



Workshop Manual

Audi A3 2004 ➤

Audi A3 Cabriolet 2008 ➤

6-speed manual gearbox 02Q, front-wheel drive

Edition 07.2019



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



List of Workshop Manual Repair Groups

Repair Group

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



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

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

All rights reserved. The correctness of information in this document. Copyright by AUDI AG.
No reproduction without prior agreement from publisher.



Contents

00 - Technical data	1
1 Gearbox identification	1
2 Technical data	2
2.1 Code letters, allocation, transmission ratios	2
2.2 Capacities	6
2.3 Calculating ratio "i"	6
3 Transmission layout	8
4 Safety precautions	10
4.1 Safety precautions when working on vehicles with start/stop system	10
5 Repair instructions	11
5.1 Contact corrosion	11
5.2 General repair instructions	11
30 - Clutch	16
1 Overview - clutch mechanism	16
1.1 Notes on removing and installing clutch master cylinder and slave cylinder	16
1.2 Function check for clutch master cylinder and slave cylinder	17
2 Exploded view - pedal cluster, clutch master cylinder	19
2.1 Removing and installing over-centre spring	20
2.2 Removing and installing clutch pedal	22
2.3 Removing and installing mounting bracket	24
2.4 Removing and installing clutch position sender G476	28
2.5 Removing and installing clutch master cylinder	30
3 Exploded view - hydraulics, left-hand drive vehicles	33
3.1 Removing and installing pipe/hose assembly or plastic pipe	35
3.2 Exploded view - hydraulics, right-hand drive vehicles	38
4 Bleeding clutch system	41
5 Exploded view - clutch release mechanism, slave cylinder	43
5.1 Removing and installing clutch slave cylinder together with release bearing	43
6 Clutch identification	45
7 Exploded view - Sachs version clutch	47
7.1 Removing and installing clutch (Sachs version)	49
8 Exploded view - LuK version clutch	53
8.1 Removing and installing clutch (LuK version)	55
34 - Controls, housing	58
1 Overview - selector mechanism	58
1.1 Exploded view - gear knob with gear lever boot	60
1.2 Removing and installing gear knob with gear lever boot	60
1.3 Separating gear lever boot from gear knob	61
1.4 Exploded view - selector mechanism, vehicles up to model year 2008	62
1.5 Exploded view - selector mechanism, vehicles from model year 2009 onwards	64
1.6 Removing and installing selector mechanism	65
1.7 Exploded view - gear selector cable and gate selector cable, vehicles up to model year 2008	69
1.8 Exploded view - gear selector cable and gate selector cable, vehicles from model year 2009 onwards	73
1.9 Dismantling and assembling selector mechanism	77
1.10 Removing and installing gear selector cable and gate selector cable	83
1.11 Adjusting selector mechanism	84
2 Removing and installing gearbox	87



2.1	Removing gearbox - vehicles with 1.8 ltr. and 2.0 ltr. FSI turbocharged engine	87
2.2	Installing gearbox - vehicles with 1.8 ltr. and 2.0 ltr. FSI turbocharged engine	101
2.3	Removing gearbox - vehicles with 2.0 ltr. TDI engine (unit injector)	108
2.4	Installing gearbox - vehicles with 2.0 ltr. TDI engine (unit injector)	120
2.5	Removing gearbox - vehicles with 2.0 ltr. TDI engine (common rail)	126
2.6	Installing gearbox - vehicles with 2.0 ltr. TDI engine (common rail)	141
2.7	Transporting gearbox	147
3	Exploded view - assembly mountings	150
3.1	Removing and installing gearbox mounting	153
3.2	Removing and installing pendulum support	155
4	Gear oil	157
4.1	Distinguishing manual gearboxes for oil filling	157
4.2	Checking gear oil level	157
5	Exploded view - selector unit	162
5.1	Renewing oil seal for selector shaft	162
5.2	Removing and installing selector unit	165
6	Dismantling and assembling gearbox	167
7	Gearbox housing, clutch housing	168
35 - Gears, shafts		169
1	Input shaft	169
2	Output shaft	170
39 - Final drive - differential		171
1	Oil seals	171
1.1	Overview of fitting locations - oil seals	171
1.2	Renewing flange shaft oil seal (left-side)	172
1.3	Renewing stub shaft oil seal (right-side) - up to gearbox manufacturing date 31 10 4	175
1.4	Renewing flange shaft oil seal (right-side) - from gearbox manufacturing date 01 11 4 onwards	179
1.5	Renewing input shaft oil seal	182
2	Differential	184



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



00 – Technical data

1 Gearbox identification

(ARL006497; Edition 07.2019)

⇒ [“2 Technical data”, page 2](#)

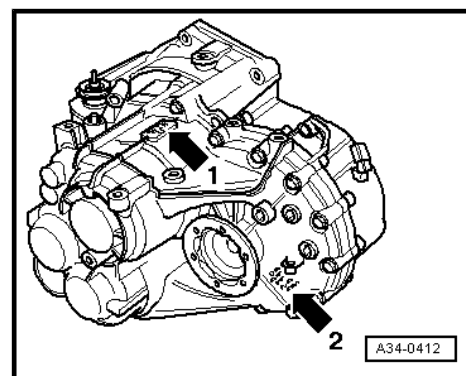
⇒ [“2.1 Code letters, allocation, transmission ratios”, page 2](#)

⇒ [“2.2 Capacities”, page 6](#)

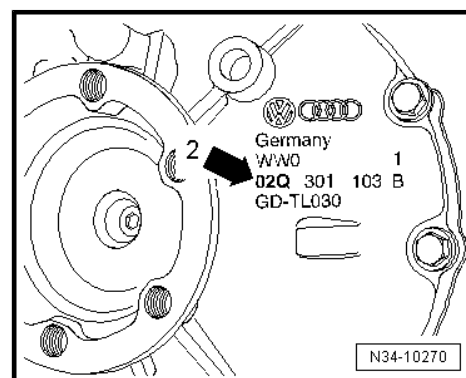
Location on gearbox

Code letters and date of manufacture -arrow 1-

◆ Manual gearbox 02Q -arrow 2-



Manual gearbox 02Q -arrow-



Code letters and production date of gearbox -arrow-

Example: FUP 04 09 2

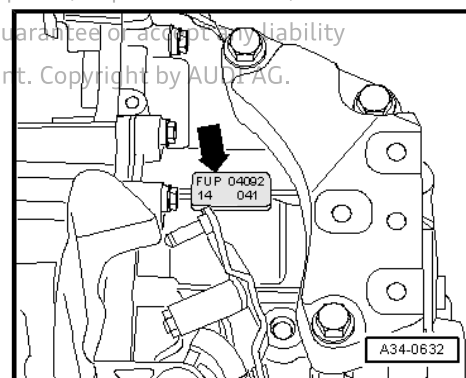
FUP	04	09	2
Code letters	Day	Month	Year of manufacture (2002)

Additional data depend on manufacture.



Note

The code letters for the gearbox are also given on the vehicle data stickers.





2 Technical data

⇒ "2.1 Code letters, allocation, transmission ratios", page 2

⇒ "2.2 Capacities", page 6

⇒ "2.3 Calculating ratio i", page 6

2.1 Code letters, allocation, transmission ratios

Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		FUP	GRF	GVT
Allocation	Model	Audi A3 2004►	Audi A3 2004►	Audi A3 2004►
	Engine	2.0 ltr. - 103 kW TDI	2.0 ltr. - 100 kW TDI 2.0 ltr. - 103 kW TDI	2.0 ltr. - 147 kW FSI turbo
Ratio	Final drive I for 1st to 4th gear	60 : 18 = 3.333	69 : 20 = 3.450	71 : 18 = 3.944
$Z_2 : Z_1 = i$	Final drive II for 5th/6th gear and reverse gear	60 : 22 = 2.727	69 : 25 = 2.760	71 : 23 = 3.087
	1st gear	49 : 13 = 3.769	49 : 13 = 3.769	47 : 14 = 3.357
	2nd gear	48 : 23 = 2.087	48 : 23 = 2.087	48 : 23 = 2.087
	3rd gear	45 : 34 = 1.324	45 : 34 = 1.324	47 : 32 = 1.469
	4th gear	42 : 43 = 0.977	42 : 43 = 0.997	45 : 41 = 1.098
	5th gear	39 : 40 = 0.975	39 : 40 = 0.975	41 : 37 = 1.108
	6th gear	35 : 43 = 0.814	35 : 43 = 0.814	38 : 41 = 0.927
	Reverse gear	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549	34 : 23 x 14 : 14 = 3.990
io _v in top gear		2.220	2.247	2.861
The following data can be found in the ⇒ Electronic parts catalogue				
◆ Production data				
◆ Allocation of drive shaft flanges				
◆ Allocation of clutch type				

Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		HDV	HVS	JLW
Allocation	Model	Audi A3 2004►	Audi A3 2004►	Audi A3 2004►
	Engine	2.0 ltr. - 100 kW TDI 2.0 ltr. - 103 kW TDI	2.0 ltr. - 125 kW turbo diesel	2.0 ltr. - 147 kW FSI turbo
Ratio	Final drive I for 1st to 4th gear	69 : 20 = 3.450	70 : 19 = 3.684	71 : 18 = 3.944
$Z_2 : Z_1 = i$	Final drive II for 5th/6th gear and reverse gear	69 : 25 = 2.760	70 : 24 = 2.917	71 : 23 = 3.087
	1st gear	49 : 13 = 3.769	49 : 13 = 3.769	47 : 14 = 3.357
	2nd gear	48 : 23 = 2.087	48 : 23 = 2.087	48 : 23 = 2.087
	3rd gear	45 : 34 = 1.324	45 : 34 = 1.324	47 : 32 = 1.469
	4th gear	42 : 43 = 0.977	34 : 37 = 0.919	45 : 41 = 1.098
	5th gear	39 : 40 = 0.975	37 : 41 = 0.902	41 : 37 = 1.108
	6th gear	35 : 43 = 0.814	28 : 37 = 0.757	38 : 41 = 0.927



Manual gearbox	6-speed 02Q (front-wheel drive)		
Code letters	HDV	HVS	JLW
Reverse gear	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549	34 : 23 x 14 : 14 = 3.990
i_{ov} in top gear	2.247	2.207	2.861
The following data can be found in the ⇒ Electronic parts catalogue			
◆ Production data			
◆ Allocation of drive shaft flanges			
◆ Allocation of clutch type			

Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		JLU	JMA	KDN
Allocation	Model	Audi A3 2004▶	Audi A3 2004▶	Audi A3 2004▶
	Engine	2.0 ltr. - 100 kW TDI 2.0 ltr. - 103 kW TDI	2.0 ltr. -125 kW turbo diesel	2.0 ltr. - 103 kW TDI
Ratio	Final drive I for 1st to 4th gear	69 : 20 = 3.450	70 : 19 = 3.684	69 : 20 = 3.450
$Z_2 : Z_1 = i$	Final drive II for 5th/6th gear and reverse gear	69 : 25 = 2.760	70 : 24 = 2.917	69 : 25 = 2.760
	1st gear	49 : 13 = 3.769	49 : 13 = 3.769	49 : 13 = 3.769
	2nd gear	48 : 23 = 2.087	48 : 23 = 2.087	48 : 23 = 2.087
	3rd gear	45 : 34 = 1.324	45 : 34 = 1.324	45 : 34 = 1.324
	4th gear	42 : 43 = 0.977	34 : 37 = 0.919	42 : 43 = 0.977
	5th gear	39 : 40 = 0.975	37 : 41 = 0.902	39 : 40 = 0.975
	6th gear	35 : 43 = 0.814	28 : 37 = 0.757	35 : 43 = 0.814
	Reverse gear	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549
i_{ov} in top gear		2.247	2.207	2.247
The following data can be found in the ⇒ Electronic parts catalogue				
◆ Production data				
◆ Allocation of drive shaft flanges				
◆ Allocation of clutch type				

Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		KDQ	KDS	KNS
Allocation	Model	Audi A3 2004▶	Audi A3 2004▶	Audi A3 2004▶ Audi A3 Cabriolet 2008▶
	Engine	2.0 ltr. - 147 kW FSI tur- bo	2.0 ltr. - 125 kW TDI	2.0 ltr. - 103 kW TDI
Ratio	Final drive I for 1st to 4th gear	71 : 18 = 3.944	70 : 19 = 3.684	69 : 20 = 3.450
$Z_2 : Z_1 = i$	Final drive II for 5th/6th gear and reverse gear	71 : 23 = 3.087	70 : 24 = 2.917	69 : 25 = 2.760
	1st gear	47 : 14 = 3.357	49 : 13 = 3.769	49 : 13 = 3.769



Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		KDQ	KDS	KNS
	2nd gear	48 : 23 = 2.087	48 : 23 = 2.087	48 : 23 = 2.087
	3rd gear	47 : 32 = 1.469	45 : 34 = 1.324	45 : 34 = 1.324
	4th gear	45 : 41 = 1.098	34 : 37 = 0.919	42 : 43 = 0.977
	5th gear	41 : 37 = 1.108	37 : 41 = 0.902	39 : 40 = 0.975
	6th gear	38 : 41 = 0.927	28 : 37 = 0.757	35 : 43 = 0.814
	Reverse gear	34 : 23 x 14 : 14 = 3.990	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549
i _{ov} in top gear		2.861	2.207	2.247
The following data can be found in the ⇒ Electronic parts catalogue				
◆ Production data				
◆ Allocation of drive shaft flanges				
◆ Allocation of clutch type				

Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		KNU	KNY	KXD
Allocation	Model	Audi A3 2004► Audi A3 Cabriolet 2008►	Audi A3 2004►	Audi A3 2004►
	Engine	2.0 ltr. - 147 kW FSI turbo	2.0 ltr. - 125 kW TDI	1.8 ltr. - 118 kW FSI turbo
Ratio	Final drive I for 1st to 4th gear	71 : 18 = 3.944	70 : 19 = 3.684	70 : 19 = 3.684
Z ₂ : Z ₁ = i	Final drive II for 5th/6th gear and reverse gear	71 : 23 = 3.087	70 : 24 = 2.917	70 : 24 = 2.917
	1st gear	47 : 14 = 3.357	49 : 13 = 3.769	49 : 13 = 3.769
	2nd gear	48 : 23 = 2.087	48 : 23 = 2.087	48 : 23 = 2.087
	3rd gear	47 : 32 = 1.469	45 : 34 = 1.324	47 : 32 = 1.469
	4th gear	45 : 41 = 1.098	34 : 37 = 0.919	37 : 34 = 1.088
	5th gear	41 : 37 = 1.108	37 : 41 = 0.902	41 : 37 = 1.108
	6th gear	38 : 41 = 0.927	28 : 37 = 0.757	31 : 34 = 0.912
	Reverse gear	34 : 23 x 14 : 14 = 3.990	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549
i _{ov} in top gear		2.861	2.207	2.659
The following data can be found in the ⇒ Electronic parts catalogue				
◆ Production data				
◆ Allocation of drive shaft flanges				
◆ Allocation of clutch type				

Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		KXX	KXZ	KZS
Allocation	Model	Audi A3 2004► Audi A3 Cabriolet 2008►	Audi A3 2004►	Audi A3 2004► Audi A3 Cabriolet 2008►
	Engine	2.0 ltr. - 103 kW TDI	2.0 ltr. - 125 kW TDI	2.0 ltr. - 147 kW FSI turbo



Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		KXX	KXZ	KZS
Ratio	Final drive I for 1st to 4th gear	69 : 20 = 3.450	70 : 19 = 3.684	71 : 18 = 3.944
Z ₂ : Z ₁ = i	Final drive II for 5th/6th gear and reverse gear	69 : 25 = 2.760	70 : 24 = 2.917	71 : 23 = 3.087
	1st gear	49 : 13 = 3.769	49 : 13 = 3.769	47 : 14 = 3.357
	2nd gear	48 : 23 = 2.087	48 : 23 = 2.087	48 : 23 = 2.087
	3rd gear	45 : 34 = 1.324	45 : 34 = 1.324	47 : 32 = 1.469
	4th gear	42 : 43 = 0.977	34 : 37 = 0.919	45 : 41 = 1.098
	5th gear	39 : 40 = 0.975	37 : 41 = 0.902	41 : 37 = 1.108
	6th gear	35 : 43 = 0.814	28 : 37 = 0.757	38 : 41 = 0.927
	Reverse gear	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549	34 : 23 x 14 : 14 = 3.990
i _{ov} in top gear		2.247	2.207	2.861
The following data can be found in the ⇒ Electronic parts catalogue				
◆ Production data				
◆ Allocation of drive shaft flanges				
◆ Allocation of clutch type				

Protection of this document for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		LHD	LNP	LNZ
Allocation	Model	Audi A3 2004➤ Audi A3 Cabriolet 2008➤	Audi A3 2004➤	Audi A3 2004➤ Audi A3 Cabriolet 2008➤
	Engine	2.0 ltr. - 103 kW TDI	1.8 ltr. - 118 kW FSI tur- bo	2.0 ltr. - 100 kW TDI 2.0 ltr. - 103 kW TDI
Ratio	Final drive I for 1st to 4th gear	69 : 20 = 3.450	70 : 19 = 3.684	69 : 20 = 3.450
Z ₂ : Z ₁ = i	Final drive II for 5th/6th gear and reverse gear	69 : 25 = 2.760	70 : 24 = 2.917	69 : 25 = 2.760
	1st gear	49 : 13 = 3.769	49 : 13 = 3.769	49 : 13 = 3.769
	2nd gear	47 : 24 = 1.958	48 : 23 = 2.087	47 : 24 = 1.958
	3rd gear	44 : 35 = 1.257	47 : 32 = 1.469	44 : 35 = 1.257
	4th gear	40 : 46 = 0.869	37 : 34 = 1.088	40 : 46 = 0.869
	5th gear	36 : 42 = 0.857	41 : 37 = 1.108	36 : 42 = 0.857
	6th gear	33 : 46 = 0.717	31 : 34 = 0.912	33 : 46 = 0.717
	Reverse gear	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549
i _{ov} in top gear		1.980	2.659	1.980
The following data can be found in the ⇒ Electronic parts catalogue				
◆ Production data				
◆ Allocation of drive shaft flanges				
◆ Allocation of clutch type				



Manual gearbox		6-speed 02Q (front-wheel drive)		
Code letters		LPS	NFU	NFW
Allocation	Model	Audi A3 2004➤	Audi A3 2004➤ Audi A3 Cabriolet 2008➤	Audi A3 2004➤
	Engine	2.0 ltr. - 125 kW TDI	2.0 ltr. - 100 kW TDI 2.0 ltr. - 103 kW TDI	2.0 ltr. - 125 kW TDI
Ratio	Final drive I for 1st to 4th gear	70 : 19 = 3.684	69 : 20 = 3.450	70 : 19 = 3.684
$Z_2 : Z_1 = i$	Final drive II for 5th/6th gear and reverse gear	70 : 24 = 2.917	69 : 25 = 2.760	70 : 24 = 2.917
	1st gear	49 : 13 = 3.769	49 : 13 = 3.769	49 : 13 = 3.769
	2nd gear	48 : 23 = 2.087	47 : 24 = 1.958	48 : 23 = 2.087
	3rd gear	45 : 34 = 1.324	44 : 35 = 1.257	45 : 34 = 1.324
	4th gear	34 : 37 = 0.919	40 : 46 = 0.869	34 : 37 = 0.919
	5th gear	37 : 41 = 0.902	36 : 42 = 0.857	37 : 41 = 0.902
	6th gear	28 : 37 = 0.757	33 : 46 = 0.717	28 : 37 = 0.757
	Reverse gear	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549	36 : 23 x 13 : 14 = 4.549
i_{ov} in top gear		2.207	1.980	2.207
The following data can be found in the ⇒ Electronic parts catalogue ♦ Production data ♦ Allocation of drive shaft flanges ♦ Allocation of clutch type				

2.2 Capacities

Manual gearbox	6-speed 02Q (front-wheel drive)
Capacity of manual gearbox (gearbox completely dis- mantled)	2.3 ltr.
Capacity of manual gearbox (gearbox partially disman- tled)	2.15 ltr.
♦ Gear oil specifications ⇒ Electronic parts catalogue	

2.3 Calculating ratio "i"

Example:

6-speed manual gearbox 02Q	6th gear	Final drive
Driving gear	$ZG_1 = 43$	$ZA_1 = 22$
Driven gear	$ZG_2 = 35$	$ZA_2 = 60$
$i = Z_2 : Z_1$	Z_1 = number of teeth on driving gear Z_2 = number of teeth on driven gear	
i_G = gear ratio	$= ZG_2 : ZG_1$	$= 35 : 43$ $= 0.814$
i_A = axle ratio	$= ZA_2 : ZA_1$	$= 60 : 22$ $= 2.727$



i_{ov} = overall ratio	$i_G \times i_A$	$= 0.814 \times 2.727$ $= 2.220$
--------------------------	------------------	-------------------------------------



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



3 Transmission layout

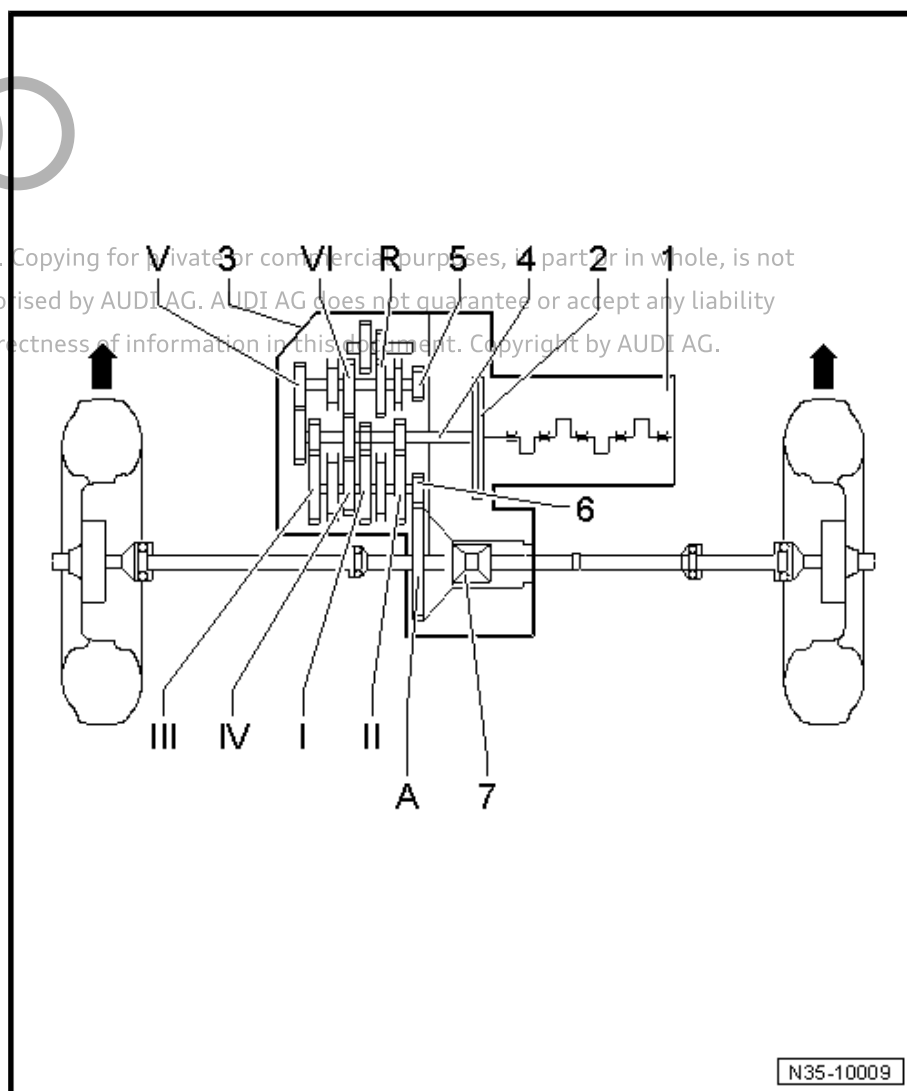
Identification



Note

-Arrows- point in direction of travel.

- 1 - Engine
- 2 - Clutch
- 3 - Manual gearbox
- 4 - Input shaft
- 5 - Output shaft II for 5th, 6th and reverse gear
- 6 - Output shaft I for 1st - 4th gear
- 7 - Differential



Ratio

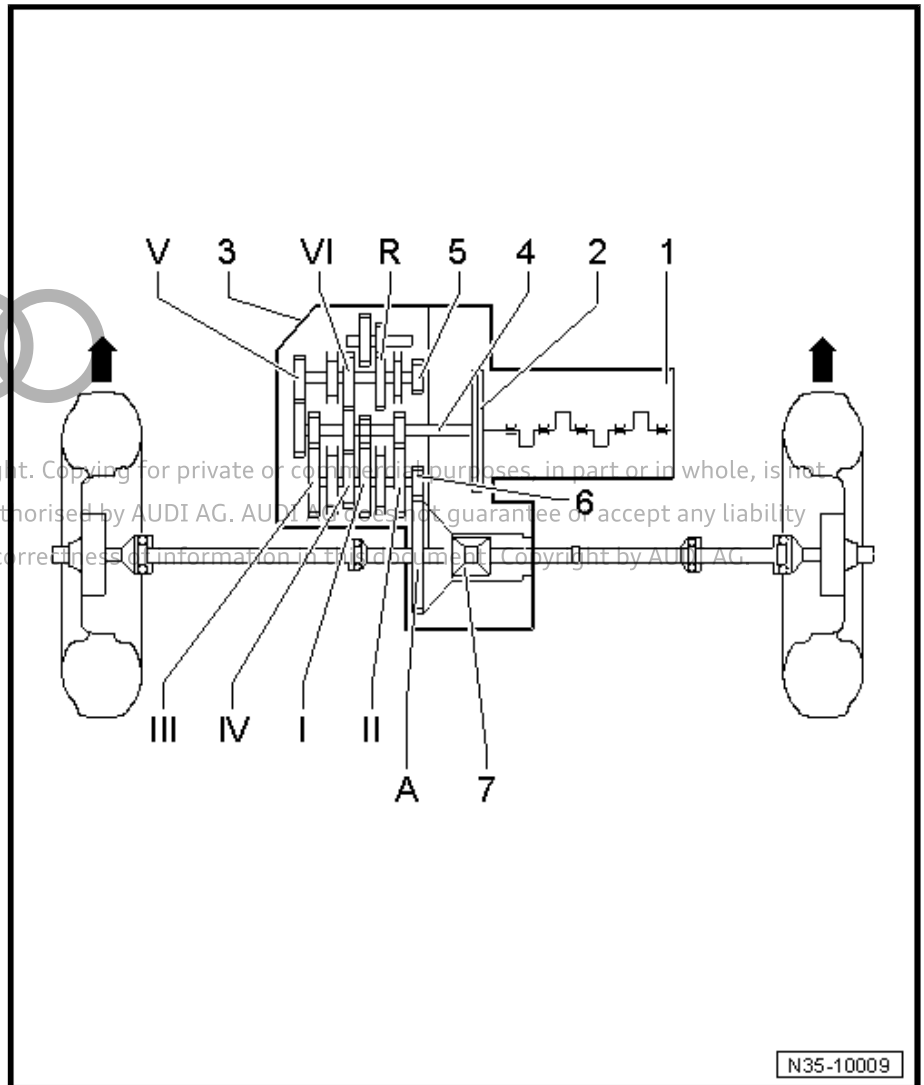


Note

-Arrows- point in direction of travel.



- I - 1st gear
- II - 2nd gear
- III - 3rd gear
- IV - 4th gear
- V - 5th gear
- VI - 6th gear
- R - Reverse gear
- A - Final drive





4 Safety precautions

⇒ **"4.1 Safety precautions when working on vehicles with start/stop system", page 10**

4.1 Safety precautions when working on vehicles with start/stop system



WARNING

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

- ◆ *On vehicles with activated start/stop system (this is indicated by a message in the instrument cluster display), the engine may start automatically on demand.*
- ◆ *It is important to ensure that the start/stop system is deactivated when performing repairs (switch off ignition, if required switch on ignition again).*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without the prior written consent of AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



5 Repair instructions

⇒ ["5.1 Contact corrosion", page 11](#)

⇒ ["5.2 General repair instructions", page 11](#)

5.1 Contact corrosion

Contact corrosion can occur if unsuitable fasteners are used (e.g. bolts, nuts, washers, etc.).

For this reason, only fasteners with a special surface coating are fitted.

Additionally, all rubber and plastic parts and all adhesives are made of non-conductive materials.

Always install new parts if you are not sure whether used parts can be re-fitted ⇒ Electronic parts catalogue .

Please note:

- ◆ The gearbox casing is made of a magnesium alloy.
- ◆ We recommend using only genuine replacement parts; these have been tested and are compatible with aluminium.
- ◆ We recommend using Audi Genuine Accessories.



Caution

Damage caused by contact corrosion is not covered by the warranty.

5.2 General repair instructions

Proper tools and the maximum possible care and cleanliness are essential for satisfactory repairs to the transmission units. The usual basic safety precautions also naturally apply when carrying out repair work.

A number of generally applicable instructions for the various repair procedures - which were previously repeated at numerous places in the Workshop Manual - are summarised here. They apply to the work described in this Manual.

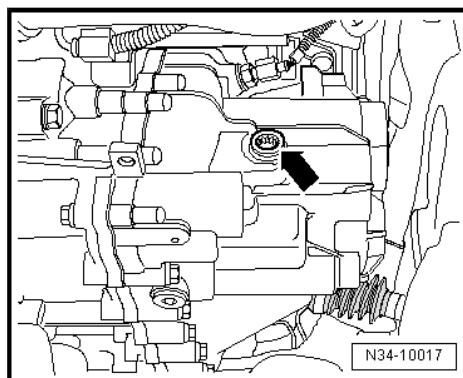
Special tools

- ◆ For a complete list of special tools used in this Workshop Manual ⇒ Workshop equipment and special tools .



Gearbox

- ◆ Thoroughly clean all joints and connections and the surrounding areas before disconnecting.
- ◆ When assembling gearbox, ensure dowel sleeves are correctly seated.
- ◆ Allocate bolts and other components according to ⇒ Electronic parts catalogue .
- ◆ On gearboxes without an oil filler plug -arrow-, it is not possible to check the oil level by carrying out a visual inspection.
- ◆ The oil must be drained completely and the gearbox must then be filled with a precisely defined quantity of oil ⇒ [page 157](#) .
- ◆ For gear oil specification, refer to ⇒ Electronic parts catalogue .
- ◆ Capacities ⇒ [page 6](#) .



Oil seals, seals, O-rings and gaskets

- ◆ Always renew seals, oil seals, O-rings and gaskets.
- ◆ After removing gaskets and seals, always inspect the contact surface on the housing or shaft for burrs resulting from removal or for other signs of damage.
- ◆ Before installing oil seals, lightly oil the outer circumference of the seal and fill the space between the sealing lips -arrow- about half full with grease - G 052 128 A1- .
- ◆ The open side of the oil seal should face the side containing the fluid.
- ◆ When installing a new oil seal, position the seal in the housing so that the sealing lip does not contact the shaft in the same place as the old seal (make use of installation depth tolerances).
- ◆ Lightly lubricate O-rings with oil before installation to prevent them being trapped during assembly.
- ◆ Check oil level after installing new gaskets, O-rings and oil seals ⇒ [page 157](#) .



Sealant

- ◆ Thoroughly clean joint surfaces on gearbox housing etc. before applying sealing paste.
- ◆ Apply sealing paste - AMV 188 200 03- evenly and not too thick.
- ◆ Breather holes must remain free of sealing paste.

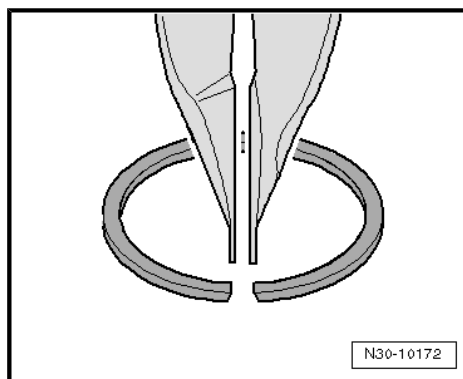
Locking elements

Do not over-stretch circlips.

Installation position for some circlips: the circlip is fitted so that the narrow part of the gap is at the top. This also gives the pliers a better grip when removing and installing.

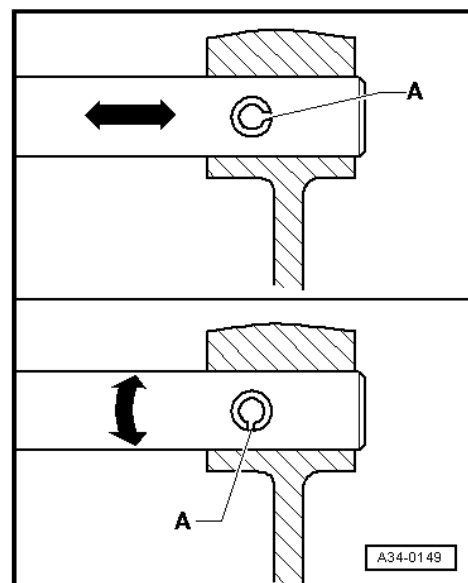
Always renew circlips which have been damaged or over-stretched.

Circlips must be properly seated in the base of the groove.





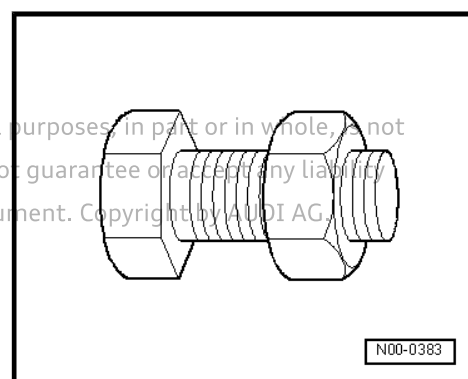
Renew spring pins. Position: the slit -A- should be in line with the line of force -arrow-.



Nuts, bolts



- ◆ Loosen the nuts and bolts in reverse sequence to the specified tightening sequence.
- ◆ Nuts and bolts which secure covers and housings should be loosened and tightened in diagonal sequence and in stages if no tightening sequence is specified.
- ◆ Renew self-locking nuts and bolts.
- ◆ The tightening torques stated apply to non-oiled nuts and bolts.
- ◆ Use a wire brush to clean the threads of bolts which are secured with locking fluid. Then apply locking fluid - AMV 185 101 A1- to bolt threads before installing.
- ◆ Threaded holes which take self-locking bolts or bolts coated with locking fluid must be cleaned (using a tap or similar). Otherwise there is a danger of the bolts shearing off the next time they are removed.
- ◆ For all threaded connections, ensure that (where applicable) the contact surfaces and the nuts and bolts are not coated with wax until after assembly is completed.



Bearings

- ◆ Install new tapered roller bearings as supplied; do not lubricate additionally with oil.
- ◆ Lubricate all bearings (except tapered roller bearings) with gear oil before installing in gearbox.
- ◆ Use inductive heater - VAS 6414- to heat inner races of tapered roller bearings to approx. 100°C before installing. Press home onto stop when installing so there is no axial clearance.
- ◆ Do not interchange inner or outer races of bearings of the same size.
- ◆ If required, renew the tapered roller bearings on one shaft together and use new bearings from a single manufacturer.
- ◆ Install needle bearings so the lettering (side with thicker metal) faces towards the installing tool.



Shims

- ◆ Use a micrometer to measure the shims at several points. Tolerance variations make it possible to obtain the exact shim thickness required.
- ◆ Check for burrs and damage. Install only shims which are in perfect condition.
- ◆ Install only shims which are in perfect condition.

Synchro-rings

- ◆ Do not interchange synchro-rings. When reusing always fit to the same selector gear.
- ◆ Check for wear; renew if necessary.
- ◆ Check the grooves -arrow 1- on synchro-ring -A- and on inner ring for wear (flattened sections in grooves).
- ◆ Make sure that the coating of coated synchro-rings is not damaged.
- ◆ If an intermediate ring -B- is fitted, check the outer contact surface -arrow 2- and inner contact surface -arrow 3- of the intermediate ring for »scoring«, »visible traces of wear« and »blue discolouration (caused by overheating)«.
- ◆ Check cone on selector gear for scoring and visible traces of wear.
- ◆ Lubricate with gear oil before installing.

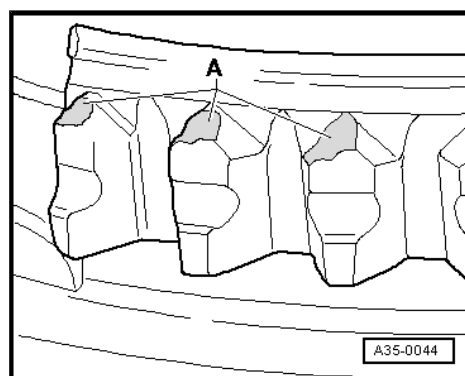
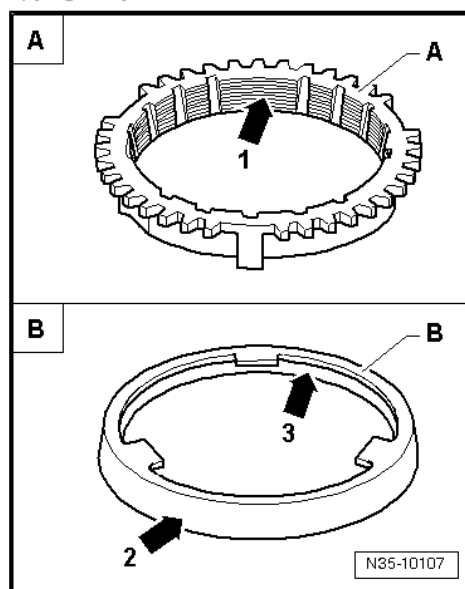
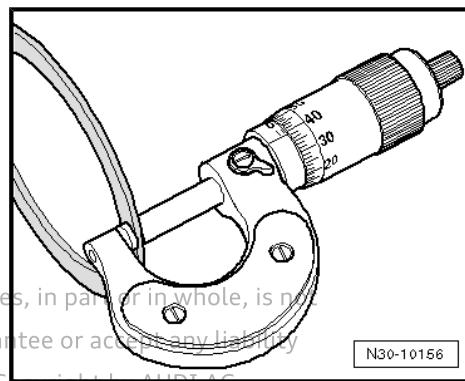
Gear wheels

- ◆ Clean before pressing on.
- ◆ Use inductive heater - VAS 6414- to heat to approx. 100°C before installing. Press home onto stop when installing so there is no axial clearance.

Selector gears and locking collars

- ◆ After installing, check 1st to 6th speed selector gears for minimal axial play and freedom of movement.
- ◆ Abnormal wear on synchro-ring or selector gear:

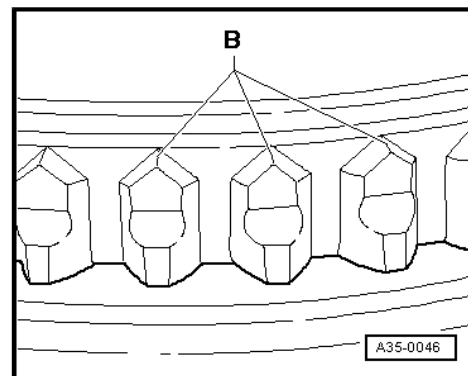
A - Worn chamfer on dog teeth of synchro-ring or selector gear.





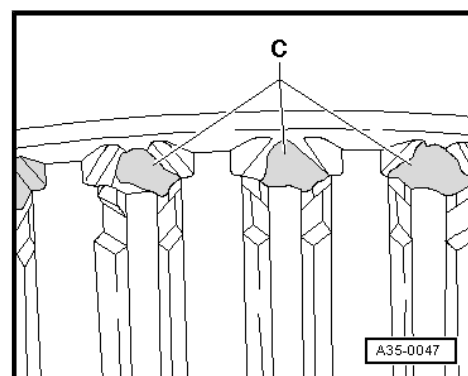
- ◆ In comparison: intact synchro-ring or selector gear:

B - Intact chamfer on dog teeth of synchro-ring or selector gear.



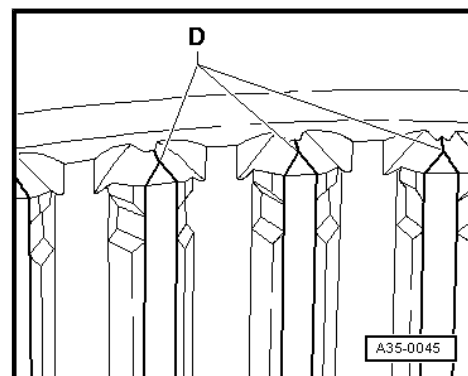
- ◆ Abnormal wear on locking collar:

C - Worn chamfer on internal splines of locking collar.



- ◆ In comparison: intact locking collar:

D - Intact chamfer on internal splines of locking collar.



Clutch mechanism, clutch

- ◆ If the clutch pedal does not return to its initial position after releasing it (clutch pedal in rest position), you must bleed the clutch system (further measures ➔ [page 16](#)).
- ◆ Ensure that the pressure plate is kept straight: loosen and tighten bolts consecutively in steps of 90°.
- ◆ If the clutch has burnt out, thoroughly clean the gearbox housing in area of clutch and parts of the engine facing the gearbox in order to prevent odours.
- ◆ Only blow out dual-mass flywheel with compressed air.
- ◆ Clutch pressure plates have an anti-corrosion coating and are greased. With the exception of the friction surface for the clutch plate, the pressure plate must not be cleaned. Otherwise, the service life of the clutch will be considerably reduced.
- ◆ The friction surface of the pressure plate and the dual-mass flywheel must be cleaned (degreased) thoroughly.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



30 – Clutch

1 Overview - clutch mechanism



Note

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

If you suspect a defective clutch master cylinder or clutch slave cylinder, pay attention to

⇒ [“1.1 Notes on removing and installing clutch master cylinder and slave cylinder”, page 16](#) and perform
⇒ [“1.2 Function check for clutch master cylinder and slave cylinder”, page 17](#) prior to renewing.

I -

⇒ [“2 Exploded view - pedal cluster, clutch master cylinder”, page 19](#)

⇒ [“2.1 Removing and installing over-centre spring”, page 20](#)

⇒ [“2.2 Removing and installing clutch pedal”, page 22](#)

⇒ [“2.3 Removing and installing mounting bracket”, page 24](#)

⇒ [“2.4 Removing and installing clutch position sender G476”, page 28](#)

⇒ [“2.5 Removing and installing clutch master cylinder”, page 30](#)

II -

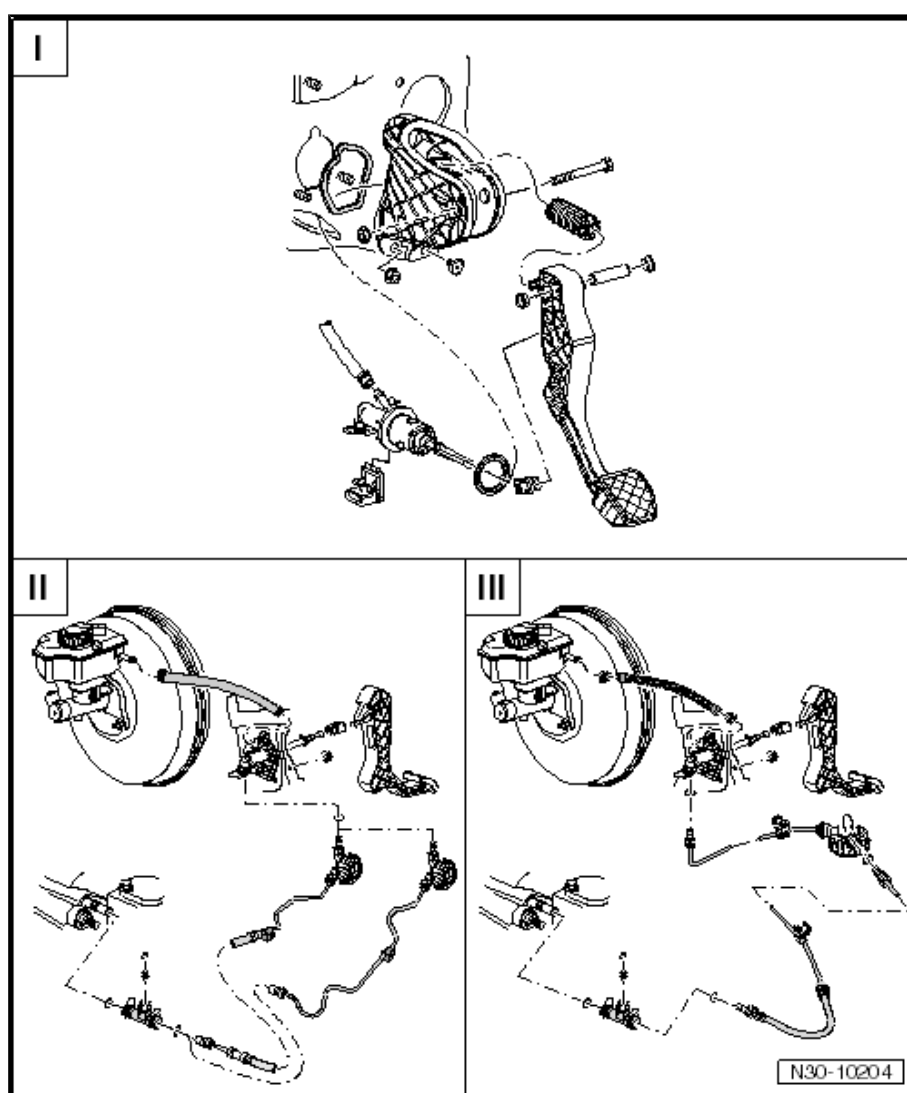
⇒ [“3 Exploded view - hydraulics, left-hand drive vehicles”, page 33](#)

⇒ [“3.1 Removing and installing pipe/hose assembly or plastic pipe”, page 35](#)

⇒ [“4 Bleeding clutch system”, page 41](#)

III -

⇒ [“3.2 Exploded view - hydraulics, right-hand drive vehicles”, page 38](#)



1.1 Notes on removing and installing clutch master cylinder and slave cylinder

- ◆ Before renewing the clutch master cylinder or slave cylinder on the assumption that it is defective you must first carry out a function check



⇒ "1.2 Function check for clutch master cylinder and slave cylinder", page 17 .

- ◆ If the slave cylinder is removed from gearbox with the pipe/hose assembly still attached, make sure you do not press the clutch pedal. Otherwise, the piston will be pressed out of the slave cylinder and will be damaged irreparably.
- ◆ After installing the slave cylinder, carefully press the clutch pedal. If you feel an unusually strong point of resistance when pressing the clutch pedal, you must not press it down further. The plunger of the slave cylinder is likely to have been guided past the clutch release lever. The slave cylinder would then be destroyed once pedal force exceeds approx. 300 N.

1.2 Function check for clutch master cylinder and slave cylinder

Before you renew the clutch master cylinder or slave cylinder you must - in the case of the following faults - first carry out the appropriate checks.

Noises when operating the clutch:

- ◆ First check the over-centre spring / clutch pedal switch for noise.
- ◆ If you hear a noise, remove over-centre spring and repeat check.
- ◆ Renew relevant component.

After releasing clutch pedal it still remains pressed / does not return to its initial position.

- ◆ Check whether the clutch pedal returns all the way to its initial position, thereby uncovering the vent opening in the master cylinder.
- ◆ The vent opening is integrated in the clutch master cylinder. It is not visible from the outside.
- ◆ The vent opening must be uncovered, otherwise the permanent self-bleeding function for the hydraulic clutch system will no longer be effective.
- ◆ Make the customer aware that the driver must NOT rest his/her foot on the clutch pedal for long periods of time. This could impair the self-bleeding function of the clutch system as the vent opening in the master cylinder can no longer function.
- ◆ The self-bleeding function of the clutch system can be impaired if the footwell trim or floor mats get trapped, if the clutch pedal switch jams or if the driver rests his foot on the clutch pedal for long periods of time.

Check the complete hydraulic system for leaks.

- ◆ Check brake fluid level in brake fluid reservoir.
- ◆ Check clutch master cylinder and slave cylinder as well as the pipe/hose assembly including connections for external leaks (visual inspection).
- ◆ If you identify any leaks you must renew the leaking component.

- ◆ Bleed clutch system ⇒ page 16 .

Pedal forces:

- ◆ Approx. 140 N for complete service life of the clutch

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



High pedal force:

- ◆ Mechanical fault on pressure plate/clutch plate ⇒ [page 47](#) or [page 53](#)

Clutch does not disengage or does not disengage fully:

- ◆ Air in hydraulic system: bleed clutch system ⇒ [page 16](#) and check hydraulic system for external and internal leaks.
- ◆ Clutch plate does not move smoothly on input shaft splines (due to corrosion or dirt, etc.)
- ◆ Foreign body in clutch system
- ◆ Mechanical fault on pressure plate/clutch plate ⇒ [page 47](#) or [page 53](#)
- ◆ Wrong components used or components forgotten when carrying out repair work (e.g. intermediate plate or dowel sleeves).



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



2 Exploded view - pedal cluster, clutch master cylinder



Note

Lubricate all bearings and moving surfaces with grease - G 000 450 02-.

