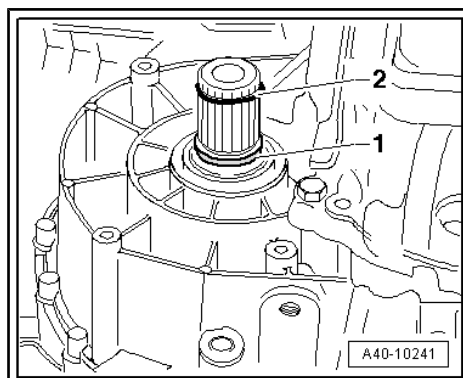
- Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128- .



- Drive in new gasket ring with thrust piece - T30028 (3305)- up to the stop.
- When driving in the gasket ring, ensure that the new gasket ring is not tilted.



- Replace the O-ring -1- at the rigid shaft.
- Replace the circlip -2- at the rigid shaft.
- Insert rigid shaft.
- Tighten the new conical screw on the rigid shaft to the specified tightening torque.
- Install left drive shaft ⇒ Chassis; Rep. gr. 40 .
- Change gearbox oil ⇒ [“5 Change gearbox oil”, page 174](#) .



Note

The gearbox oil must be changed, only in this way the correct gear oil level can be ensured.

- Install left front wheel ⇒ Chassis; Rep. gr. 44 .

If the front left vehicle level sensor - G78- was removed, then the headlight beam setting must be checked ⇒ Electrical System; Rep. gr. 94 .

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

Tightening torque

Component	Nm
Rigid shaft on gearbox (conical screw)	⇒ “1.1 Summary of components - gasket rings and output shafts”, page 178

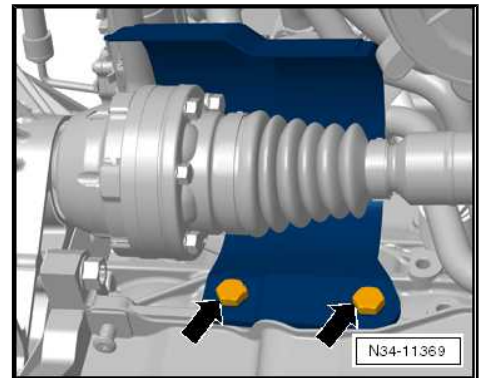
1.3 Replacing gasket ring for right rigid shaft (Octavia II, Superb II, Yeti)

Special tools and workshop equipment required

- ◆ Socket insert - T10107A- or socket insert 6 mm, commercially available
- ◆ Thrust piece - T30028 (3305)-
- ◆ Sealing grease - G 052 128 A1-
- ◆ Catch pan

Removing

- Observe the general repair instructions
⇒ ["3 Repair instructions", page 4](#) .
- Do not remove both drive shafts simultaneously from the gearbox. There is no other possibility to hold the opposite wheel in order to remove or install the screws of the rigid shafts.
- Do not undo the two securing bolts in the left and right rigid shafts at the same time, and do not remove both rigid shafts from the gearbox at the same time. If the differential bevel gears twist, it will be difficult to reinstall the rigid shafts.
- Shift selector lever into position P.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Remove the protective cap for right drive shaft from the engine -arrows-

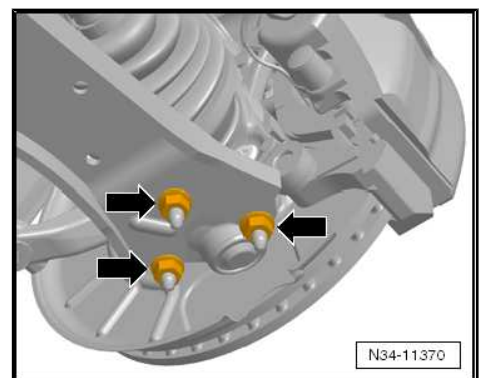


- Unscrew the nuts -arrows- from the steering joint to the right track control arm.
- Unhook the steering joint from the right track control arm.