For all purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1 - Bulkhead

- ☐ With mounting for mounting bracket

2 - Gasket

- ☐ Renew
- ☐ Between mounting bracket and bulkhead
- ☐ Self-adhesive
- ☐ Bond onto mounting bracket

3 - Mounting bracket

- ☐ For clutch pedal
- ☐ Removing and installing
⇒ [page 24](#)

4 - Bolt

5 - Over-centre spring

- ☐ Removing and installing
⇒ [page 20](#)

6 - Bearing bush

7 - Pivot pin

8 - Clutch pedal

- ☐ Removing and installing
⇒ [page 22](#)

9 - Retaining clip

- ☐ For operating rod on clutch master cylinder

10 - Seal

- ☐ Renew
- ☐ Between clutch master cylinder and mounting bracket

11 - Clutch master cylinder

- ☐ Removing and installing ⇒ [page 30](#)

12 - Clutch position sender - G476-

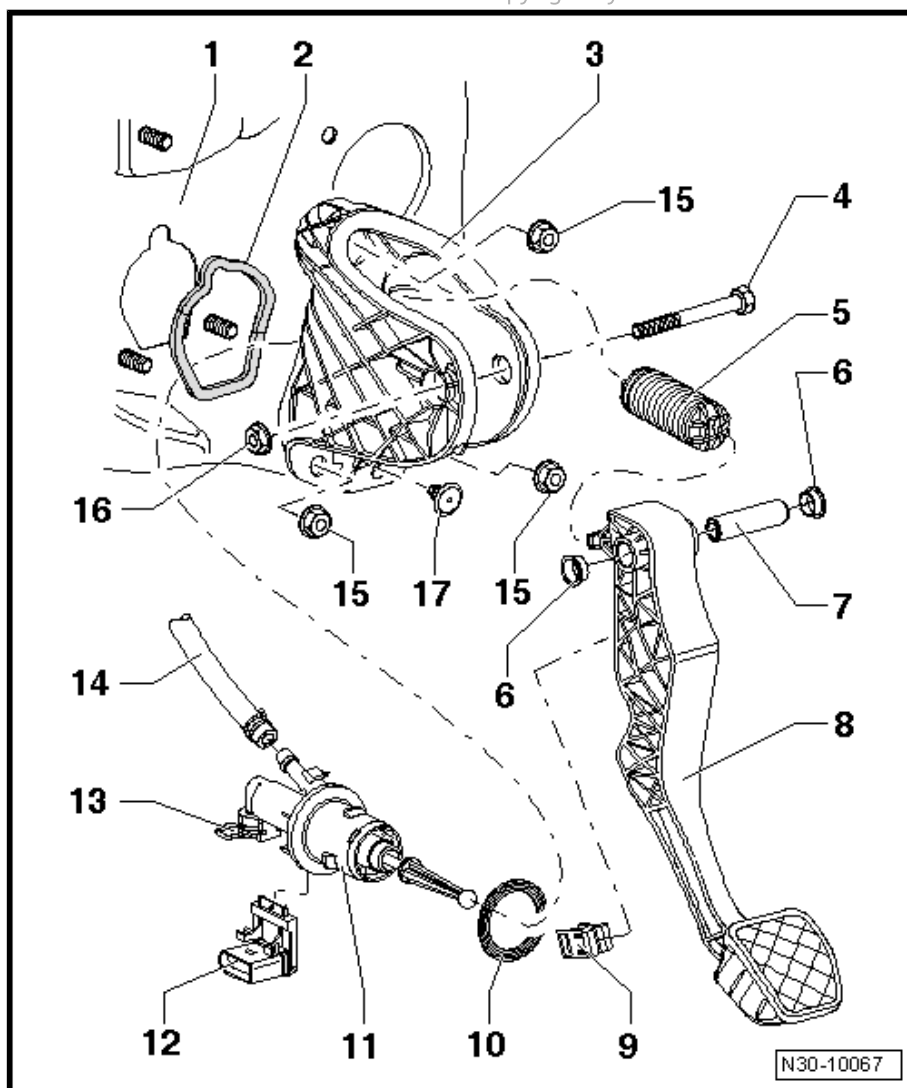
- ☐ Removing and installing ⇒ [page 28](#)
- ☐ Can be checked in "Guided Fault Finding" using vehicle diagnostic, testing and information system - VAS 5051-

13 - Retaining clip

- ☐ To remove and install pipe/hose assembly, pull out clip as far as it will go

14 - Supply hose

- ☐ To brake fluid reservoir





- ☐ Made of rubber or plastic, depending on version
- ☐ Plastic supply hose with additional seals ⇒ [page 35](#)

15 - Nut

- ☐ For securing mounting bracket to bulkhead
- ☐ 20 Nm
- ☐ 3x
- ☐ Self-locking
- ☐ Renew

16 - Nut

- ☐ 25 Nm
- ☐ Self-locking
- ☐ Renew

17 - Stop

- ☐ For clutch pedal

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

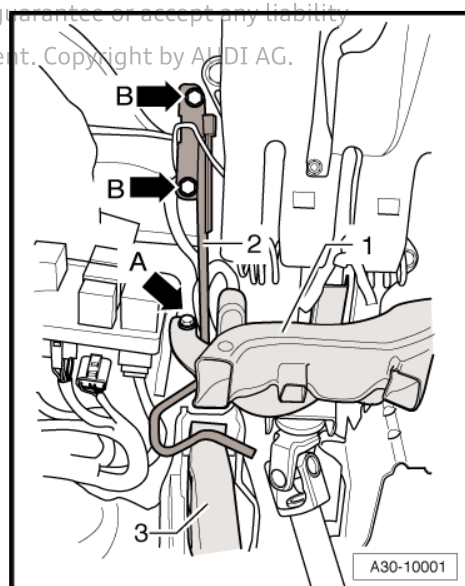
Crash bar - tightening torque



Note

The crash bar -2- is not fitted on earlier versions.

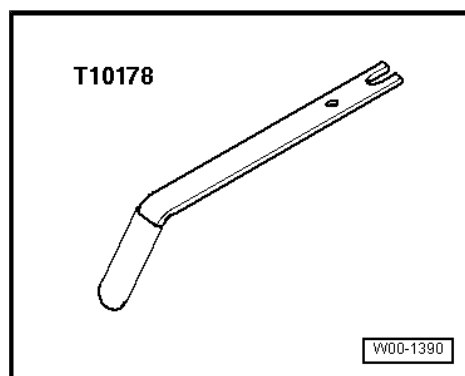
- Install crash bar -2- and tighten 1 or 2 bolts (depending on version) -arrows B-.
- M6 10 Nm
- M8 20 Nm



2.1 Removing and installing over-centre spring

Special tools and workshop equipment required

- ◆ Assembly tool - T10178-



- ◆ Grease - G 000 450 02-



Removing

- Clutch pedal mounting bracket fitted in vehicle
- Move driver's seat away from pedals.
- Remove storage compartment on driver's side ⇒ Rep. gr. 68 .
- Unscrew bolt -arrow A- and remove footwell vent (front left) -1-.
- Unclip wiring harness at rear of footwell vent -1- and move clear to one side.
- If fitted, unbolt crash bar -2- (secured by one or two bolts -arrows B-, depending on version).



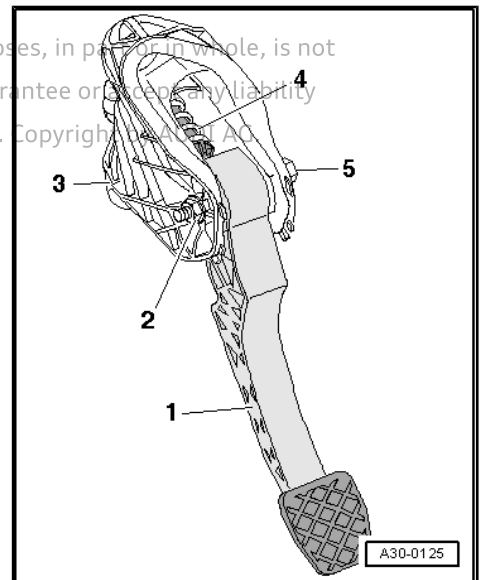
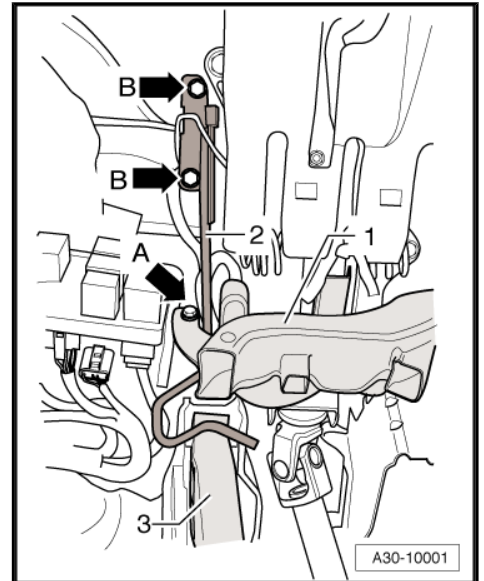
- Unbolt clutch pedal -1- from mounting bracket -3-. To do this, remove nut -2- and pull out bolt -5-.



Note

The clutch pedal does not have to be detached from the operating rod on the clutch master cylinder.

- Pivot clutch pedal down slightly and take over-centre spring -4- out of mounting bracket.



Installing

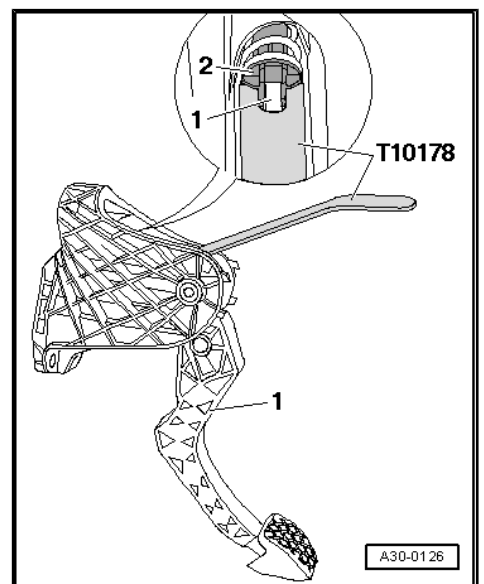
- Tightening torque ⇒ [page 19](#)

Installation is carried out in reverse order; note the following:



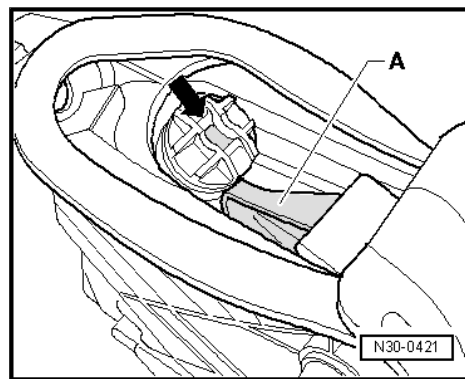
Note

- ◆ *Renew self-locking nut.*
- ◆ *Lubricate all bearings and contact surfaces with grease - G 000 450 02- .*
- Fit over-centre spring -2- into mounting bracket from above while holding end of spring in correct position with assembly tool - T10178- .





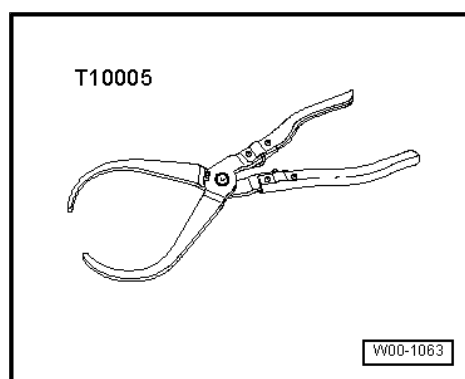
- Socket -arrow- of over-centre spring must be in vertical position.
- Fit actuator on clutch pedal -A- into corresponding socket in over-centre spring -arrow-.
- Press clutch pedal slightly, push bolt through and tighten self-locking nut.
- If fitted, install crash bar ➔ [page 20](#) .
- Install footwell vent (front left) ➔ Rep. gr. 80 .
- Install storage compartment on driver's side ➔ Rep. gr. 68 .



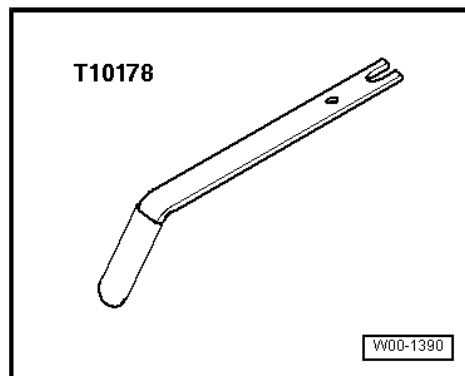
2.2 Removing and installing clutch pedal

Special tools and workshop equipment required

- ◆ Pliers - T10005-



- ◆ Assembly tool - T10178-



- ◆ Grease - G 000 450 02-

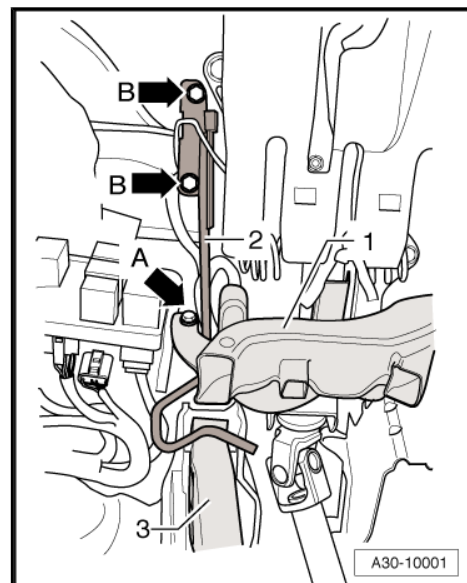


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

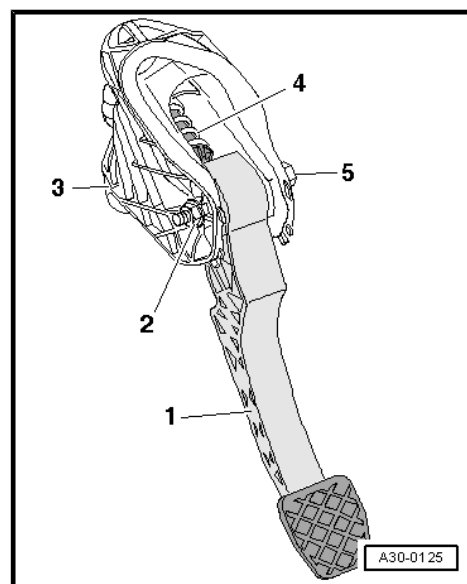


Removing

- Clutch pedal mounting bracket fitted in vehicle
- Move driver's seat away from pedals.
- Remove storage compartment on driver's side ⇒ Rep. gr. 68 .
- Unscrew bolt -arrow A- and remove footwell vent (front left) -1-.
- Unclip wiring harness at rear of footwell vent -1- and move clear to one side.
- If fitted, unbolt crash bar -2- (secured by one or two bolts -arrows B-, depending on version).



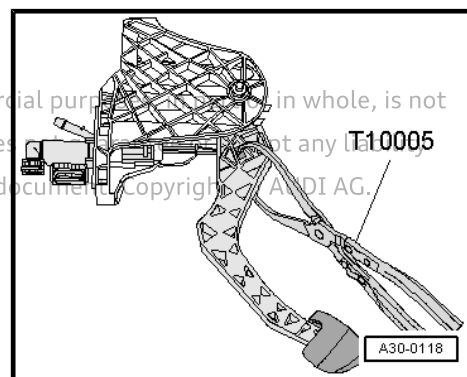
- Unbolt clutch pedal -1- from mounting bracket -3-. To do this, remove nut -2- and pull out bolt -5-.
- Pivot clutch pedal forward slightly and take over-centre spring -4- out of mounting bracket.



- Release retaining clip for operating rod on clutch pedal using pliers - T10005- .
- Remove clutch pedal.



Copyright © Audi AG. All rights reserved. Copying for private or commercial purposes, in whole or in part, is not permitted unless authorised by AUDI AG. AUDI AG does not accept any liability for errors or omissions with respect to the correctness of information in this document. Copyright © Audi AG.





Installing

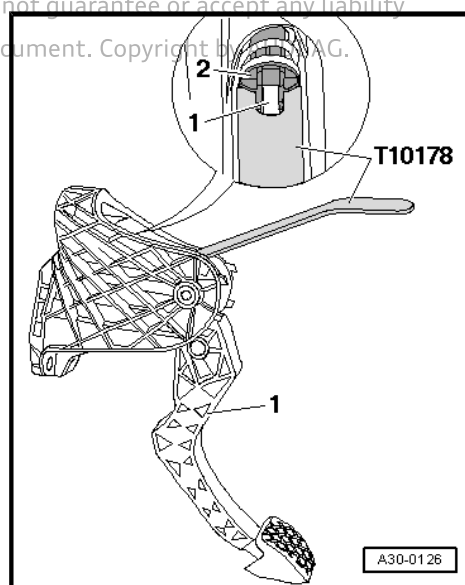
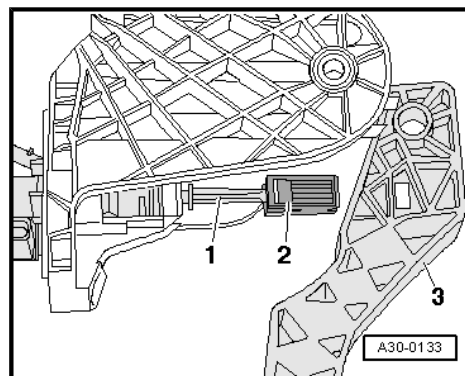
- Tightening torque ➔ [page 19](#)

Installation is carried out in reverse order; note the following:



Note

- ◆ *Renew self-locking nut.*
- ◆ *Lubricate all bearings and contact surfaces with grease - G 000 450 02-.*
- Install retaining clip -2- on operating rod -1- of master cylinder.
- Press retaining clip into mounting on clutch pedal so that it engages audibly.
- Fit over-centre spring -2- into mounting bracket from above while holding end of spring in correct position with assembly tool - T10178-.



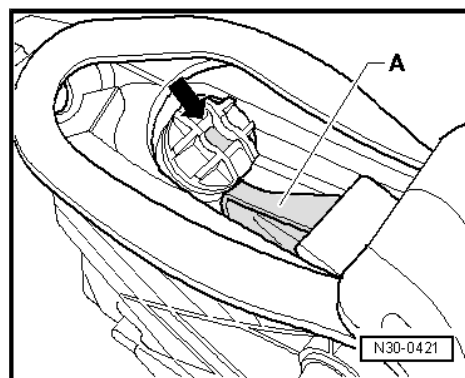
- Socket -arrow- of over-centre spring must be in vertical position.
- Fit actuator on clutch pedal -A- into corresponding socket in over-centre spring -arrow-.
- Press top of clutch pedal forwards against spring pressure of over-centre spring, push through bolt and tighten self-locking nut.



Note

It is easier to press the clutch pedal against the spring if you pull back the bottom of the pedal carefully as you bring the top of the pedal into installation position.

- If fitted, install crash bar ➔ [page 20](#) .
- Install footwell vent (front left) ➔ Rep. gr. 80 .
- Install storage compartment on driver's side ➔ Rep. gr. 68 .

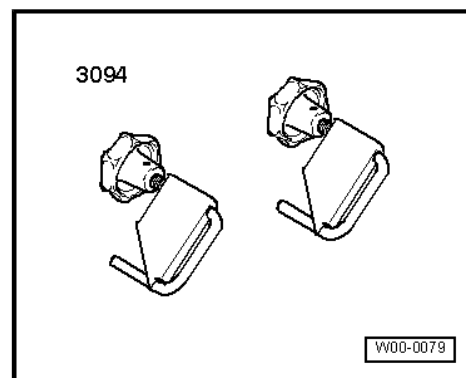


2.3 Removing and installing mounting bracket

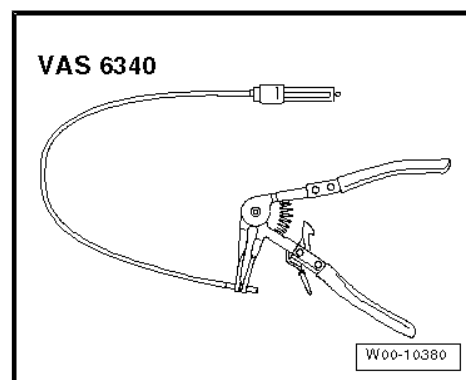
Special tools and workshop equipment required



- ◆ Hose clamps up to Ø 25 mm - 3094-



- ◆ Hose clip pliers - VAS 6340-



Removing

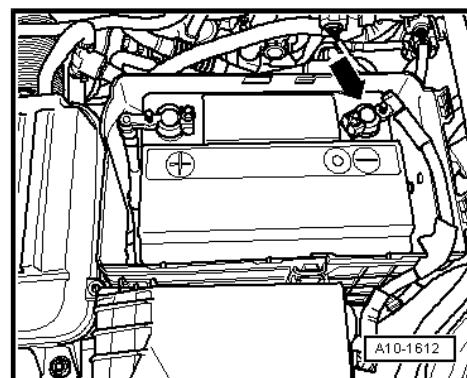


Caution

Follow steps required when disconnecting battery ⇒ Electrical system; Rep. gr. 27 .

Protected by copyright. Reproduction for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Move driver's seat away from pedals.
- With ignition switched off, disconnect earth wire -arrow- at battery.
- Remove battery ⇒ Electrical system; Rep. gr. 27 .



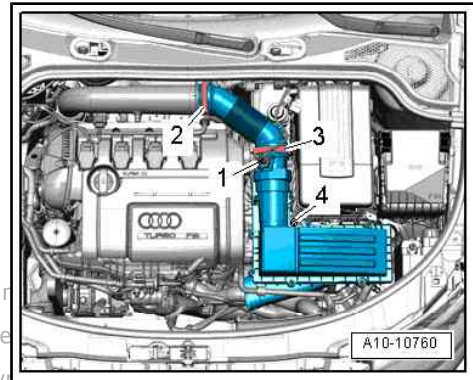


Vehicles with air cleaner housing in front of battery

- Remove complete air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .

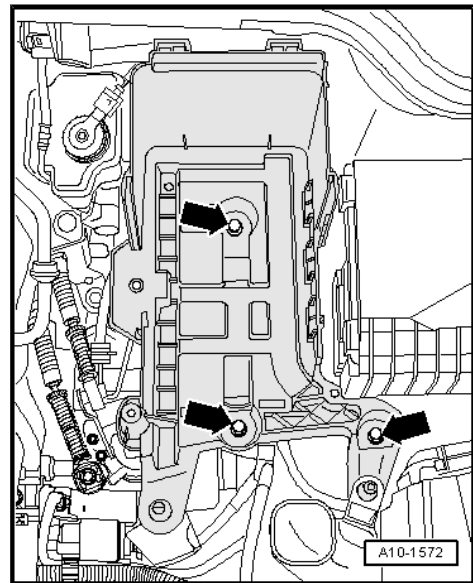


Protected by copyright. Copying for private or commercial purposes, in whole or in part, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee the correctness of information in this document. Copyright reserved.



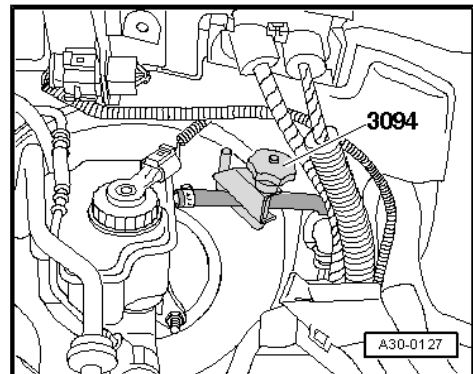
All vehicles (continued)

- Remove battery tray -arrows-.



Note

- ♦ Make sure brake fluid does not come into contact with longitudinal member or gearbox when performing the following operations. If it does, clean affected area thoroughly.
- ♦ Place a lint-free cloth under the master cylinder.
- Using hose clamp up to Ø 25 mm - 3094- , clamp off supply hose to clutch master cylinder.

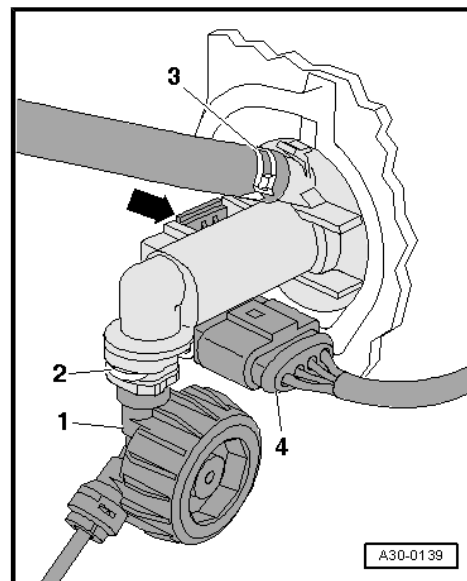


Note

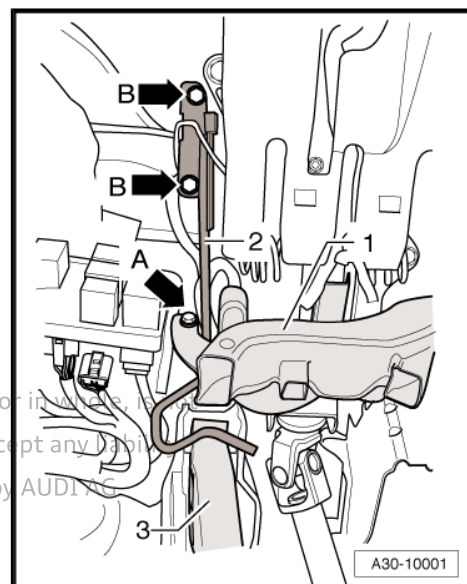
- ♦ Clamping off the plastic supply hose with the hose clamp - 3094- will cause a permanent deformation.
- ♦ However, this does not damage the supply hose.
- ♦ After removing the hose clamp - 3094- , the supply hose must be returned to its original shape.



- Disconnect supply hose at clutch master cylinder (if necessary, release spring-type clip -3- using hose clip pliers - VAS 6340-).
- Release retaining clip -2- with a screwdriver and disconnect pipe/hose assembly -1- or plastic pipe from clutch master cylinder.
- Unclip and detach clutch position sender - G476- from clutch master cylinder -arrow-. Electrical connector -4- can remain connected.



- Remove storage compartment on driver's side ⇒ Rep. gr. 68 .
- Unscrew bolt -arrow A- and remove footwell vent (front left) -1-.
- Unclip wiring harness at rear of footwell vent -1- and move clear to one side.
- If fitted, unbolt crash bar -2- (secured by one or two bolts -arrows B-, depending on version).



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG



Note

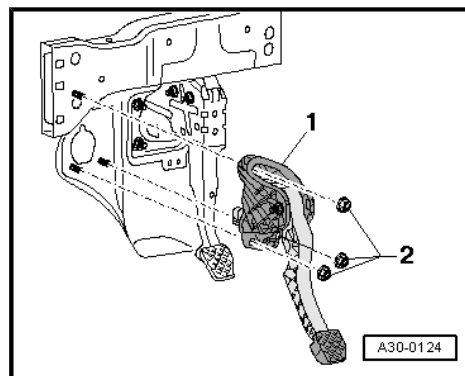
When working in the footwell, put cloths on the floor covering to protect it from possible brake fluid spills.

- Remove nuts -2-.
- Take out mounting bracket -1-.

Installing

- Tightening torque ➔ [page 19](#)

Installation is carried out in reverse order; note the following:



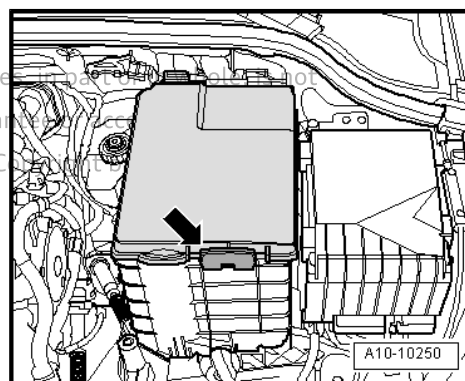
Note

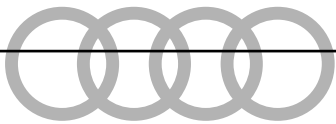
- ◆ *Renew self-locking nuts.*
- ◆ *Secure all hose connections with the correct hose clips (as original equipment); refer to ➔ [Electronic parts catalogue](#) .*
- Fit mounting bracket -1- and tighten nuts -2-.
- Install pipe/hose assembly or plastic pipe ➔ [page 35](#) .
- Bleed clutch system ➔ [page 41](#) .
- If fitted, install crash bar ➔ [page 20](#) .
- Install footwell vent (front left) ➔ Rep. gr. 80 .
- Install storage compartment on driver's side ➔ Rep. gr. 68 .
- Install battery tray and battery ➔ Rep. gr. 27 .
- Install air cleaner housing ➔ Rep. gr. 23 or ➔ Rep. gr. 24 .

2.4 Removing and installing clutch position sender - G476-

Removing

- Detach cover above battery (press release tab -arrow-)

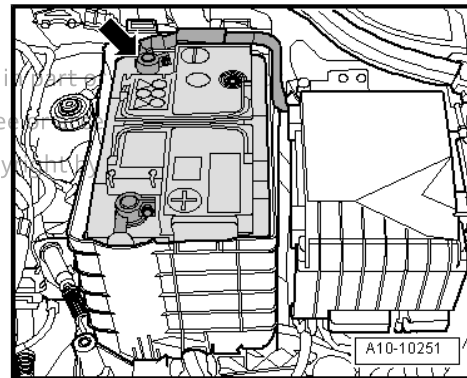




Caution

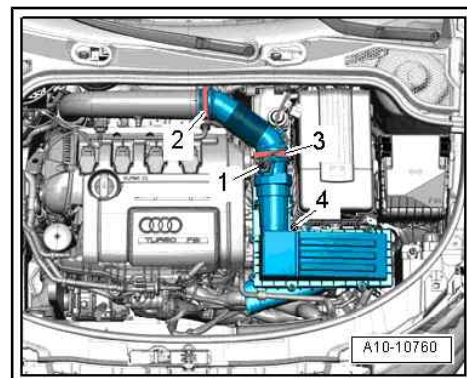
Follow steps required when disconnecting battery ⇒ Electrical system; Rep. gr. 27

- With ignition switched off, disconnect battery earth strap -arrow-.
- Remove battery ⇒ Electrical system; Rep. gr. 27 .



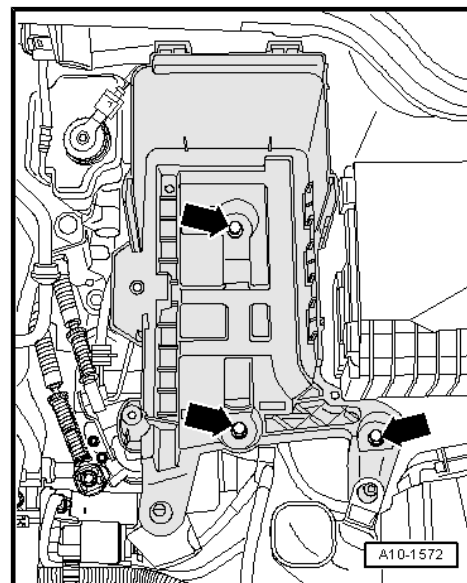
Vehicles with air cleaner housing in front of battery

- Remove complete air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .



All vehicles (continued)

- Remove battery tray -arrows-.





- Unplug electrical connector -4-.
- Unclip clutch position sender - G476- at clutch master cylinder in direction of -arrow- and remove.

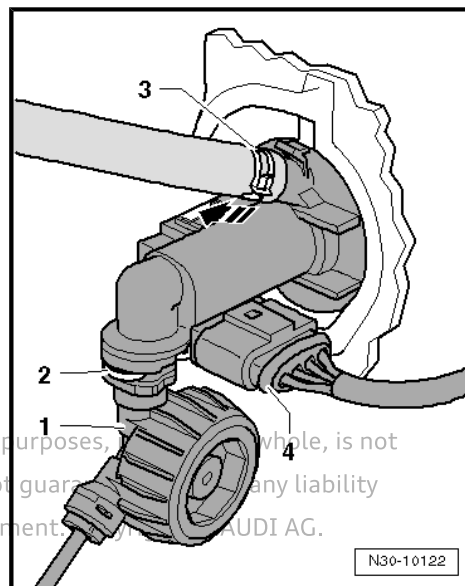


Note

Items -1 ... 3- can be disregarded.



Protected by copyright. Copying for private or commercial purposes, in whole or in part, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee any liability with respect to the correctness of information in this document. © 2019 AUDI AG.



Installing

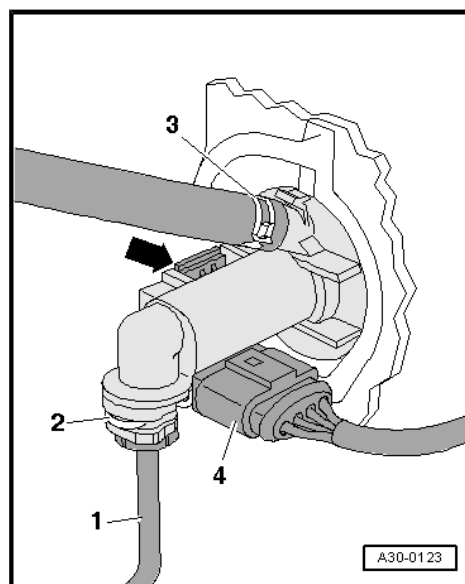
- Fit clutch position sender - G476- at clutch master cylinder and engage -arrow-.
- Plug in electrical connector -4-.



Note

Items -1 ... 3- can be disregarded.

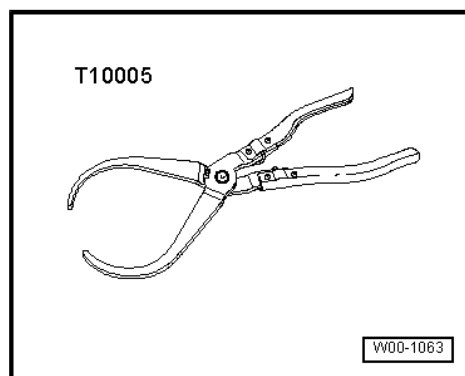
- Install battery tray and battery ⇒ Rep. gr. 27 .
- Install air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .



2.5 Removing and installing clutch master cylinder

Special tools and workshop equipment required

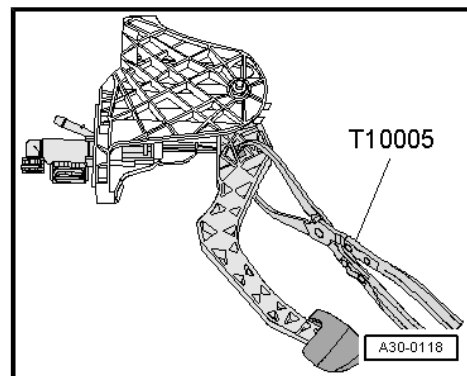
- ◆ Pliers - T10005-



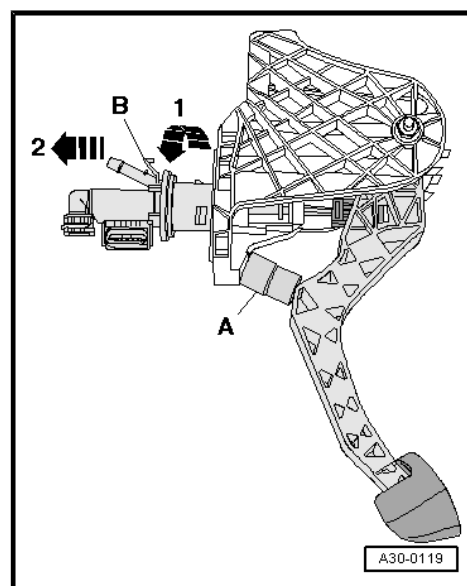


Removing

- Remove mounting bracket ➔ [page 24](#) .
- Release retaining clip for operating rod on clutch pedal using pliers - T10005- .

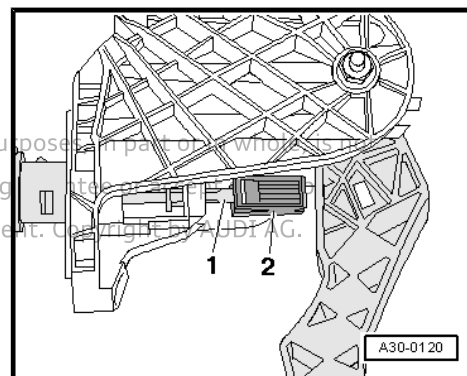


- Insert a spacer -A- between clutch pedal and stop, and press clutch pedal forward.
- Length of spacer = approx. 40 mm (e.g. 1/2" socket)
- Release retainer clip -B- and pull master cylinder out of mounting bracket -arrow 1- and -arrow 2-.



Installing

- Clutch pedal in "released" position.
- Install retaining clip -2- on operating rod -1- for clutch master cylinder.



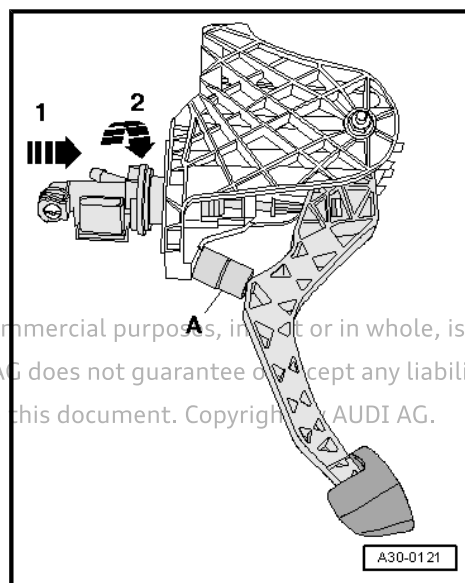
Protected by copyright. Copying for private or commercial purposes in part or in whole is not permitted unless authorised by AUDI AG. AUDI AG does not give any warranty, express or implied, with respect to the correctness of information in this document. Copyright © AUDI AG.



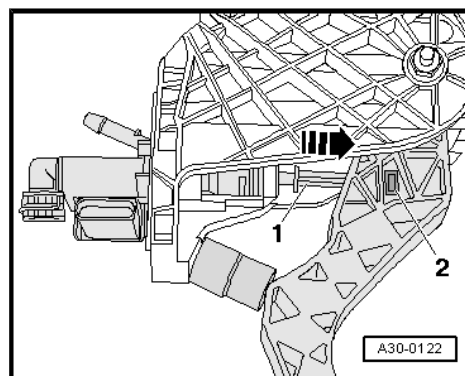
- Insert a spacer -A- between clutch pedal and stop, and press clutch pedal forward.
- Length of spacer = approx. 40 mm (e.g. 1/2" socket)
- Secure master cylinder on mounting bracket -arrow 1- and -arrow 2-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright © AUDI AG.



- Press operating rod -1- for master cylinder in direction of -arrow- so that retaining clip -2- snaps into place in clutch pedal.
- Install mounting bracket ➔ [page 24](#) .





- ☐ Different types depending on gearbox version
- ☐ For correct version, refer to ⇒ Electronic parts catalogue

13 - Bracket

- ☐ For plastic pipe ⇒ [Item 12 \(page 33\)](#)
- ☐ Secured on body
- ☐ Identification of retainers ⇒ [page 35](#)

14 - Seal or O-ring

- ☐ Renew damaged O-rings
- ☐ Push onto pipe connection
- ☐ Lubricate with brake fluid before installing
- ☐ Whether a seal or an O-ring is used depends on the type of connection ⇒ [page 35](#)
- ☐ For correct version, refer to ⇒ Electronic parts catalogue

15 - Bleeder connection

16 - Clip

- ☐ To remove and install pipe/hose assembly or bleeder connection, pull out clip as far as it will go
⇒ [page 34](#)

17 - Bleeder screw

- ☐ 4.5 Nm
- ☐ Bleeding clutch system ⇒ [page 41](#)

18 - Dust cap

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not

19 - Clutch slave cylinder with release bearing

permitted without the express consent of AUDI AG. AUDI AG does not guarantee or accept any liability

- ☐ Can only be renewed after removing gearbox
- ☐ Removing and installing ⇒ [page 43](#)

20 - Gearbox

Disconnecting and connecting pipe/hose assembly or plastic pipe at clutch master cylinder or bleeder connection

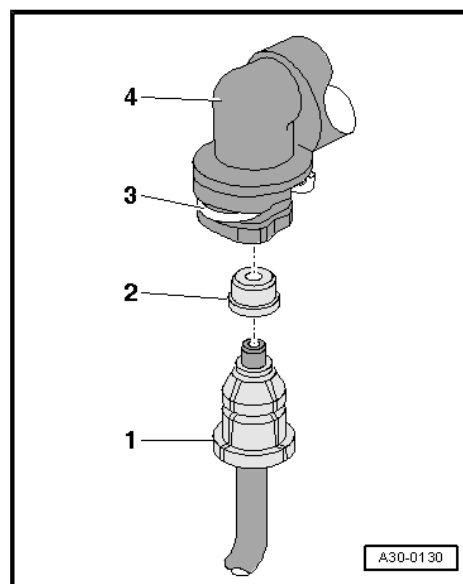
- Release clip -3- with a screwdriver and disconnect pipe/hose assembly -1- or plastic pipe from connection -4-.

Installing



Note

- ♦ *Observe distinction between seals -2- and O-rings*
⇒ [page 35](#).
- ♦ *Renew damaged seals or O-rings.*
- Press pipe/hose assembly or plastic pipe -1- onto connection on clutch master cylinder or onto bleeder connection -4- so that clip -3- snaps into place.
- Pull on pipe to check that it is secure.





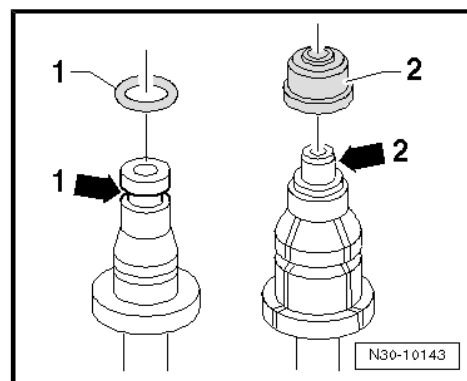
O-ring or seal for pipe/hose assembly or plastic pipe

1 - O-ring

- ◆ Connection with annular groove -arrow 1-
- ◆ Check O-ring for damage and renew if necessary

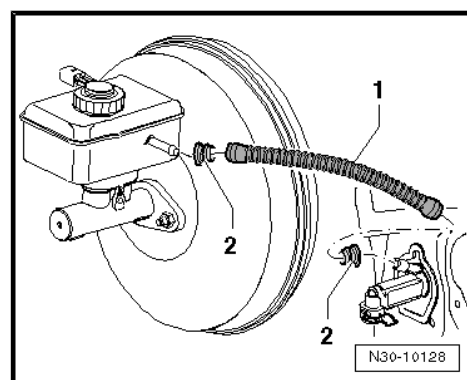
2 - Seal

- ◆ Connection with shoulder -arrow 2-
- ◆ Position seal -2- onto connection -arrow 2- before fitting



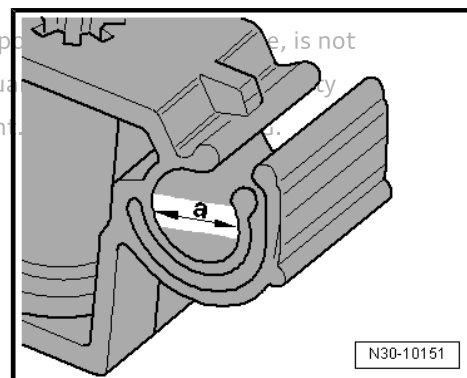
Vehicles with plastic supply hose -1-

- Seals -2- must be fitted in supply hose.



Identification of brackets

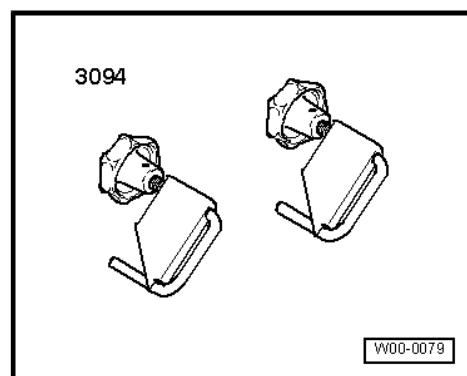
Dimension "a" (mm)	Pipe version
8	Plastic pipe
6	Pipe/hose assembly



3.1 Removing and installing pipe/hose assembly or plastic pipe

Special tools and workshop equipment required

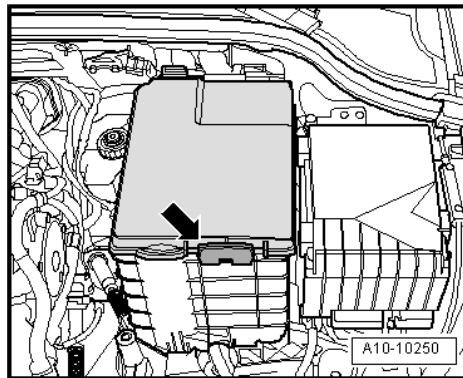
- ◆ Hose clamps up to Ø 25 mm - 3094-





Removing

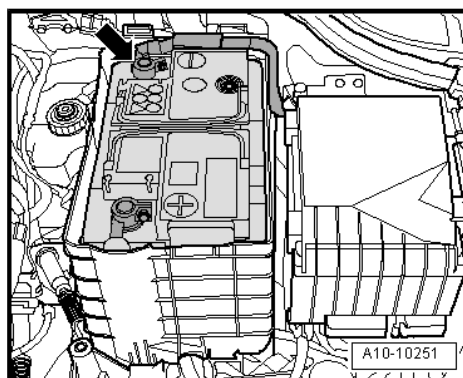
- Detach cover above battery (press release tab -arrow-).



Caution

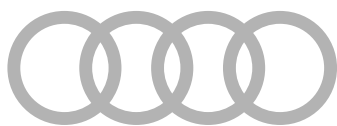
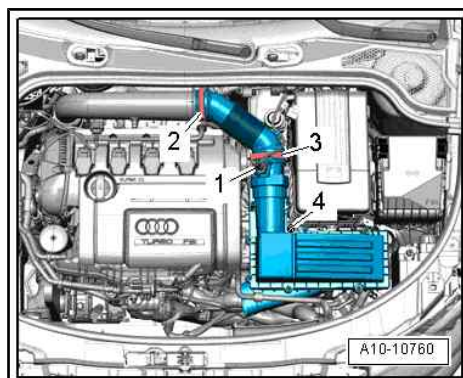
Follow steps required when disconnecting battery ⇒ Electrical system; Rep. gr. 27 .

- With ignition switched off, disconnect battery earth strap -arrow-.
- Remove battery ⇒ Electrical system; Rep. gr. 27 .



Vehicles with air cleaner housing in front of battery

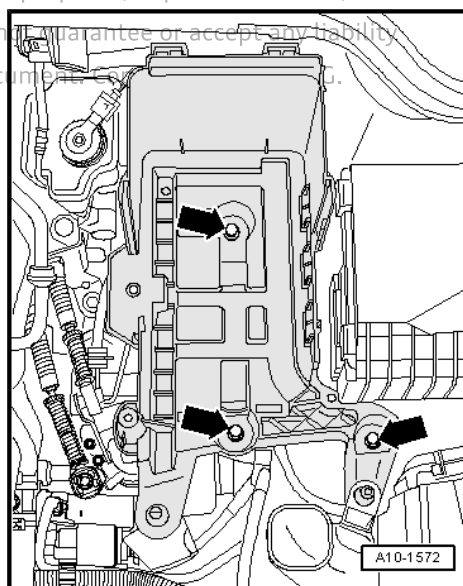
- Remove complete air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

All vehicles (continued)

- Remove battery tray -arrows-.

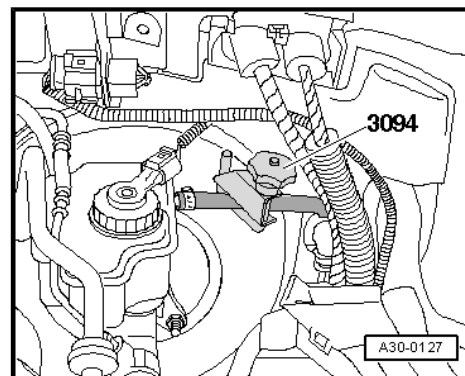




- Using hose clamp up to Ø 25 mm - 3094- , clamp off supply hose to clutch master cylinder.

i Note

- ◆ *Clamping off the plastic supply hose with the hose clamp - 3094- will cause a permanent deformation.*
- ◆ *However, this does not damage the supply hose.*
- ◆ *After removing the hose clamp - 3094- , the supply hose must be returned to its original shape.*



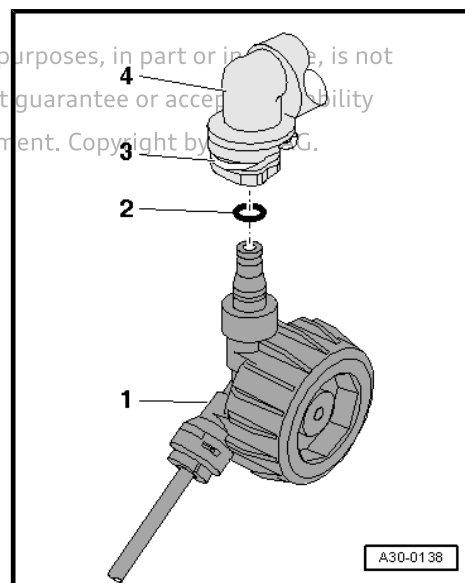
i Note

- ◆ *Make sure brake fluid does not come into contact with longitudinal member or gearbox when performing the following operations. If it does, clean affected area thoroughly.*
- ◆ *Place a cloth underneath to catch escaping brake fluid.*
- To detach at clutch master cylinder, release retaining clip -3- with a screwdriver.
- Pull off pipe/hose assembly -1- or plastic pipe with O-ring -2- and detach from bracket.



Caution

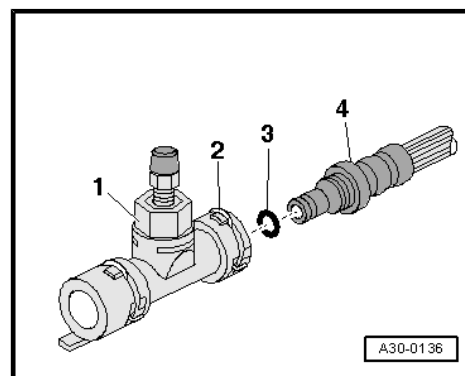
Do not depress clutch pedal after removing pipe/hose assembly or plastic pipe.



i Note

Place a cloth underneath to catch escaping brake fluid.

- To detach at bleeder connection, release retaining clip -2- with a screwdriver and pull pipe/hose assembly -4- or plastic pipe with O-ring -3- off bleeder connection -1-.





Installing

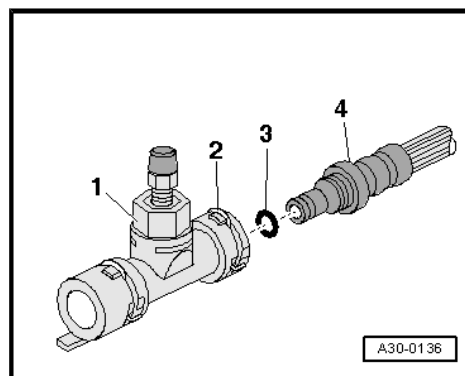
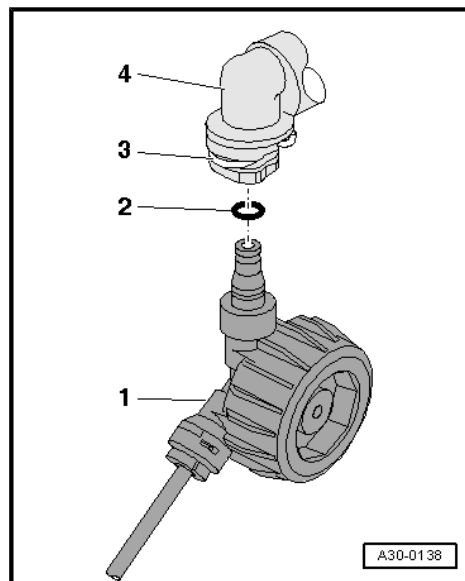
Installation is carried out in reverse order; note the following:



Note

For distinction between O-rings -2- and seals, refer to
⇒ [page 35](#)

- Check O-ring -2- for damage and renew if necessary.
- Press pipe/hose assembly -1- or plastic pipe onto connection on clutch master cylinder -4- so that retaining clip -3- snaps into place.
- Pull on pipe to check that it is secure.
- Check O-ring -3- for damage and renew if necessary.
- Press pipe/hose assembly -4- or plastic pipe onto bleeder connection so that retaining clip -2- snaps into place.
- Pull on pipe to check that it is secure.
- Bleed clutch system ⇒ [page 41](#) .
- Install battery tray and battery ⇒ Rep. gr. 27 .
- Install air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .



3.2 Exploded view - hydraulics, right-hand drive vehicles

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



1 - Brake fluid reservoir

2 - Seal

- ☐ For plastic supply hose
- ☐ Seals must be fitted in supply hose

3 - Supply hose

- ☐ Made of plastic
- ☐ Can also be made of rubber ➔ [page 35](#)

4 - Clutch master cylinder

5 - Clip

- ☐ To remove and install pipe, pull out clip as far as it will go
- ☐ Must be pulled out from the side on some types of master cylinder

6 - Seal or O-ring

- ☐ Renew damaged O-rings
- ☐ Push onto pipe connection
- ☐ Lubricate with brake fluid before installing
- ☐ Whether a seal or an O-ring is used depends on the type of connection ➔ [page 35](#)
- ☐ For correct version, refer to ➔ Electronic parts catalogue

7 - Retaining clip

- ☐ To remove and install retaining clip first detach master cylinder from clutch pedal ➔ [page 22](#)

8 - Clutch pedal

- ☐ Removing and installing ➔ [page 22](#)

9 - Nut

- ☐ 25 Nm
- ☐ 3x
- ☐ For securing mounting bracket to bulkhead
- ☐ Always renew

10 - Bracket

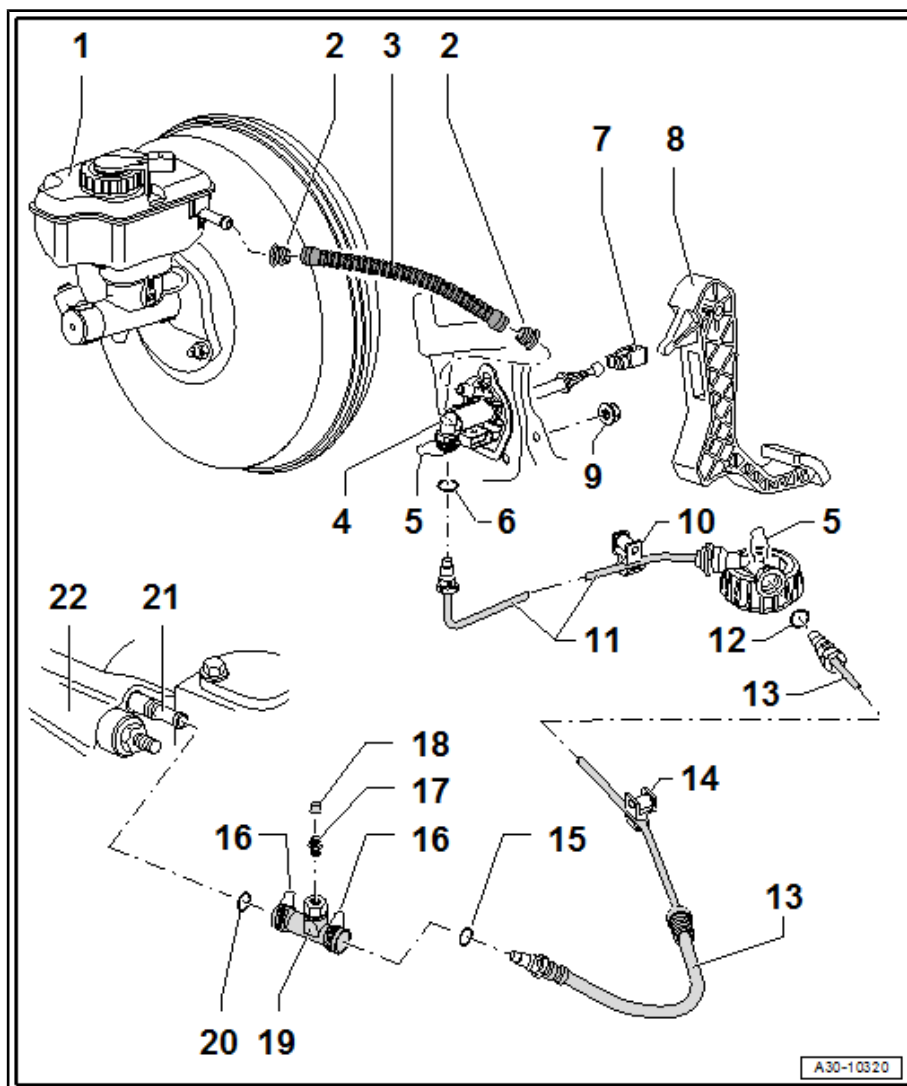
- ☐ Secured on body
- ☐ Covered by assembly mounting

11 - Pipe

- ☐ Pipe and pipe/hose assembly ➔ [Item 13 \(page 40\)](#) can also be manufactured in one piece
- ☐ For correct version, refer to ➔ Electronic parts catalogue

12 - Seal or O-ring

- ☐ Renew damaged O-rings
- ☐ Push onto pipe connection
- ☐ Lubricate with brake fluid before installing
- ☐ Whether a seal or an O-ring is used depends on the type of connection ➔ [page 35](#)



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



- ☐ For correct version, refer to ⇒ Electronic parts catalogue

13 - Pipe/hose assembly

- ☐ Pipe ⇒ [Item 11 \(page 39\)](#) and pipe/hose assembly can also be manufactured in one piece
- ☐ For correct version, refer to ⇒ Electronic parts catalogue

14 - Bracket

- ☐ Secured on body

15 - Seal / O-ring

- ☐ Renew damaged O-rings
- ☐ Push onto pipe connection
- ☐ Lubricate with brake fluid before installing
- ☐ Whether a seal or an O-ring is used depends on the type of connection ⇒ [page 35](#)
- ☐ For correct version, refer to ⇒ Electronic parts catalogue

16 - Clip

- ☐ To remove and install pipe/hose assembly or bleeder connection, pull out clip as far as it will go.

17 - Bleeder screw

- ☐ 4.5 Nm
- ☐ Bleeding clutch system ⇒ [page 41](#)

18 - Dust cap

19 - Bleeder connection

20 - Seal or O-ring

- ☐ Renew damaged O-rings
- ☐ Push onto pipe connection
- ☐ Lubricate with brake fluid before installing
- ☐ Whether a seal or an O-ring is used depends on the type of connection ⇒ [page 35](#)
- ☐ For correct version, refer to ⇒ Electronic parts catalogue

21 - Clutch slave cylinder with release bearing

- ☐ Can only be renewed after removing gearbox
- ☐ Removing and installing ⇒ [page 43](#)

22 - Gearbox



4 Bleeding clutch system



Note

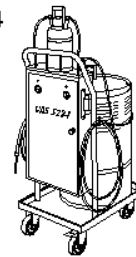
- ◆ *The clutch system must be bled after performing work on the hydraulic clutch mechanism.*
- ◆ *In the following steps make sure that no brake fluid escapes onto the longitudinal member or onto the gearbox below.*
- ◆ *Before bleeding clutch system, top up brake fluid reservoir to "max." marking with brake fluid.*

Special tools and workshop equipment required

- ◆ Brake filling and bleeding equipment - VAS 5234-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

VAS 5234



W00-1101

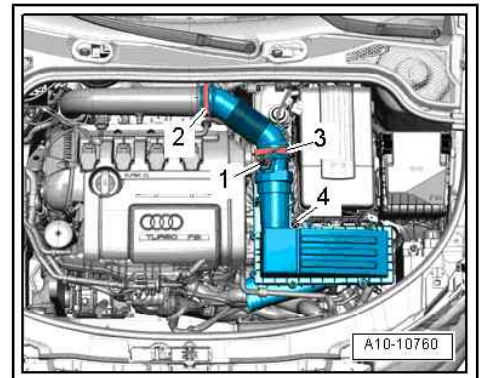
- ◆ Brake fluid specification ⇒ Rep. gr. 47.

Procedure

- Tightening torque ⇒ [page 33](#)

Vehicles with air cleaner housing in front of battery

- Remove complete air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .

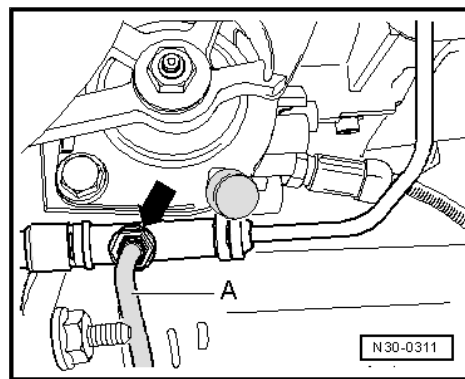


A10-10760



All vehicles (continued)

- Pull clutch pedal back to its normal position.
- Connect brake filling and bleeding equipment - VAS 5234- to brake fluid reservoir.
- Remove protective cap from bleeder screw -arrow- and connect hose -A- from bleeder bottle to bleeder screw.
- Switch on bleeding equipment.
- Operating pressure 2.0 bar
- Now open bleeder screw approx $\frac{1}{4}$ turn and allow 100 cm³ of brake fluid to run out.
- With bleeder screw open, pump clutch pedal rapidly all the way in and out by hand 15 to 20 times (approx. 2 times per second).
- Close bleeder screw.
- Switch off brake filling and bleeding equipment - VAS 5234- and release operating pressure on bleeding equipment (2.0 bar).
- Press clutch pedal slowly down with your foot 10 times and check that clutch system is functioning properly.
- Remove brake filling and bleeding equipment - VAS 5234- from brake fluid reservoir.
- Install air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



5 Exploded view - clutch release mechanism, slave cylinder

1 - Gearbox

- ❑ Removing and installing
⇒ [page 87](#)

2 - Input shaft oil seal

- ❑ Renewing ⇒ [page 182](#)

3 - Clutch slave cylinder with release bearing

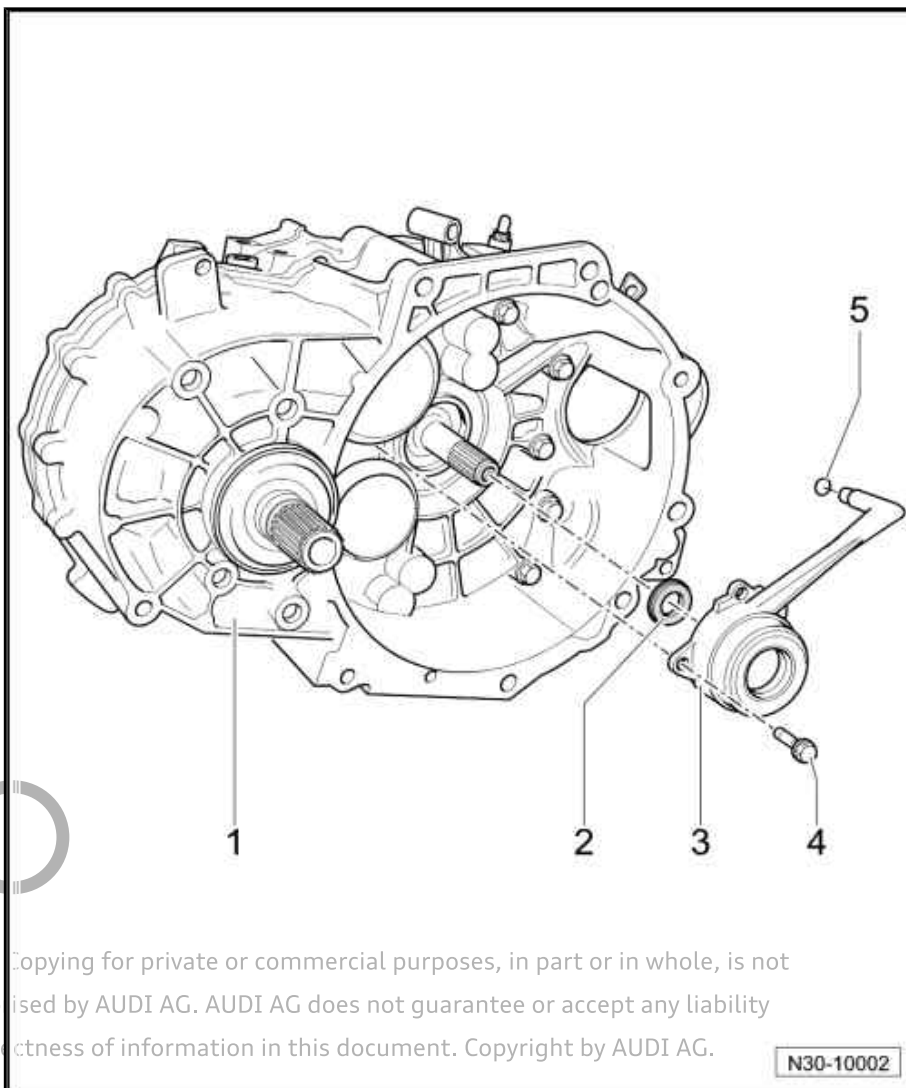
- ❑ Clutch slave cylinder and release bearing are one unit and can only be renewed together
- ❑ Do not wash out bearing; wipe clean only
- ❑ If bearing is noisy, renew together with slave cylinder
- ❑ Removing and installing
⇒ [page 43](#)

4 - Bolt

- ❑ 12 Nm for metal clutch slave cylinder
- ❑ 15 Nm for plastic clutch slave cylinder
- ❑ 3x
- ❑ Renew
- ❑ Tighten carefully in several small steps; make sure that mounting lugs on clutch slave cylinder do not break off

5 - O-ring

- ❑ Renew if damaged
- ❑ Push onto pipe connection
- ❑ Lubricate with brake fluid before installing



5.1 Removing and installing clutch slave cylinder together with release bearing



Note

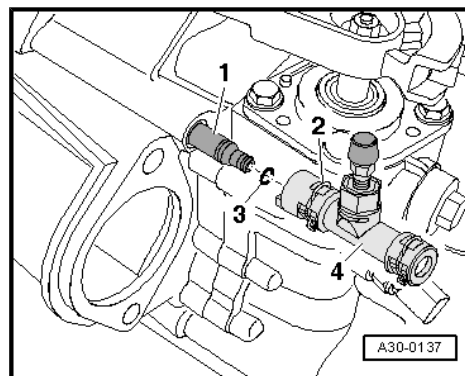
Clutch slave cylinder and release bearing are one unit and can only be renewed together.

Removing

- Gearbox removed ⇒ [page 87](#)



- Release retaining clip -2- with a screwdriver and pull bleeder connection -4- off slave cylinder -1-.



- Remove bolts -arrows-.
- Take off slave cylinder together with release bearing -A-.

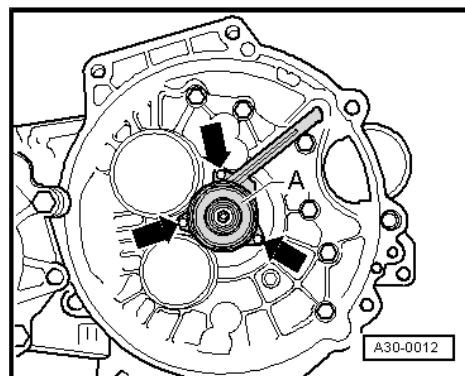
Installing

Installation is carried out in reverse order; note the following:

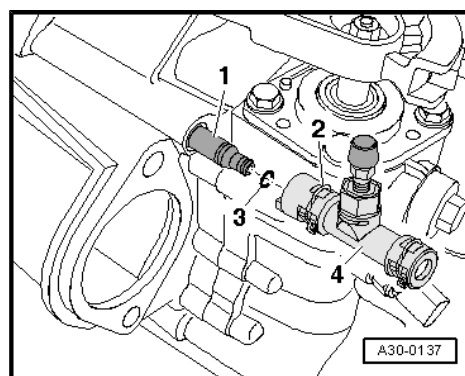


Caution

Tighten securing bolts for slave cylinder in small steps. Otherwise mounting lugs -arrows- can be damaged.



- Secure clutch slave cylinder with release bearing -arrows-. Tightening torque ⇒ [Item 4 \(page 43\)](#)
- Check O-ring -3- for damage and renew if necessary.
- Press bleeder connection -4- onto connection on clutch slave cylinder -1- so that retaining clip -2- snaps into place.
- Pull on bleeder connection to check it is secure.
- Install gearbox ⇒ [page 87](#) .
- Bleed clutch system ⇒ [page 41](#) .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



6 Clutch identification

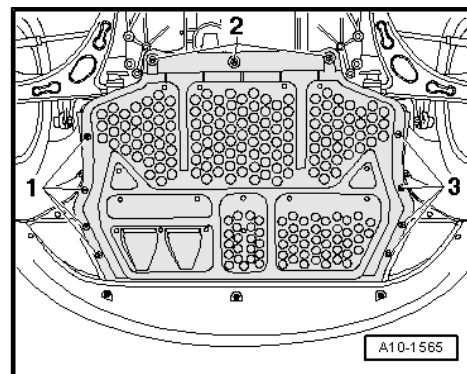


Note

The clutch fitted in the vehicle is supplied by either "Sachs" or "LuK". Any use, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

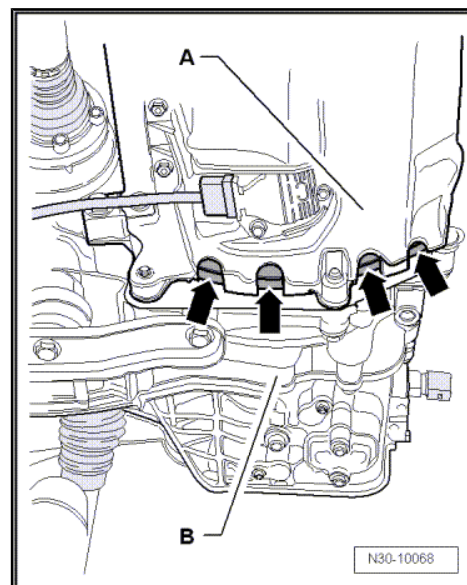
With respect to the accuracy of information in this document. Copyright by AUDI AG.
With gearbox installed, the clutch version fitted can be distinguished as follows:

- Remove centre noise insulation -1 ...3-.

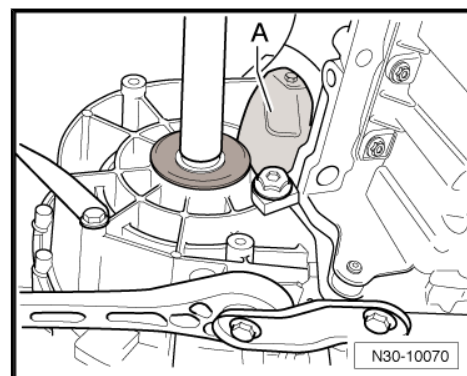


A number of recesses -arrows- are located in lower area of sump between engine -A- and gearbox -B-.

- Check the contour of the flywheel visible through the recesses.



- The contour of the flywheel can also be checked by removing the small cover plate -A-.



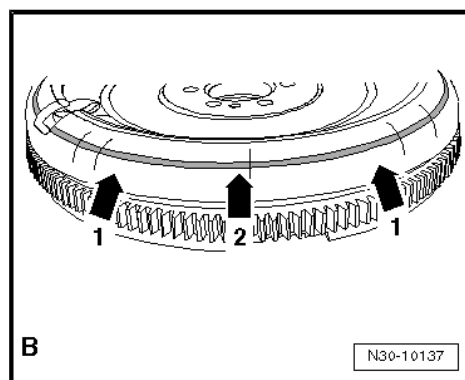
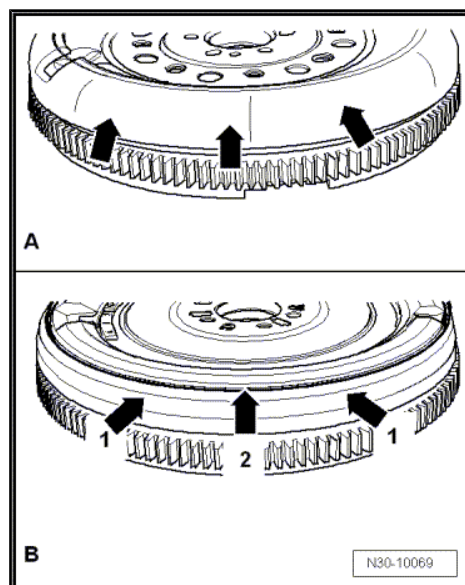


A - round contour -arrows- = Sachs version clutch

Exploded view - Sachs version clutch ⇒ [page 47](#)

B - square contour -arrows 1- and annular groove -arrow 2- = LuK version clutch

Exploded view - LuK version clutch ⇒ [page 53](#)



Round contour -arrows 1- and annular groove -arrow 2- = LuK version clutch = -B-

Exploded view - LuK version clutch ⇒ [page 53](#)



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



7 Exploded view - Sachs version clutch



Note

The dual-mass flywheel, pressure plate and clutch plate are matched together; components from another manufacturer must not be installed on the same vehicle.

1 - Dual-mass flywheel

- ☐ Removing and installing
⇒ Engine, mechanics;
Rep. gr. 13
- ☐ Ensure that dowel pins
fit tightly
- ☐ Contact surface for
clutch lining must be
free of grooves, oil and
grease

- ☐ Observe instructions for
removal ⇒ [page 49](#)

2 - Clutch plate

- ☐ Removing and installing
⇒ [page 49](#)
- ☐ Always renew pressure
plate as well
- ☐ Installation position
⇒ [page 52](#)
- ☐ For diameter of clutch
plate, refer to ⇒ Elec-
tronic parts catalogue

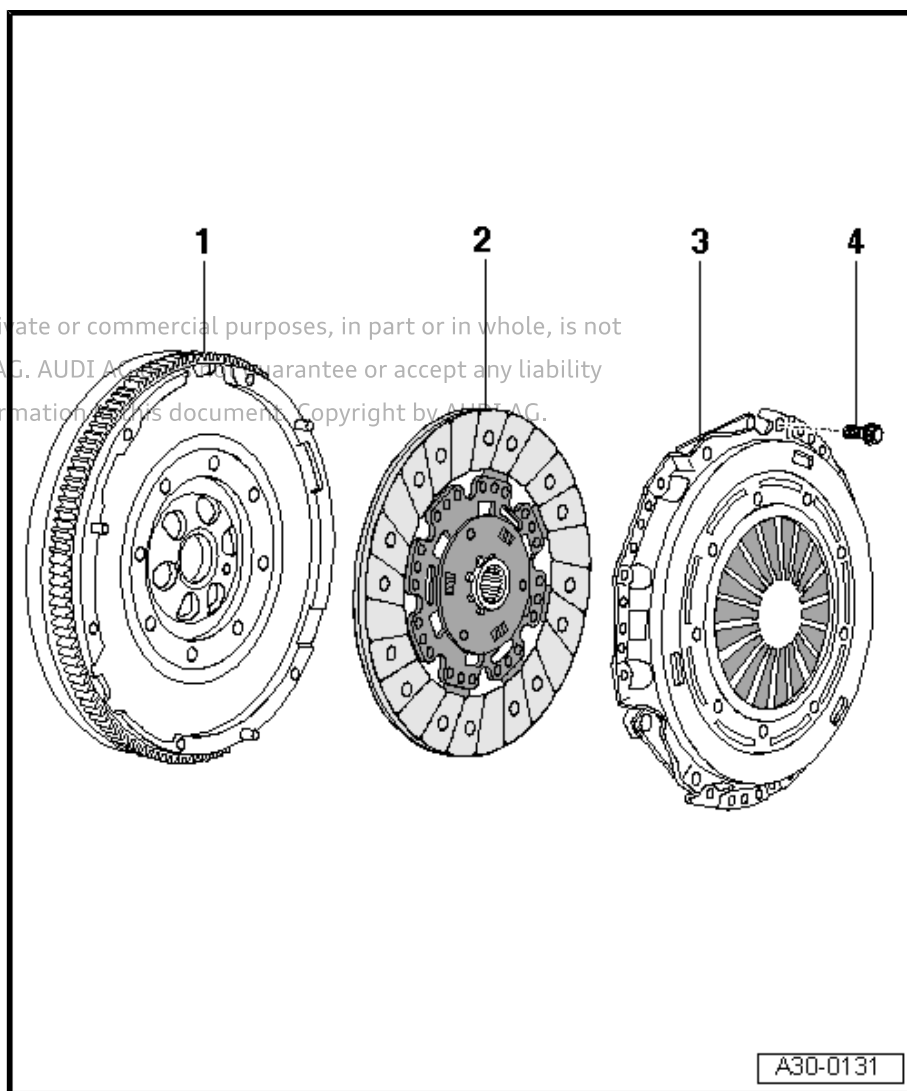
3 - Thrust plate

- ☐ With adjustment mech-
anism
- ☐ Identification
⇒ [page 48](#)
- ☐ Always renew clutch
plate as well
- ☐ Removing and installing
⇒ [page 49](#)
- ☐ Checking ends of dia-
phragm spring
⇒ [page 48](#)

- ☐ Checking springs and riveting ⇒ [page 48](#)
- ☐ Checking wire ring or sheet-metal ring ⇒ [page 49](#)
- ☐ For correct version, refer to ⇒ Electronic parts catalogue
- ☐ Contact surface for clutch lining must be free of grooves, oil and grease

4 - Bolt

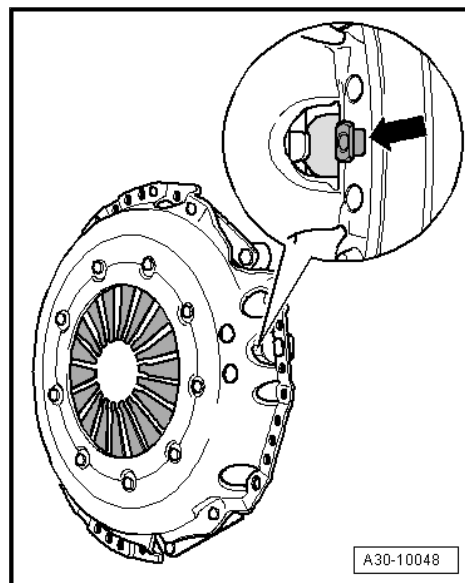
- ☐ M6 - 13 Nm
- ☐ M7 - 20 Nm
- ☐ Loosen and tighten consecutively in steps of 90°





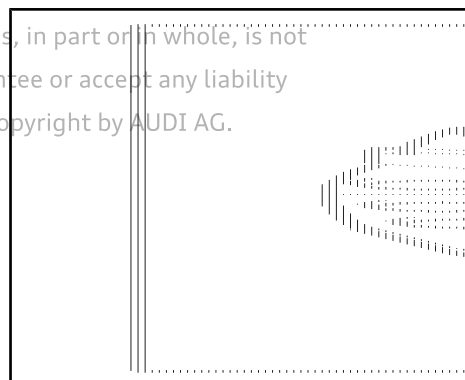
Identification of self-adjusting Sachs version clutch

- ◆ Pressure plate with stop mechanism (position sensor)
-arrow-.



Checking ends of diaphragm spring

- Wear up to half the thickness of the diaphragm spring
-arrows- is permissible.



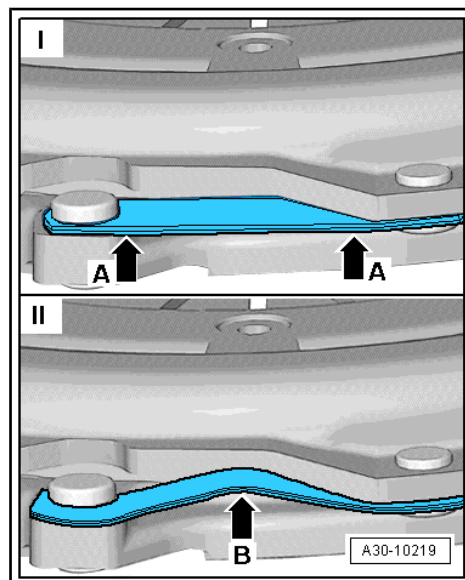
Checking springs and riveting

I - Springs OK

- Slight kinking on the outside -arrows A- is normal on production parts.

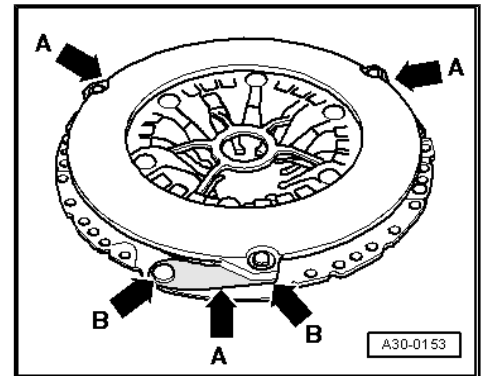
II - Springs damaged

- Renew pressure plate if springs are broken or badly bent
-arrow B-.



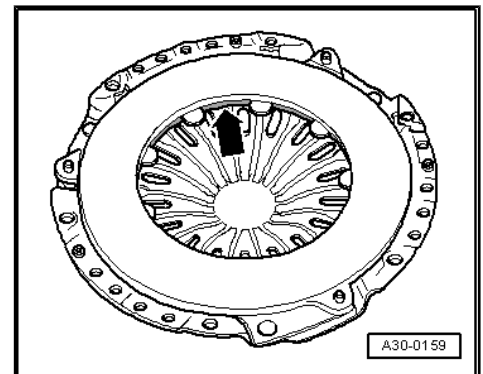


- Check that rivets -arrows B- are secure at all springs -arrows A-.
- Renew pressure plate if rivets -arrows B- are loose.



Checking wire ring or sheet-metal ring

- Check wire ring or sheet-metal ring -arrow- in pressure plate for damage.
- Renew pressure plate if wire ring or sheet-metal ring is broken.



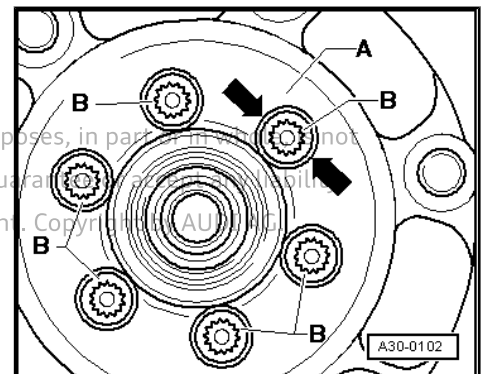
Instructions for removing dual-mass flywheel



Note

Protected by copyright. Copying for private or commercial purposes, in particular in electronic form, is prohibited. This document is not to be used for any other purpose. The copyright holder is Audi AG. All rights reserved.
Do not use an impact wrench or pneumatic wrench to remove bolts -B-: this would severely damage the dual-mass flywheel. The bolts may only be removed by hand using conventional tools.

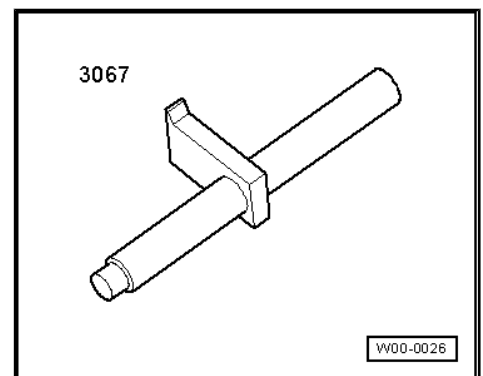
- Rotate dual-mass flywheel -A- so that the bolts are aligned centrally behind the holes -arrows-.
- When removing the bolts, make sure that none of the bolt heads contacts the dual-mass flywheel, as this would damage the flywheel when the bolts are unscrewed further.



7.1 Removing and installing clutch (Sachs version)

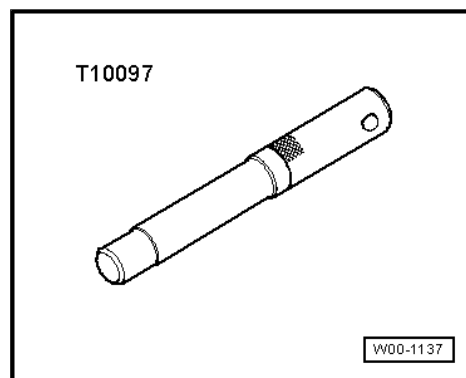
Special tools and workshop equipment required

- ◆ Counterhold tool - 3067-





- ◆ Centring mandrel - T10097-



- ◆ Grease for clutch plate splines - G 000 100-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

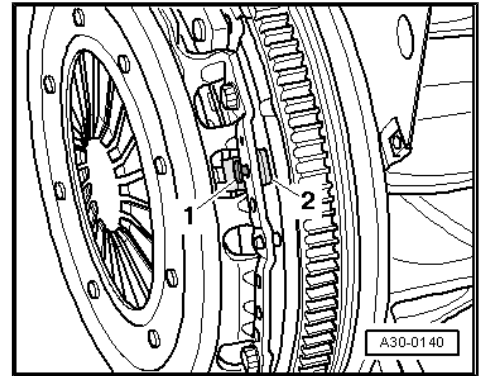


Removing

- Gearbox removed ⇒ [page 87](#) .

To prevent the pressure plate from becoming distorted during removal (causes clutch grab when driving off), always adhere to the following procedure when unbolting the pressure plate:

- Apply counter-hold tool - 3067- in order to loosen bolts.
- Working clockwise, loosen all six bolts consecutively in steps of 90° ($\frac{1}{4}$ turn) until pressure plate is released.
- Stop -2- with pin -1- should come loose when bolts are slackened.
- If the stop does not come loose, push the pin towards the dual-mass flywheel.
- Take off pressure plate and clutch plate.



Installing

- Tightening torque ⇒ [page 47](#)

Installation is carried out in reverse order; note the following:



Note

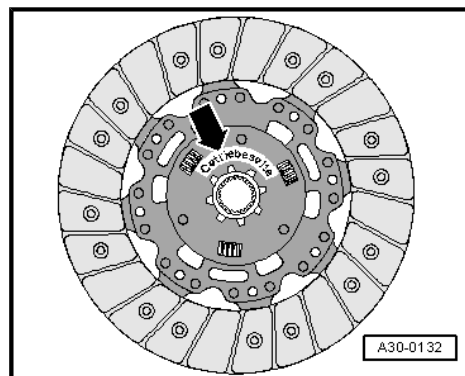
with respect to the correctness of information in this document. Copyright by AUDI AG.

- ◆ The dual-mass flywheel, pressure plate and clutch plate are matched together; components from another manufacturer must not be installed on the same vehicle.
- ◆ Always renew clutch plate and pressure plate together and select the correct parts according to engine code ⇒ *Electronic parts catalogue* .
- ◆ If the clutch has burnt out, thoroughly clean the gearbox housing in area of clutch and parts of the engine facing the gearbox in order to prevent odours.
- ◆ Clean input shaft splines and (in the case of a used clutch plate) the hub splines. Remove corrosion and apply only a very thin coating of grease - G 000 100- to the splines. Then move clutch plate backwards and forwards on input shaft until hub moves freely on shaft. Remove any excess grease.
- ◆ Clutch pressure plates have an anti-corrosion coating and are greased. With the exception of the friction surface for the clutch plate, the pressure plate must not be cleaned. Otherwise, the service life of the clutch will be considerably reduced.
- ◆ Pressure plate friction surface and clutch plate lining must make full contact with flywheel. Only then insert bolts.
- ◆ Only blow out dual-mass flywheel with compressed air.
- ◆ The friction surface of the pressure plate and the dual-mass flywheel must be cleaned (degreased) thoroughly.
- ◆ Check that dowel sleeves for centralising engine/gearbox are in the cylinder block; install if necessary.
- ◆ If the dowel sleeves are not fitted, this will lead to gear-change problems, clutch malfunction and in some cases gearbox noise (gears will make rattling noises).

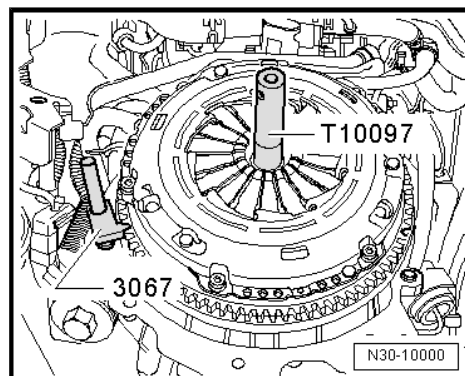


Installation position of clutch plate

- Marking "Getriebeseite" (gearbox side) and the protruding spring cage face towards gearbox.

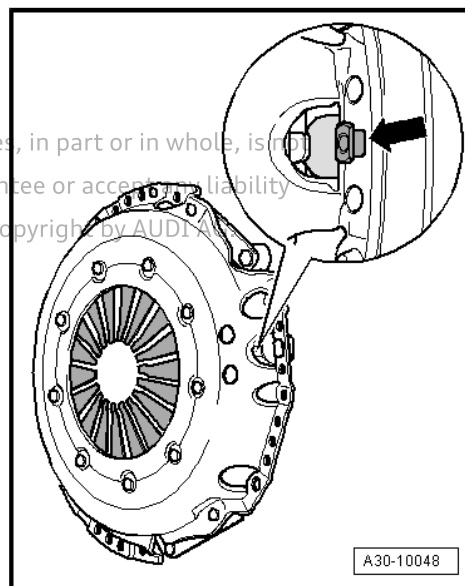


- Use counterhold tool - 3067- .
- Fit pressure plate onto dowel pins.
- Use centring mandrel - T10097- to centralise clutch plate.



To prevent the pressure plate from becoming distorted during installation (causes clutch grab when driving off), always adhere to the following procedure when installing the pressure plate:

- Make sure that the stop pin (position sensor) -arrow- is free to move.
- Screw in all 6 bolts evenly by hand until bolt heads make contact with pressure plate.
- Working clockwise, tighten all six bolts consecutively in steps of 90° (1/4 turn) until the housing makes contact with the fly-wheel.
- The stop pin -arrow- should then lift away from the pressure plate.
- Working clockwise, tighten all 6 bolts to final torque consecutively. Tightening torque ⇒ [Item 4 \(page 47\)](#)





8 Exploded view - LuK version clutch



Note

The dual-mass flywheel, pressure plate and clutch plate are matched together; components from another manufacturer must not be installed on the same vehicle.

1 - Dual-mass flywheel

- ☐ Removing and installing
⇒ Engine, mechanics;
Rep. gr. 13
- ☐ Ensure that dowel pins
fit tightly
- ☐ Contact surface for
clutch lining must be
free of grooves, oil and
grease
- ☐ Observe instructions for
removal ⇒ [page 55](#)

2 - Clutch plate

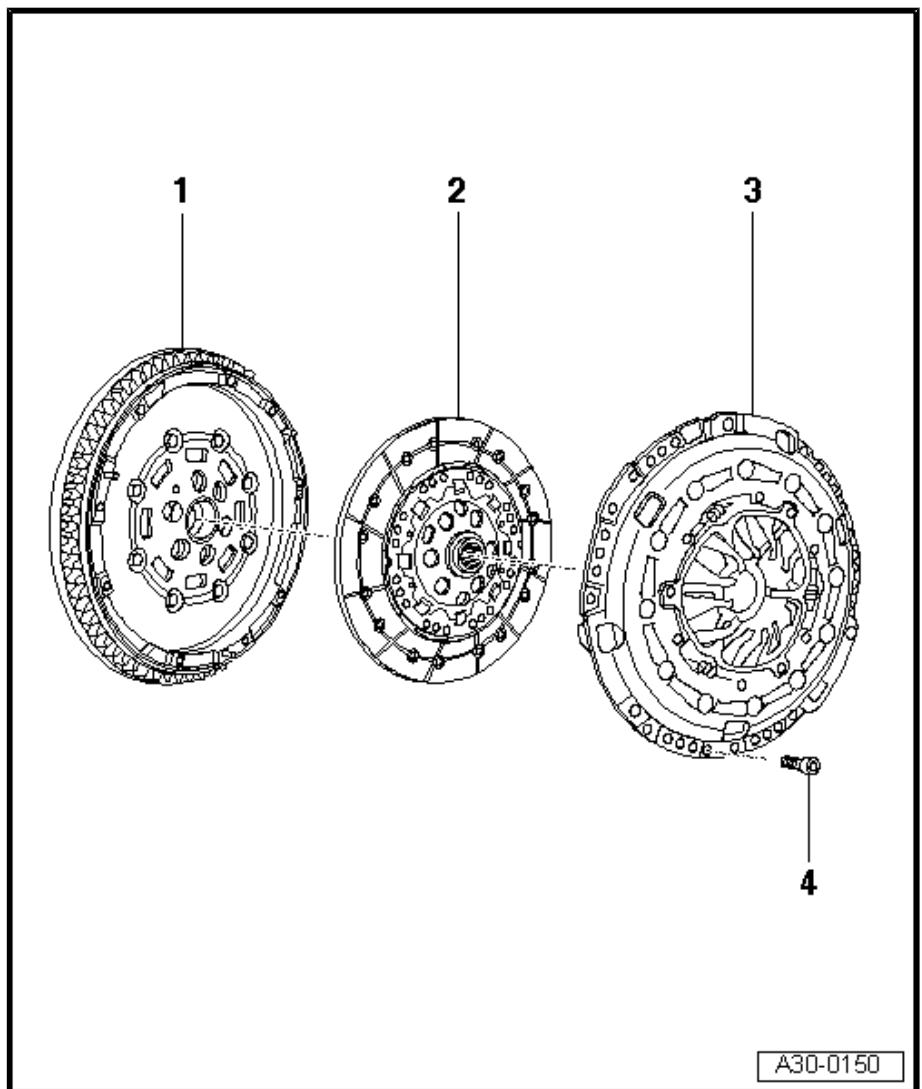
- ☐ Removing and installing
⇒ [page 55](#)
- ☐ Always renew SAC
pressure plate as well
- ☐ Installation position:
marking
"Getriebeseite" (gear-
box side) faces towards
gearbox
- ☐ For diameter of clutch
plate, refer to ⇒ Elec-
tronic parts catalogue

3 - SAC pressure plate

- ☐ "SAC" = self-adjusting
clutch
- ☐ Always renew clutch
plate as well
- ☐ Removing and installing
⇒ [page 55](#)
- ☐ Checking position of ad-
juster ring on new SAC
pressure plate
⇒ [page 57](#)
- ☐ Checking ends of diaphragm spring ⇒ [page 54](#)
- ☐ Checking spring connection and rivets ⇒ [page 54](#)
- ☐ Checking metal ring ⇒ [page 54](#)
- ☐ Contact surface for clutch lining must be free of grooves, oil and grease

4 - Bolt

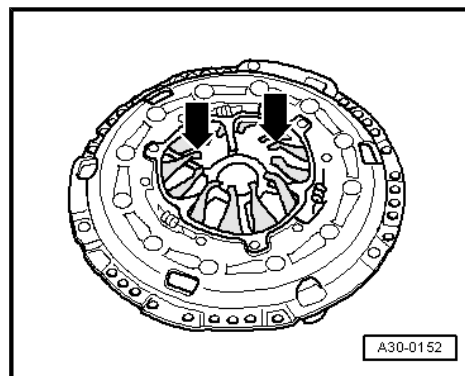
- ☐ M6 - 13 Nm
- ☐ M7 - 20 Nm
- ☐ Loosen and tighten consecutively in steps of 90°





Checking ends of diaphragm spring

- Wear up to half the thickness of the diaphragm spring -arrows- is permissible.



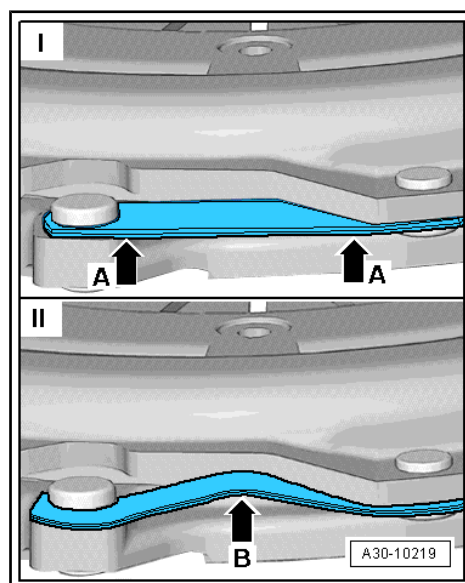
Checking springs and riveting

I - Springs OK

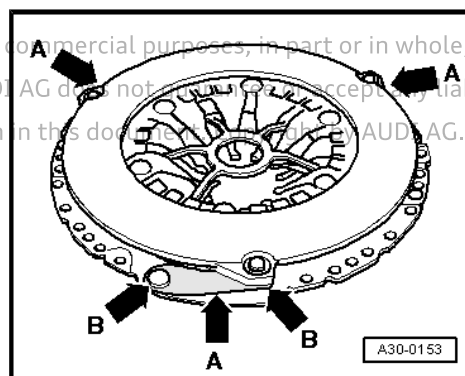
- Slight kinking on the outside -arrows A- is normal on production parts.

II - Springs damaged

- Renew pressure plate if springs are broken or badly bent -arrow B-.

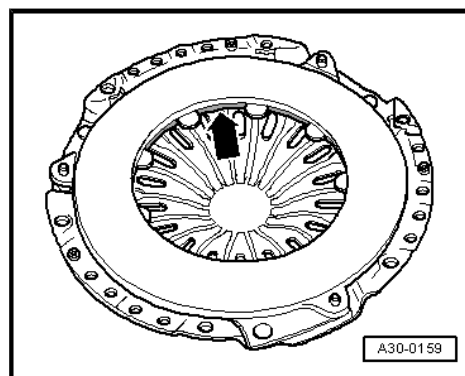


- Check that rivets -arrows B- are secure at all springs -arrows A-.
- Renew pressure plate if rivets -arrows B- are loose.



Checking metal ring

- Check metal ring -arrow- in pressure plate for damage.
- Renew pressure plate if metal ring is broken.





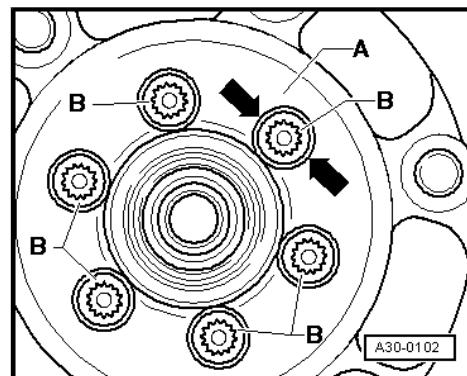
Instructions for removing dual-mass flywheel



Note

Do not use an impact wrench or pneumatic wrench to remove bolts -B-: this would severely damage the dual-mass flywheel. The bolts may only be removed by hand using conventional tools.

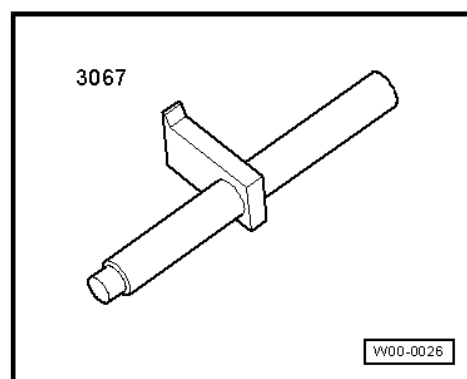
- Rotate dual-mass flywheel -A- so that the bolts are aligned centrally behind the holes -arrows-.
- When removing the bolts, make sure that none of the bolt heads contacts the dual-mass flywheel, as this would damage the flywheel when the bolts are unscrewed further.



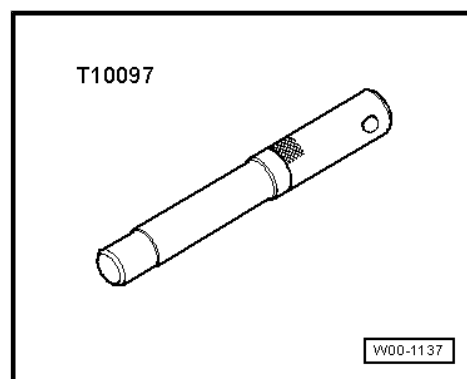
8.1 Removing and installing clutch (LuK version)

Special tools and workshop equipment required

- ◆ Counterhold tool - 3067-



- ◆ Centring mandrel - T10097-



- ◆ Grease for clutch plate splines - G 000 100-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Removing

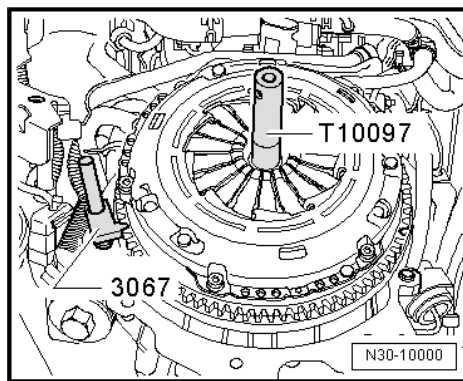
- Gearbox removed ⇒ [page 87](#) .
- Apply counter-hold tool - 3067- in order to loosen bolts.

To prevent the pressure plate from becoming distorted during removal (causes clutch grab when driving off), always adhere to the following procedure when unbolting the pressure plate:

- Working clockwise, loosen all six bolts consecutively in steps of 90° (1/4 turn) until pressure plate is released.
- Take off pressure plate and clutch plate.