Note

- ◆ *It is not necessary to slacken the screw connection of the drive shaft on the wheel side.*
- ◆ *The drive shaft must not be removed, it is sufficient to tie it up.*



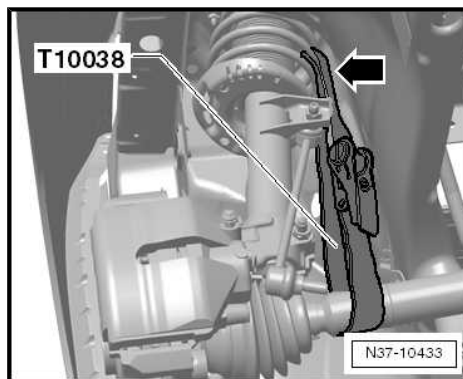
Caution

The drive shaft must not hang down, because overstretching will cause damage to the inner joint.

- Press off the drive shaft from the rigid shaft of the gearbox e.g. using a tyre iron.



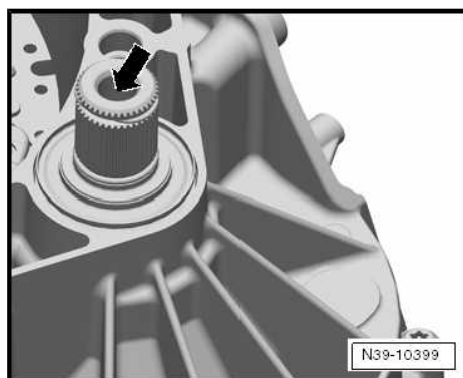
- Tie up the drive shaft as far as possible. Avoid damaging the paintwork on the drive shaft during this operation.
- Position the catch pan under the gearbox.




- Release the screw -arrow- in the rigid shaft with the socket insert - T10107A- or a commercially available 6°mm socket insert.
- Pull out rigid shaft.
- Remove the gasket ring of the rigid shaft e.g with extractor tool - T20143- or tyre iron.

Installing

- Lightly oil new gasket ring at outer surface.
- Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128- .

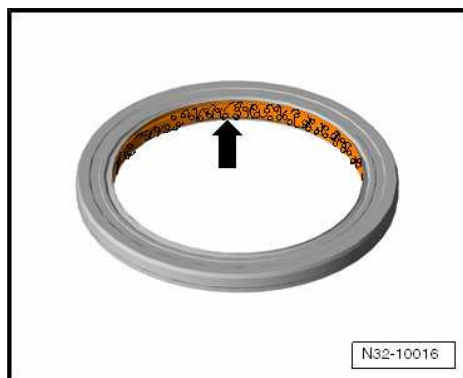


 **Caution**

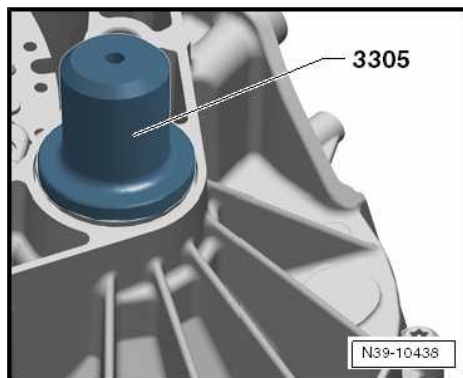
Do not press in gasket ring with pressure plate - T30028 (3305)- up to the stop!

The shaft seal reaches its inner stop in the gearbox before the thrust piece - T30028 (3305)- .

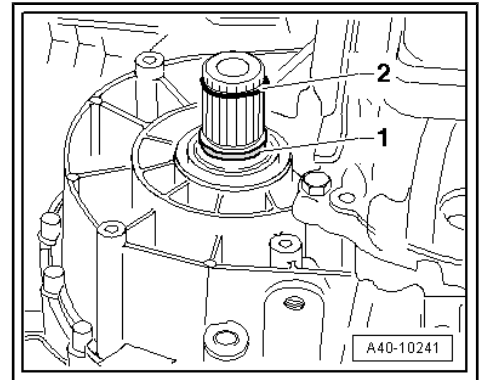
The pressure plate - T30028 (3305)- can therefore not be type-punched up to the stop of the tool.