Installing

Installation is carried out in the reverse order; note the following:



Note

- ◆ *The dual-mass flywheel, pressure plate and clutch plate are matched together; components from another manufacturer must not be installed on the same vehicle.*
- ◆ *Always renew clutch plate and pressure plate together and select the correct parts according to engine code ⇒ Electronic parts catalogue .*
- ◆ *Checking position of adjuster ring on new pressure plate*
⇒ [page 57](#)
- ◆ *If the clutch has burnt out, thoroughly clean the gearbox housing in area of clutch and parts of the engine facing the gearbox in order to prevent odours.*
- ◆ *Clean input shaft splines and (in the case of a used clutch plate) the hub splines. Remove corrosion and apply only a very thin coating of grease - G 000 100- to the splines. Then move clutch plate backwards and forwards on input shaft until hub moves freely on shaft. Remove any excess grease.*
- ◆ *Clutch pressure plates have an anti-corrosion coating and are greased. With the exception of the friction surface for the clutch plate, the pressure plate must not be cleaned. Otherwise, the service life of the clutch will be considerably reduced.*
- ◆ *Pressure plate friction surface and clutch plate lining must make full contact with flywheel. Only then insert bolts.*
- ◆ *Only blow out dual-mass flywheel with compressed air.*
- ◆ *The friction surface of the pressure plate and the dual-mass flywheel must be cleaned (degreased) thoroughly.*
- ◆ *Check that dowel sleeves for centralising engine/gearbox are in the cylinder block; install if necessary.*
- ◆ *If the dowel sleeves are not fitted, this will lead to gear-change problems, clutch malfunction and in some cases gearbox noise (gears will make rattling noises).*

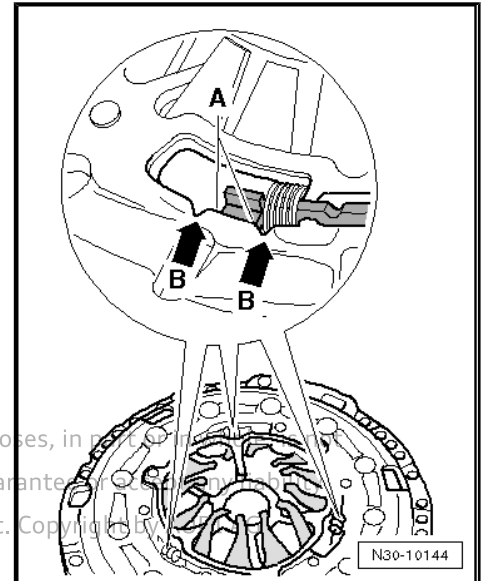


Checking position of adjustment mechanism (new SAC pressure plates only)

- The two edges -A- of the adjuster ring should be located between the two notches -arrows B-.
- If the adjuster ring is in a different position on a new pressure plate, the pressure plate and clutch plate must not be installed.
- The position of the adjuster ring can be outside the notches on used clutches.

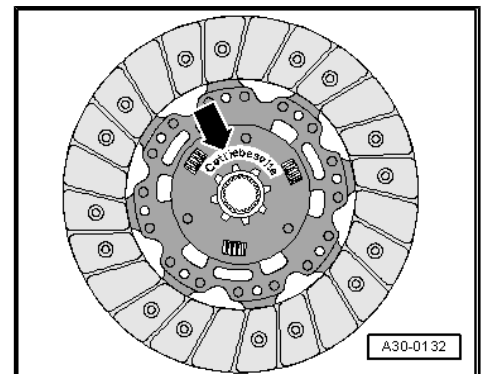


Protected by copyright. Copying for private or commercial purposes, in part or in full, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee the accuracy of the information with respect to the correctness of information in this document. Copyright © 2019 Audi AG



Installation position of clutch plate

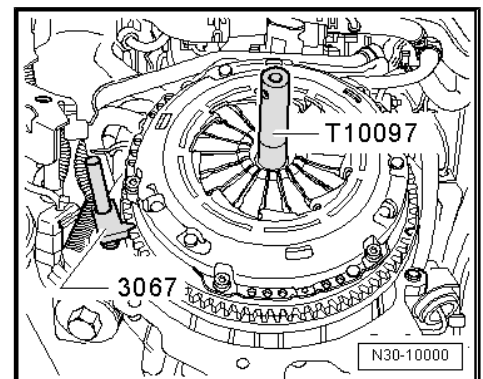
- The marking "Getriebeseite" (gearbox side) faces towards the gearbox



- Use counterhold tool - 3067- .
- Fit pressure plate onto dowel pins.
- Use centring mandrel - T10097- to centralise clutch plate.

To prevent the pressure plate from becoming distorted during installation (causes clutch grab when driving off), always adhere to the following procedure when installing the pressure plate:

- Screw in all 6 bolts evenly by hand until bolt heads make contact with pressure plate.
- Working clockwise, tighten all six bolts consecutively in steps of 90° (1/4 turn) until the housing makes contact with the fly-wheel.
- Working clockwise, tighten all 6 bolts to final torque consecutively. Tightening torque ➔ [Item 4 \(page 53\)](#)





34 – Controls, housing

1 Overview - selector mechanism

- ◆ ⇒ [“1.1 Exploded view - gear knob with gear lever boot”, page 60](#)
- ◆ ⇒ [“1.2 Removing and installing gear knob with gear lever boot”, page 60](#)
- ◆ ⇒ [“1.3 Separating gear lever boot from gear knob”, page 61](#)
- ◆ ⇒ [“1.4 Exploded view - selector mechanism, vehicles up to model year 2008”, page 62](#)
- ◆ ⇒ [“1.5 Exploded view - selector mechanism, vehicles from model year 2009 onwards”, page 64](#)
- ◆ ⇒ [“1.6 Removing and installing selector mechanism”, page 65](#)
- ◆ ⇒ [“1.7 Exploded view - gear selector cable and gate selector cable, vehicles up to model year 2008”, page 69](#)
- ◆ ⇒ [“1.8 Exploded view - gear selector cable and gate selector cable, vehicles from model year 2009 onwards”, page 73](#)
- ◆ ⇒ [“1.9 Dismantling and assembling selector mechanism”, page 77](#)
- ◆ ⇒ [“1.10 Removing and installing gear selector cable and gate selector cable”, page 83](#)
- ◆ ⇒ [“1.11 Adjusting selector mechanism”, page 84](#)

-Arrow A- Gear selection movement

-Arrow B- Gate selection movement

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



1 - Gear selector cable

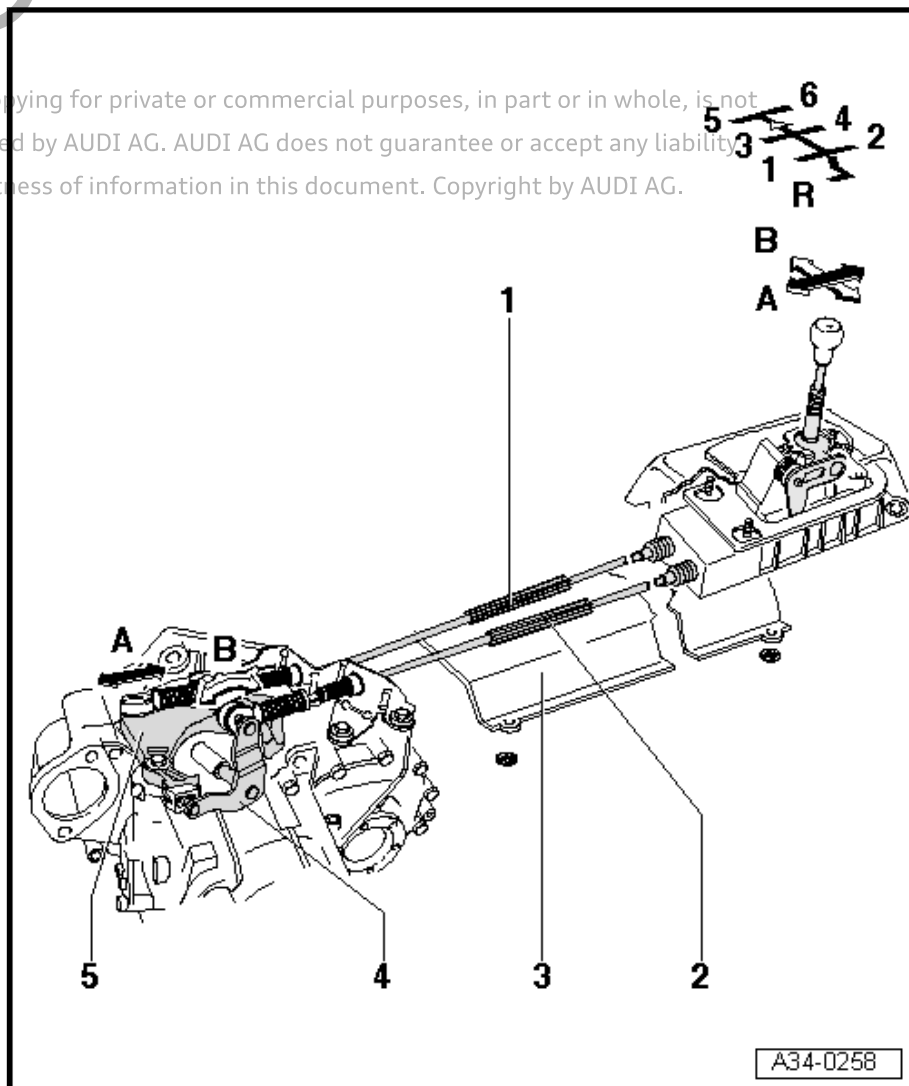
2 - Gate selector cable

3 - Heat shield

□ Detach before removing
selector mechanism

4 - Gate relay lever

5 - Gearbox selector lever





1.1 Exploded view - gear knob with gear lever boot

1 - Gear lever

2 - Noise insulation cover (lower)

3 - Noise insulation cover (upper)

4 - Gear knob

- ❑ Remove and install together with gear lever boot ➔ [page 60](#)

5 - Gear lever boot

- ❑ Remove and install together with gear knob ➔ [page 60](#)

6 - Cover for centre console

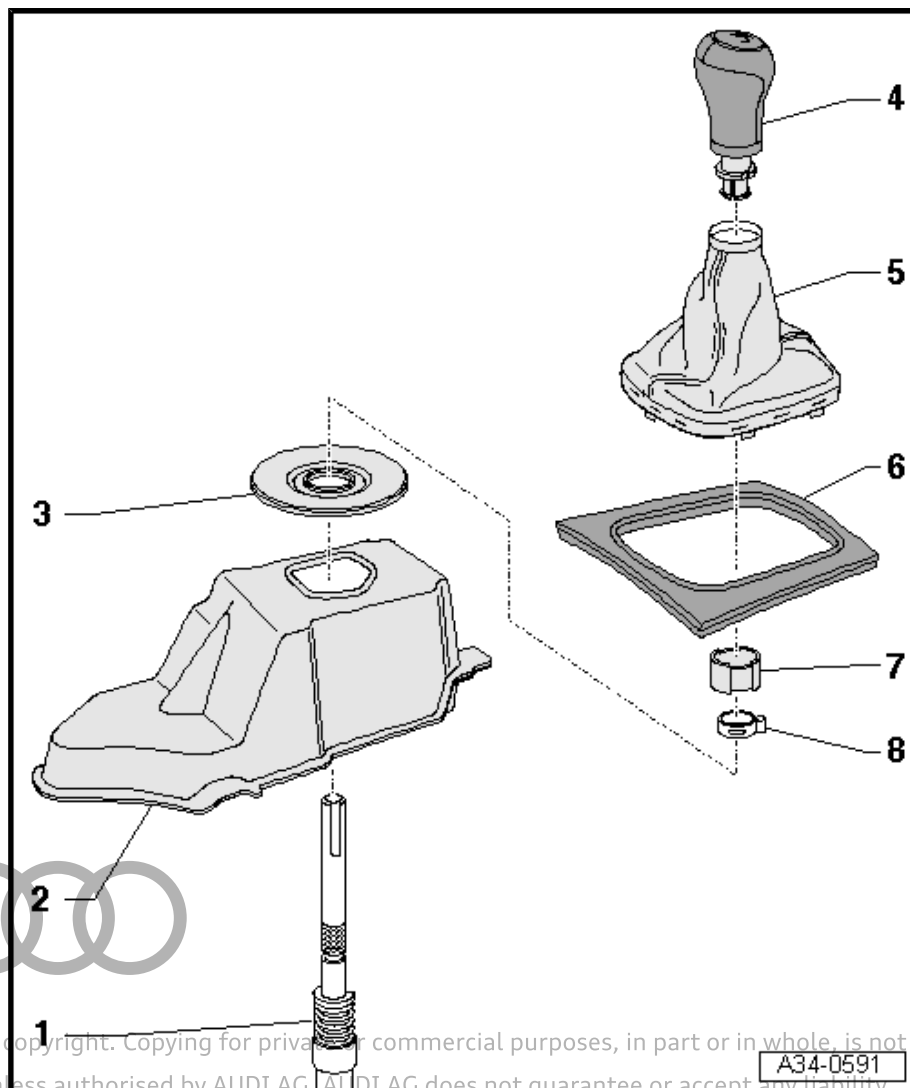
- ❑ Remove and install together with gear knob and gear lever boot ➔ [page 60](#)

7 - Connecting piece

- ❑ Connects gear lever boot and gear knob

8 - Clip

- ❑ Secures gear knob to gear lever
- ❑ Secure with hose clip pliers - V.A.G 1275-

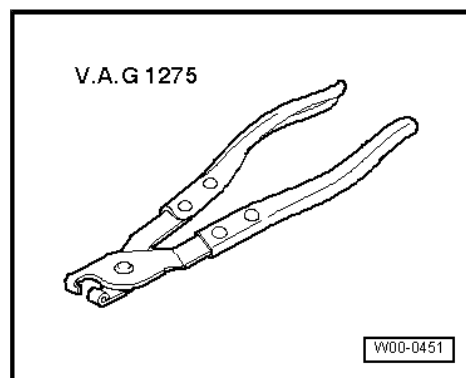


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.2 Removing and installing gear knob with gear lever boot

Special tools and workshop equipment required

- ◆ Hose clip pliers - V.A.G 1275-





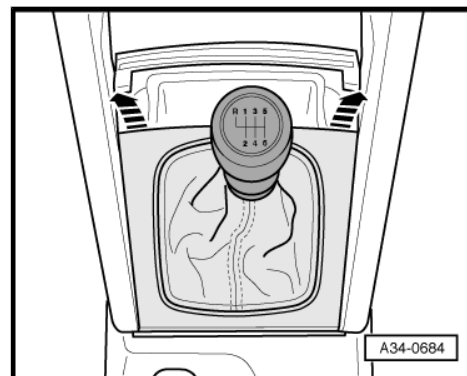
Removing



Note

The gear knob is removed together with the gear lever boot and the cover for the centre console.

- Open ashtray (if fitted).
- Carefully pry gear lever boot off centre console -arrows-.
- Pull boot up and over gear knob.

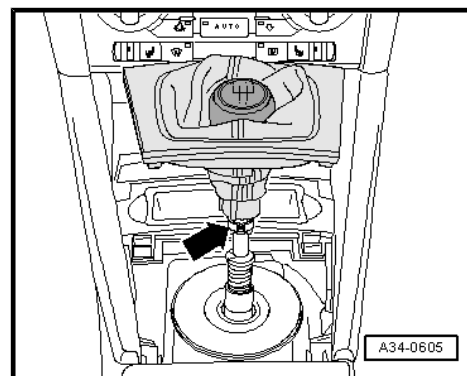


- Open clip -arrow- and pull off gear knob together with boot.

Installing

Installation is carried out in the reverse order; note the following:

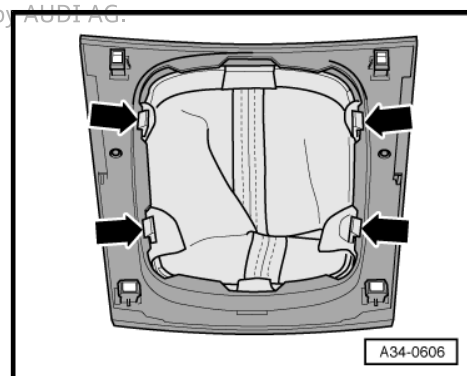
- Push gear knob together with boot onto gear lever as far as stop.
- Secure gear knob to gear lever with clip -arrow-, using hose clip pliers - V.A.G 1275- .



1.3 Separating gear lever boot from gear knob

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Remove gear knob together with gear lever boot => [page 60](#).
- Unclip frame of gear lever boot from centre console cover -arrows-.



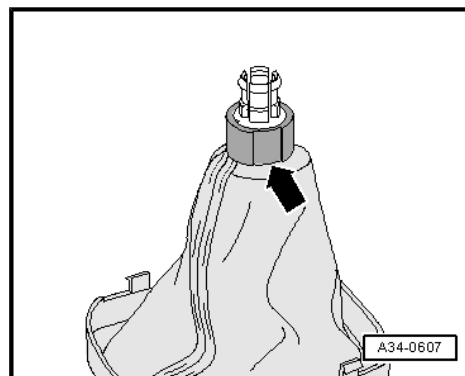


- Score into the connecting piece with a sharp knife at the point marked -arrow-.
- Then bend out the connecting piece, open it apart and remove.

Assembling

Installation is carried out in the reverse order; note the following:

- Fit gear lever boot on gear knob, using a new connecting piece -arrow-.
- Install gear knob together with boot ⇒ [page 60](#) .



1.4 Exploded view - selector mechanism, vehicles up to model year 2008



Note

Lubricate all bearings and moving surfaces with grease - G 000 450 02- .

1 - Floor plate

- ☐ Bend tabs open to remove
- ☐ Renew

2 - Gasket

- ☐ Renew if damaged

3 - Gear lever

4 - O-ring

- ☐ Renew if damaged

5 - Retaining clip

6 - Gate selector cable

- ☐ Removing and installing ⇒ [page 83](#)
- ☐ Adjusting ⇒ [page 84](#)

7 - Gear selector cable

- ☐ Removing and installing ⇒ [page 83](#)
- ☐ Adjusting ⇒ [page 84](#)

8 - Securing clip

9 - Guide

- ☐ For spring ⇒ [Item 26 \(page 63\)](#)

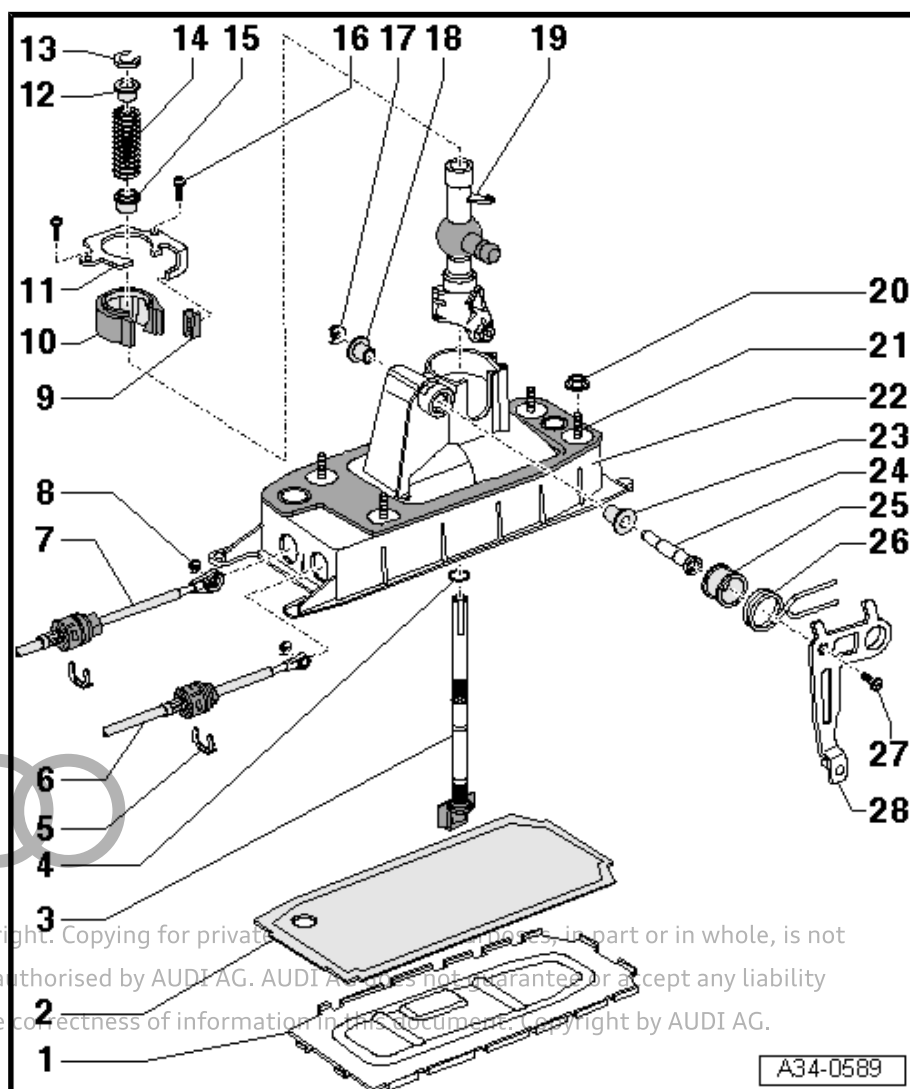
10 - Ball socket with damper

11 - Cover

12 - Bush

13 - Securing clip

- ☐ Removing and installing ⇒ [page 63](#)





14 - Compression spring

15 - Bush

16 - Bolt, 6 Nm

17 - Securing clip

18 - Bearing bush

19 - Gear lever guide

20 - Nut, 10 Nm

21 - Gasket

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

☐ Between selector housing and floor

☐ Self-adhesive

22 - Selector housing

23 - Bearing bush

24 - Pivot pin

25 - Guide bush

☐ Press onto selector housing

26 - Compression spring

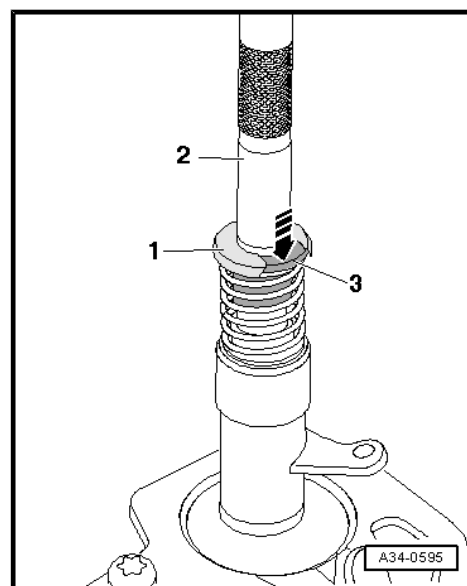
☐ Installing ⇒ [page 63](#)

27 - Bolt, 5 Nm

28 - Gate selector lever

Removing and installing securing clip

- Hold gear lever -2- in position.
- Press spacer bush -3- in direction indicated -arrow-.
- Take off securing clip -1-.



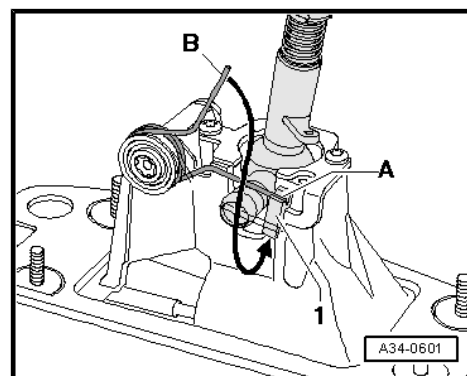
Installing spring

- Insert arm -A- of spring in guide -1- from above.
- Pull down arm -B- of spring and insert it in the guide from below.



Note

The gate selector lever is removed to give a better illustration.



- ◆ Lubricate bearings and moving surfaces with grease - G 000 450 02-.
- ◆ Dismantling and assembling selector mechanism ⇒ **page 77**

- ☐ Bend tabs open to remove
- ☐ Always renew

- ☐ Always renew

- ❑ Can be removed and installed without removing gear lever guide
⇒ Item 15 (page 65)

- ❑ Push onto gear lever as far as stop -arrow-

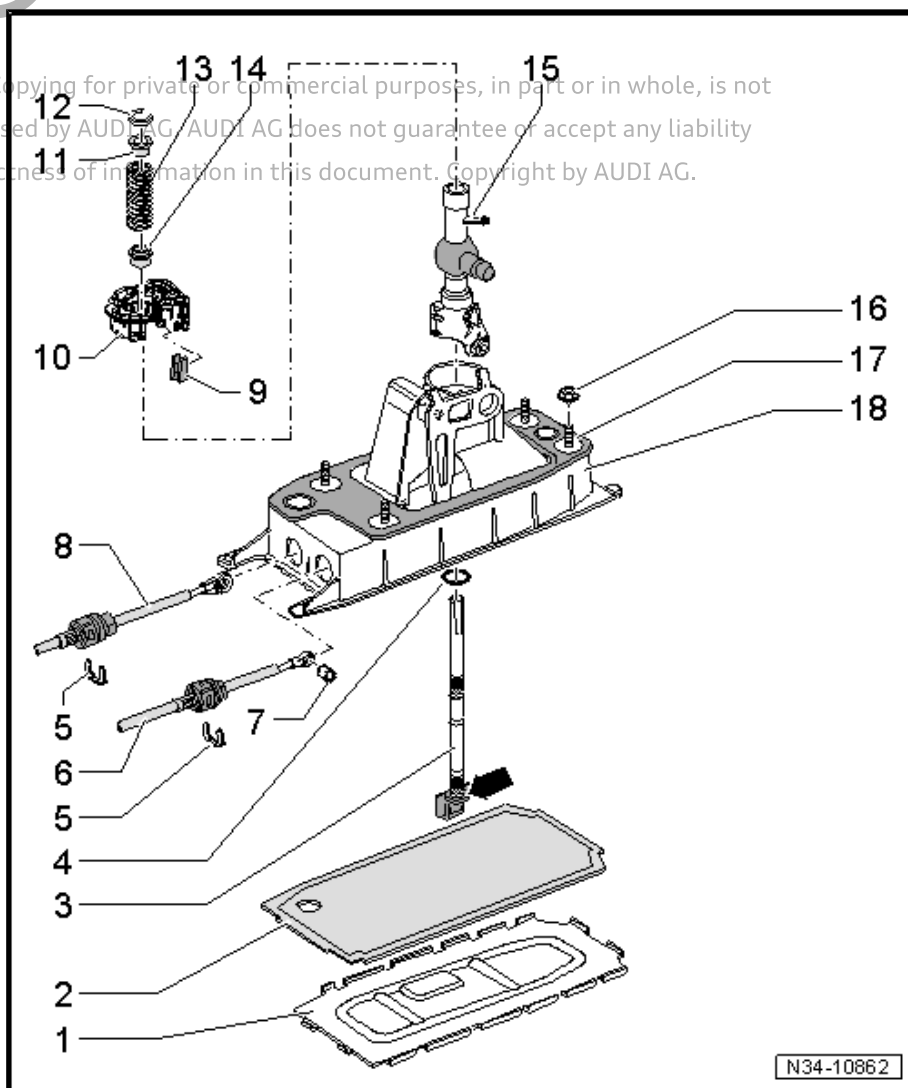
- ❑ Take care not to damage selector cables when removing.
- ❑ Always renew

- ☐ Lever off gate selector lever
- ☐ Press onto gate selector lever inside selector mechanism

- ❑ Lever off gear lever guide
- ❑ Press onto gear lever guide inside selector mechanism

- ❑ Will be damaged during removal
- ❑ Always renew

- ❏ Removing and installing ⇒ [page 65](#)





13 - Compression spring

14 - Bush

15 - Gear lever guide

16 - Nut

- M6 - 8 Nm
- M8 - 25 Nm
- ☐ 4x

17 - Gasket

- ☐ Between selector housing and floor
- ☐ Self-adhesive
- ☐ Always renew
- ☐ Glue onto selector housing

18 - Selector housing

- ☐ With spring and gate selector lever
- ☐ Spring and gate selector lever cannot be detached

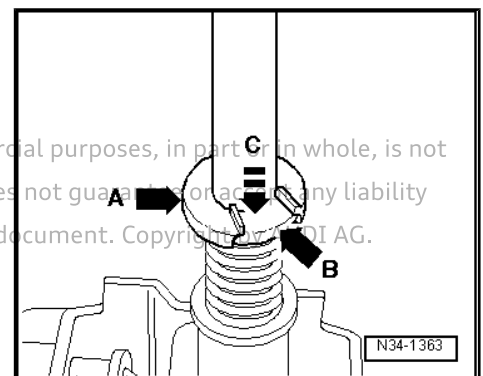
Removing and installing securing clip

- To remove and install securing clip -arrow A-, use screwdriver to press spacer bush -arrow B- in direction of -arrow C- as far as stop and detach securing clip.



Note

- ◆ *Keep spacer bush straight while pushing down.*
- ◆ *Groove in gear lever for securing clip must be visible.*
- ◆ *Release spring carefully.*



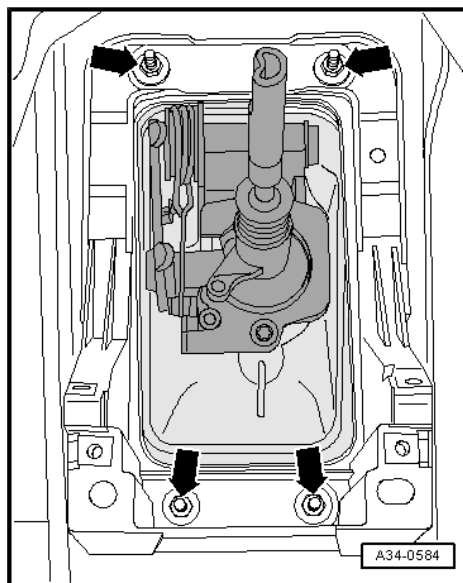
1.6 Removing and installing selector mechanism

Removing

- Remove gear knob together with gear lever boot ➔ [page 60](#) .
- Remove ashtray in front section of centre console ➔ General body repairs, interior; Rep. gr. 68 .
- Lift out noise insulation above selector mechanism.

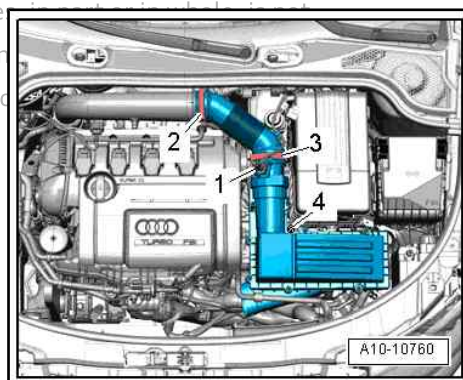


- Remove nuts -arrows-.



- Remove complete air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24

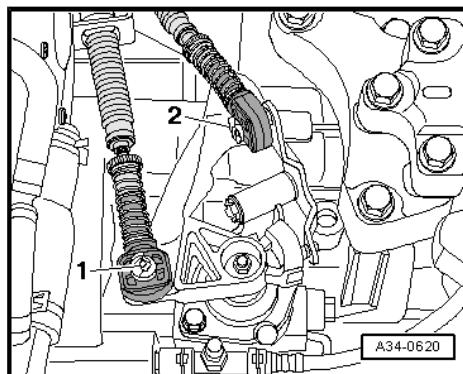
Protected by copyright. Copying for private or commercial purposes is prohibited unless authorised by AUDI AG. AUDI AG does not guarantee with respect to the correctness of information in this document. Co



- Detach securing clip -1- for gear selector cable and pull cable off pin.

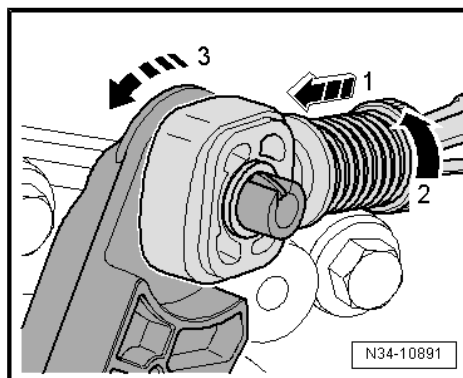
Metal gate relay lever:

- Detach securing clip -2- for gate selector cable from gate relay lever and pull cable off pin.



Plastic gate relay lever:

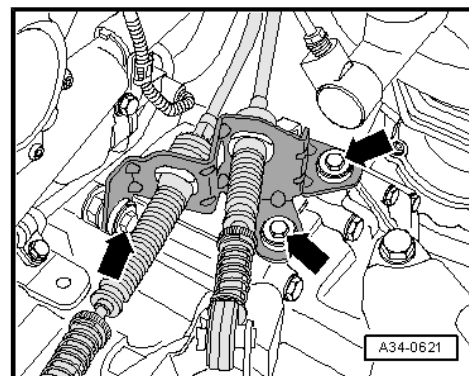
- To prevent damage to gate selector cable, cable end-piece must be detached from gate selector cable before removing relay lever.
- Pull locking mechanism forwards in direction of -arrow 1- onto stop and then turn to left in direction of -arrow 2- to lock.
- Then press gate relay lever forwards (in direction of -arrow 3-).
- Do not detach cable end-piece from gate relay lever until gate relay lever has been removed ⇒ [page 77](#) .





All vehicles (continued):

- Detach cable support bracket from gearbox -arrows-.



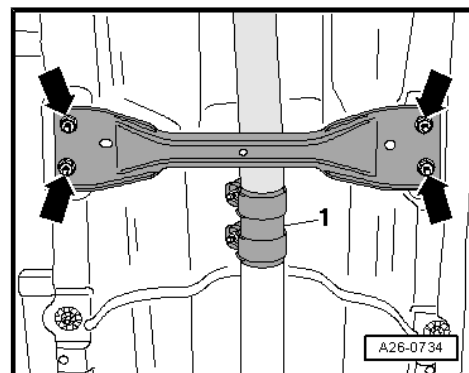
- Remove front cross member on underbody -arrows-.



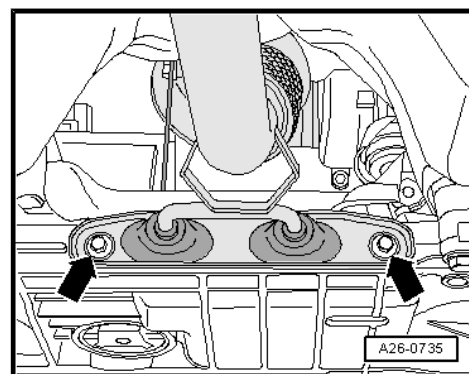
Note

To avoid damage, the flexible joints in the front exhaust pipe must not be bent more than 10°.

- Disconnect exhaust system at clamp -1-.



- Unbolt support bracket for exhaust system -arrows-.
- Tie up front exhaust pipe on underbody.



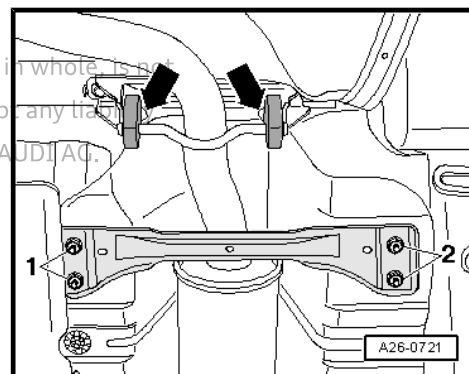
- Remove rear cross member on underbody -nuts 1 and 2-.



Note

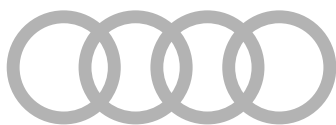
A second mechanic is required for removing the rear section of the exhaust system.

- Detach exhaust system at rubber mountings -arrows-.
- Detach rear silencer at rubber mountings and remove rear section of exhaust system.





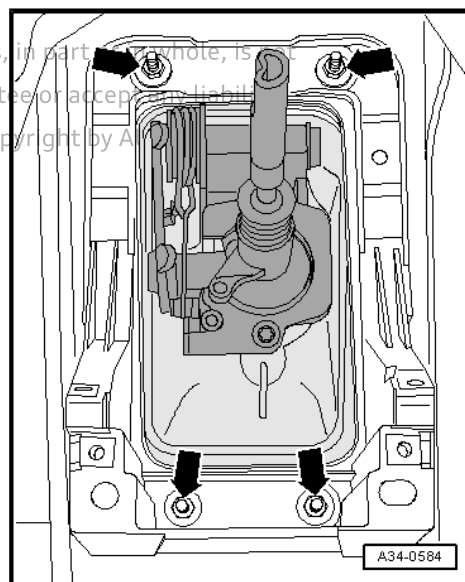
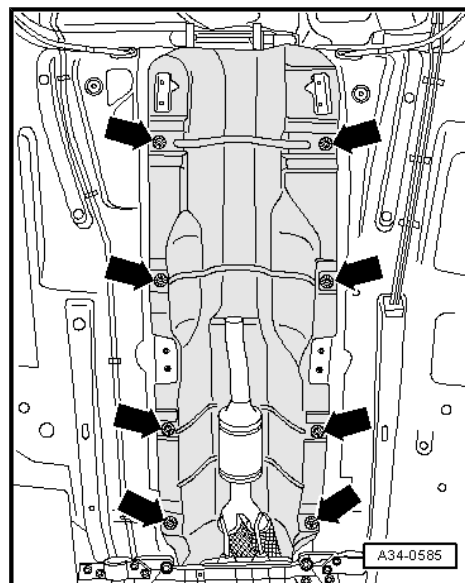
- Loosen clips -arrows- and remove heat shield together with selector mechanism.



Installing selector mechanism

Installation is carried out in reverse order; note the following:

- Install selector mechanism and tighten nuts -arrows-. Tightening torque ➔ [Item 16 \(page 65\)](#)

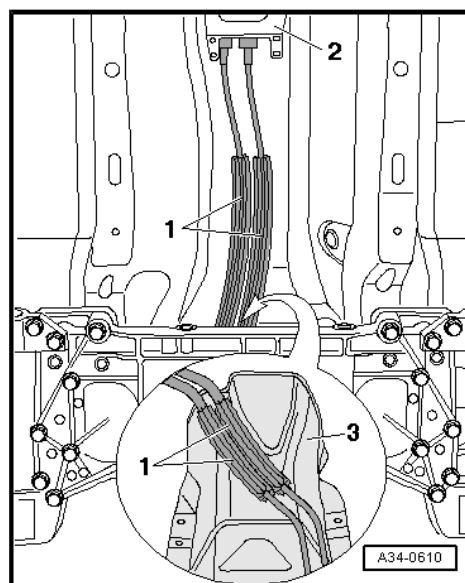


- Route cables -1- from selector mechanism -2- to gearbox as follows:
- The cables must run parallel and must not be crossed.
- The cables must be routed in the slot provided in heat shield -3-.



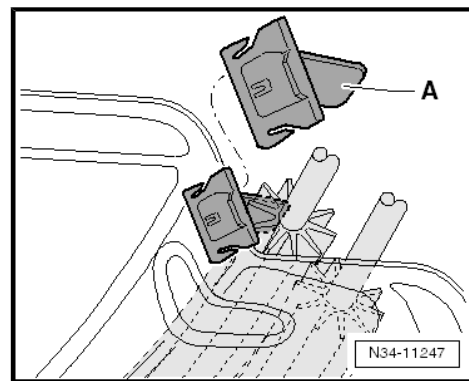
Note

The enlargement shows the heat shield from above.

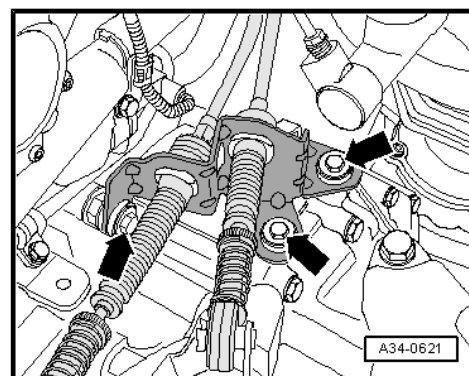




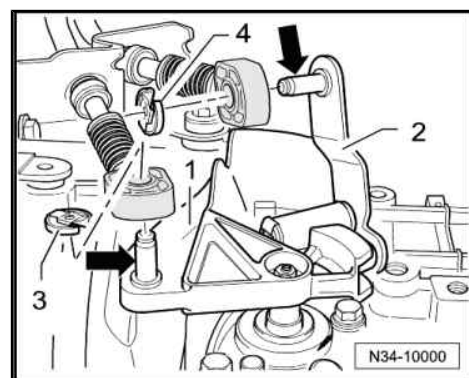
The cables and heat shield are held in the correct positions by clip -A-.



- Secure cable support bracket to gearbox -arrows-. Tightening torque ⇒ [Item 6 \(page 70\)](#)



- Spread a small amount of grease - G 000 450 02- onto pins -arrows- of gearbox selector lever -1- and gate relay lever -2-.
- If they are removed, always renew securing clip -3- and, on vehicles with metal gate relay lever, securing clip -4-.
- Fit gear selector cable and secure with securing clip -3-.



Metal gate relay lever:

- Fit gate selector cable and secure with securing clip -4-.

Plastic gate relay lever

- Insert gate selector cable in cable end-piece.

All versions (continued):

- Adjust selector mechanism ⇒ [page 84](#) .
- Assemble exhaust system and ensure stress-free alignment ⇒ Engine, mechanics; Rep. gr. 26 .
- Install complete air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .
- Install ashtray in front section of centre console ⇒ General body repairs, interior; Rep. gr. 68 .
- Install gear knob together with boot ⇒ [page 60](#) .

1.7 Exploded view - gear selector cable and gate selector cable, vehicles up to model year 2008



Note



Lubricate all bearings and moving surfaces with grease - G 000 450 02- .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

**1 - Gear selector cable**

- ☐ Removing and installing
⇒ [page 83](#)
- ☐ Adjusting ⇒ [page 84](#)

2 - Gate selector cable

- ☐ Removing and installing
⇒ [page 83](#)
- ☐ Adjusting ⇒ [page 84](#)

3 - Retaining clips

- ☐ Renew

4 - Selector housing**5 - Retaining clips**

- ☐ Renew

6 - Bolt or nut

- ☐ 20 Nm
- ☐ 3 bolts or 2 bolts and one nut

7 - Cable support bracket**8 - Grommet****9 - Spacer****10 - Cable end-piece**

- ☐ Secures gate selector cable to gate relay lever
- ☐ Release to adjust selector mechanism
⇒ [page 85](#)

11 - Cable end-piece

- ☐ Secures gear selector cable to gearbox selector lever
- ☐ Release to adjust selector mechanism ⇒ [page 85](#)

12 - Securing clip

- ☐ Renew

13 - Securing clip

- ☐ Removing from gate relay lever ⇒ [page 71](#)
- ☐ Renew

14 - Bush**15 - Gate relay lever**

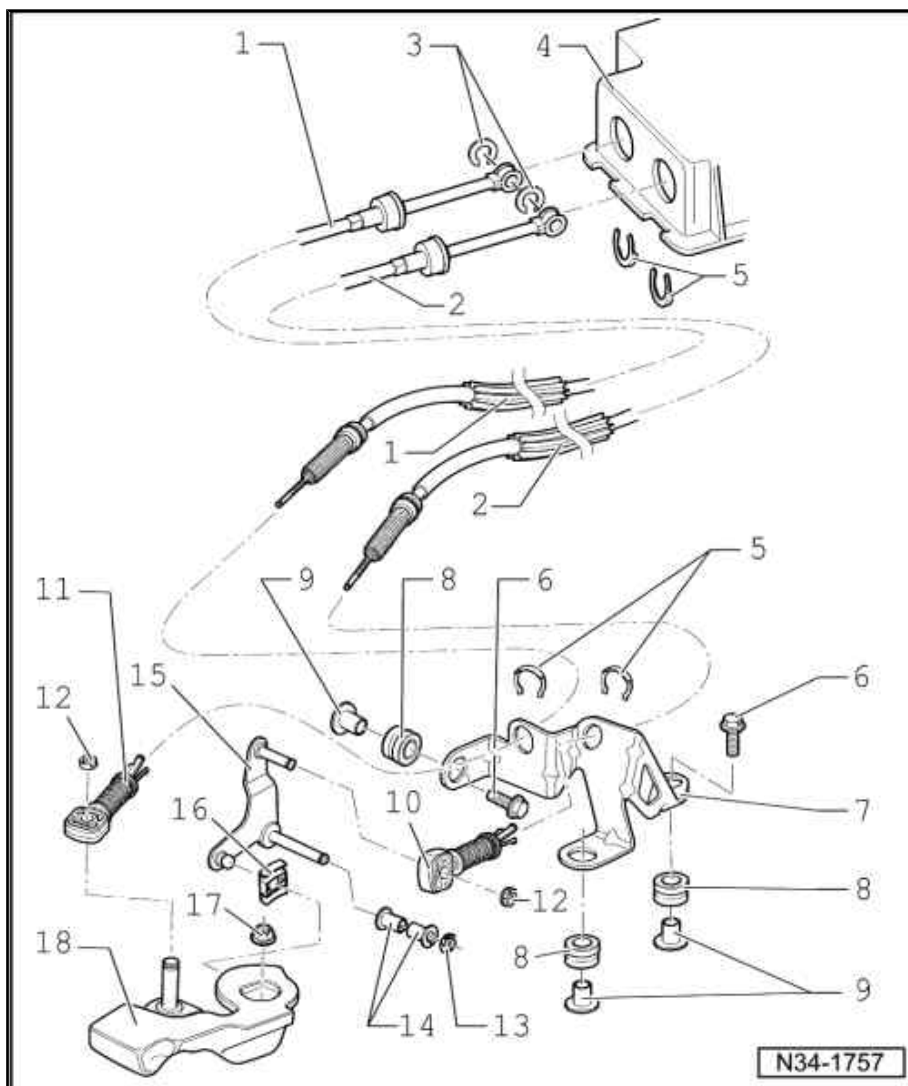
- ☐ Installation position ⇒ [page 72](#)
- ☐ After installing, adjust selector mechanism ⇒ [page 84](#)

16 - Slide block**17 - Nut**

- ☐ Self-locking
- ☐ Renew
- ☐ 23 Nm

18 - Gearbox selector lever

- ☐ Installing ⇒ [page 71](#)

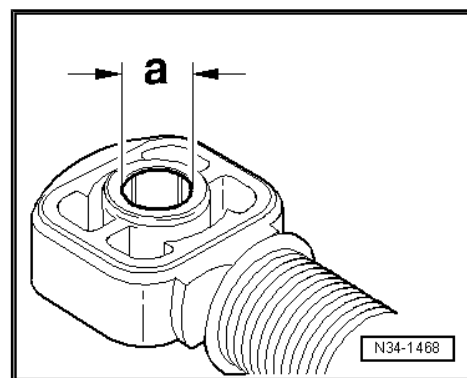




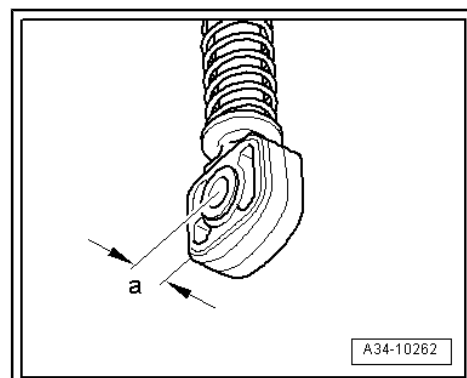
Identification of cable end-pieces

The holes in the cable end-pieces have different diameters.

Cable end-piece for:	Dimension "a"
Gear selector cable to gearbox selector lever	10 mm
Gate selector cable to gate relay lever	8 mm



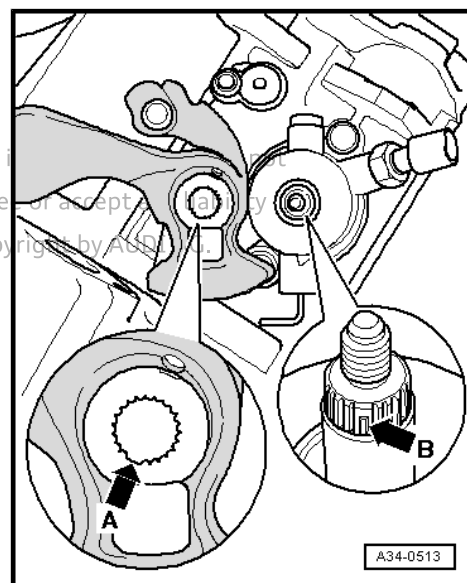
Cable end-piece for:	Dimension "a"
Gear selector cable to gearbox selector lever	20 mm
Gate selector cable to gate relay lever	18.5 mm



Installing gearbox selector lever

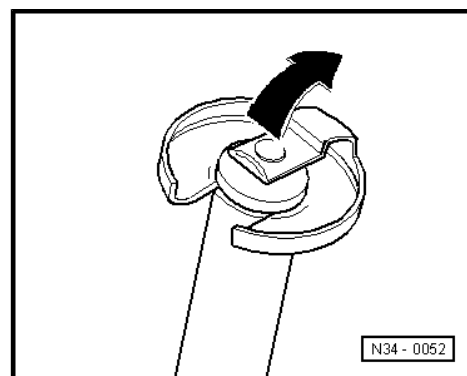
- When installing gearbox selector lever, make sure that the gap in the splines -arrow A- aligns with the wider spline -arrow B- on the selector shaft.

Protected by copyright. Copying for private or commercial purposes, in whole or in part, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by Audi AG.



Removing securing clip from gate relay lever

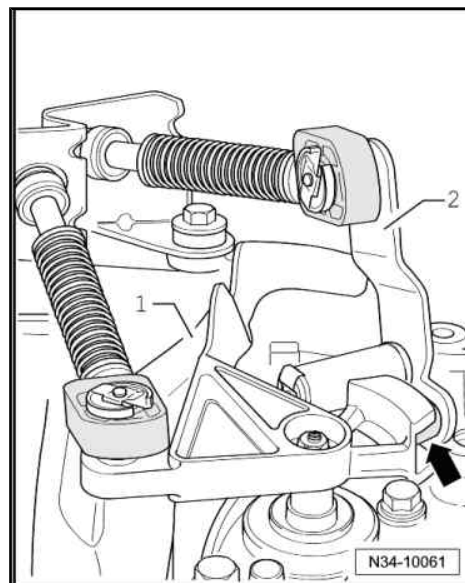
- Pull up clip -arrow- and detach securing clip.





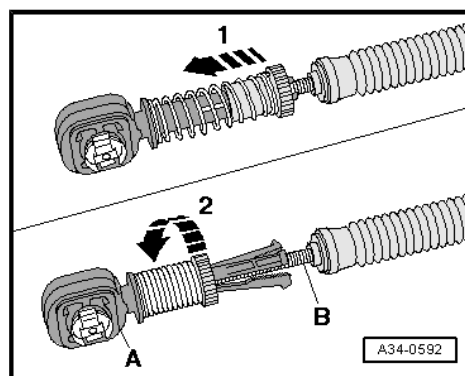
Installation position: gearbox selector lever/gate relay lever

- 1 - Gearbox selector lever
- 2 - Gate relay lever locates in guide rail of gearbox selector lever via slide block -arrow-.
- Coat guide rail and slide block -arrow- with grease - G 000 450 02- .



Detaching cable end-pieces from gear selector cable and gate selector cable

- Pull locking device forwards onto stop -arrow 1- and lock by turning anti-clockwise -arrow 2-.
- Take cable -B- out of cable end-piece -A-.



Detaching and securing gear selector cable and gate selector cable

Detaching

- Detach securing clip for gear selector cable -3- from gearbox selector lever -1- and pull cable off pin.
- Detach securing clip for gate selector cable -4- from gate relay lever -2- and pull cable off pin.

Securing

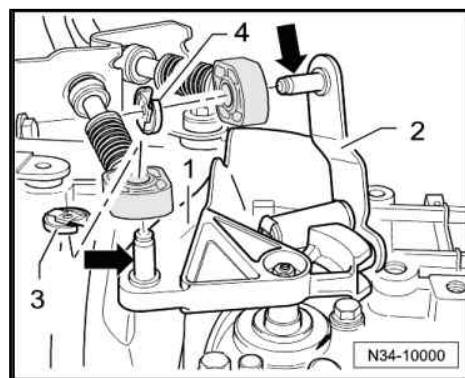


Note

- ◆ *Renew securing clips.*

- ◆ *Apply a small quantity of grease - G 000 450 02- to the pins -arrows-.*

- Push gear selector cable onto gearbox selector lever -1- and secure with securing clip -3-.
- Push gate selector cable onto gate relay lever -2- and secure with securing clip -4-.





1.8 Exploded view - gear selector cable and gate selector cable, vehicles from model year 2009 onwards



Note

Lubricate all bearings and moving surfaces with grease - G 000 450 02-.

1 - Gearbox

2 - Clip

- ☐ Not fitted on all versions
- ☐ For gate relay lever from 08.2008 onwards
- ☐ Detaching and fitting
⇒ [page 77](#)

3 - Gearbox selector lever

- ☐ Fitting ⇒ [page 75](#)
- ☐ Installation position
⇒ [page 75](#)
- ☐ After installing, adjust selector mechanism
⇒ [page 84](#)

4 - Cable end-piece

- ☐ Secures gear selector cable to gearbox selector lever
- ☐ Allocation ⇒ [page 74](#)
- ☐ Detaching from gear selector cable
⇒ [page 75](#)

5 - Securing clip

- ☐ Removing ⇒ [page 76](#)
- ☐ Renew

6 - Nut

- ☐ 23 Nm
- ☐ Self-locking
- ☐ Renew

7 - Retaining clip

- ☐ Renew

8 - Gear selector cable

- ☐ Detaching and securing at gearbox selector lever ⇒ [page 76](#)
- ☐ Removing and installing ⇒ [page 83](#)
- ☐ Adjusting ⇒ [page 84](#)

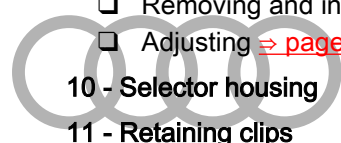
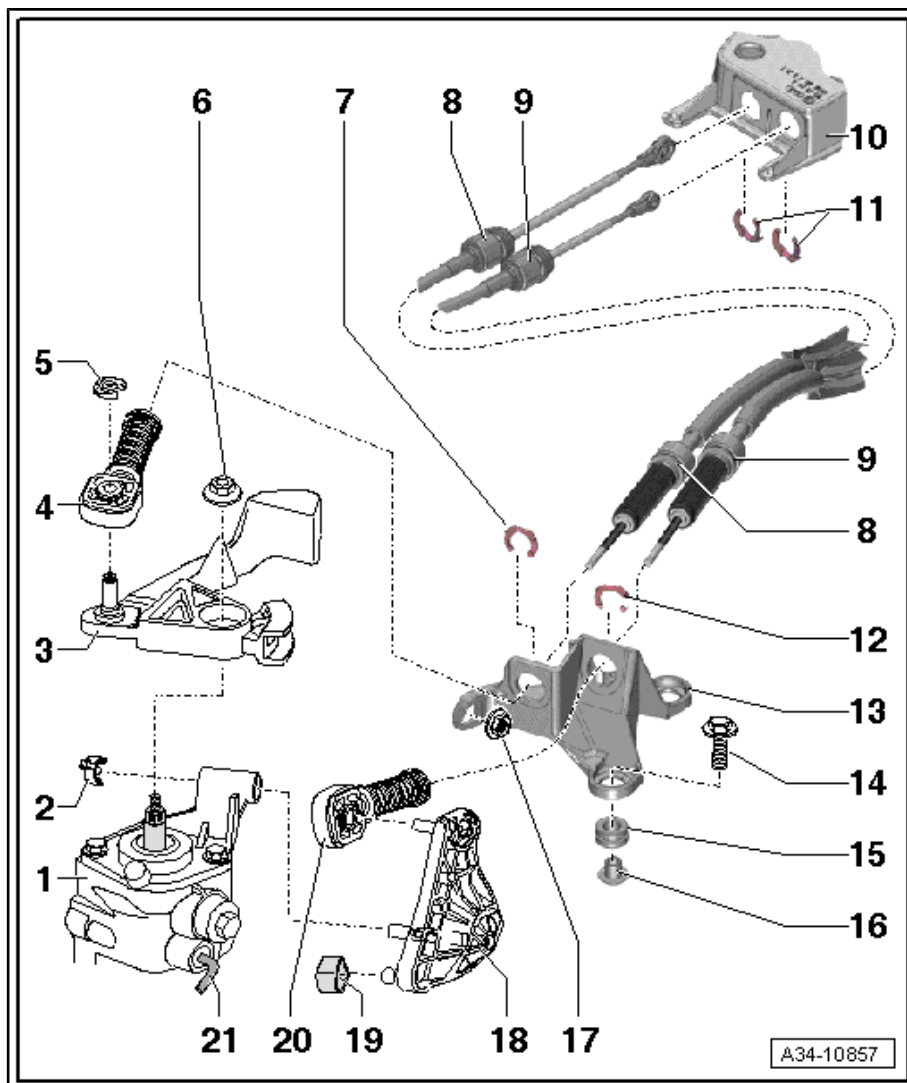
9 - Gate selector cable

- ☐ Removing and installing ⇒ [page 83](#)
- ☐ Adjusting ⇒ [page 84](#)

10 - Selector housing

11 - Retaining clips

- ☐ Renew





12 - Retaining clip

- ☐ Renew

13 - Cable support bracket

- ☐ Can be made of plastic or metal

14 - Bolt

- ☐ 20 Nm
- ☐ 2x on vehicles with 4-cylinder engine
- ☐ 3x on vehicles with 6-cylinder engine

15 - Grommet

16 - Bush

17 - Nut

- ☐ 20 Nm
- ☐ Only on vehicles with 4-cylinder engine

18 - Gate relay lever

- ☐ Made of plastic
- ☐ Different versions available, for correct version refer to ➔ [Electronic parts catalogue](#)
- ☐ Installation position ➔ [page 75](#)
- ☐ Detaching and securing gate relay lever (with detent catch) at gearbox selector lever ➔ [page 76](#)
- ☐ Detaching and securing gate relay lever (with clip) at gearbox selector lever ➔ [page 77](#)

19 - Slide block

- ☐ Installation position ➔ [page 75](#)

20 - Cable end-piece

- ☐ Secures gate selector cable to gate relay lever
- ☐ Allocation ➔ [page 74](#)
- ☐ Detaching from gate selector cable ➔ [page 75](#)

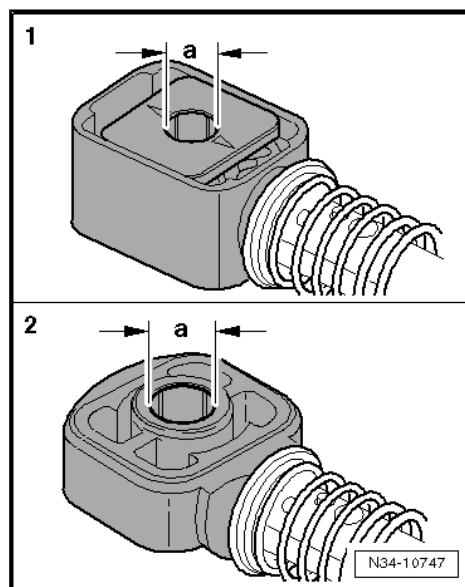
21 - Angled rod

- ☐ For adjusting selector mechanism ➔ [page 84](#)

Identification of cable end-pieces

The holes in the cable end-pieces have different diameters.

Cable end-piece for:	Dimension "a"
-1- Gear selector cable to gearbox selector lever	8.5 mm
-2- Gate selector cable to gate relay lever	10 mm





Installing gearbox selector lever

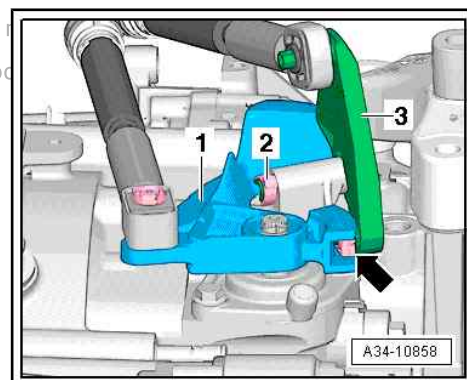
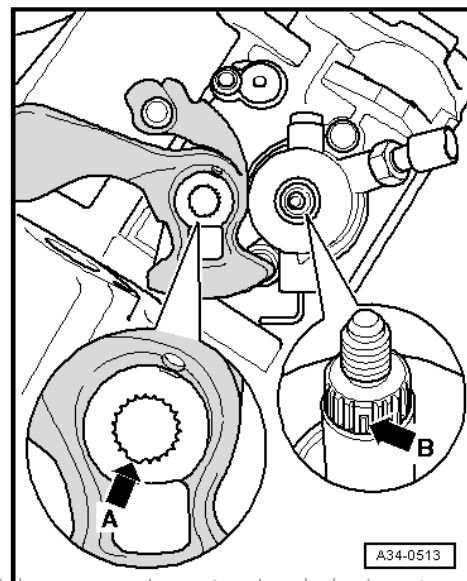
- When installing gearbox selector lever, make sure that the gap in the splines -arrow A- aligns with the wider spline -arrow B- on the selector shaft.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without the written consent of Audi AG. Audi AG does not accept the correctness of information in this document.

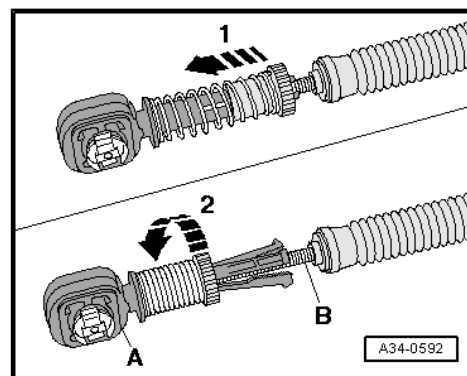
Installation position: gearbox selector lever/gate relay lever

- 1 - Gearbox selector lever
 - 2 - Clip or detent catch (depending on version)
 - 3 - Gate relay lever locates in guide rail of gearbox selector lever via slide block -arrow-.
- Coat guide rail and slide block -arrow- with grease - G 000 450 02- .



Detaching cable end-pieces from gear selector cable and gate selector cable

- Pull locking device forwards onto stop -arrow 1- and lock by turning anti-clockwise -arrow 2-.
- Take cable -B- out of cable end-piece -A-.





Detaching and securing gear selector cable at gearbox selector lever

Detaching

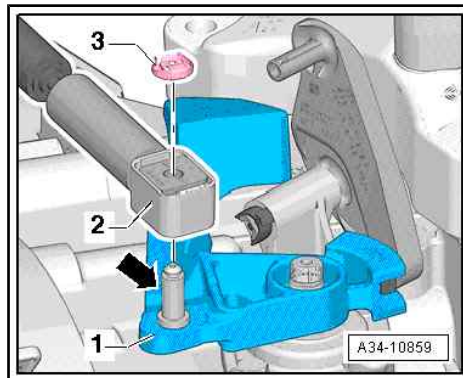
- Lift clip and detach securing clip -3- for gear selector cable from gearbox selector lever -1-.
- Detach gear selector cable -2- from pin -arrow-.

Securing



Note

- ◆ *Renew securing clip for gear selector cable.*
- ◆ *Apply a small amount of grease - G 000 450 02- to pin -arrow-.*
- Push gear selector cable -2- onto gearbox selector lever -1- and secure with securing clip -3-.



Detaching and securing gate relay lever (with detent catch) at gearbox selector lever -arrow 1-

Detaching

- Press in detent -arrow 1- as far as stop and remove gate relay lever together with cable end-piece (move relay lever in normal direction of operation).



Note

-Arrow 2- can be disregarded.

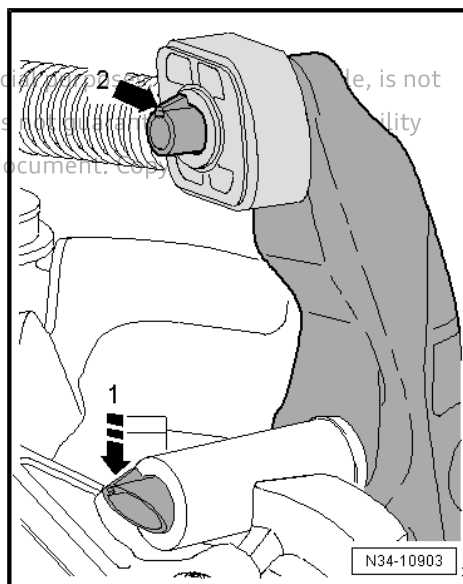
Securing



Note

To install, lubricate bearings and moving surfaces with grease - G 000 450 02- .

- Press cable end-piece onto gate relay lever ⇒ [page 77](#) .
- Insert gate relay lever with cable end-piece as far as stop.
- Gate relay lever is secured by detent -arrow 1-.
- Cable end-piece is secured by detent -arrow 2-.
- Ensure that components engage securely.





Detaching and securing gate relay lever (with clip) at gearbox selector lever -arrow 1-

Detaching

- Remove clip -arrow 1- and take off gate relay lever together with cable end-piece.

Securing



Note

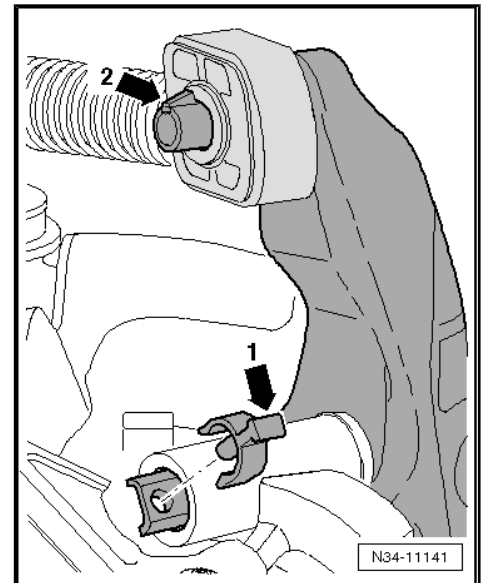
Lubricate all bearings and moving surfaces with grease - G 000 450 02- .

- Insert gate relay lever with cable end-piece as far as stop.
- Press on clip -arrow 1-, making sure it engages securely.



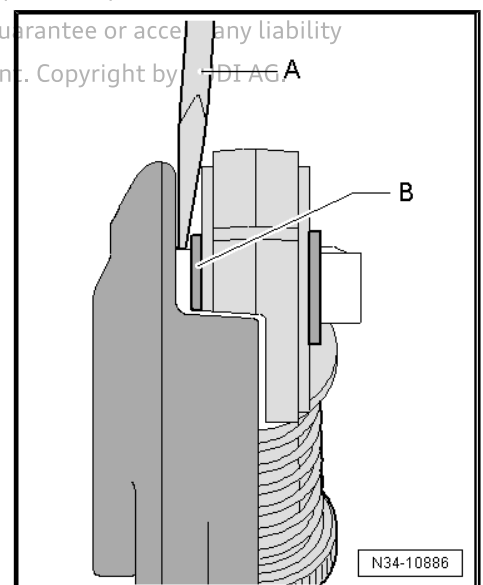
Note

-Arrow 2- can be disregarded.



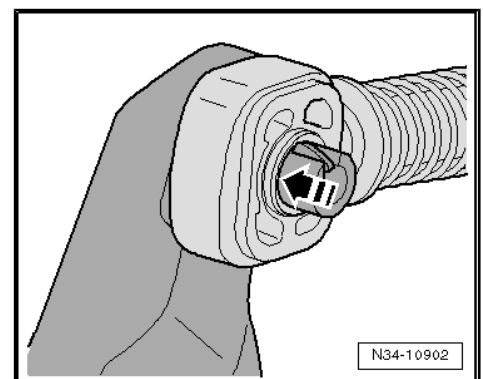
Levering cable end-piece for gate selector cable off gate relay lever

- Gate relay lever removed
- Apply plain slot screwdriver -A- between bush -B- and gate relay lever.



Pressing cable end-piece for gate selector cable onto gate relay lever

- Gate relay lever removed
- Press on cable end-piece only at bush -arrow-.
- Cable end-piece must move freely on gate relay lever.
- Cable end-piece must be behind detent.
- Ensure that components engage securely.



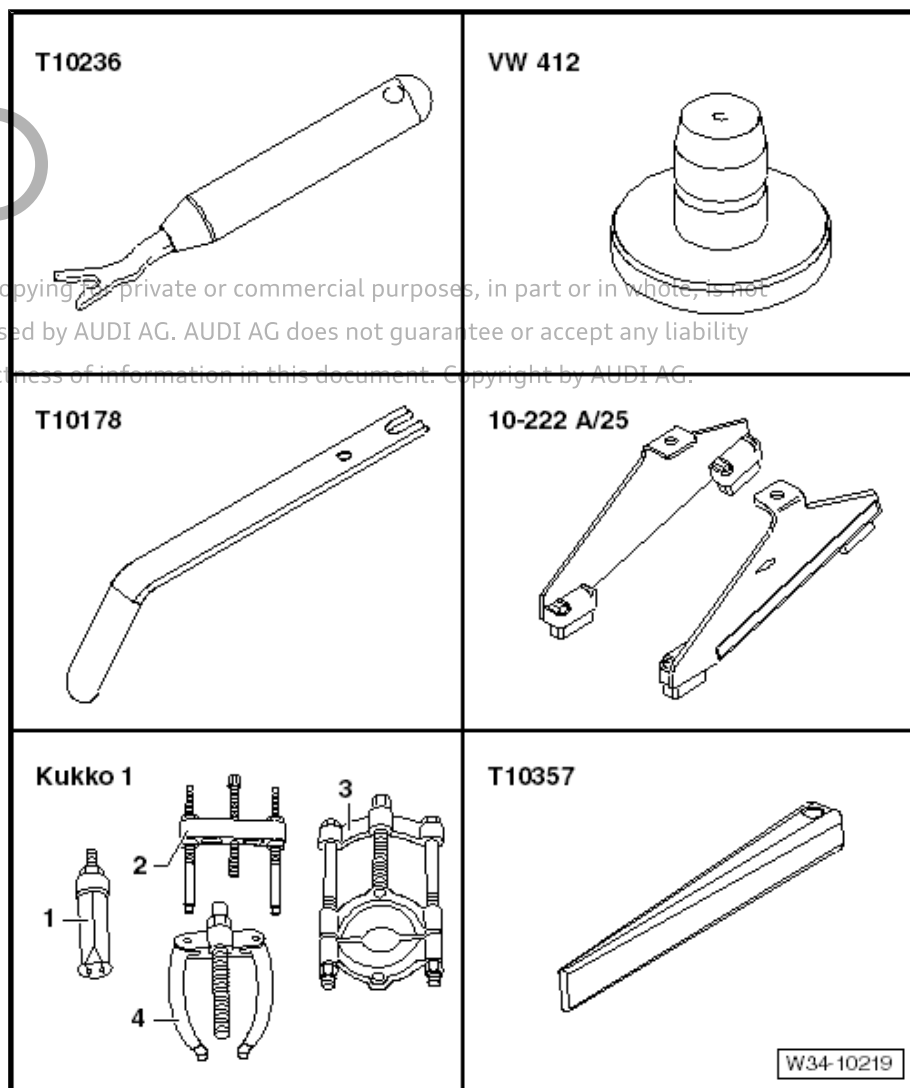
1.9 Dismantling and assembling selector mechanism



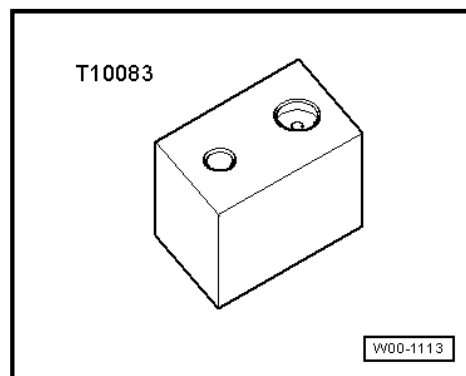
Special tools and workshop equipment required



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



- ◆ Release tool - T10236-
- ◆ Press tool - VW 412-
- ◆ Assembly tool - T10178-
- ◆ Adapters - 10 - 222 A /25-
- ◆ - 2- = counter-support e.g. -KUKKO- series 16
- ◆ Wedge - T10357-
- Thrust block - T10083-





Dismantling

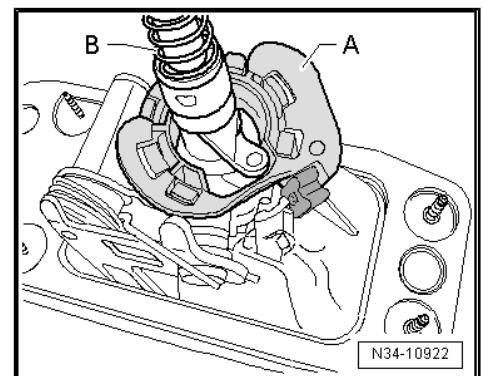
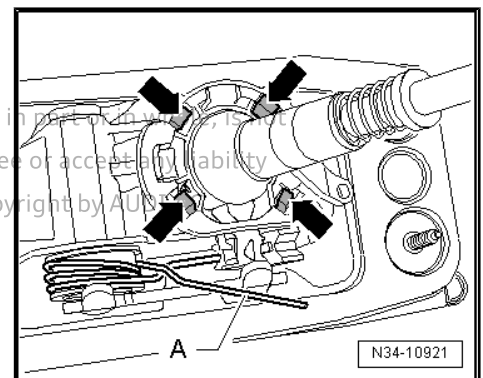
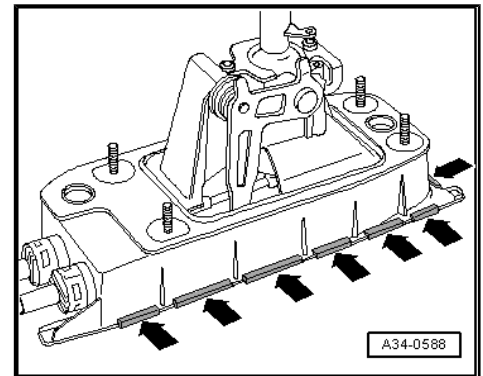
- Remove selector mechanism ⇒ [page 65](#)
- Using a screwdriver, bend open tabs -arrows- on all sides of floor plate and remove floor plate.
- Remove gasket from selector housing.
- Remove gear selector cable and gate selector cable from selector housing ⇒ [page 83](#) .



- Lift top spring arm -A- over tab on gate selector lever.
- Using a screwdriver, press lugs -arrows- on ball socket towards ball on gear lever guide; if necessary, break off lugs.

Protected by copyright. Copying for private or commercial purposes, in particular for advertising, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Prise ball socket -A- out of selector housing together with gear lever guide and gear lever -B-.
- Then press ball socket -A- off ball on gear lever guide and remove.





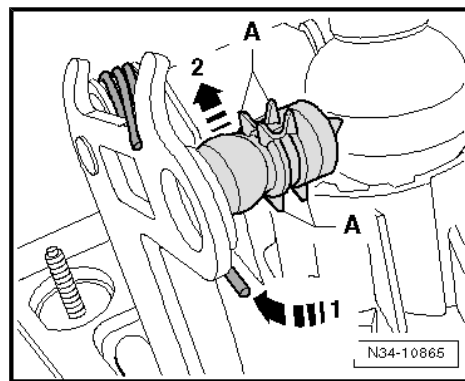
Note

- ◆ Note guides -A- when performing the following steps.
- ◆ They must not break off.
- Swivel bottom spring arm -arrow 1- onto stop on shoulder of gate selector lever.



Caution

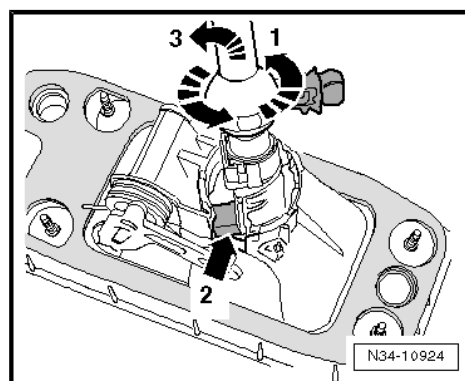
During the following steps, the bottom spring arm (-arrow 1-) can become dislodged and snap downwards off the shoulder of the gate selector lever.



- Pull gear lever guide upwards as far as stop and at the same time pull ball-head pin -arrow 2- out of gate selector lever.
- Press spring -arrow 1- carefully off the shoulder of the gate selector lever.

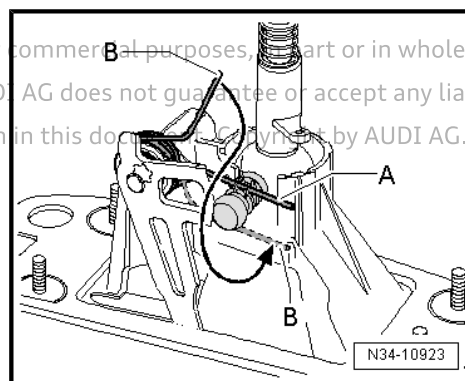
The spring arms will then compress “diagonally”.

- Then turn gear lever guide in direction of -arrow 1-.
- The pin -arrow 2- should be positioned in the recess on the selector housing.
- Next, swivel gear lever guide out in direction of -arrow 3- together with gear lever.



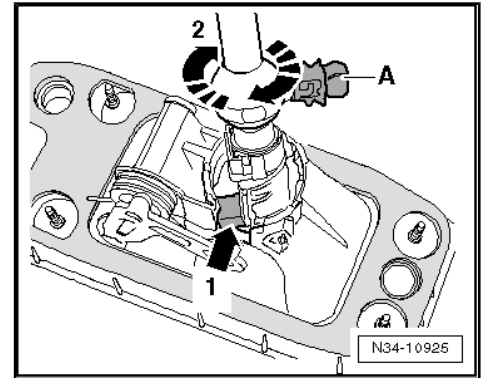
Assembling selector mechanism

- Release spring arms -A- and -B-.
- Spring arms -A- and -B- must point in opposite directions.
(Shown here with gear lever guide installed.)

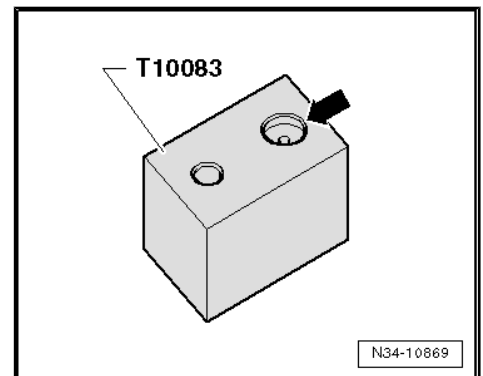




- Insert gear lever guide into selector housing together with gear lever.
- Pin -arrow 1- should be positioned just inside recess on selector housing.
- Turn gear lever guide in direction of -arrow 2- until ball-head pin -A- is above recess on selector housing.



- Position selector housing with gear lever guide onto thrust block - T10083- .
- The gear lever guide rests in the larger recess -arrow- in the thrust block - T10083- .
- The gear lever guide should protrude out of the selector housing as far as the stop.



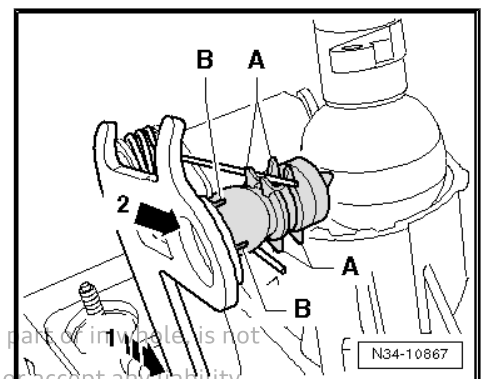
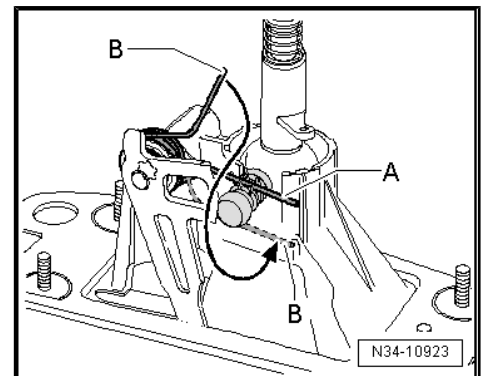
- Insert arm -A- of spring in guide from above.
- Pull arm -B- of spring downwards and insert it next to the guide (towards ball head).



Note

For illustration purposes, only part of the gate selector lever is shown.

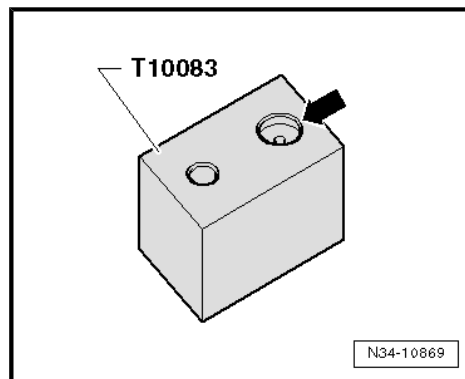
- Carefully take selector housing off thrust block - T10083- together with gear lever guide.
- Move gate selector lever rearwards as far as stop in direction of -arrow 1-.
- Grease ball-head pin.
- Press ball-head pin into hole in gate selector lever -arrow 2-.
- Guides -A- and tabs -B- must not be damaged.



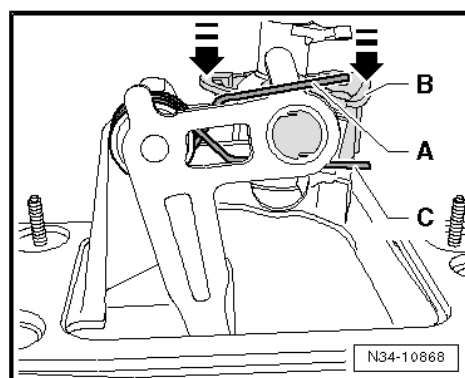
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee the accuracy of the information with respect to the correctness of information in this document. Copyright by AUDI AG.



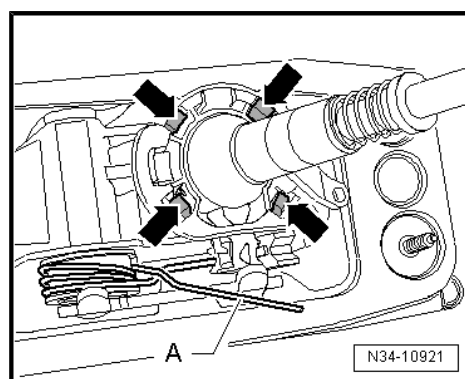
- Now insert gear lever guide (which is now fitted in selector housing) into larger recess -arrow- in thrust block - T10083- again.
- The gear lever guide should now protrude out of the selector housing as far as the stop.



- Lift top spring arm -A- over pin on gate selector lever.
- Use a new ball socket -B-.
- Grease ball socket and ball of gear lever guide.
- Press ball socket onto ball of gear lever guide as far as stop.
- Remove selector housing from thrust block - T10083- .
- Press ball socket into selector housing in direction of -arrows-.



- All four lugs -arrows- must engage.
- Lift top spring arm -A- over pin on gate selector lever into guide.
- Insert bottom spring arm into guide.
- Fit gear lever, gear selector cable and gate selector cable.
- Secure floor plate to selector housing ➔ [page 82](#) .
- Install selector mechanism ➔ [page 65](#) .



1.9.1 Securing floor plate to selector housing

- Fit new gasket onto floor plate.

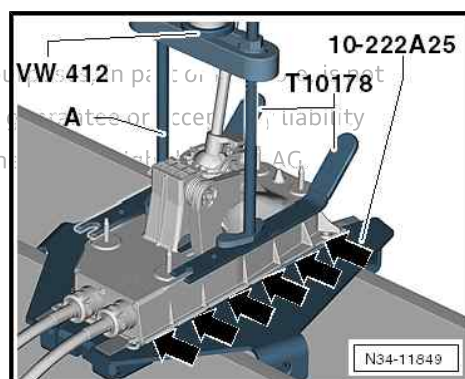


Caution

Risk of damage to selector housing and floor plate.

Only apply minimal pressure to selector housing.

- Secure floor plate by bending tabs -arrows- closed on all sides (only tabs on left side of floor plate are marked here).
- Tabs can be bent closed using wedge - T10357- .
- A- = counter-support e.g. -KUKKO- series 16



Note

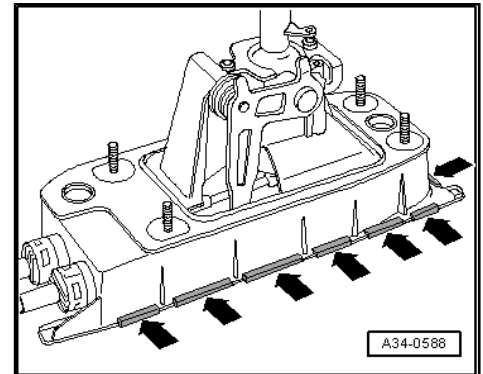
Renew gasket ➔ [Item 2 \(page 64\)](#) .



1.10 Removing and installing gear selector cable and gate selector cable

Removing

- Remove selector mechanism ➔ [page 65](#)
- Using a screwdriver, bend open tabs -arrows- for selector mechanism on floor plate and remove floor plate.
- Remove gasket.



Selector mechanism with securing clips -1- and -4-

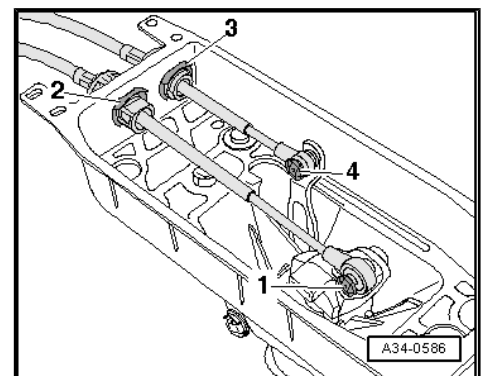
- Detach securing clips -1- and -4- and pull both cables off pins.

Selector mechanism without securing clips -1- and -4-

- Using release tool - T10236- , prise gear selector cable and gate selector cable off pins.

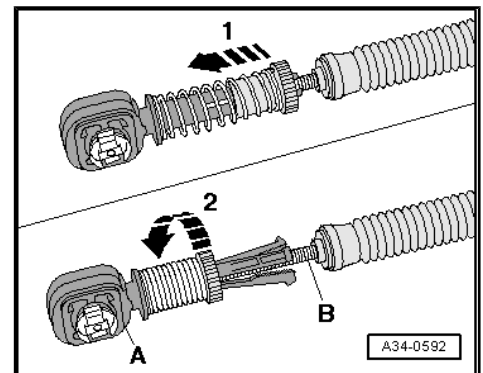
Both versions (continued):

- Take off securing clips -2 ... 3- and detach gear selector cable and gate selector cable from selector housing.

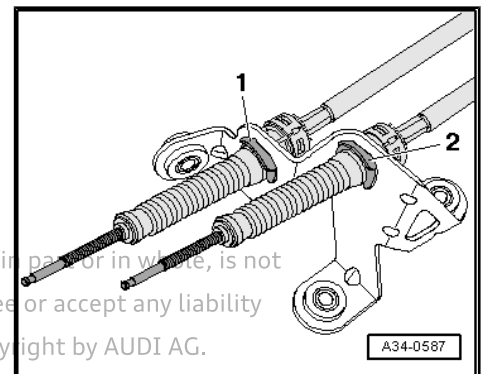


Release cable end-pieces -A- for gate selector cable and gear selector cable -B- as follows:

- Push locking sleeve forwards as far as stop -arrow 1-.
- Turn locking sleeve clockwise as far as stop -arrow 2- so that it engages.
- Detach cable end-pieces from cables.



- Pull off securing clips -1- and -2-.
- Detach cable support bracket from cables.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Installing

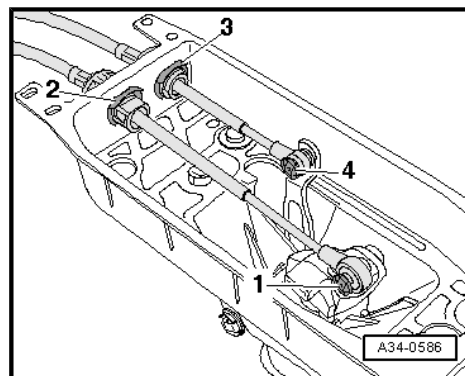
Installation is carried out in reverse order; note the following:

Selector mechanism with securing clips -1- and -4-

- Secure gear selector cable and gate selector cable to selector housing with securing clips -1 ... 4-.

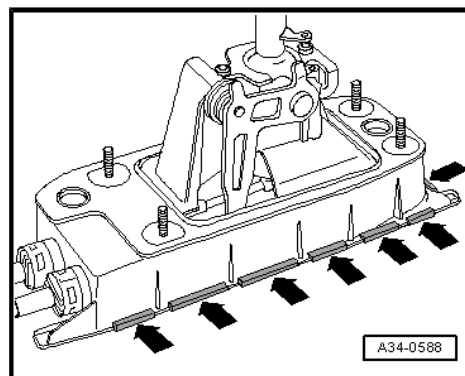
Selector mechanism without securing clips -1- and -4-

- Press gear selector cable and gate selector cable onto pins.



Both versions (continued):

- Secure floor plate to selector housing ⇒ [page 82](#) .
- Install selector mechanism ⇒ [page 65](#) .
- Adjust selector mechanism ⇒ [page 84](#) .

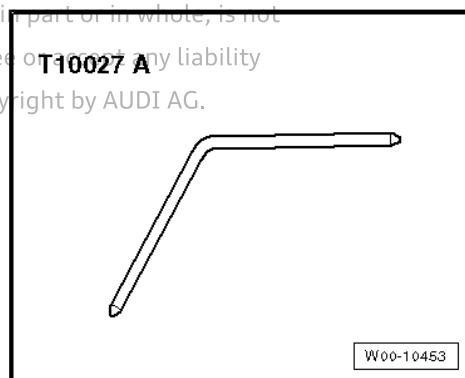


1.11 Adjusting selector mechanism

Special tools and workshop equipment required

- ◆ Locking pin - T10027A-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Adjustment conditions

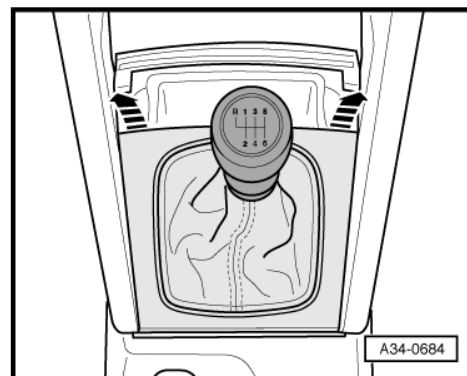
- Gear selector linkage must be in proper condition and undamaged.
- Selector mechanism must move freely.
- Gearbox, clutch and clutch mechanism must be in proper condition.
- Gearbox in neutral.

Adjusting

- Open ashtray.



- Carefully pry gear lever boot off centre console -arrows-.
- Pull boot up and over gear knob.
- With gearbox in neutral, guide gear lever to the left into 1st/2nd gear gate.

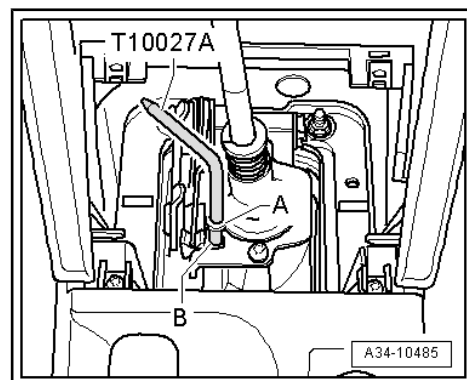


- Pull noise insulation slightly to one side.
- Lock gear lever in position with locking pin - T10027A- .



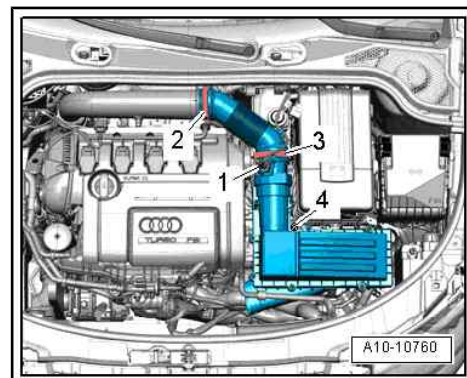
Note

The noise insulation panels are removed to give a better illustration.



Vehicles with air cleaner housing in front of battery

- Remove complete air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .



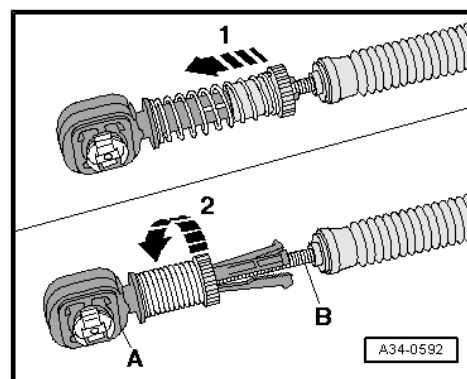
All vehicles (continued)

- Release cable end-pieces -A- for gate selector cable and gear selector cable -B- as follows:
- Push locking sleeve forwards as far as stop -arrow 1-.
- Turn locking sleeve clockwise as far as stop -arrow 2- so that it engages.



Note

It should be possible to move selector cable -B- in the cable end-piece.



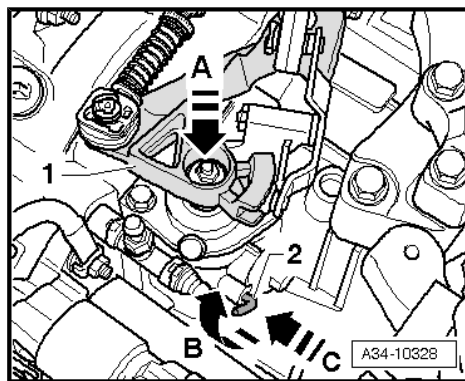
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Lock selector shaft as follows:

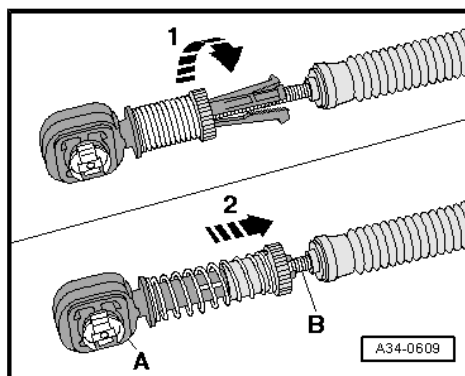
- Press down gearbox selector lever -1- in direction of arrow -A-.
- At the same time press and turn angled rod -2- in direction of arrows -B- and -C- until it engages.

The selector shaft is then locked and can no longer be moved.



- Check that gate selector cable and gear selector cable -B- are located in cable end-pieces -A- without tension.
- Release locking sleeve -arrow 1-.
- Allow locking sleeve to slide onto stop -arrow 2-.

Cable adjustment is now complete.



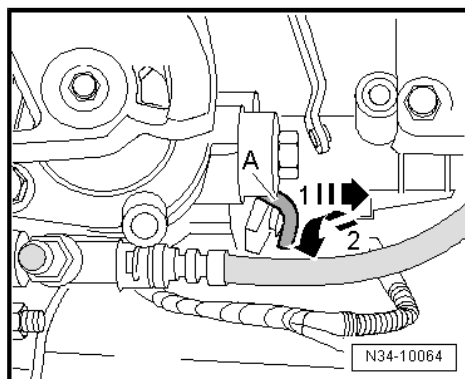
- Turn angled rod -A- back to initial position in direction of -arrow 2- and pull out of gearbox in direction of -arrow 1-.
- Pull locking pin - T10027 A- out of selector mechanism.

Checking gear lever setting

- With the gearbox in neutral, the gear lever should rest in the 3rd/4th gear gate.
- Press clutch pedal.
- Select all gears several times. Pay particular attention to the operation of the reverse gear locking mechanism.
- The gear lever should return by itself from the reverse gear gate to the 3rd/4th gear gate.

If the gear lever sticks or baulks repeatedly when engaging a gear, perform the adjustment procedure again.

- Fit gear lever boot.
- Install air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .





2 Removing and installing gearbox

⇒ [“2.1 Removing gearbox - vehicles with 1.8 ltr. and 2.0 ltr. FSI turbocharged engine”, page 87](#)

⇒ [“2.2 Installing gearbox - vehicles with 1.8 ltr. and 2.0 ltr. FSI turbocharged engine”, page 101](#)

⇒ [“2.3 Removing gearbox - vehicles with 2.0 ltr. TDI engine \(unit injector\)”, page 108](#)

⇒ [“2.4 Installing gearbox - vehicles with 2.0 ltr. TDI engine \(unit injector\)”, page 120](#)

⇒ [“2.5 Removing gearbox - vehicles with 2.0 ltr. TDI engine \(common rail\)”, page 126](#)

⇒ [“2.6 Installing gearbox - vehicles with 2.0 ltr. TDI engine \(common rail\)”, page 141](#)

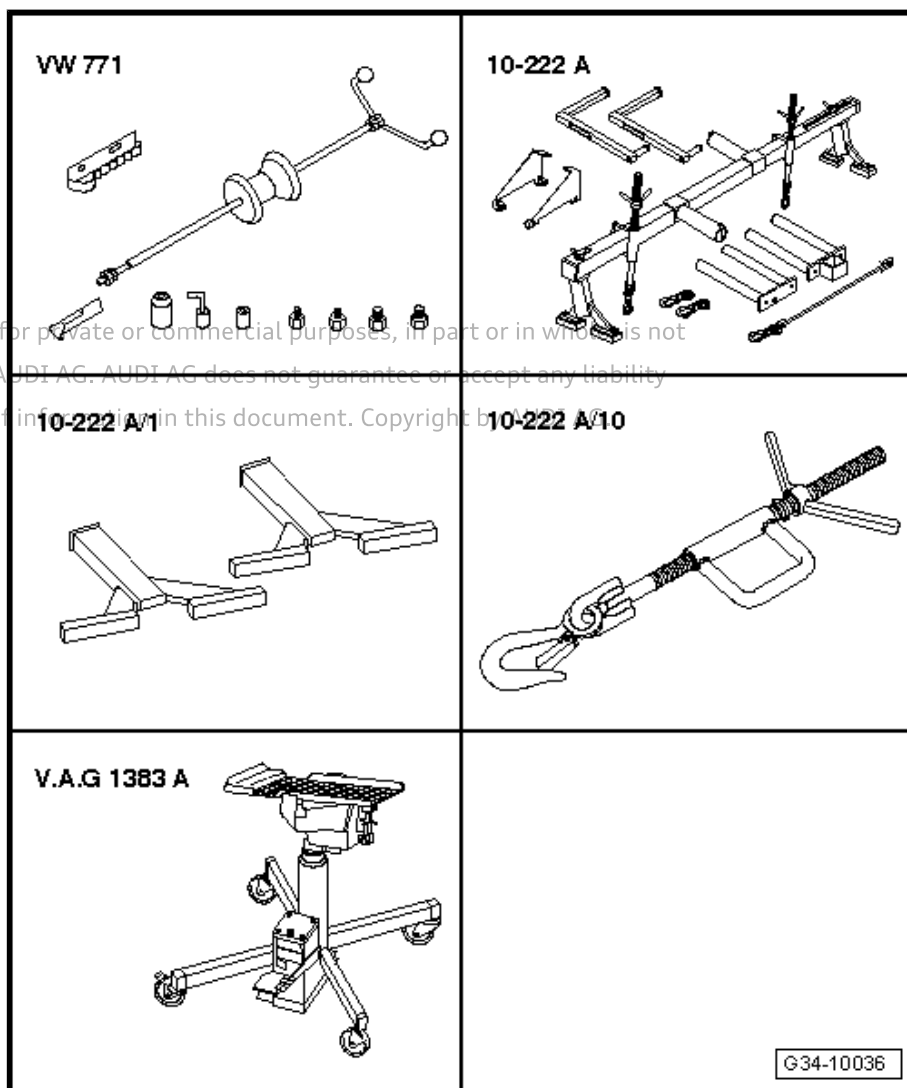
⇒ [“2.7 Transporting gearbox”, page 147](#)

2.1 Removing gearbox - vehicles with 1.8 ltr. and 2.0 ltr. FSI turbocharged engine

Special tools and workshop equipment required



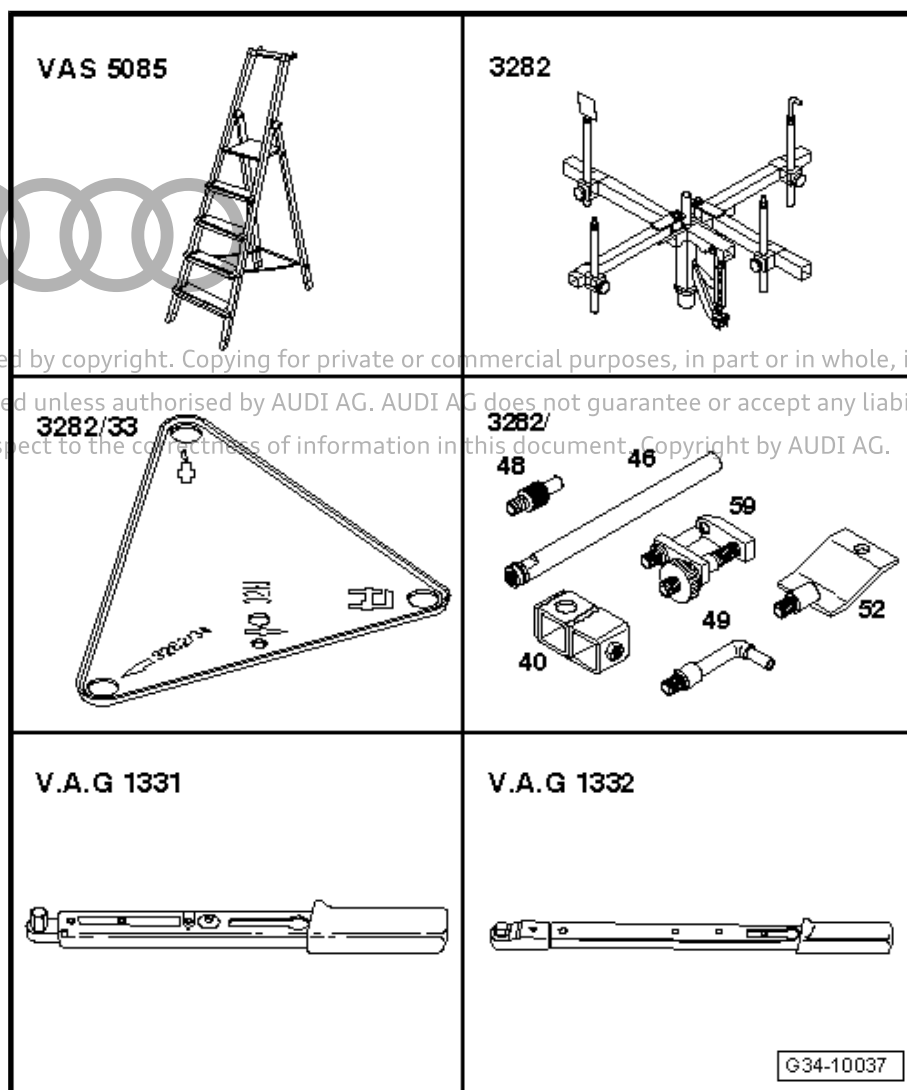
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



◆ Adapter - VW 771/40-



- ◆ Support bracket - 10-222A-
- ◆ Rack - 10 - 222 A /1-
- ◆ Hook - 10 - 222 A /10-
- ◆ Engine and gearbox jack - V.A.G 1383 A-

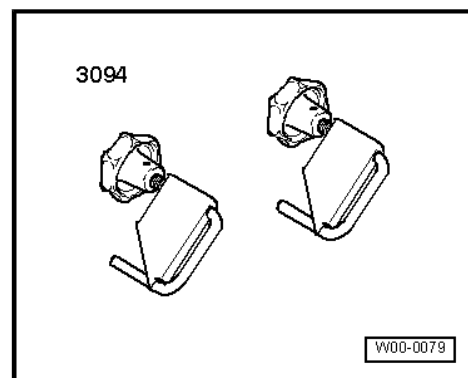


- ◆ Stepladder - VAS 5085-
- ◆ Gearbox support - 3282-
- ◆ Adjustment plate - 3282/33-
- ◆ Pin - 3282/29-
- ◆ Support - 3282/52-
- ◆ Safety support - 3282/59-
- ◆ Torque wrench - V.A.G 1331-
- ◆ Torque wrench - V.A.G 1332-

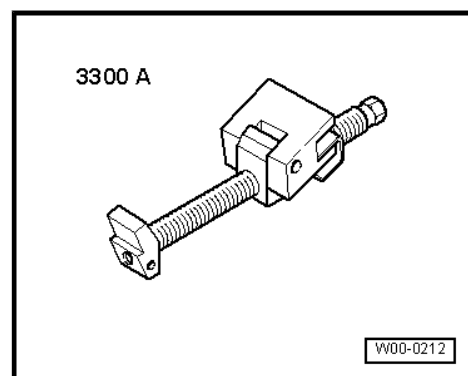
Special tools and workshop equipment required



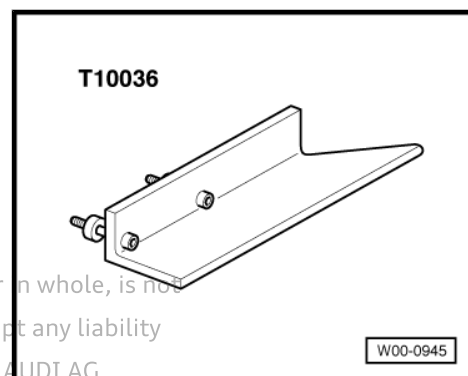
- ◆ Hose clamps up to Ø 25 mm - 3094-



- ◆ Engine support - 3300 A-



- ◆ Support - T10036-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- ◆ Bolt M6×20 (2x)
- ◆ Bolt M10×20
- ◆ Grease - G 000 450 02-
- ◆ Grease for clutch plate splines - G 000 100-

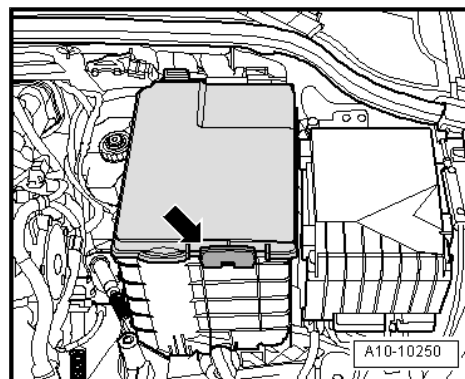


Caution

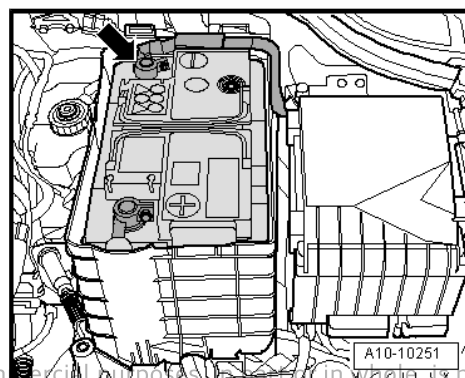
Follow steps required when disconnecting battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Disconnecting and connecting battery .