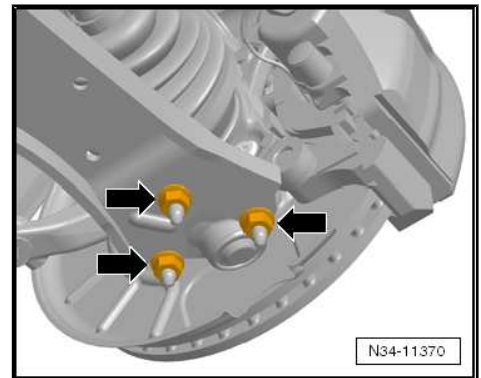
- Drive in the new gasket ring up to the gasket ring stop with feeling, while doing so , do not tilt the gasket ring.



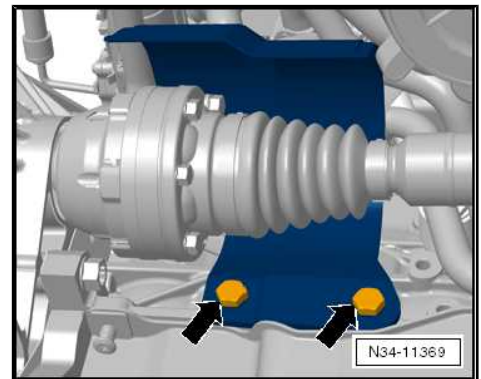
- Replace the O-ring -1- at the rigid shaft.
- Replace the circlip -2- at the rigid shaft.
- Insert rigid shaft.
- Tighten the new conical screw on the rigid shaft to the specified tightening torque.
- Press the right drive shaft onto the rigid shaft of the gearbox until the circlip locks in place ⇒ Chassis; Rep. gr. 40 .



- Screw the steering joint to the track control arm -arrows- ⇒ Chassis; Rep. gr. 40 .



- Install protective cap for right drive shaft on the engine -arrows- ⇒ Chassis; Rep. gr. 40 .
- Change gearbox oil ⇒ ["5 Change gearbox oil", page 174](#) .



Note

The gearbox oil must be changed, only in this way the correct gear oil level can be ensured.

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

Specified torques

Component	Nm
Rigid shaft on gearbox (conical screw)	⇒ "1.1 Summary of components - gasket rings and output shafts", page 178
Protective cap for drive shaft on engine	35 Nm

1.4 Replacing the left flange shaft gasket ring

Special tools and workshop equipment required

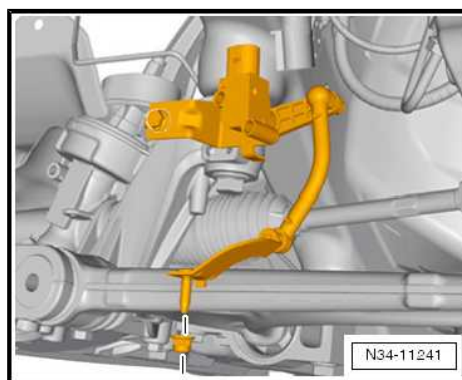
- ◆ Inertia extractor - MP9-501 (VW 771)-
- ◆ Extractor - MP3-419/37 (VW 771/37)-
- ◆ Socket insert - T10107A- or socket insert 6 mm, commercially available
- ◆ Thrust piece - T30028 (3305)-
- ◆ Tensioning strap - T10038-



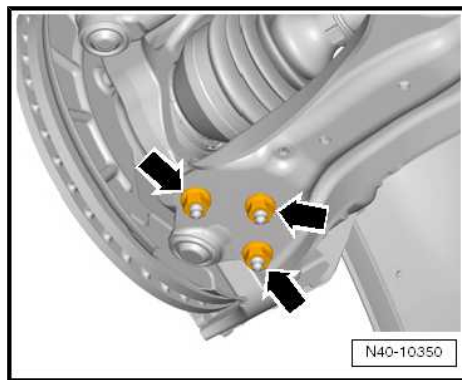
- ◆ Sealing grease - G 052 128 A1-
- ◆ Catch pan