- Release battery cover -arrow- and detach.



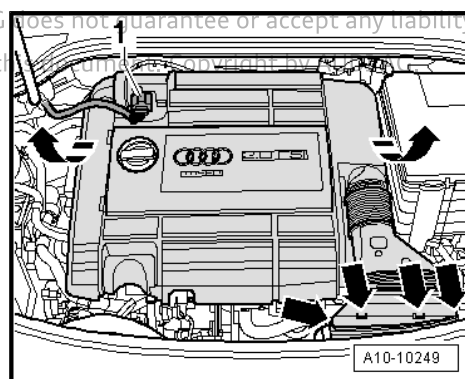
- With ignition switched off, disconnect battery earth strap -arrow-.



Protected by copyright. Copying for private or commercial use without the written permission of Audi AG is prohibited. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document.

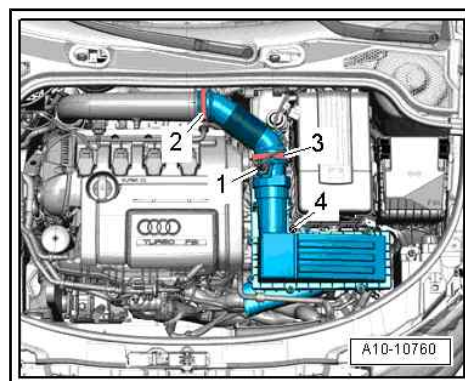
Vehicles with air filter element in engine cover panel

- Remove engine cover panel with air duct -arrows- ⇒ Rep. gr. 24 .



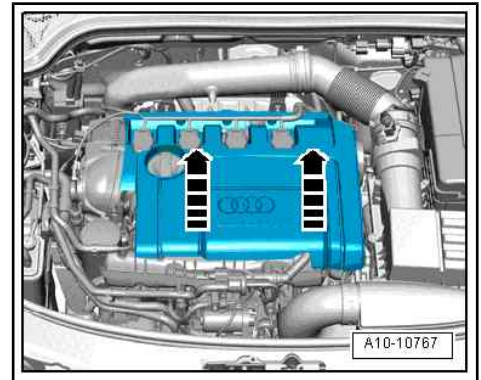
Vehicles with air cleaner housing in front of battery

- Remove complete air cleaner housing ⇒ Rep. gr. 24 .



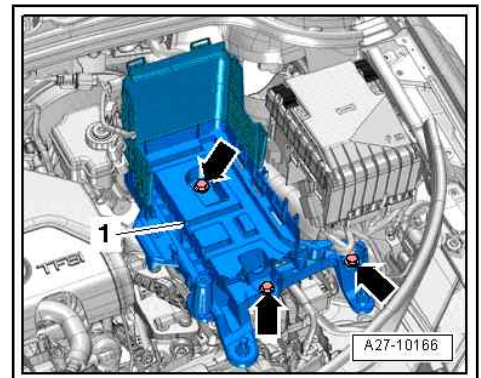


- Remove engine cover panel -arrows-.



All vehicles (continued)

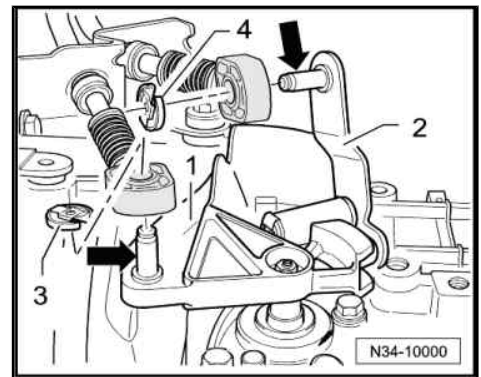
- Remove battery ⇒ Electrical system; Rep. gr. 27 .
- Remove bolts -arrows- and detach battery tray -1-.



- Detach securing clip -3- for gear selector cable from gearbox selector lever -1- and pull cable off pin -arrow-.

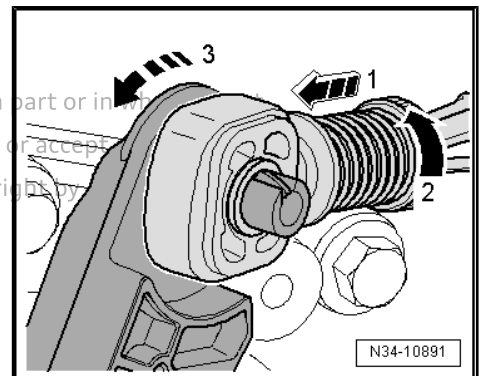
Metal gate relay lever -2-

- Detach securing clip -4- for gate selector cable from gate relay lever -2- and pull cable off pin -arrow-.



Plastic gate relay lever

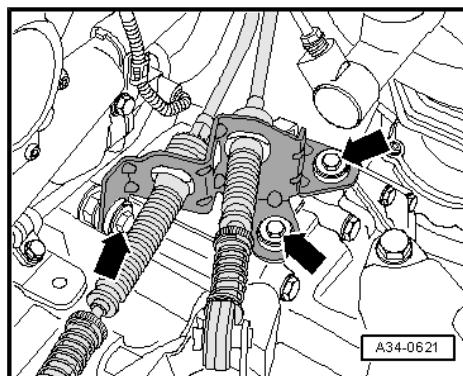
- To prevent damage to gate selector cable, cable end-piece must be detached from gate selector cable before removing relay lever.
- Pull locking mechanism forwards in direction of -arrow 1- onto stop and then turn to left in direction of -arrow 2- to lock.
- Then press gate relay lever forwards (in direction of -arrow 3-).
- Plastic gate relay lever is removed at a later stage together with cable end-piece.





All vehicles (continued)

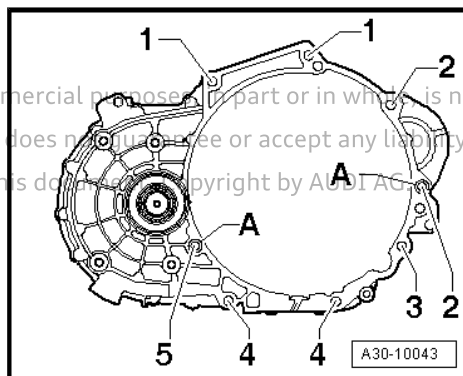
- Detach cable support bracket from gearbox -arrows-; then move to one side and tie up together with selector cables.



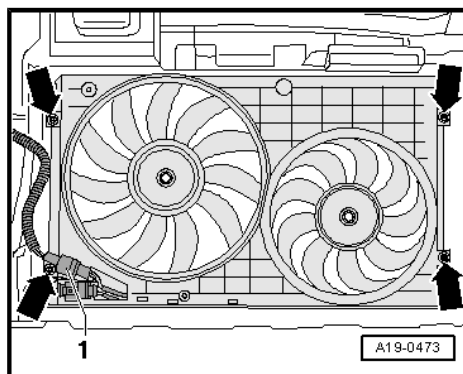
- Remove bolts -1- from engine/gearbox flange.



Protected by copyright. Copying for private or commercial purposes in part or in whole is not permitted unless authorised by AUDI AG. AUDI AG does not assume any liability for the use of the information in this document. Copyright by AUDI AG.



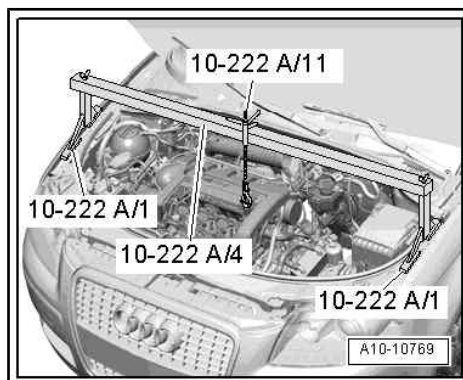
- Remove the two top bolts on radiator cowl -top arrows-.



- If there are hoses and cable connections in area of engine lifting eyes for support bracket - 10-222A- , remove these now.

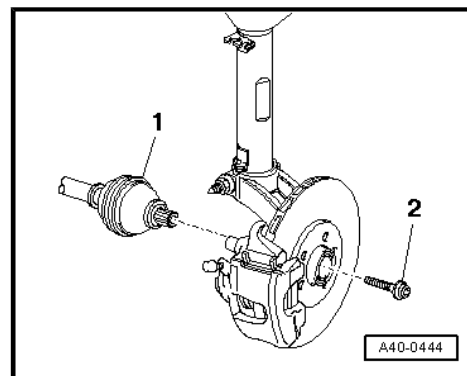
Fit support bracket - 10-222A- together with racks - 10 - 222 A / 1- and hook - 10 - 222 A /11- onto wing mounting flanges.

- Partly take up weight of engine with spindle, but do not lift.



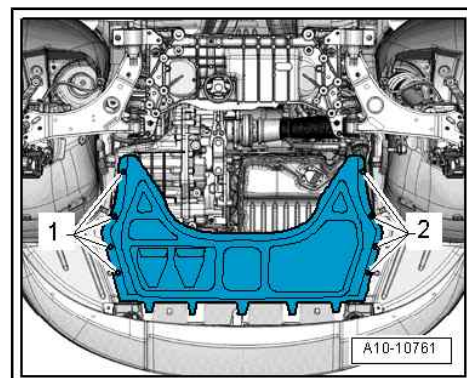


- With vehicle still standing on its wheels, slacken off front left flange bolt -2- 90° (maximum). Do not slacken further, as this would damage the wheel bearing.
- Raise vehicle.



Audi A3

- Release fasteners -1 and 2- and remove noise insulation (centre).



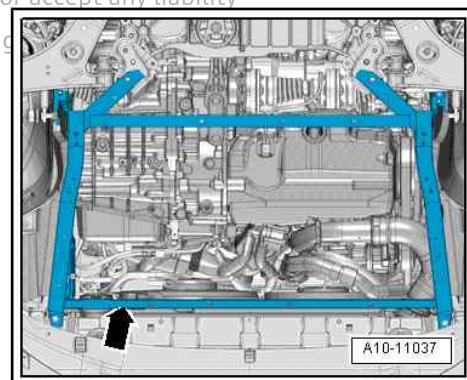
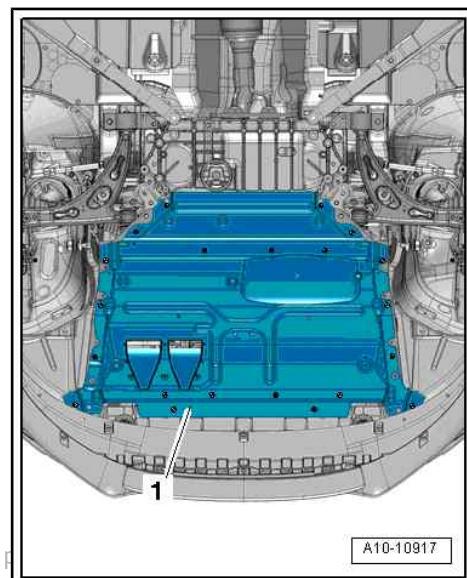
Audi A3 Cabriolet

- Remove noise insulation (centre) -1- ➔ Rep. gr. 50 .



Protected by copyright. Copying for private or commercial purposes, in part or in full, is prohibited without the written permission of Audi AG. Audi AG does not guarantee or accept any liability for the correctness of the information in this document. Copyright © 2019 Audi AG

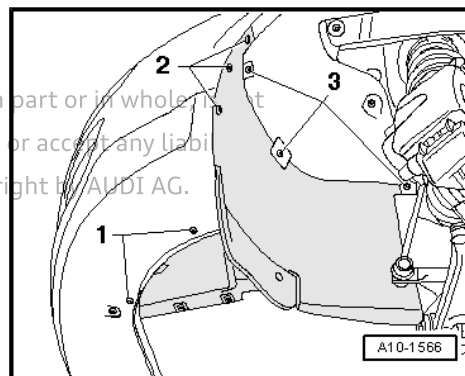
- Remove frame for noise insulation -arrow- ➔ Rep. gr. 50 .
- All vehicles (continued)**



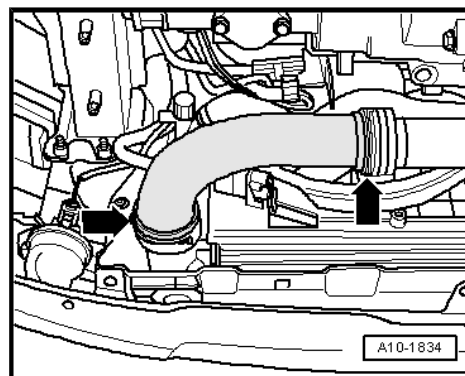


- Remove wheel housing liner (front left) -fasteners 1 ... 3-.

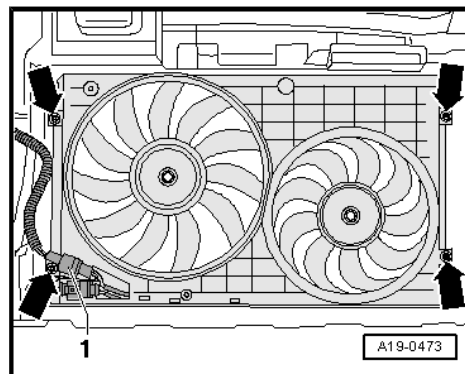
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



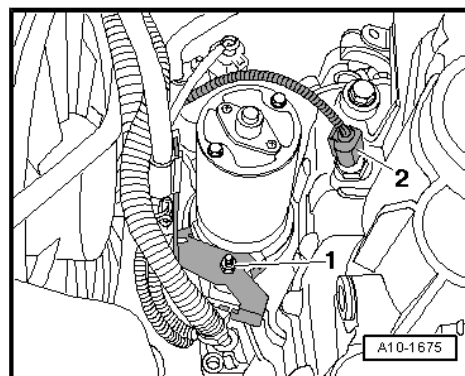
- Lift retaining clips -arrows- slightly and remove air hose.



- Unplug electrical connector -1-.
- Remove remaining bolts -bottom arrows- and take out radiator cowl from below.

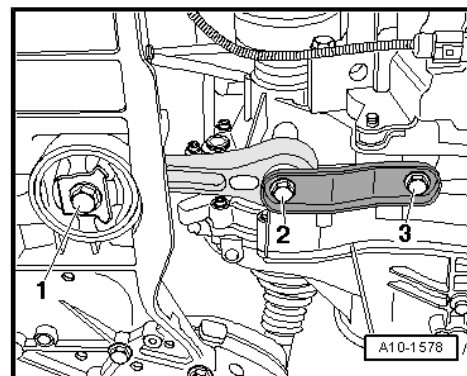


- Unplug electrical connector -2- for reversing light switch - F4- .
- Remove nut -1- and detach bracket from stud together with electrical wiring.
- Move bracket and wiring clear to the side.
- Unscrew bottom bolt securing starter -1-.

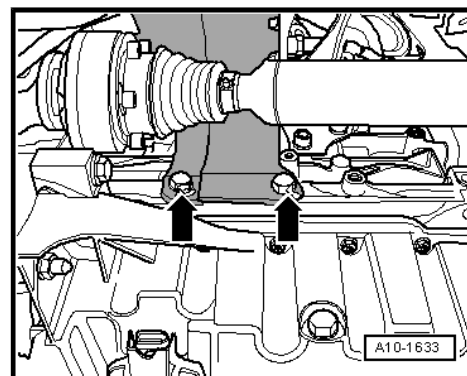




- Remove bolts -1 ... 3- and detach pendulum support.



- Unbolt heat shield for drive shaft (right-side) -arrows-.

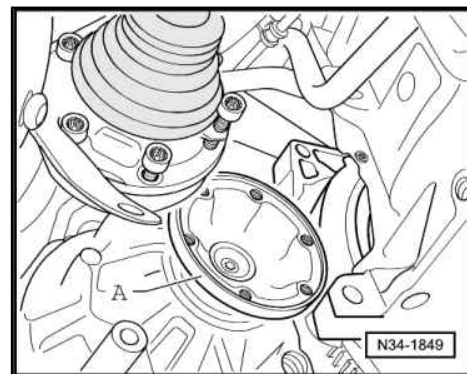


- Unbolt drive shafts (left and right) from gearbox flange shafts -A-.

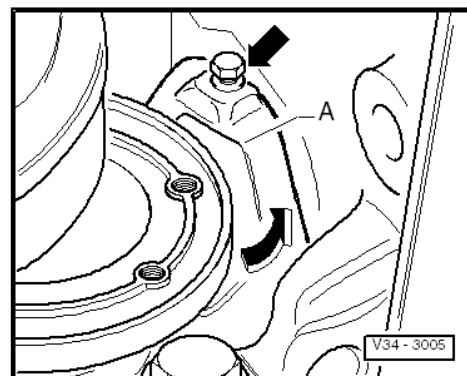


Note

Take care not to damage the surface coating of the drive shaft.



- If fitted, remove small flywheel cover plate -A- -arrows-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

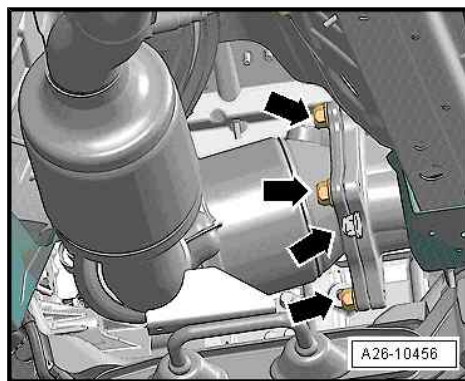


- Remove nuts -arrows-.
- Detach catalytic converter from turbocharger and secure catalytic converter to prevent it from falling to the ground.



Note

To avoid damage, the flexible joints in the front exhaust pipe must not be bent more than 10°.

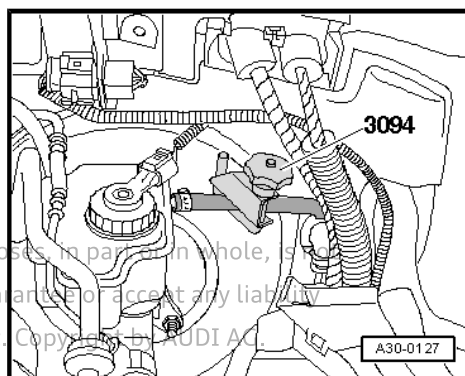


- Using hose clamp - 3094- , clamp off supply hose to master cylinder.



Note

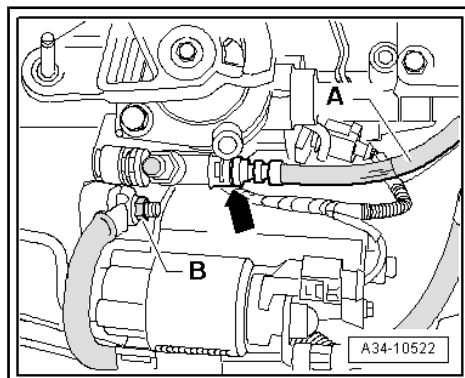
- ♦ *Clamping off the plastic supply hose with the hose clamp - 3094- will cause a permanent deformation.*
- ♦ *However, this does not damage the supply hose.*
- ♦ *After removing the hose clamp - 3094- , the supply hose must be returned to its original shape.*



Note

Make sure brake fluid does not come into contact with starter or gearbox when performing the following operations. If it does, clean affected area thoroughly.

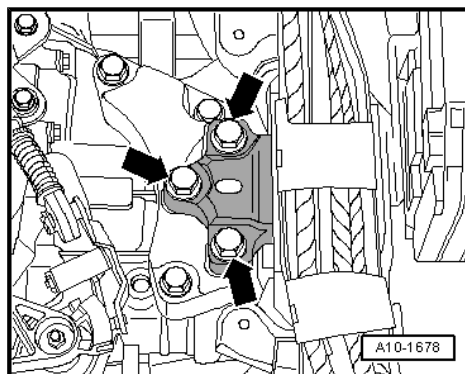
- Pull out clip -arrow- as far as stop.
- Pull pipe/hose assembly -A- out of bleeder connection for slave cylinder and seal end of pipe.



Caution

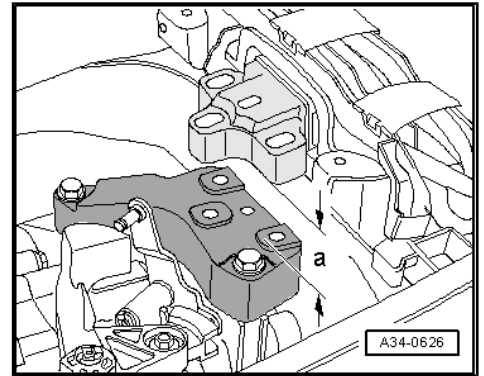
Do not operate clutch pedal after disconnecting pipe/hose assembly.

- Detach earth wire -B- from starter bolt (top).
- Then remove upper securing bolt from starter -B-.
- Place starter to side onto longitudinal member.
- Remove bolts on gearbox mounting -arrows-.



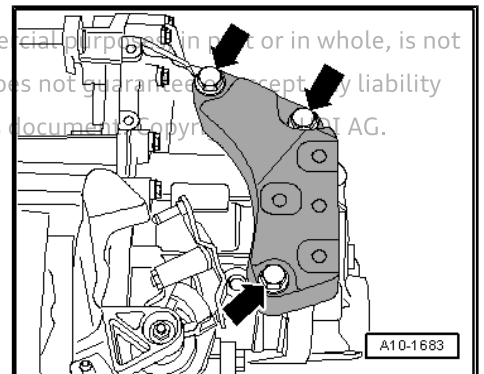


- By adjusting spindles on support bracket - 10 - 222 A- , lower gearbox by distance -a-.
- Dimension -a- = 60 mm



- Unbolt gearbox bracket from gearbox -arrows-.

Protected by copyright. Copying for private or commercial purposes in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee, except by liability with respect to the correctness of information in this document. Copyright © AUDI AG.

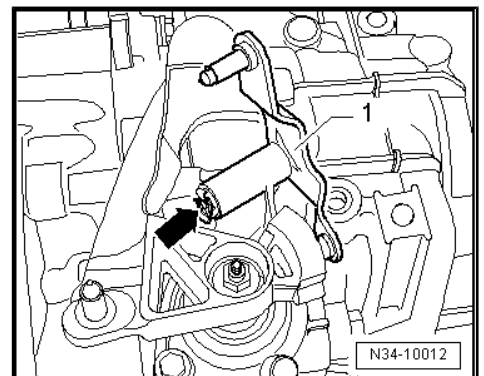


Metal gate relay lever -1-

- Pull off securing clip -arrow- and remove gate relay lever -1-.

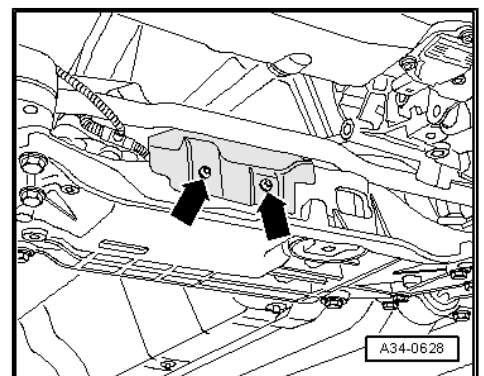
Plastic gate relay lever -1-:

- Removing gate relay lever (with detent catch) ⇒ [page 76](#)
- Remove gate relay lever (with clip) ⇒ [page 77](#) .



All vehicles (continued)

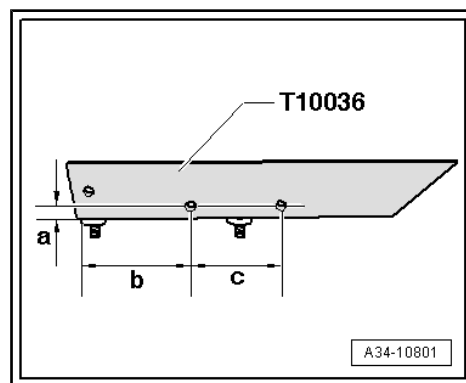
- If fitted, unbolt heat shield for power steering control unit - J500- from subframe -arrows-.



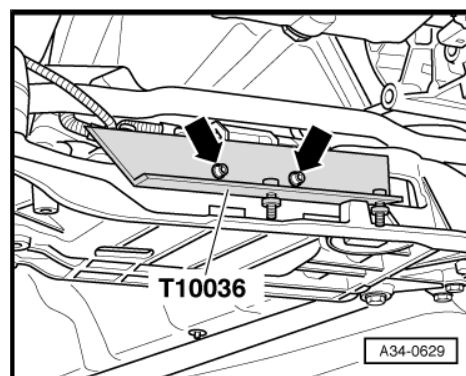


– Drill two 7 mm diameter holes in support - T10036- , as illustrated (if holes have not already been drilled).

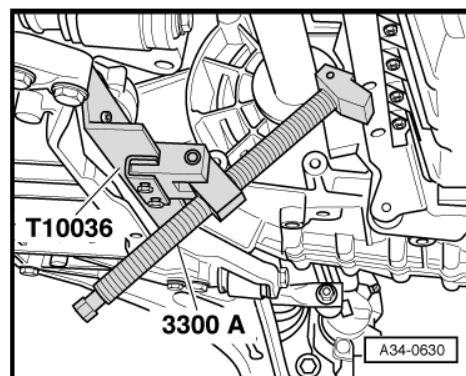
- Dimension -a- = 11 mm
- Dimension -b- = 98 mm
- Dimension -c- = 70 mm



– Bolt support - T10036- onto subframe -arrows- using two M6×20 bolts.

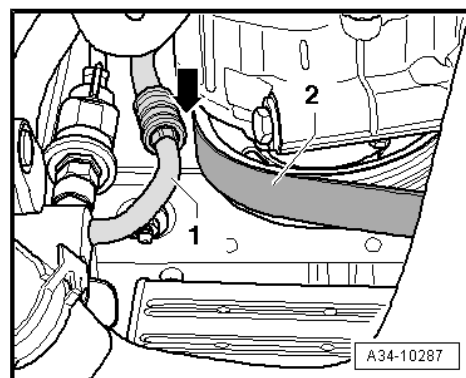


– Bolt engine support - 3300 A- onto support - T10036- .



– Press engine towards front of vehicle using spindle of engine support - 3300 A- . Pay special attention to the following points:

- The air conditioner compressor -2- must not contact refrigerant line -1- -arrow-.
- Alternator must not make contact with refrigerant line.
- Pressure pipe must not make contact with radiator.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

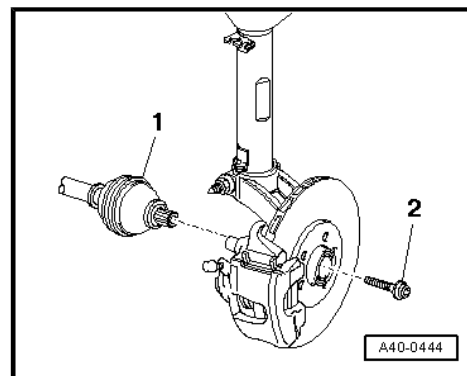


- Remove flange bolt -2- and detach drive shaft (left-side) -1-.



Note

The wheel bearing must not be subjected to load after the bolt -2- securing the drive shaft has been slackened.



- Remove engine/gearbox connecting bolts (bottom) -4-.

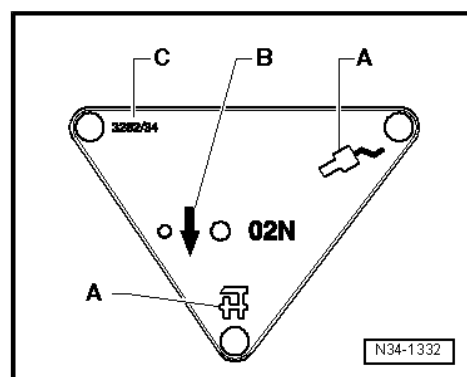
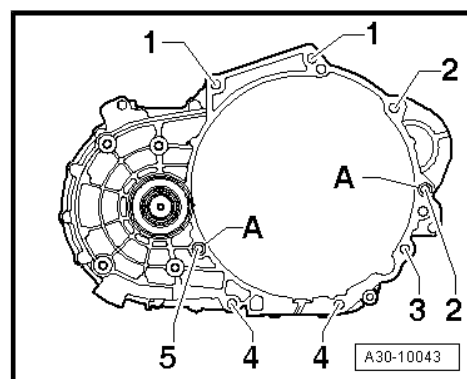


Note

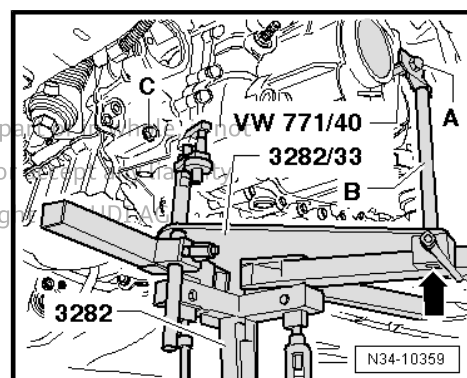
Loosen engine/gearbox connecting bolt -3- and leave screwed in (hand-tight).

To remove gearbox 02Q, set up gearbox support - 3282- with adjustment plate - 3282/33- .

- Fit gearbox support - 3282- into engine/gearbox jack - V.A.G 1383A- .
- Align arms of gearbox support according to holes in adjustment plate .
- Bolt on support elements -A-, as illustrated on adjustment plate .
- Screw in pin - 3282/29- in place of support element -C-.
- Place engine/gearbox jack under vehicle; arrow symbol -B- on adjustment plate points to front of vehicle.
- Align adjustment plate and gearbox parallel to one another.

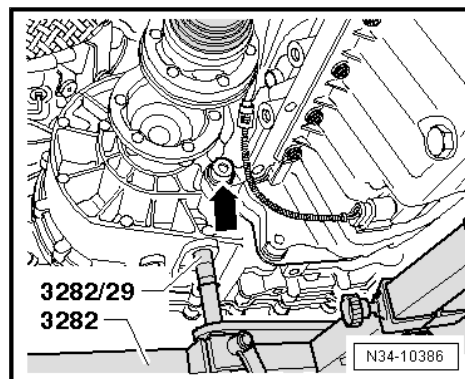


- Secure adapter - VW 771/40- in tapped hole of gearbox housing, as shown in illustration.
- Screw pin - 3282/29- into hole for bolt securing pendulum support to gearbox.
- Secure gearbox to gearbox support - 3282- with bolt M10x20 -A-.
- Make sure pin -B- is flush at bottom with guide of gearbox support - 3282- -arrow-.
- Remove engine/gearbox connecting bolt -C-.



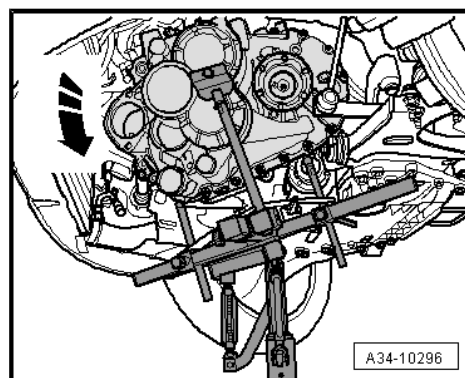


- Remove last engine/gearbox connecting bolt -arrow-.
- Press gearbox off engine (dowel sleeves).



- Tilt gearbox to the front by turning spindle of gearbox support - 3282- in direction of -arrow-.
- Then tilt gearbox to the left by turning spindle of gearbox support - 3282- .
- Guide gearbox past suspension bracket for wishbone, then push gearbox forwards slightly and lower out carefully.

Install gearbox ➔ [page 101](#) .



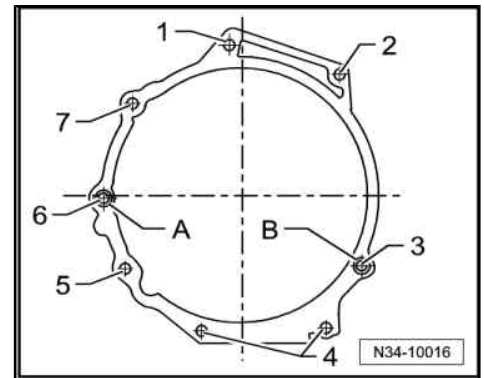
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



2.2 Installing gearbox - vehicles with 1.8 ltr. and 2.0 ltr. FSI turbocharged engine

Tightening torques for engine/gearbox joint

Item	Bolt	Nm
1 ... 2	M12×55 ◆ With stud M8	80
3	M12×70 ◆ Installed from engine side	80
4	M10×50	40
5	M10×105	40
6 ... 7	M12×165 ◆ With stud M8 ◆ Also secures starter to gear-box	80
A, B	Dowel sleeves for centralising	
Renew bolts -1 ... 5-.		



Other tightening torques

Component	Nm
Small cover plate for flywheel	10
Heat shield for drive shaft (right-side) to cylinder block	25
Selector cable support bracket to gearbox	20
Earth wire to top starter bolt	23
Bracket for electrical wiring at bottom starter bolt	23

Installing gearbox

Installation is carried out in the reverse order; note the following:

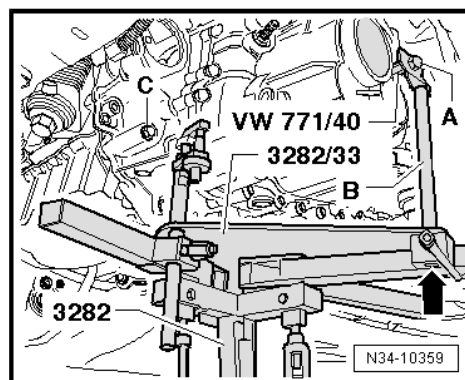
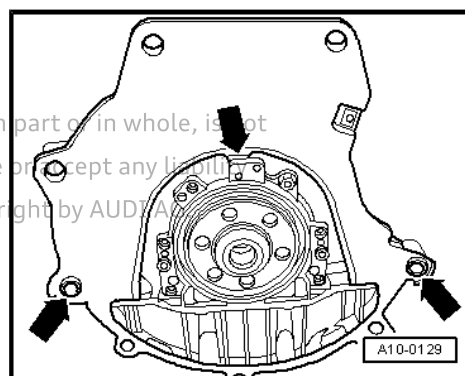


Note

- ◆ *Renew self-locking nuts and bolts when performing assembly work.*
- ◆ *Renew oil seals, gaskets, O-rings and bolts which are tightened by turning through a specified angle.*
- ◆ *Secure all hose connections with the correct hose clips (as original equipment); refer to ⇒ *Electronic parts catalogue* .*
- ◆ *All cable ties which are released or cut open when removing must be refitted in the same position when installing.*
- ◆ *Clean input shaft splines and (in the case of a used clutch plate) the hub splines. Remove corrosion and apply only a very thin coating of grease - G 000 100- to the splines. Then move clutch plate backwards and forwards on input shaft until hub moves freely on shaft. It is important to remove excess grease.*
- ◆ *When renewing the gearbox, the gearbox selector lever must be transferred to the new assembly.*
- ◆ *Use thread tap to remove any remaining locking fluid from all threaded holes which will accommodate self-locking bolts.*
- ◆ *Check that dowel sleeves for centralising engine/gearbox are in the cylinder block; install if necessary.*
- ◆ *If the dowel sleeves are not fitted, this will lead to gear-change problems, clutch malfunction and in some cases gearbox noise (gears will make rattling noises).*

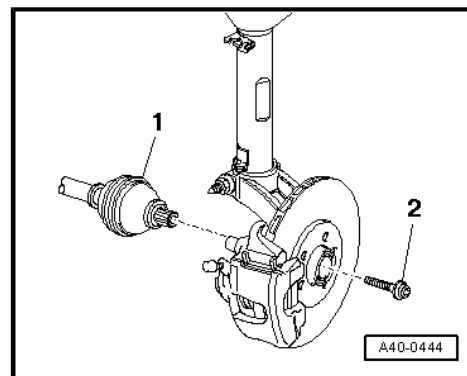
- Make sure that the intermediate plate is engaged on the sealing flange and fitted on the dowel sleeves -arrows-.
- Check release bearing for wear. If necessary, renew slave cylinder with release bearing ⇒ [page 43](#)
- Check that clutch plate is centralised ⇒ [page 55](#)

- Raise gearbox carefully and move to installation position using gearbox support - 3282- .
- Align gearbox with engine and install.
- Secure gearbox and starter to engine and tighten bolts to specified torque ⇒ [page 101](#) .

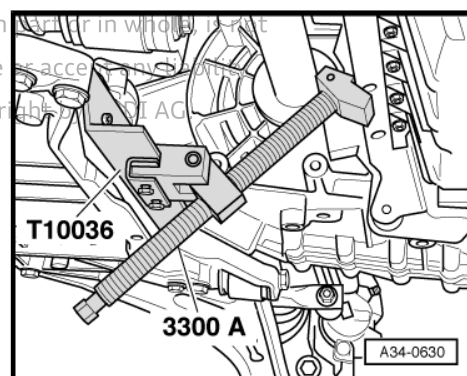




- Install drive shaft (left-side) -1-.



- Remove engine support -3300 A- and support -T10036- purposes, in order to prevent damage to the engine and its accessories, in particular the water pump. This work is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee the accuracy of the information in this document. Copyright © 2019 AUDI AG



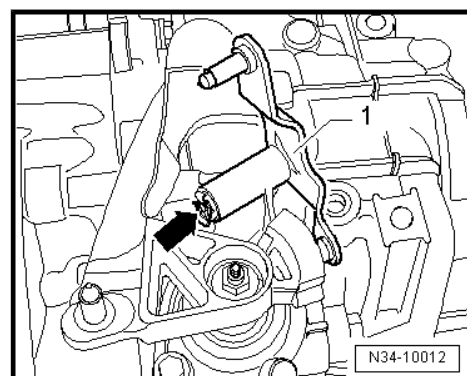
- Lubricate bearings and moving surfaces of gate relay lever -1- with grease - G 000 450 02- .

Metal gate relay lever:

- Insert gate relay lever -1- and secure with securing clip -arrow-.

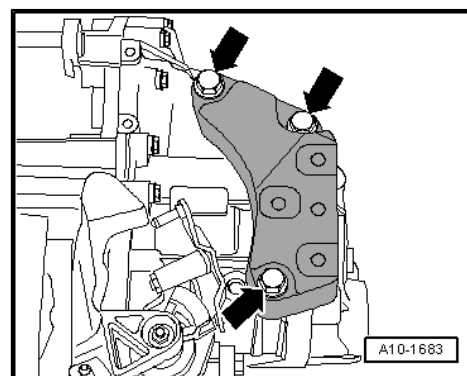
Plastic gate relay lever -1-:

- Fit gate relay lever (with detent catch) ⇒ [page 76](#) .
- Fit gate relay lever (with clip) ⇒ [page 77](#) .



All vehicles (continued):

- Attach gearbox bracket to gearbox with new hexagon bolts -arrows- and tighten to specified torque. Tightening torque ⇒ [page 150](#)





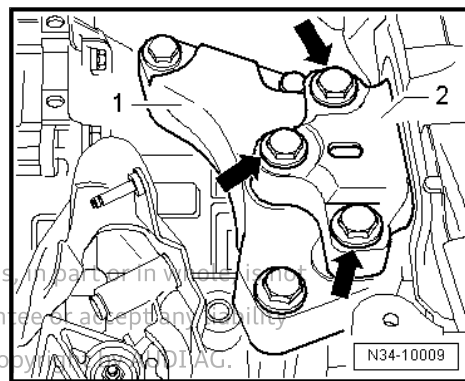
- Align engine/gearbox in installation position. To do so, raise engine/gearbox until gearbox bracket -1- makes full contact with gearbox mounting (left-side) -2-.



Note

Gearbox mounting and gearbox bracket must be parallel to avoid causing damage to thread of gearbox bracket.

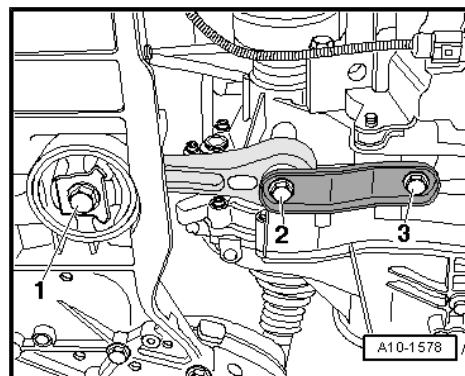
- Secure gearbox bracket -1- to gearbox mounting (left-side) -2- with new hexagon bolts -arrows-. Tightening torque ➔ [page 150](#)



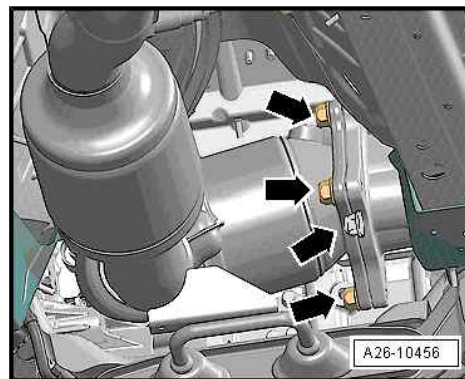
WARNING

Do not remove support bracket - 10 - 222 A- until all bolts securing the left-hand engine/gearbox mounting have been tightened to the specified torque.

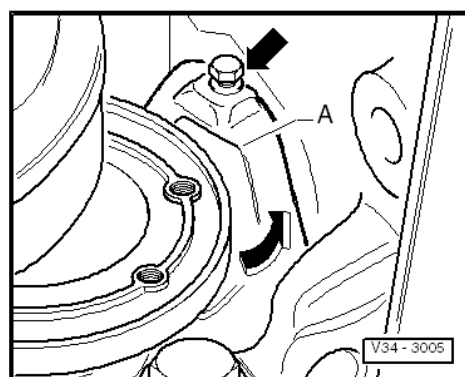
- Fit pendulum support with new bolts -1 ... 3- in accordance with installation instructions ➔ [page 156](#) . Tightening torques ➔ [page 150](#)
- Check mountings of engine/gearbox assembly for correct adjustment, and re-adjust if necessary ➔ Engine, mechanics; Rep. gr. 10 .



- Secure catalytic converter to turbocharger -arrows- ➔ Engine, mechanics; Rep. gr. 26 .

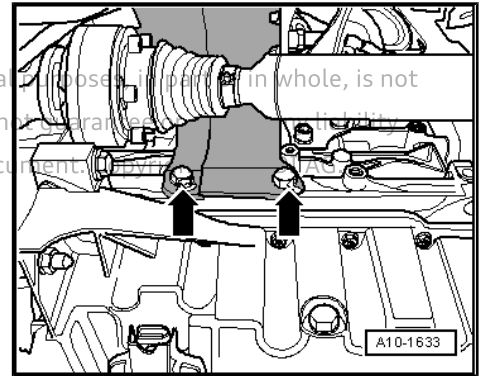


- If fitted, install small flywheel cover plate -A-.

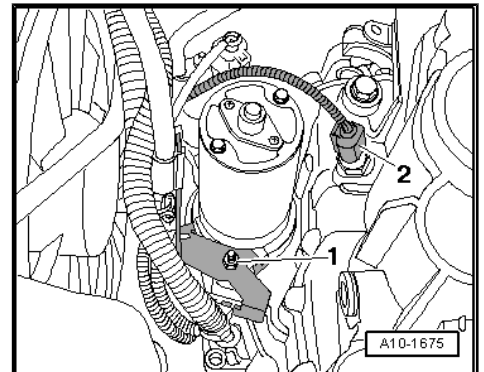




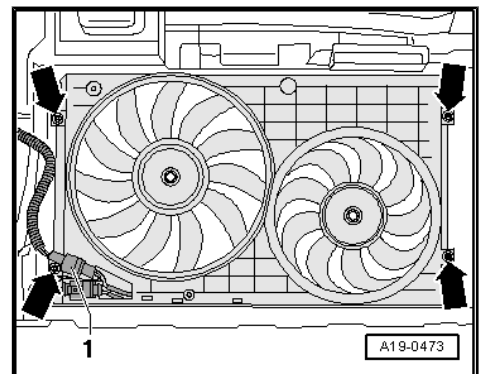
- Secure left and right drive shaft to gearbox ⇒ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 ; Removing and installing drive shafts
- Secure heat shield for drive shaft (right-side) -arrows-



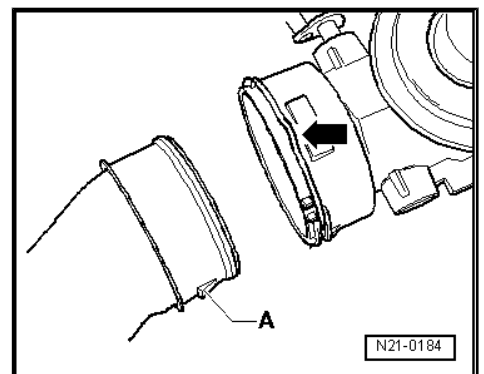
- Attach bracket -1-.
- Plug connector -2- onto reversing light switch - F4- .



- Install radiator cowl -arrows- and attach electrical connector -1-.

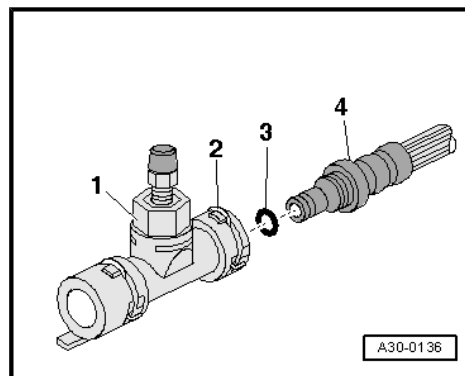


- Install air intake hose. Make sure retaining clip -arrow- snaps onto retaining lug -A-.

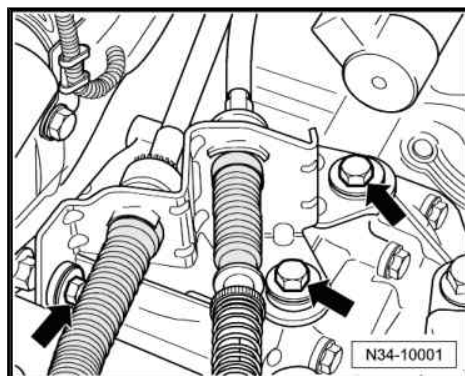




- Push pipe/hose assembly -4- into bleeder connection -1- so that retaining clip -2- snaps into place.
- Pull on pipe/hose assembly to check it is secure.
- Bleed clutch system ⇒ [page 41](#) .