Removing

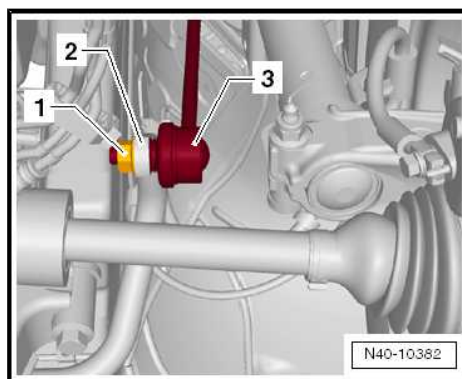
- Observe the general repair instructions
⇒ ["3 Repair instructions", page 4](#) .
- Do not undo the two securing bolts in the left and right flange shafts at the same time, and do not remove both flange shafts from the gearbox at the same time. If the differential bevel gears twist, it will be difficult to reinstall the flange shafts.
- Loosen the front left wheel bolts.
- Raise vehicle.
- Remove front wheel on the left.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- If present, remove front left vehicle level sensor - G78- .



- Unscrew nuts -arrows- for left steering joint ⇒ Chassis; Rep. gr. 40 .



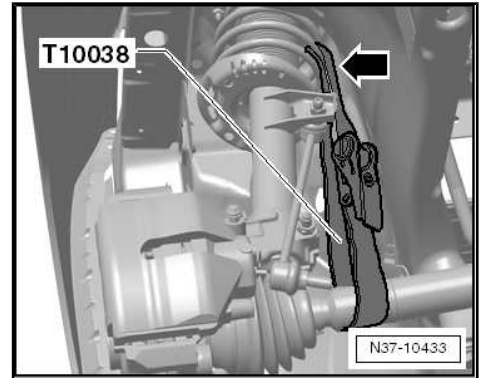
- Unscrew nut -1- from the anti-roll bar -2- and disconnect coupling rod -3-.
- Pull the anti-roll bar -2- upwards slightly.
- Remove left drive shaft from flange shaft ⇒ Chassis; Rep. gr. 40 .



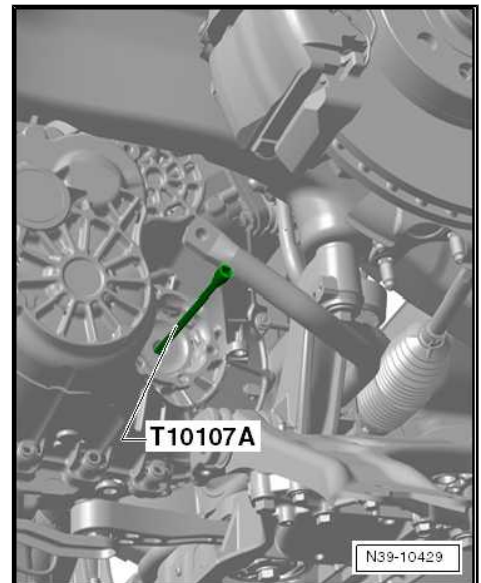
Caution

The drive shaft must not hang down, because overstretching will cause damage to the inner joint.

- 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.



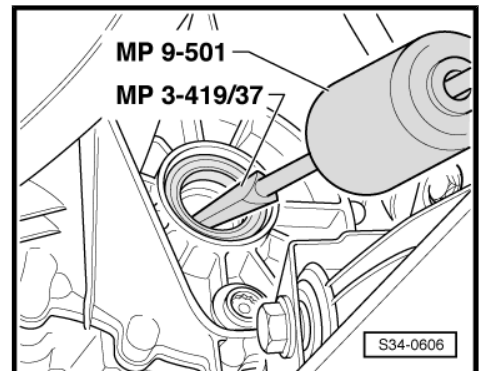
- Unscrew screw for flange shaft with socket insert - T10107A- or commercially available socket insert 6 mm.
- Take out the flange shaft.



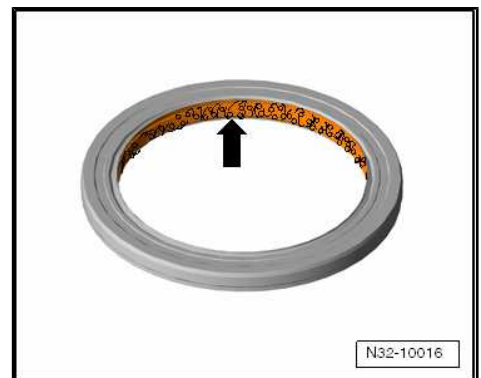
- Remove gasket ring for flange shaft with inertia extractor - MP9-501 (VW 771)- and extractor - MP3-419/37 (VW 771/37)- .