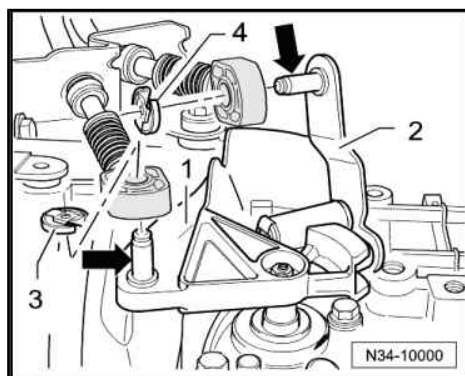
- Install cable support bracket on gearbox -arrows-.



- Apply a small quantity of grease - G 000 450 02- to pin -arrow- of gearbox selector lever -1-.
- Push gear selector cable onto pin -arrow- and secure with securing clip -3-.

Metal gate relay lever -2-

- Apply a small quantity of grease - G 000 450 02- to pin -arrow- of gate relay lever -2-.
- Push gate selector cable onto pin -arrow- and secure with securing clip -4-.

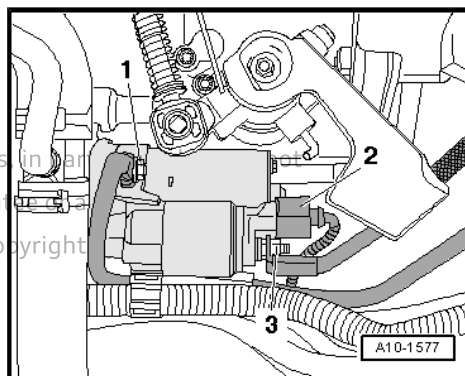


Plastic gate relay lever -2-

- Insert gate selector cable in cable end-piece.

All vehicles (continued)

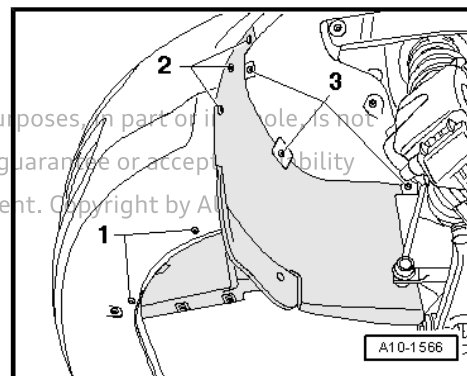
- Adjust selector mechanism ⇒ [page 84](#) .
- Fit earth wire -1-.
- Install battery tray and battery ⇒ Electrical system; Rep. gr. 27 .
- Install engine cover panel.
- Install complete air cleaner housing ⇒ Rep. gr. 24 .





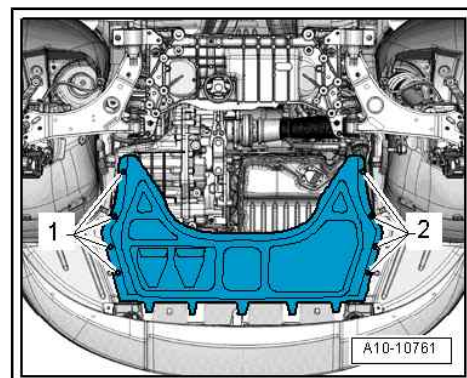
- Install wheel housing liner (front left) -fasteners 1 ... 3-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept liability with respect to the correctness of information in this document. Copyright by Audi AG



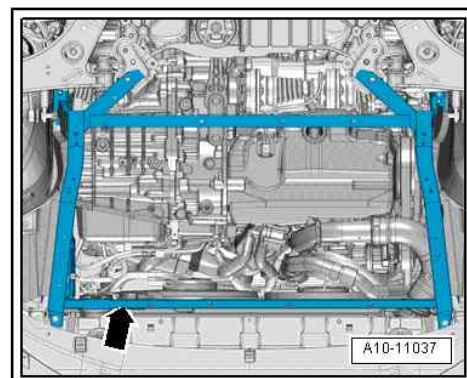
Audi A3

- Install noise insulation (centre) -fasteners 1 and 2-.

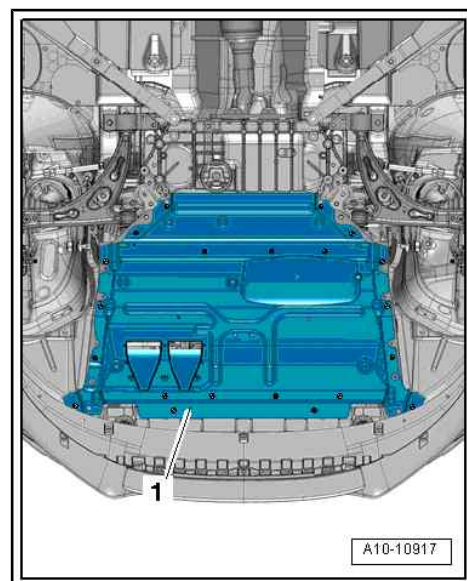


Audi A3 Cabriolet

- Install noise insulation frame -arrow- ⇒ Rep. gr. 50 .



- Install noise insulation (centre) -1- ⇒ Rep. gr. 50 .





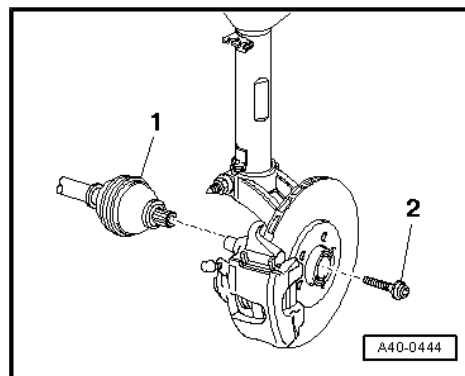
All vehicles (continued)

Secure drive shaft (left-side) with new bolt -2- ➔ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 ; Removing and installing drive shafts .



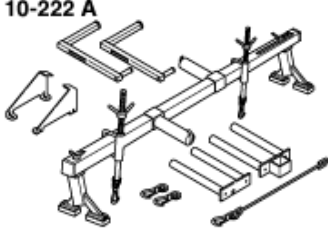
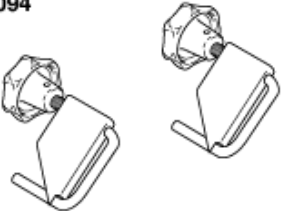
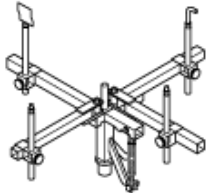
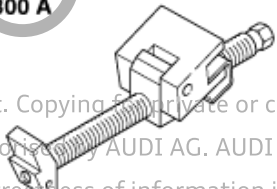
Note

Wheels must not be in contact with ground when tightening drive shaft as otherwise wheel bearing could be damaged.



2.3 Removing gearbox - vehicles with 2.0 ltr. TDI engine (unit injector)

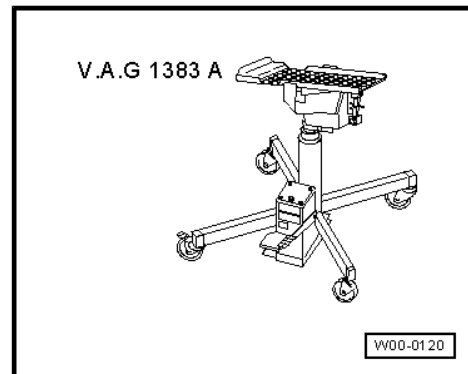
Special tools and workshop equipment required

 10-222 A	 3094
 3282	 3282/1...
 3300 A	 V.A.G 1306 G34-0030

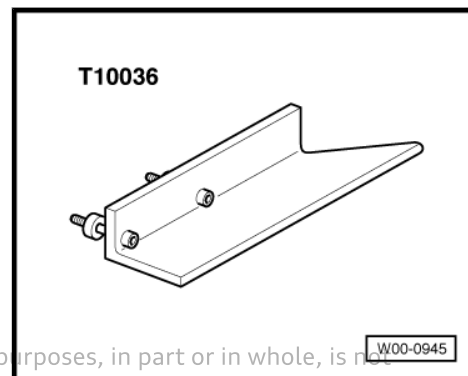
- ◆ Support bracket - 10 - 222 A-
- ◆ Rack - 10 - 222 A /1-
- ◆ Adapters - 10 - 222 A /3-
- ◆ Hook - 10 - 222 A /10-
- ◆ Hose clamps up to Ø 25 mm - 3094-



- ◆ Gearbox support - 3282-
- ◆ Adjustment plate - 3282/27-
- ◆ Engine support - 3300 A-
- ◆ Drip tray - V.A.G 1306-



- ◆ Engine and gearbox jack - V.A.G 1383 A-
- ◆ Support - T10036-
- ◆ Bolt M6×20 (2x)
- ◆ Bolt M8×25
- ◆ Grease - G 000 450 02-
- ◆ Grease for clutch plate splines - G 000 100-

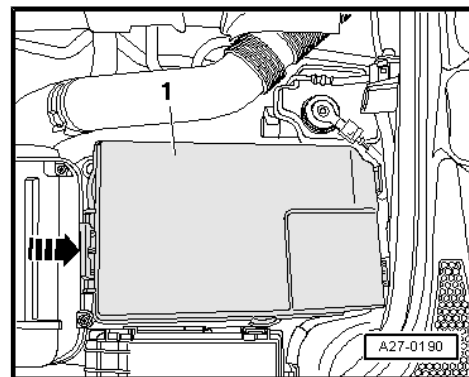


Caution

Follow steps required when disconnecting battery ➔ Electrical system; Rep. gr. 27 ; Battery; Disconnecting and connecting battery .

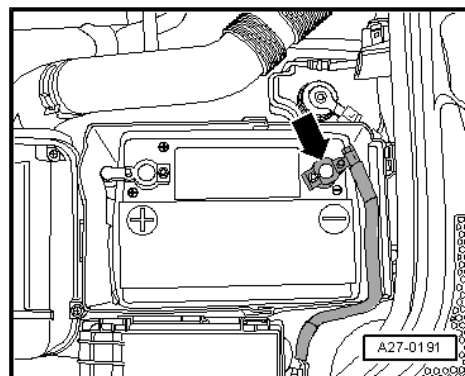
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Press release tab -arrow- and remove cover -1- over battery.



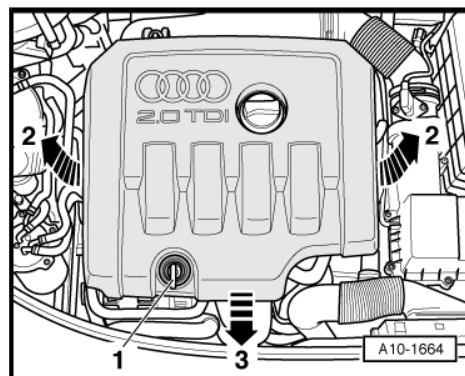


- With ignition switched off, disconnect earth wire -arrow- at battery.



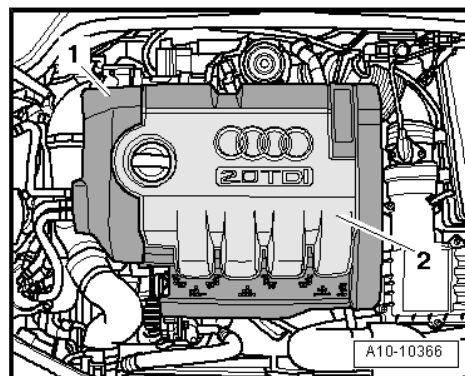
Vehicles with one-piece engine cover panel

- Pull oil dipstick -1- out of guide tube.
- Lift engine cover panel at the sides -arrows 2- and pull out from the front -arrow 3-.
- Insert dipstick back into guide tube.



Vehicles with two-piece engine cover panel

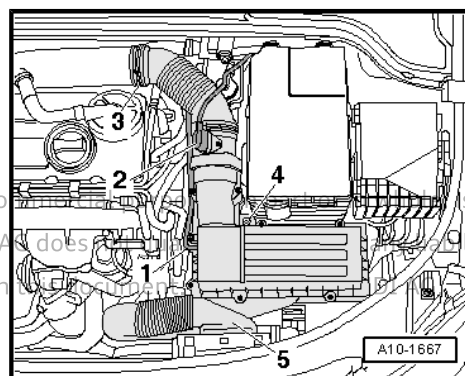
Evenly lift off engine cover panel (outer section -1- and inner section -2-).



All vehicles (continued)

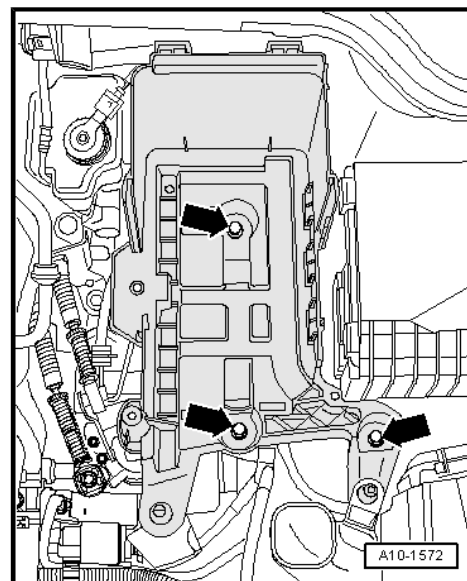
- Unplug electrical connector -2- at air mass meter - G70- .
- Disconnect vent hose -1- and air hoses -3- and -5-.
- Remove bolt -4- and detach air cleaner housing.

Protected by copyright. Copying for private or commercial use is not permitted unless authorised by AUDI AG. AUDI AG does not accept any liability with respect to the correctness of information in this manual.





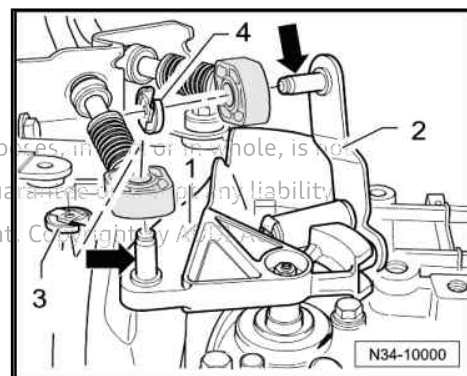
- Remove battery ⇒ Electrical system; Rep. gr. 27 .
- Remove battery tray -arrows-.



- Detach securing clip -3- for gear selector cable from gearbox selector lever -1- and pull cable off pin -arrow-.

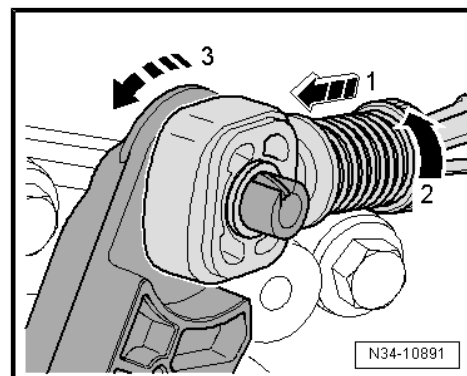
Metal gate relay lever -2-

- Detach securing clip -4- for gate selector cable from gate relay lever -2- and pull cable off pin -arrow-.



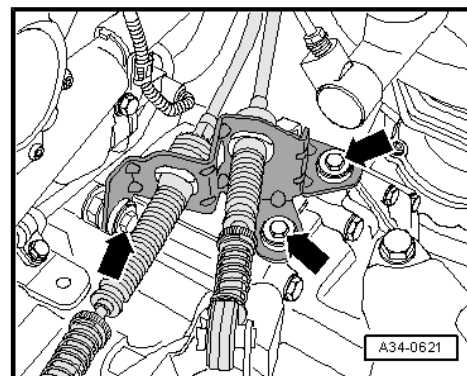
Plastic gate relay lever

- To prevent damage to gate selector cable, cable end-piece must be detached from gate selector cable before removing relay lever.
- Pull locking mechanism forwards in direction of -arrow 1- onto stop and then turn to left in direction of -arrow 2- to lock.
- Then press gate relay lever forwards (in direction of -arrow 3-).
- Plastic gate relay lever is removed at a later stage together with cable end-piece.



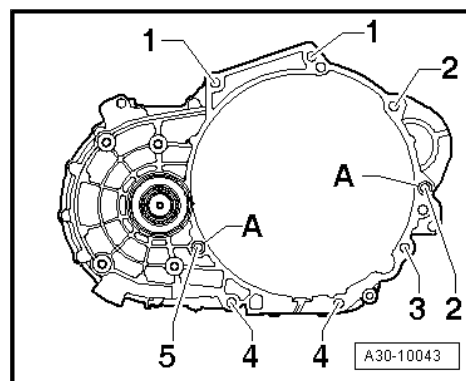
All vehicles (continued)

- Detach cable support bracket from gearbox -arrows-; then move to one side and tie up together with selector cables.

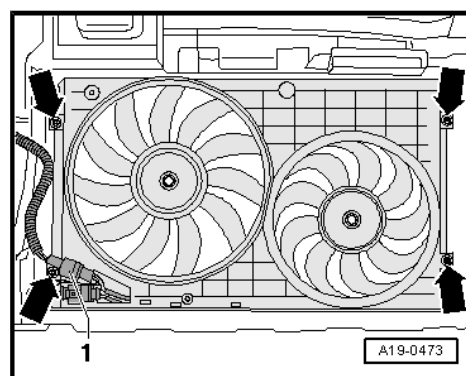




- Remove bolts -1- from engine/gearbox flange.



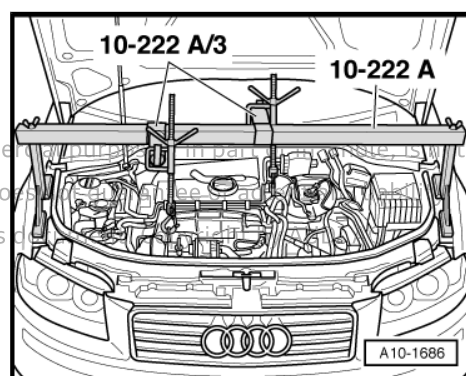
- Remove the two top bolts on radiator cowl -top arrows-.



- Set up support bracket - 10 - 222 A- with adapters - 10 - 222 A /3- on wing mounting flanges.

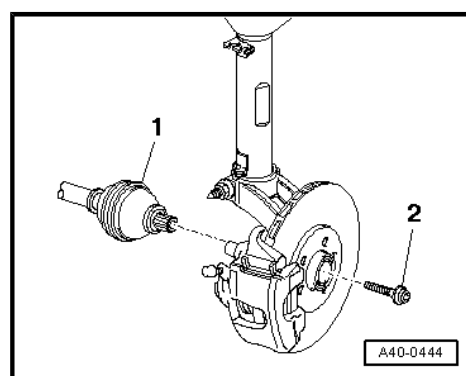
- Engage hooks of spindles on lifting eyes.

- Take up weight of engine evenly with both spindles; do not lift



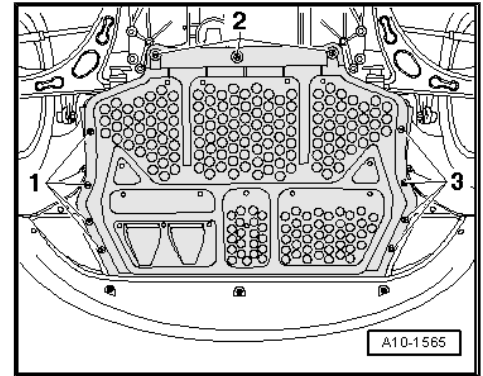
- With vehicle still standing on its wheels, slacken off front left flange bolt -2- 90° (maximum). Do not slacken further, as this would damage the wheel bearing.

- Raise vehicle.

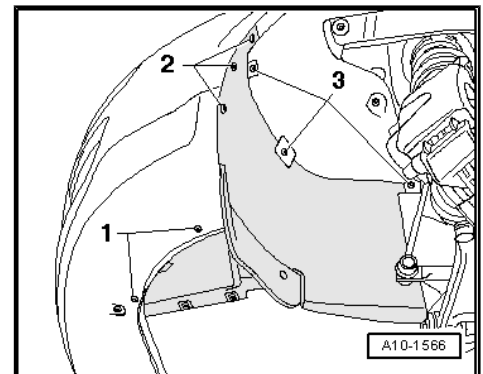




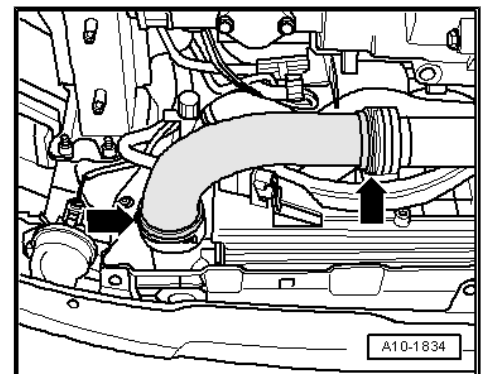
- Remove noise insulation (centre) -bolts 1 ... 3-.



- Remove wheel housing liner (front left) -fasteners 1 ... 3-.

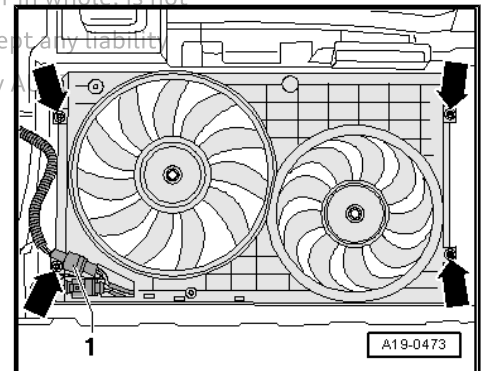


- Lift retaining clips -arrows- slightly and remove air hose.



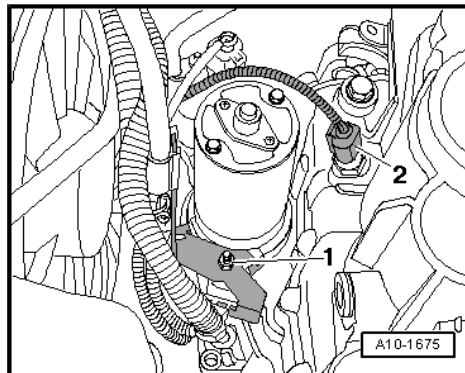
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by Audi AG

- Unplug electrical connector -1-.
- Remove remaining bolts -bottom arrows- and take out radiator cowl from below.





- Unplug electrical connector -2- for reversing light switch - F4- .
- Unscrew nut -1- and detach bracket from stud together with electrical wiring.
- Move bracket and wiring clear to the side.
- Unscrew bottom bolt securing starter -1-.

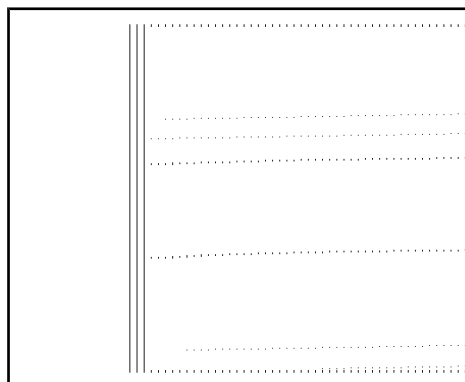


- Disconnect exhaust system at clamp -arrows-.

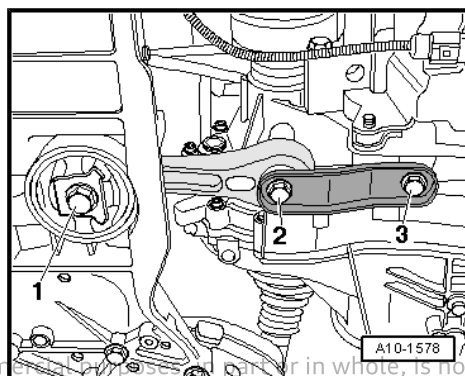


Note

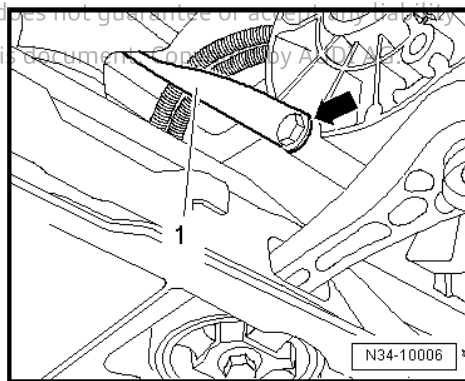
To avoid damage, the flexible joints in the front exhaust pipe must not be bent more than 10°.



- Remove bolts -1 ... 3- and detach pendulum support.

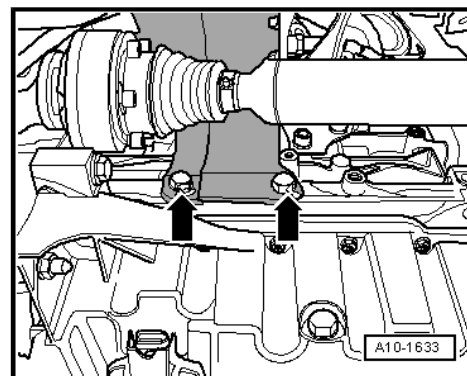


- If fitted, detach support -1- for exhaust system from gearbox -arrow-.





- If fitted, detach heat shield for drive shaft (right-side) -arrows-.

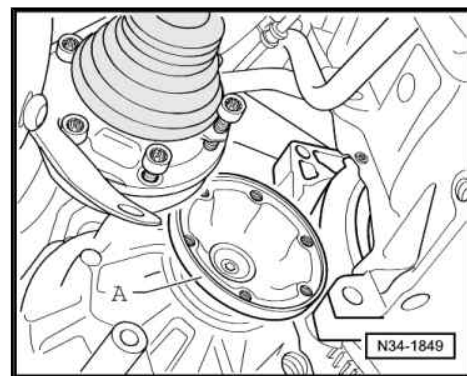


- If fitted, unbolt drive shaft (right-side) from flange shaft -A-.

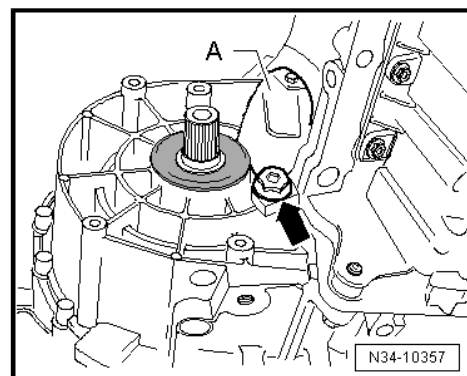


Note

- ◆ *Do not remove intermediate shaft if an intermediate shaft is fitted instead of drive shaft (right-side).*
- ◆ *Take care not to damage the surface coating of the drive shaft.*
- Unbolt drive shaft (left-side) from gearbox flange shaft.



- Unscrew bolt -arrow-.
- Remove small cover plate -A-.

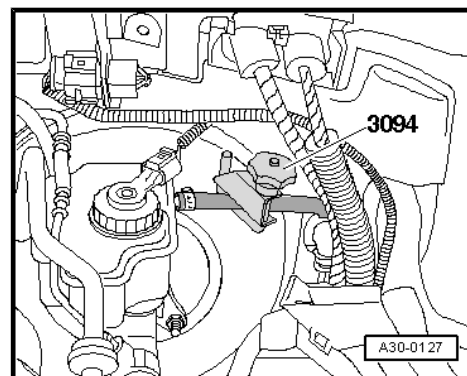


- Using hose clamp - 3094- , clamp off supply hose to master cylinder.



Note

- ◆ *Clamping off the plastic supply hose with the hose clamp - 3094- will cause a permanent deformation.*
- ◆ *However, this does not damage the supply hose.*
- ◆ *After removing the hose clamp - 3094- , the supply hose must be returned to its original shape.*



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Note

Make sure brake fluid does not come into contact with starter or gearbox when performing the following operations. If it does, clean affected area thoroughly.

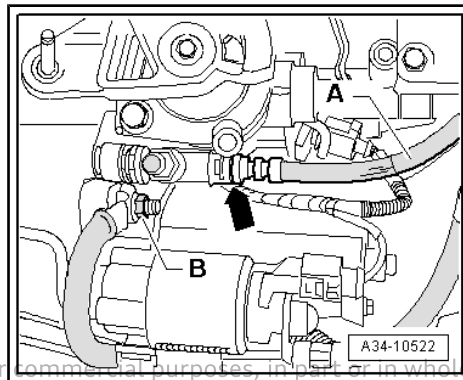
- Pull out clip -arrow- as far as stop.
- Pull pipe/hose assembly -A- out of bleeder connection for slave cylinder and seal end of pipe.



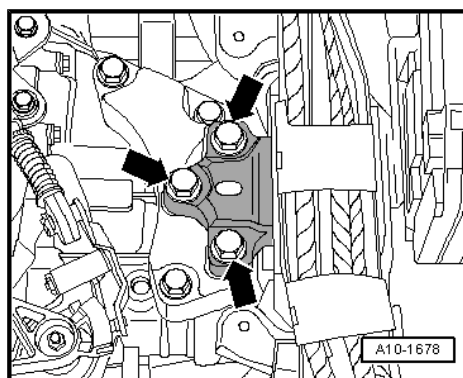
Caution

Do not operate clutch pedal after disconnecting pipe/hose assembly.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



- Detach earth wire -B- from starter bolt (top).
- Then remove upper securing bolt from starter -B-.
- Place starter to side onto longitudinal member.
- Remove bolts on gearbox mounting -arrows-.



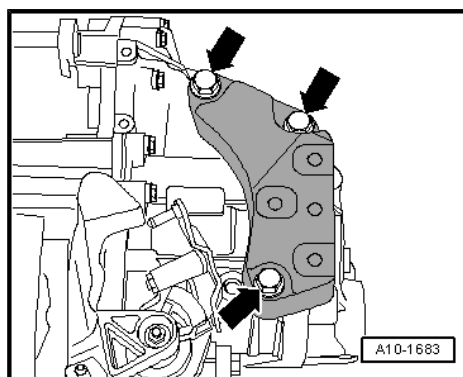
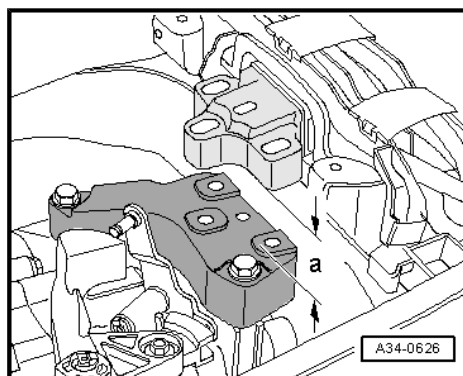
- By adjusting spindles on support bracket - 10 - 222 A - , lower gearbox by distance -a-.
- Dimension -a- = 60 mm



Note

- ◆ *When lowering the gearbox make sure that all hose and pipe connections are not under tension.*
- ◆ *Pay attention to coolant hose between engine and heat exchanger, do not overstretch.*

- Unbolt gearbox bracket from gearbox -arrows-.





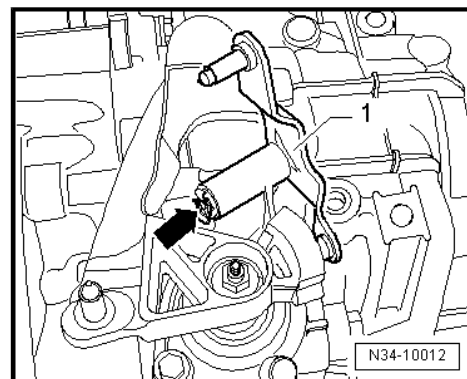
Metal gate relay lever -1-

- Pull off securing clip -arrow- and remove gate relay lever -1-.

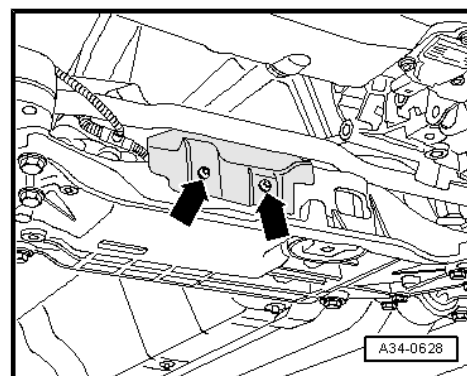
Plastic gate relay lever -1-:

- Removing gate relay lever (with detent catch) ➔ [page 76](#)
- Remove gate relay lever (with clip) ➔ [page 77](#) .

All vehicles (continued)



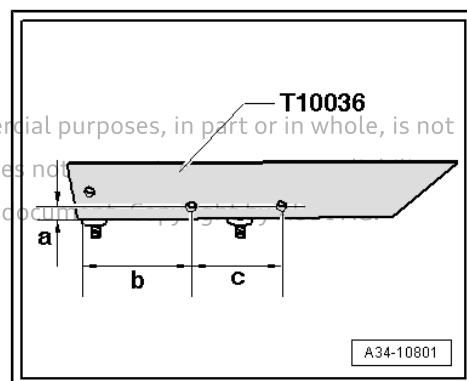
- If fitted, unbolt heat shield for power steering control unit - J500- from subframe -arrows-.



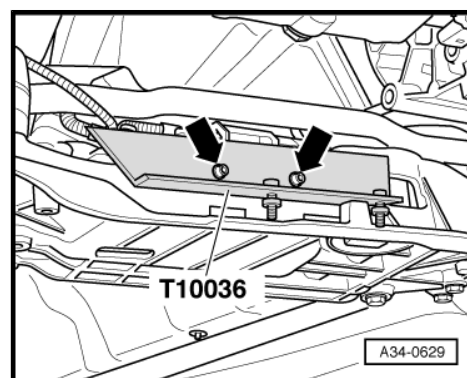
- Drill two 7 mm diameter holes in support - T10036- , as illustrated (if holes have not already been drilled).

- Dimension -a- = 11 mm
- Dimension -b- = 98 mm
- Dimension -c- = 70 mm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not accept any liability with respect to the correctness of information in this document.



- Bolt support - T10036- onto subframe -arrows- using two M6×20 bolts.

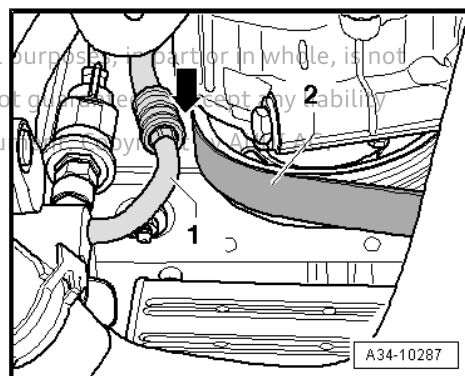
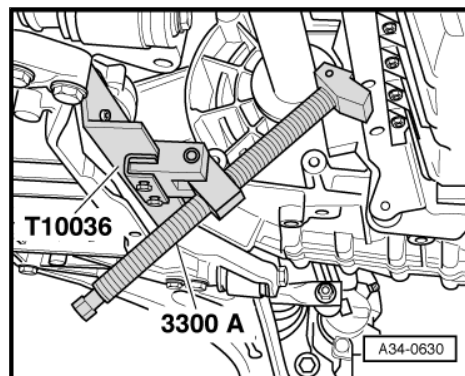




- Bolt engine support - 3300 A- onto support - T10036- .



- Press engine towards front of vehicle using spindle of engine support - 3300 A- . Pay special attention to the following points:
- The air conditioner compressor -2- must not contact refrigerant line -1- -arrow-.
- Alternator must not make contact with refrigerant line.
- Pressure pipe must not make contact with radiator.
- The end of the front exhaust pipe must not make contact with the underbody.

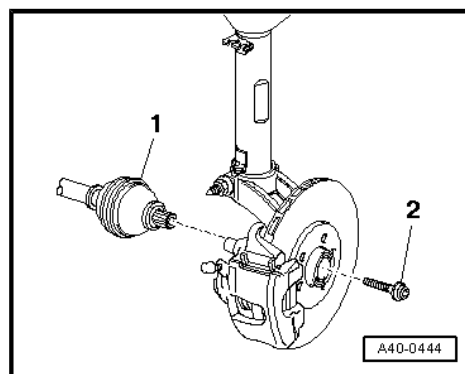


- Remove flange bolt -2- and detach drive shaft (left-side) -1-.



Note

The wheel bearing must not be subjected to load after the bolt -2- securing the drive shaft has been slackened.

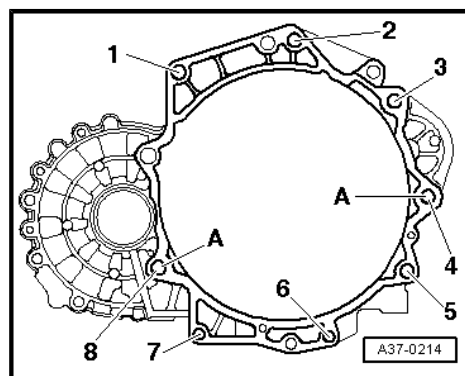


- Remove bolts -6- and -7- from engine/gearbox flange.



Note

Slacken bolt -item 5- and leave it in position only finger-tight.





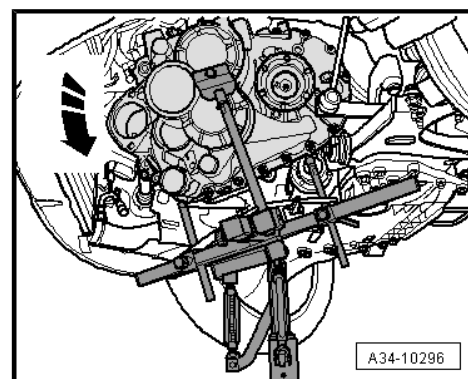
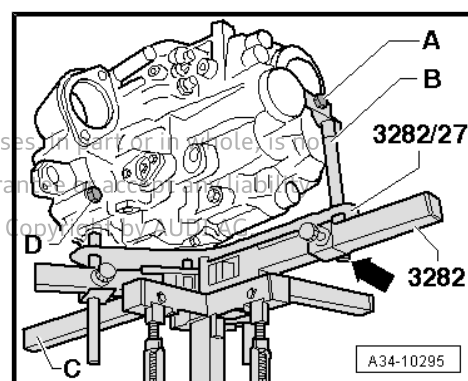
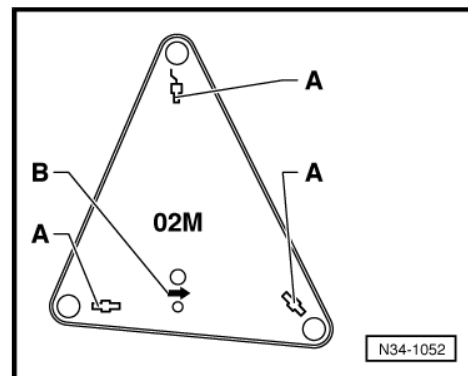
- Set up gearbox support - 3282- on engine and gearbox jack - V.A.G 1383 A- .
- Place adjustment plate - 3282/27- on gearbox support - 3282- . The adjustment plate can only be fitted in one position.
- Align arms of gearbox support to coincide with holes in adjustment plate.
- Screw in support elements -A- as shown on adjustment plate.
- Run engine/gearbox jack - V.A.G 1383 A- under vehicle; arrow symbol -B- faces in direction of travel.
- Align adjustment plate - 3282/27- parallel with gearbox.
- Secure gearbox support - 3282- -A- to gearbox with bolt M8x25.

Distance between gearbox and gearbox support - 3282- should be as large as possible. Bottom of pin -B- should be flush with guide of gearbox support -arrow-.

- Swivel fourth arm of gearbox support -C- forward as far as possible (arm is not in use).
- Remove the last engine/gearbox securing bolt -D-.
- Press gearbox off engine (dowel sleeves).

- Tilt gearbox to the front by turning spindle of gearbox support - 3282- in direction of -arrow-.
- Then tilt gearbox to the left by turning spindle of gearbox support - 3282- .
- Guide gearbox past suspension bracket for wishbone, then push gearbox forwards slightly and lower out carefully.

Install gearbox ➔ page 120 .

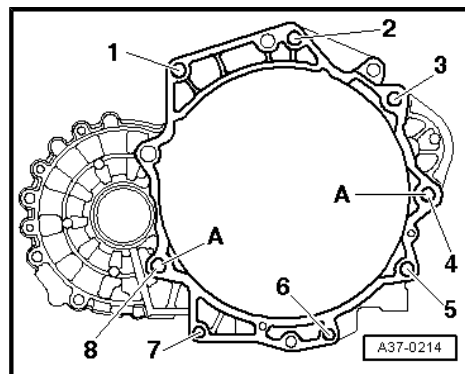




2.4 Installing gearbox - vehicles with 2.0 ltr. TDI engine (unit injector)

Tightening torques for engine/gearbox joint

Item	Bolt	Nm
1 ... 2	M12×55 ◆ With stud M8 ◆ Renew bolt	80
3 ... 4	M12×165 ◆ With stud M8	80
5	M10×105 ◆ Renew bolt	40
6 ... 7	M10×50 ◆ Renew bolt	40
8	M12×70 ◆ Installed from engine side ◆ Renew bolt	80
A	Dowel sleeves for centralising	



Other tightening torques

Component	Nm
Small cover plate for flywheel	10
Catalytic converter bracket to gearbox	40
Heat shield for power steering control unit - J500-	6
Heat shield for drive shaft (right-side) to cylinder block	25
Earth wire to top starter bolt	23
Bracket for electrical wiring at bottom starter bolt	23
Selector cable support bracket to gearbox	20

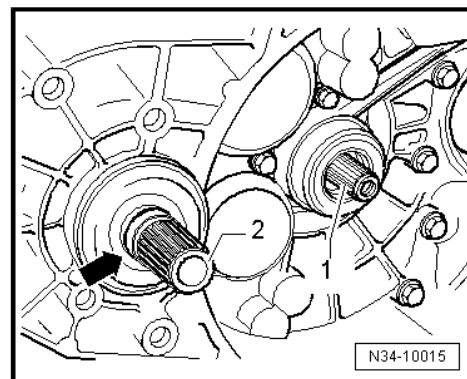
Installing gearbox

Installation is carried out in the reverse order; note the following:



Note

- ◆ *Renew self-locking nuts and bolts when performing assembly work.*
- ◆ *Renew oil seals, gaskets, O-rings and bolts which are tightened by turning through a specified angle.*
- ◆ *Use thread tap to remove any remaining locking fluid from all threaded holes which will accommodate self-locking bolts.*
- ◆ *Secure all hose connections with the correct hose clips (as original equipment); refer to ➔ Electronic parts catalogue .*
- ◆ *All cable ties which are released or cut open when removing must be refitted in the same position when installing.*
- ◆ *When renewing the gearbox, the gearbox selector lever must be transferred to the new assembly.*
- ◆ *Clean input shaft splines -1- and (in the case of a used clutch plate) the hub splines. Remove corrosion and apply only a very thin coating of grease - G 000 100- to the splines. Then move clutch plate backwards and forwards on input shaft until hub moves freely on shaft. It is important to remove excess grease.*



Vehicles with intermediate shaft:

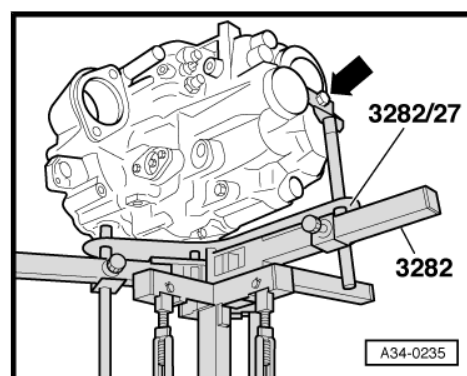
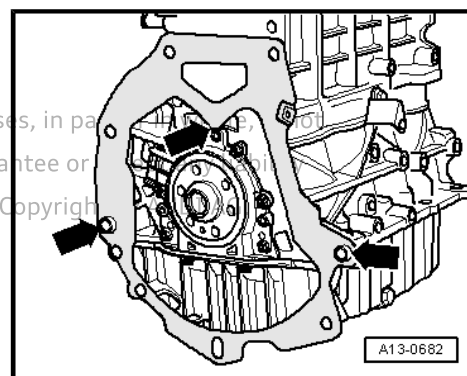
- Renew O-ring -arrow- on stub shaft -2- and apply grease for clutch plate splines - G 000 100- to splines on stub shaft.

All vehicles (continued):

- Check that dowel sleeves -arrows- for centralising engine/ gearbox are in the cylinder block; install if necessary.

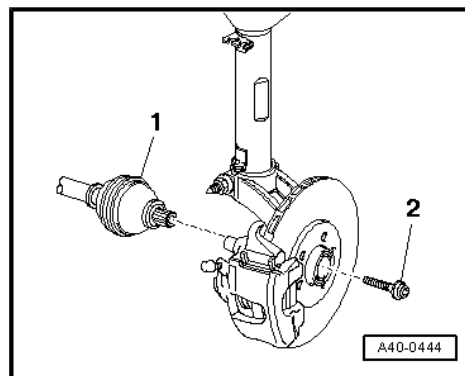
If the dowel sleeves are not fitted, this will lead to gear-change problems, clutch malfunction and in some cases gearbox noise (gears will make rattling noises).

- Make sure that the intermediate plate is engaged on the sealing flange and fitted on the dowel sleeves -arrows-.
- Check that clutch plate is centralised ➔ [page 55](#) .
- Check release bearing for wear. If necessary, renew slave cylinder with release bearing ➔ [page 43](#) .
- Raise gearbox carefully and move to installation position using gearbox support - 3282- .
- Secure gearbox and starter to engine. Tightening torque ➔ [page 120](#)

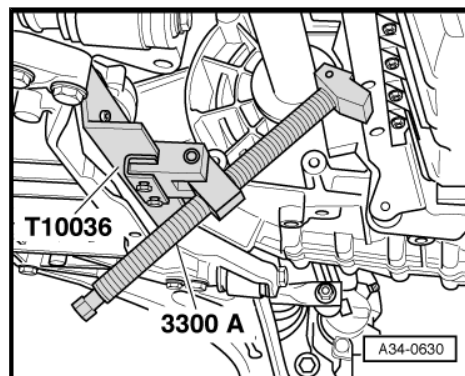




- Install drive shaft (left-side) -1-.



- Remove engine support - 3300 A- and support - T10036- .



- Lubricate bearings and moving surfaces of gate relay lever -1- with grease - G 000 450 02- .

Metal gate relay lever:

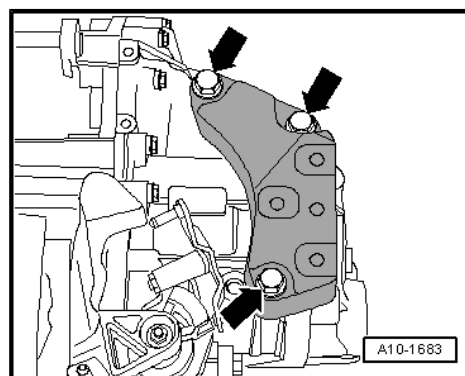
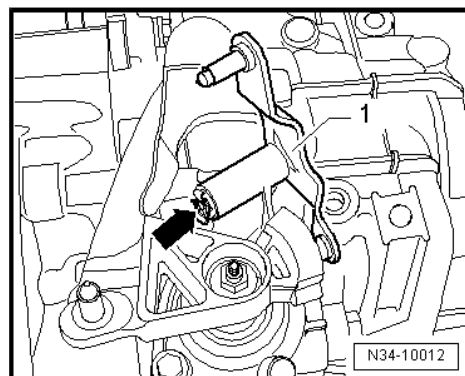
- Insert gate relay lever -1- and secure with securing clip -arrow-.

Plastic gate relay lever -1-:

- Fit gate relay lever (with detent catch) ⇒ [page 76](#) .
- Fit gate relay lever (with clip) ⇒ [page 77](#) .

All vehicles (continued):

- Attach gearbox bracket to gearbox with new hexagon bolts -arrows- and tighten to specified torque. Tightening torque ⇒ [page 150](#)



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



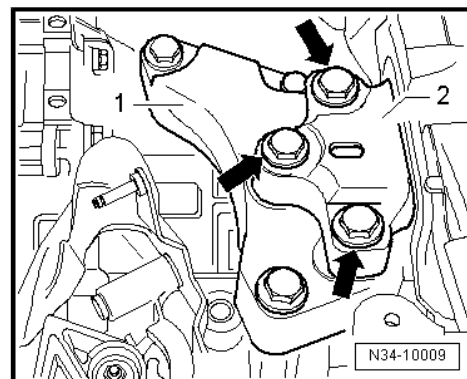
- Align engine/gearbox in installation position. To do so, raise engine/gearbox until gearbox bracket -1- makes full contact with gearbox mounting (left-side) -2-.



Note

Gearbox mounting and gearbox bracket must be parallel to avoid causing damage to thread of gearbox bracket.

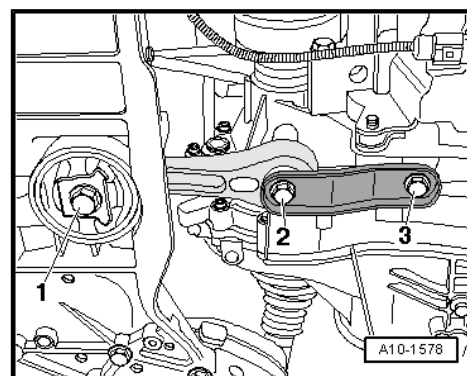
- Secure gearbox bracket -1- to gearbox mounting (left-side) -2- with new hexagon bolts -arrows-. Tightening torque ➔ [page 150](#)



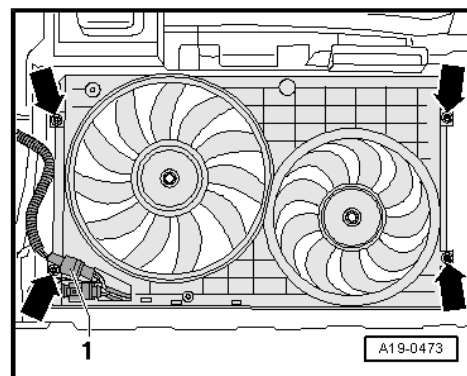
Caution

Do not remove support bracket - 10-222A- until all bolts securing the left-hand engine/gearbox mounting have been tightened to the specified torque.

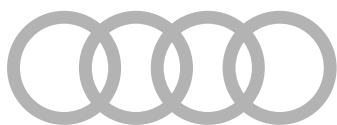
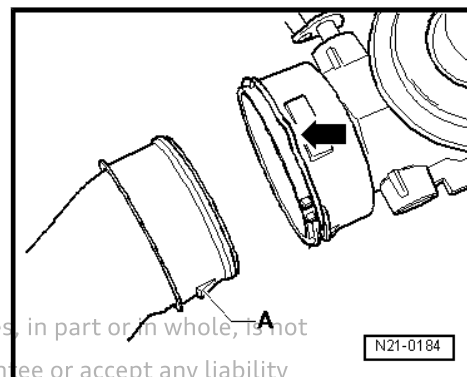
- Fit pendulum support with new bolts -1 ... 3- in accordance with installation instructions ➔ [page 156](#) . Tightening torques ➔ [page 150](#)
- Check mountings of engine/gearbox assembly for correct adjustment, and re-adjust if necessary ➔ Engine, mechanics; Rep. gr. 10 .