Installing

- Lightly oil new gasket ring at outer surface.

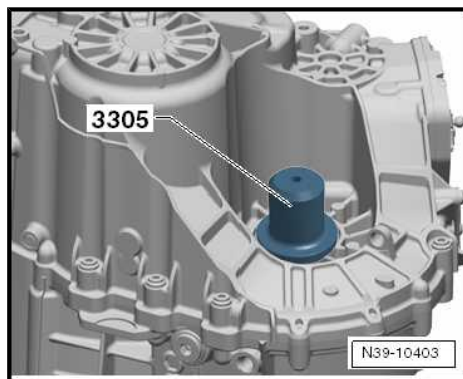


- Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128- .





- Drive in the new gasket ring with thrust piece - T30028 (3305)- up to the stop, do not twist the new gasket ring.
- Insert the flange shaft.
- Tighten new conical screw to the specified tightening torque.
- Attach the left drive shaft to the flange shaft ⇒ Chassis; Rep. gr. 40 .
- Change gearbox oil ⇒ [“5 Change gearbox oil”, page 174 .](#)



Note

The gearbox oil must be changed, only in this way the correct gear oil level can be ensured.

- Install left front wheel ⇒ Chassis; Rep. gr. 44 .
- If the front left vehicle level sensor - G78- was removed, check headlight beam setting ⇒ Electrical System; Rep. gr. 94 .
- Install the noise insulation ⇒ Body Work; Rep. gr. 50 .

Tightening torque

Component	Nm
Flange shaft on gearbox (conical screw)	⇒ “1.1 Summary of components - gasket rings and output shafts”, page 178

1.5 Replacing the right flange shaft seal ring

Special tools and workshop equipment required

- ◆ Socket insert - T10107A- or socket insert 6 mm, commercially available
- ◆ Extractor tool - T20143-
- ◆ Thrust piece - T30028 (3305)-
- ◆ Tensioning strap - T10038-
- ◆ Sealing grease - G 052 128 A1-
- ◆ Catch pan

Removing

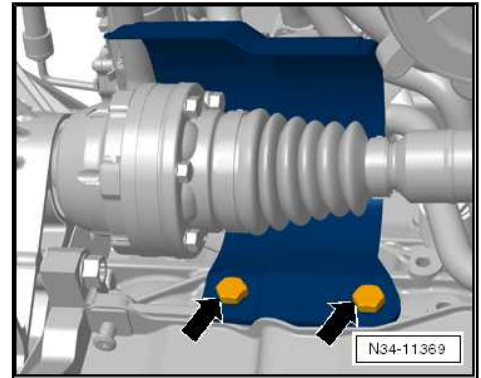
- Observe the general repair instructions ⇒ [“3 Repair instructions”, page 4 .](#)
- Do not undo the two securing bolts in the left and right flange shafts at the same time, and do not remove both flange shafts from the gearbox at the same time. If the differential bevel gears twist, it will be difficult to reinstall the flange shafts.
- Shift selector lever into position P.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .

- Remove the protective cap for right drive shaft from the engine -arrows-.
- Remove right drive shaft from flange shaft => Chassis; Rep. gr. 40 .

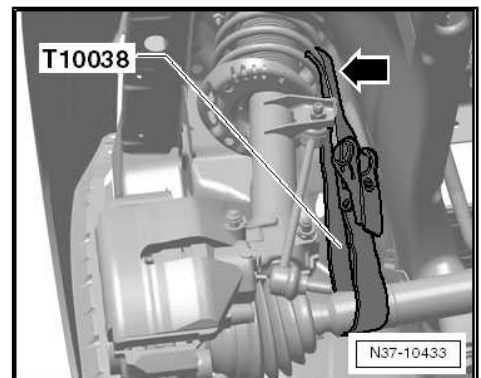


Caution

The drive shaft must not hang down, because overstretching will cause damage to the inner joint.



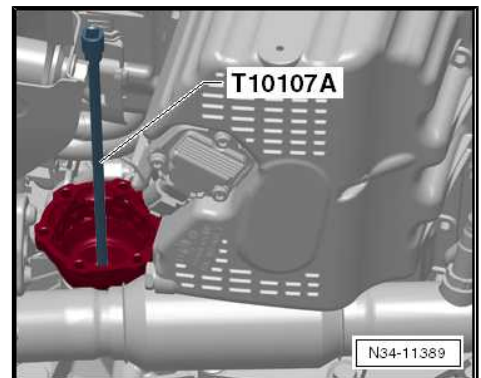
- Tie up the drive shaft as far as possible. Avoid damaging the paintwork on the drive shaft during this operation.
- Position the catch pan under the gearbox.



- Unscrew screw for flange shaft with socket insert - T10107A- or commercially available socket insert 6 mm.
- Take out the flange shaft.
- Remove the gasket ring of the flange shaft e.g with extractor tool - T20143- or tyre iron.

Installing

- Lightly oil new gasket ring at outer surface.



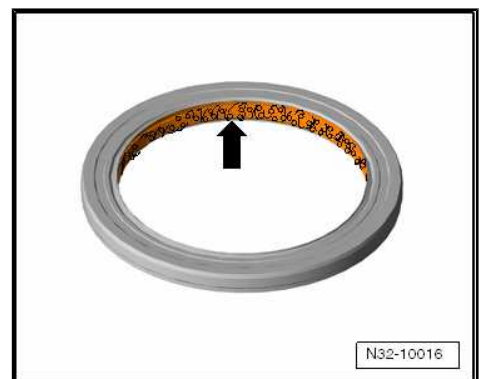
- Fill half the space between the sealing lip and dust lip with sealing grease - G 052 128- .



Caution

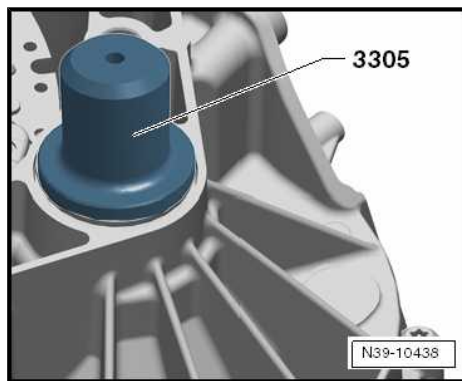
When driving in the gasket ring with the thrust piece - T30028 (3305)- , ensure that the gasket ring for the flange shaft reaches its stop in the gearbox before the thrust piece - T30028 (3305)- reaches its stop.

Therefore, the thrust piece - T30028 (3305)- must never be driven fully into the gearbox housing!





- Carefully drive the new gasket ring into the gearbox up to the stop, during this procedure do not twist the gasket ring.
- Insert the flange shaft.
- Tighten new conical screw to the specified tightening torque.
- Fit the right drive shaft to the flange shaft ⇒ Chassis; Rep. gr. 40 .



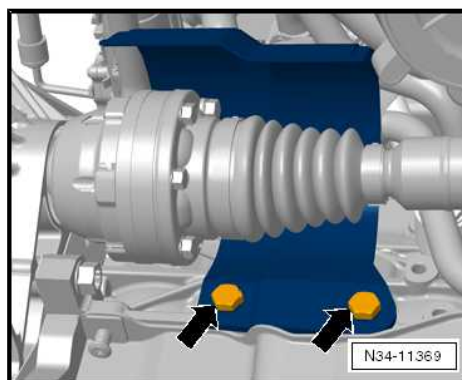
- Install protective cap for right drive shaft on the engine -arrows- ⇒ Chassis; Rep. gr. 40 .
- Change gearbox oil ⇒ ["5 Change gearbox oil", page 174](#) .



Note

The gearbox oil must be changed, only in this way the correct gear oil level can be ensured.

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



Specified torques

Component	Nm
Flange shaft on gearbox (conical screw)	⇒ "1.1 Summary of components - gasket rings and output shafts", page 178
Protective cap for drive shaft on engine	35