- Install radiator cowl -arrows- and attach electrical connector -1-.



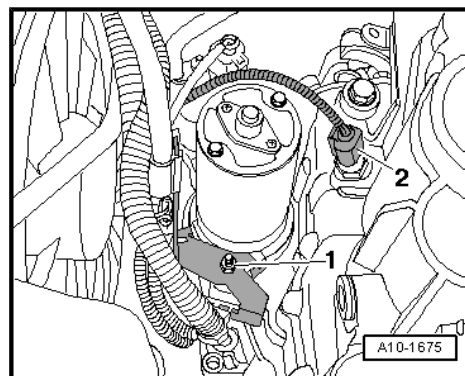
- Install air intake hose. Make sure retaining clip -arrow- snaps onto retaining lug -A-.



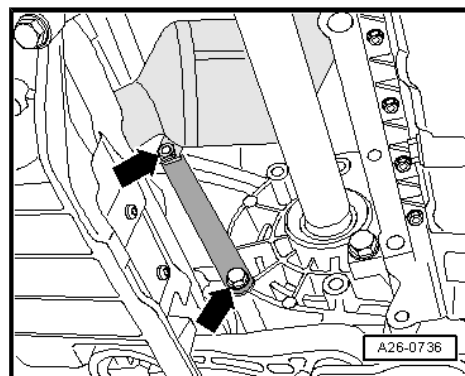
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



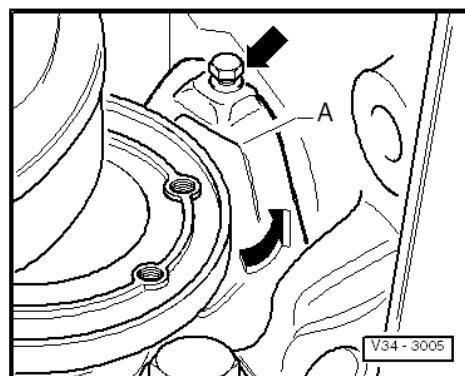
- Attach bracket -1-.
- Plug connector -2- onto reversing light switch - F4- .



- If fitted, secure strut for front exhaust pipe -arrows- ⇒ Rep. gr. 26 .
- Install exhaust system and align it so it is stress-free ⇒ Rep. gr. 26 .

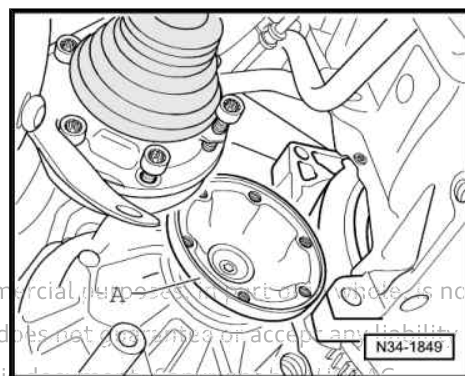


- If fitted, install small flywheel cover plate -A-.



Vehicles with flange shaft (right-side): -A-

- Bolt drive shaft (right-side) to gearbox flange shaft -A- ⇒ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 .



Protected by copyright. Copying for private or commercial purposes without the express permission of Audi AG is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copying prohibited.



- Then fit protective cap for inner right constant velocity joint on engine -arrows-.

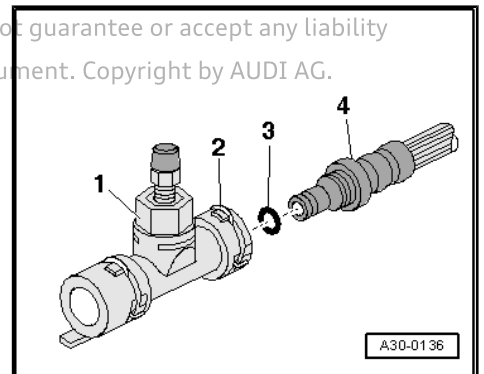
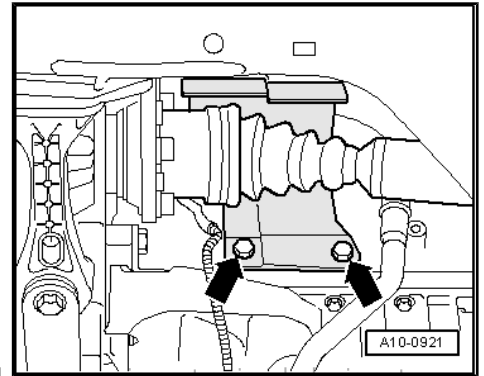
All vehicles (continued):

- Bolt drive shaft (left-side) to gearbox flange shaft ➔ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Push pipe/hose assembly -4- into bleeder connection -1- so that retaining clip -2- snaps into place.
- Pull on pipe/hose assembly to check it is secure.
- Remove hose clamp - 3094- .
- Bleed clutch system ➔ [page 41](#) .



- Apply a small quantity of grease - G 000 450 02- to pin -arrow- of gearbox selector lever -1-.
- Push gear selector cable onto pin -arrow- and secure with securing clip -3-.

Metal gate relay lever -2-

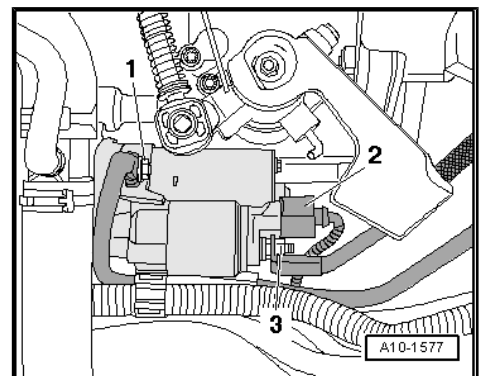
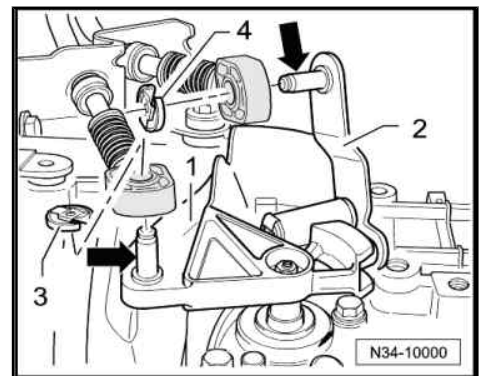
- Apply a small quantity of grease - G 000 450 02- to pin -arrow- of gate relay lever -2-.
- Push gate selector cable onto pin -arrow- and secure with securing clip -4-.

Plastic gate relay lever -2-

- Insert gate selector cable in cable end-piece.

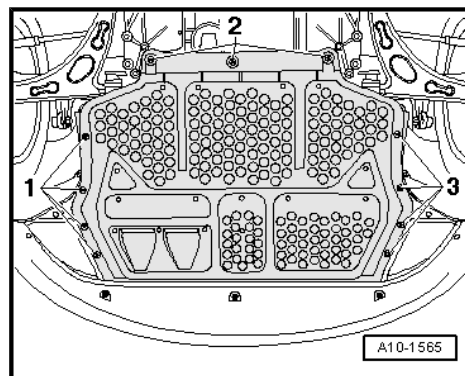
All vehicles (continued)

- Adjust selector mechanism ➔ [page 84](#) .
- Fit earth wire -1-.
- Install battery tray and battery ➔ Electrical system; Rep. gr. 27 .
- Install air cleaner housing ➔ Rep. gr. 23 .
- Install engine cover panel.





- Install wheel housing liner (left-side) and noise insulation (bottom) -fasteners 1 ... 3-.

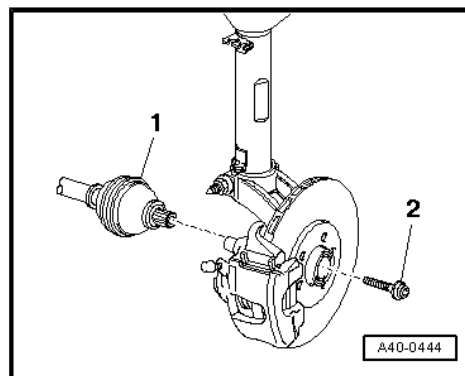


Secure drive shaft (left-side) with new bolt -2- ⇒ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 ; Removing and installing drive shafts .



Note

Wheels must not be in contact with ground when tightening drive shaft as otherwise wheel bearing could be damaged.



2.5 Removing gearbox - vehicles with 2.0 ltr. TDI engine (common rail)



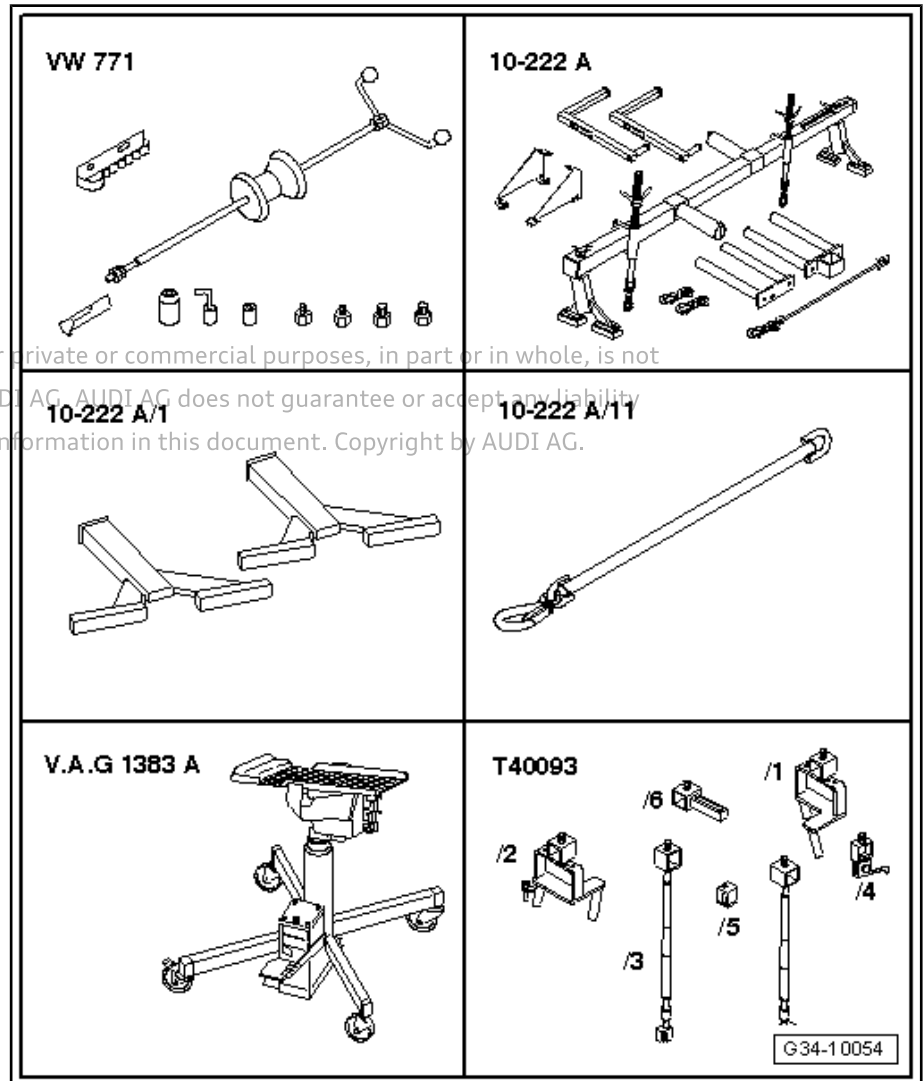
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



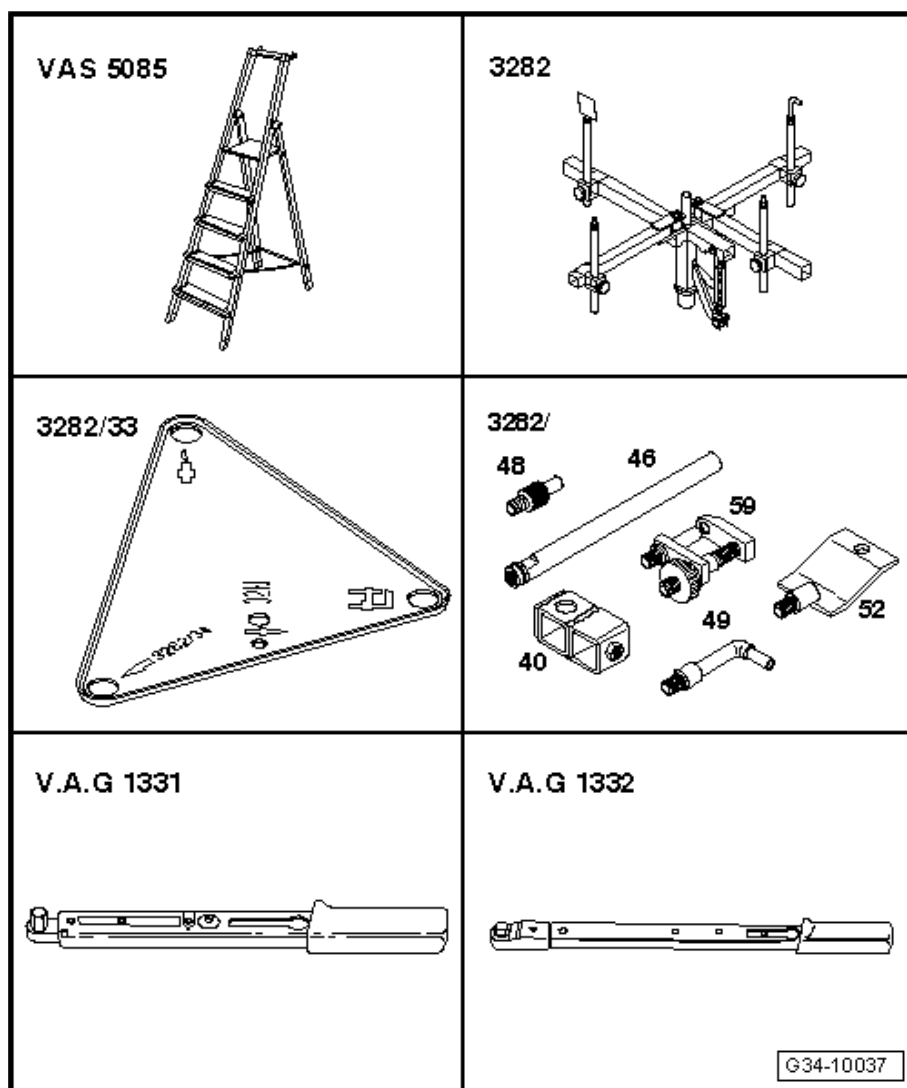
Special tools and workshop equipment required



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



- ◆ Adapter - VW 771/40-
- ◆ Support bracket - 10-222A-
- ◆ Rack - 10 - 222 A /1-
- ◆ Hook - 10 - 222 A /11-
- ◆ Engine and gearbox jack - V.A.G 1383 A-
- ◆ Adapter - T40093/6-



- ◆ Stepladder - VAS 5085-
- ◆ Gearbox support - 3282-
- ◆ Adjustment plate - 3282/33-
- ◆ Pin - 3282/29-
- ◆ Support - 3282/52-
- ◆ Safety support - 3282/59-
- ◆ Torque wrench - V.A.G 1331-
- ◆ Torque wrench - V.A.G 1332-

Special tools and workshop equipment required

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

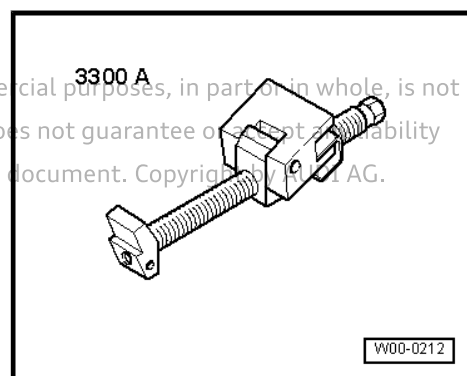
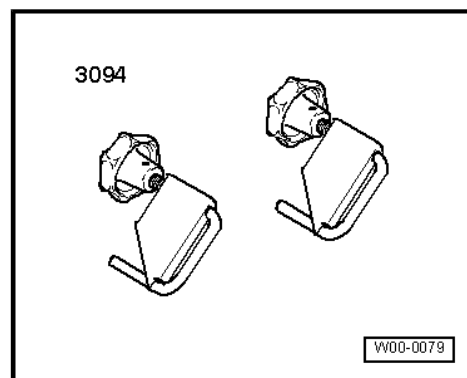


- ◆ Hose clamps up to Ø 25 mm - 3094-

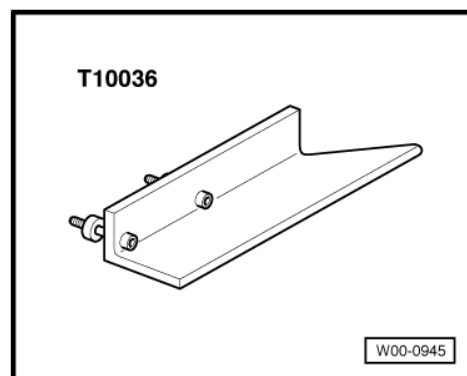


- ◆ Engine support - 3300 A-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept responsibility with respect to the correctness of information in this document. Copyright © 1997 AUDI AG.



- ◆ Support - T10036-



- ◆ Bolt M6×20 (2x)
- ◆ Bolt M10×20
- ◆ Grease - G 000 450 02-
- ◆ Grease for clutch plate splines - G 000 100-



Caution

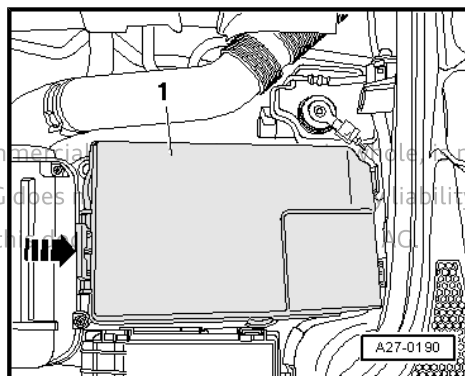
When disconnecting the battery there is a risk of irreparable damage to electronic components.

- ◆ *Observe the correct procedure for disconnecting the battery ⇒ Electrical system; Rep. gr. 27.*

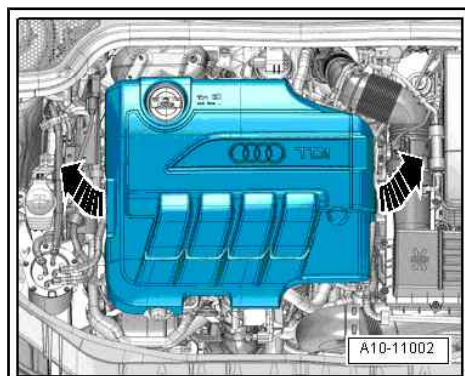


- Press release tab -arrow- and remove cover -1- over battery.
- With ignition switched off, disconnect and remove battery ⇒ Rep. gr. 27 .

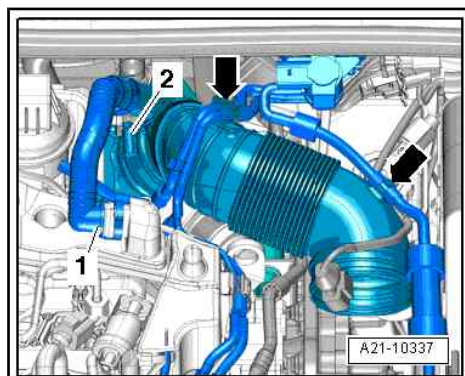
Protected by copyright. Copying for private or commercial use is not permitted unless authorised by AUDI AG. AUDI AG does not accept any liability with respect to the correctness of information in this document.



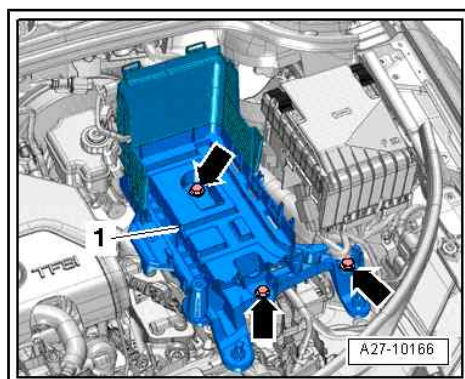
- Carefully pull engine cover panel off retaining pins one after the other -arrows-. Do not jerk the cover panel away, and do not try to pull on one side only.



- Remove air cleaner housing ⇒ Rep. gr. 23 .
- Press release tabs and disconnect crankcase breather hose -1- from cylinder head cover.
- Move clear vacuum hoses -arrows- at air pipe.
- Release hose clip -2- and detach air pipe.



- Remove bolts -arrows- and take out battery mounting -1- .

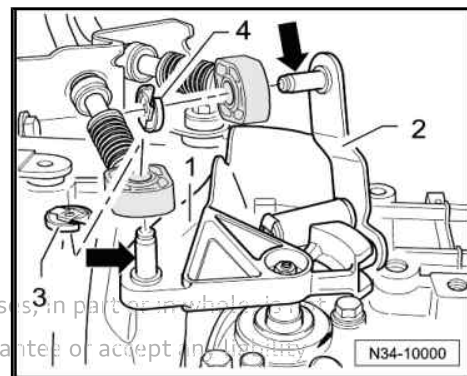




- Detach securing clip -3- for gear selector cable from gearbox selector lever -1- and pull cable off pin -arrow-.

Metal gate relay lever -2-

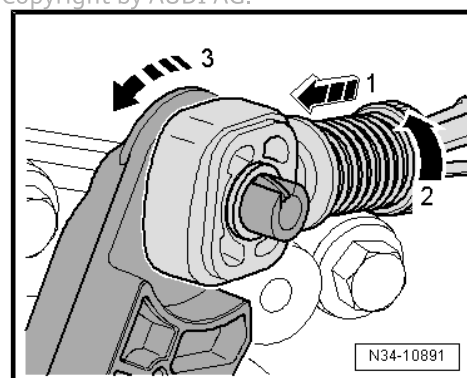
- Detach securing clip -4- for gate selector cable from gate relay lever -2- and pull cable off pin -arrow-.



Protected by copyright. Copying for private or commercial purposes, in particular for advertising or promotional purposes, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability for the use of the information provided with respect to the correctness of information in this document. Copyright by AUDI AG.

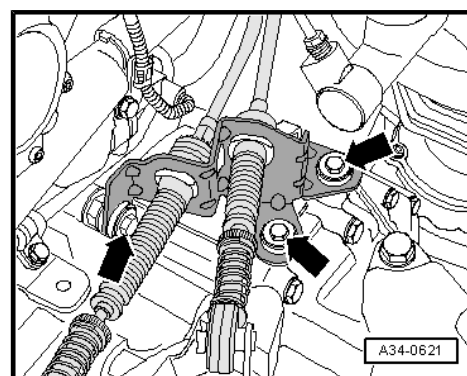
Plastic gate relay lever

- To prevent damage to gate selector cable, cable end-piece must be detached from gate selector cable before removing relay lever.
- Pull locking mechanism forwards in direction of -arrow 1- onto stop and then turn to left in direction of -arrow 2- to lock.
- Then press gate relay lever forwards (in direction of -arrow 3-).
- Plastic gate relay lever is removed at a later stage together with cable end-piece.

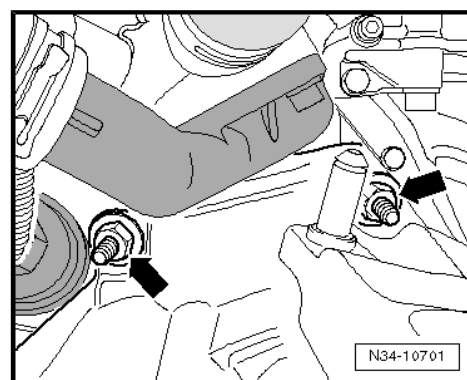


All vehicles (continued)

- Detach cable support bracket from gearbox -arrows-; then move to one side and tie up together with selector cables.

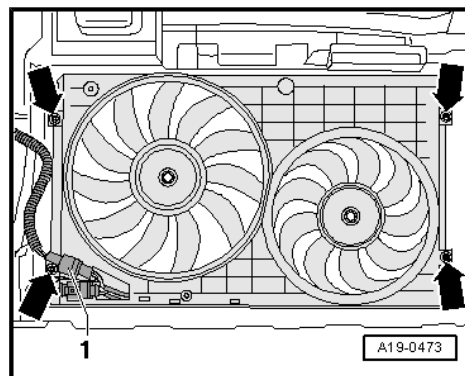


- Unscrew top engine/gearbox securing bolts -arrows-.





- Remove the two top bolts on radiator cowl -top arrows-.

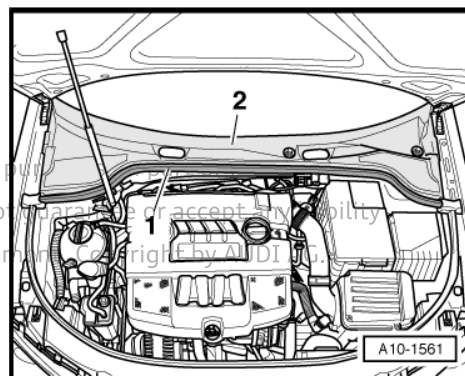


- Pull off seal -1-.

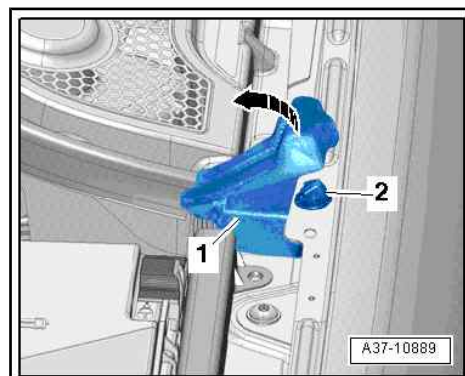


Note

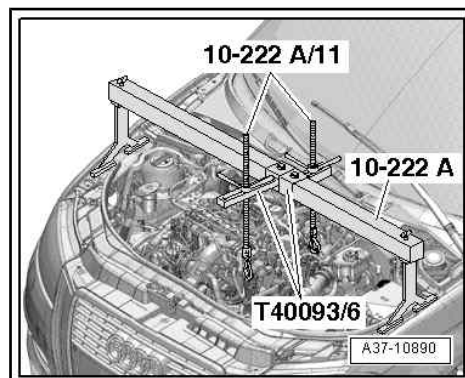
-Item 2- can be disregarded. Copyright. Copying for private or commercial purposes is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



- Swivel bonnet seal -1- inwards on left and right -arrow-.
- Press off fastening element -2- with removal lever - 80 - 200- .
- Move clear bonnet seal and press to the side.

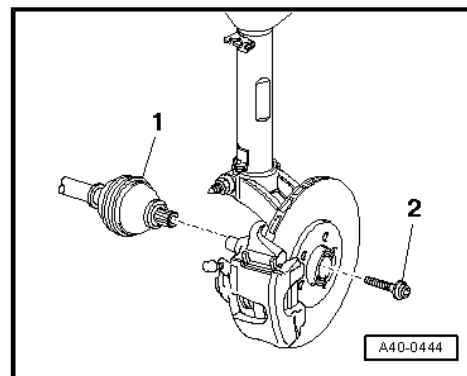


- Position support bracket - 10 - 222 A- on wing mounting flanges with adapter - T40093/6- .
- Engage hooks on spindles of support bracket into engine lifting eyes.
- Take up weight of engine evenly with spindles; do not lift.



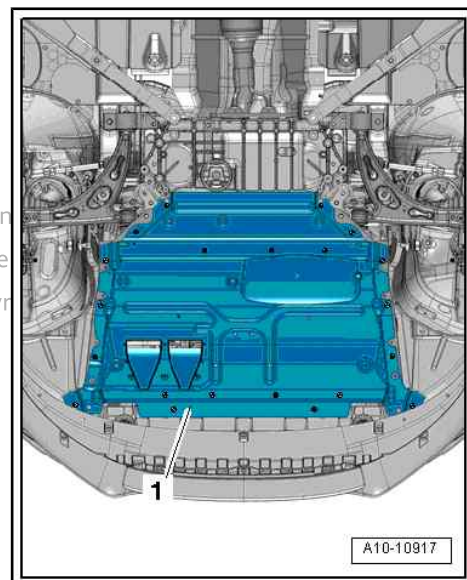


- With vehicle still standing on its wheels, slacken off front left flange bolt -2- 90° (maximum). Do not slacken further, as this would damage the wheel bearing.



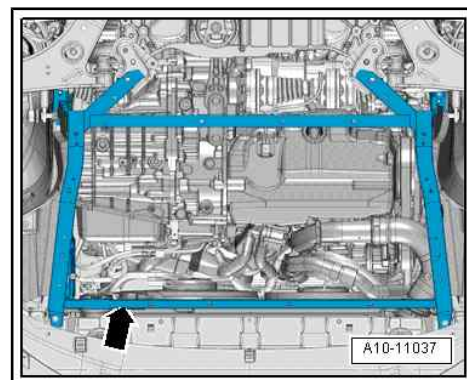
- Raise vehicle.
- Remove the left front wheel.
- Remove noise insulation (centre) -1- ➔ Rep. gr. 50 .

Protected by copyright. Copying for private or commercial purposes, in permitted unless authorised by AUDI AG. AUDI AG does not guarantee with respect to the correctness of information in this document. Copy



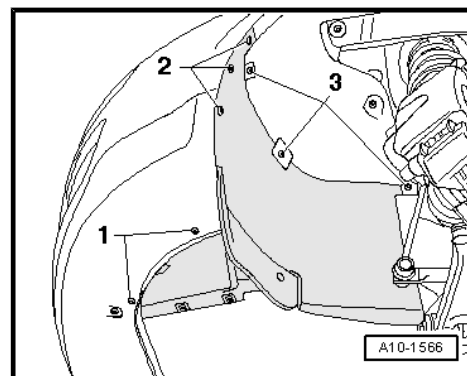
Audi A3 Cabriolet

- Remove frame for noise insulation -arrow- ➔ Rep. gr. 50 .



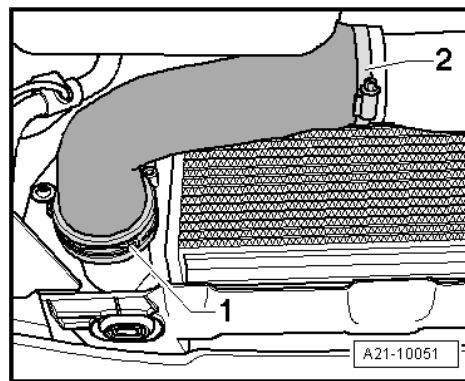
All vehicles (continued)

- Remove wheel housing liner (front left) -fasteners 1 ... 3-.

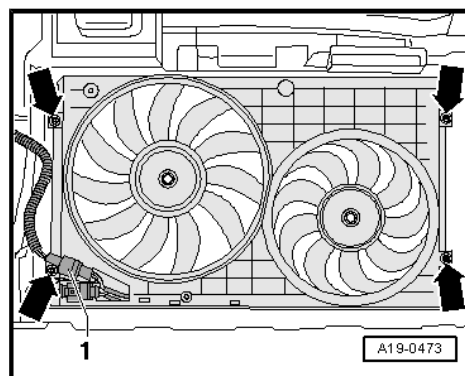




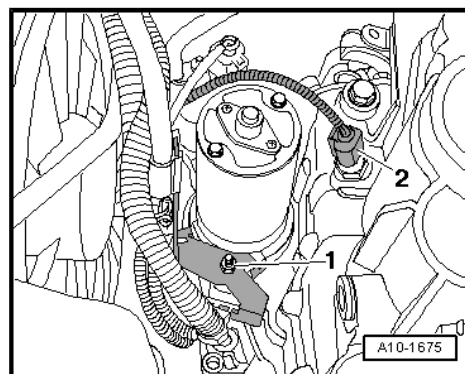
- Lift retaining clip -1- and loosen hose clip -2- to remove air hose.



- Unplug electrical connector -1-.
- Remove remaining bolts -bottom arrows- and take out radiator cowl from below.



- Unplug connector -2- from reversing light switch - F4- .
- Unscrew nut -1- and detach bracket from stud together with electrical wiring.
- Unscrew bottom bolt securing starter -1-.
- Place starter to side onto longitudinal member (top).

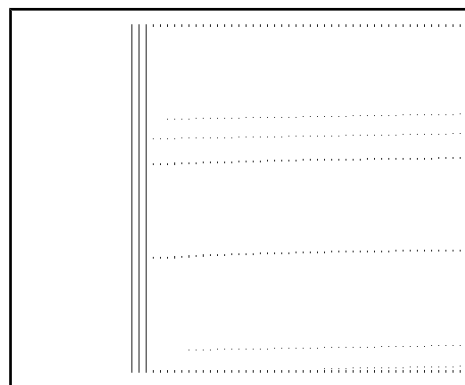


- Disconnect exhaust system at clamp -arrows-.



Note

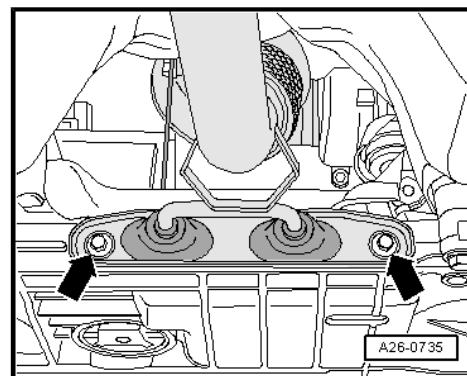
To avoid damage, the flexible joints in the front exhaust pipe must not be bent more than 10°.



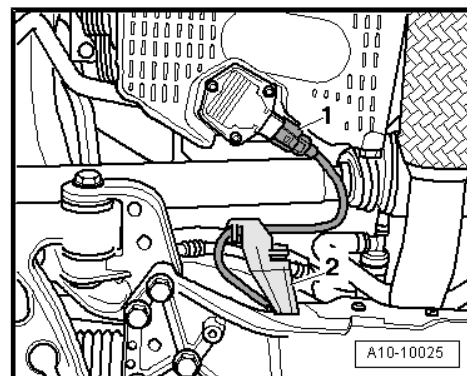
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



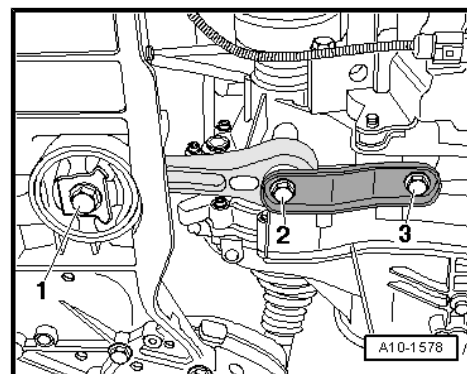
- Unbolt bracket for exhaust system -arrows- and pull bracket off retaining pins.



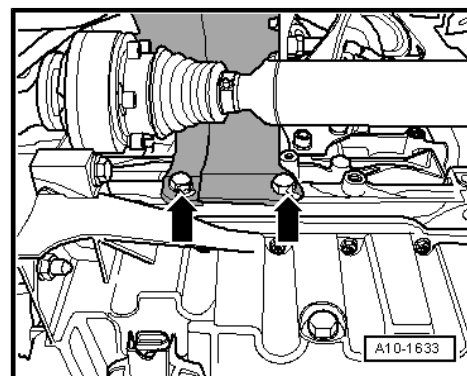
- Unplug electrical connector -1- at oil level and oil temperature sender - G266- .
- Unclip bracket -2- for electrical wire leading to oil level and oil temperature sender - G266- from subframe.



- Remove bolts -1 ... 3- and detach pendulum support.



- Unbolt heat shield for drive shaft (right-side) -arrows-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



- Remove drive shafts (left and right) from gearbox flange shafts -A-.

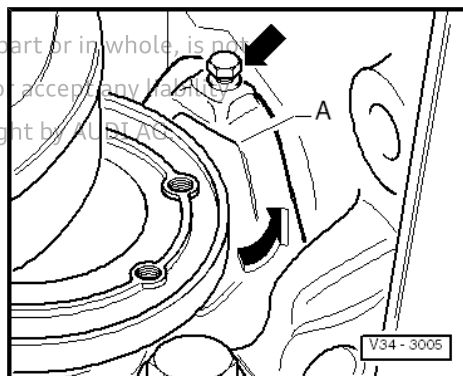
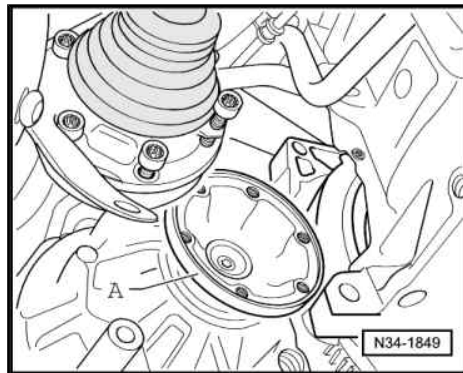


Note

Take care not to damage the surface coating of the drive shaft.



- Unscrew bolt -arrow- and remove small flywheel cover plate

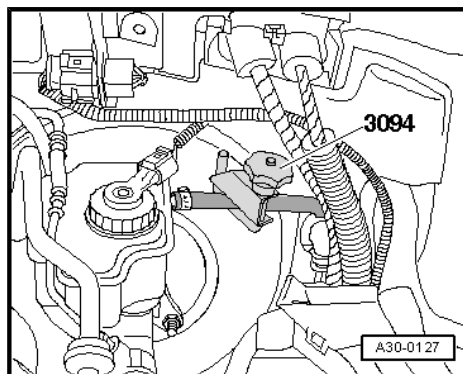


- Using hose clamp - 3094- , clamp off supply hose to master cylinder.



Note

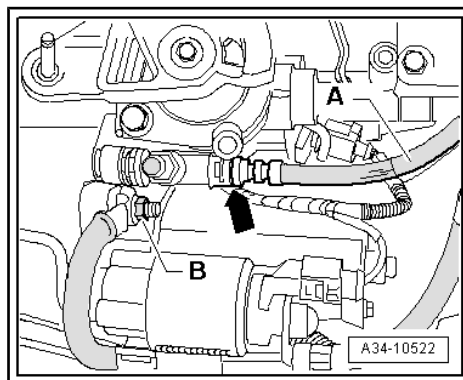
- ◆ Clamping off the plastic supply hose with the hose clamp - 3094- will cause a permanent deformation.
- ◆ However, this does not damage the supply hose.
- ◆ After removing the hose clamp - 3094- , the supply hose must be returned to its original shape.



Note

Make sure brake fluid does not come into contact with starter or gearbox when performing the following operations. If it does, clean affected area thoroughly.

- Pull out clip -arrow- as far as stop.
- Pull pipe/hose assembly -A- out of bleeder connection for slave cylinder and seal end of pipe.



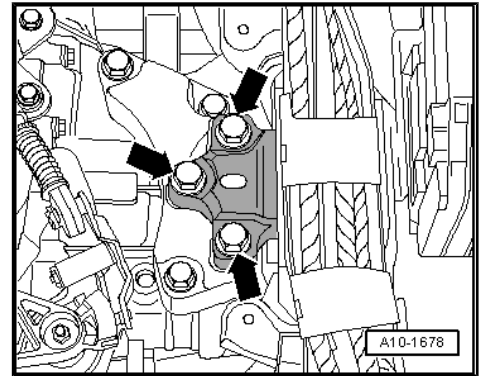
Caution

Do not operate clutch pedal after disconnecting pipe/hose assembly.

- Detach earth wire -B- from starter bolt (top).
- Then remove upper securing bolt from starter -B-.
- Place starter to side onto longitudinal member.



- Remove bolts on gearbox mounting -arrows-.

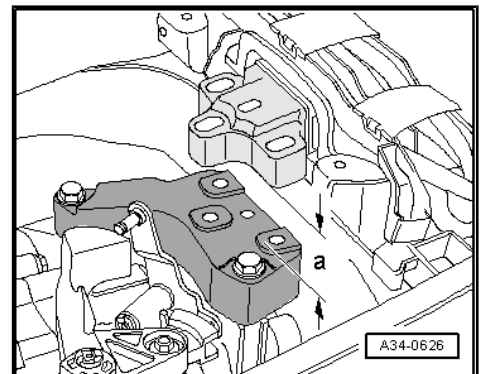


- By adjusting spindles on support bracket - 10 - 222 A- , lower gearbox by distance -a-.
- Dimension -a- = 60 mm



Note

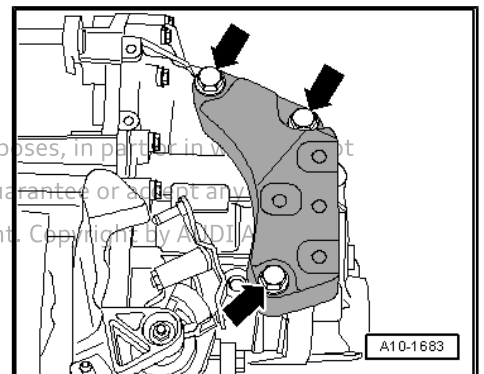
- ◆ *When lowering the gearbox make sure that all hose and pipe connections are not under tension.*
- ◆ *Pay attention to coolant hose between engine and heat exchanger, do not overstretch.*



- Unbolt gearbox bracket from gearbox -arrows-.



Protected by copyright. Copying for private or commercial purposes, in particular in electronic form, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability for errors or omissions with respect to the correctness of information in this document. Copyright by AUDI AG.

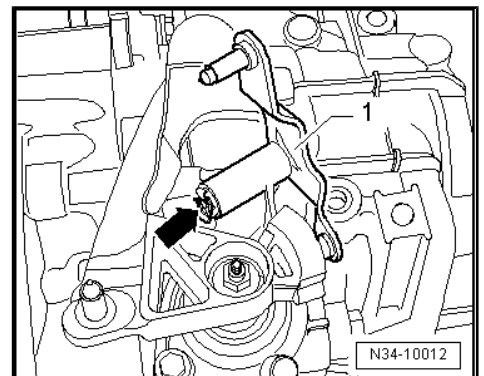


Metal gate relay lever -1-

- Pull off securing clip -arrow- and remove gate relay lever -1-.

Plastic gate relay lever -1-:

- Removing gate relay lever (with detent catch) ⇒ [page 76](#)
- Remove gate relay lever (with clip) ⇒ [page 77](#) .

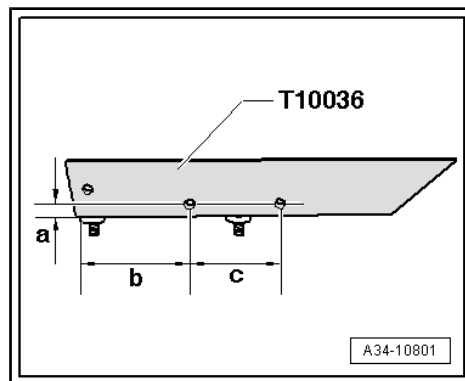




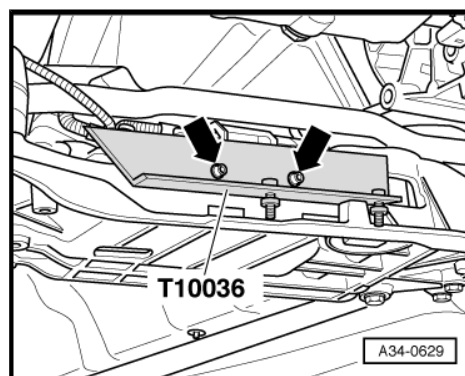
All vehicles (continued)

- Drill two 7 mm diameter holes in support - T10036- , as illustrated (if holes have not already been drilled).

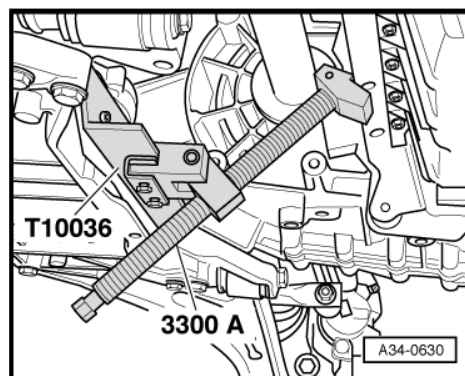
- Dimension -a- = 11 mm
- Dimension -b- = 98 mm
- Dimension -c- = 70 mm



- Bolt support - T10036- onto subframe -arrows- using two M6×20 bolts.

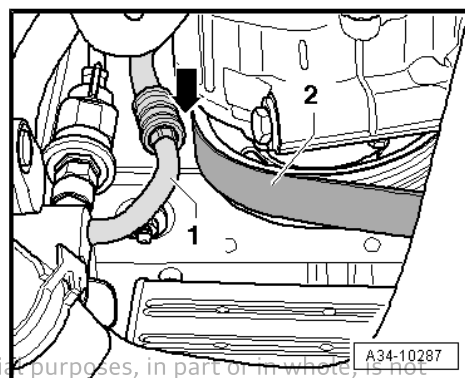


- Bolt engine support - 3300 A- onto support - T10036- .

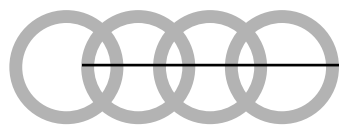


- Press engine towards front of vehicle using spindle of engine support - 3300 A- . Pay special attention to the following points:

- The air conditioner compressor -2- must not contact refrigerant line -1- -arrow-.
- Alternator must not make contact with refrigerant line.
- Pressure pipe must not make contact with radiator.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



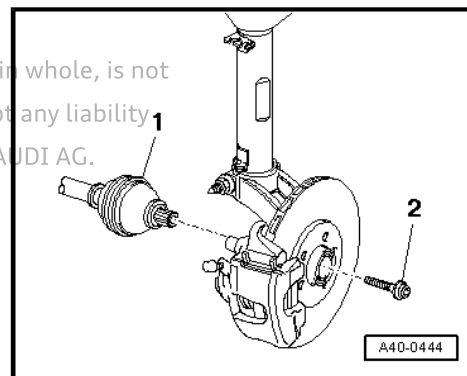
- Remove flange bolt -2- and detach drive shaft (left-side) -1-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without authorisation by AUDI AG. AUDI AG does not guarantee or accept any liability

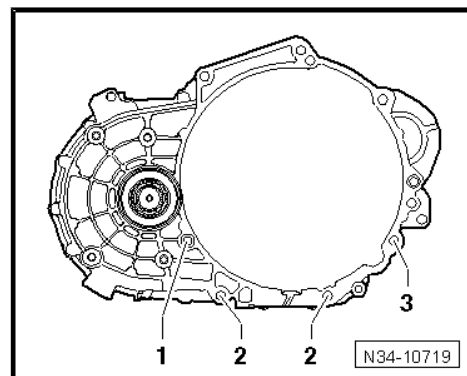


Note

The wheel bearing must not be subjected to load after the bolt -2- securing the drive shaft has been slackened.



- Remove both engine/gearbox connecting bolts (bottom) -2-.



- Set up gearbox support - 3282- on engine and gearbox jack - V.A.G 1383 A- .

- Place adjustment plate - 3282/33- on gearbox support - 3282- . The adjustment plate can only be fitted in one position.

- Align arms of gearbox support according to holes in adjustment plate .

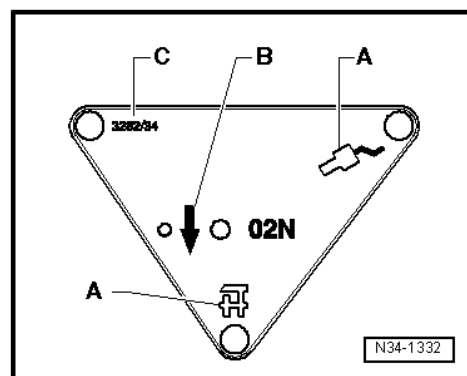
- Bolt on support elements -A-, as illustrated on adjustment plate .

- Screw in pin - 3282/29- in place of support element -C-.

- Place engine and gearbox jack underneath vehicle.

- Arrow symbol -B- on adjustment plate points to front of vehicle.

- Align adjustment plate parallel with gearbox.



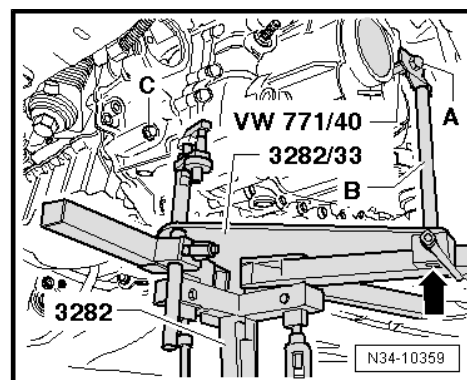
- Secure adapter - VW 771/40- in tapped hole of gearbox housing, as shown in illustration.

- Screw pin - 3282/29- into hole for bolt securing pendulum support to gearbox.

- Secure gearbox to gearbox support - 3282- with bolt M10x20 -A-.

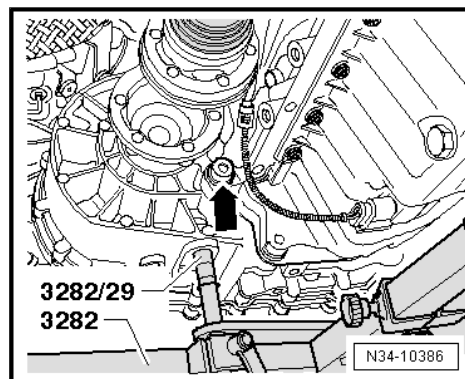
Make sure pin -B- is flush at bottom with guide of gearbox support - 3282- -arrow-.

- Remove engine/gearbox connecting bolt -C-.



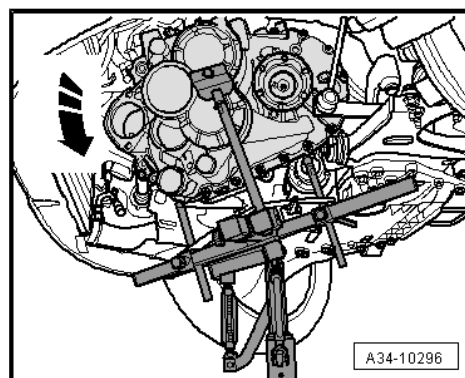


- Remove last engine/gearbox connecting bolt -arrow-.
- Press gearbox off engine (dowel sleeves).



- Tilt gearbox to the front by turning spindle of gearbox support - 3282- in direction of -arrow-.
- Then tilt gearbox to the left by turning spindle of gearbox support - 3282- .
- Guide gearbox past suspension bracket for wishbone, then push gearbox forwards slightly and lower out carefully.

Install gearbox ➔ [page 141](#) .



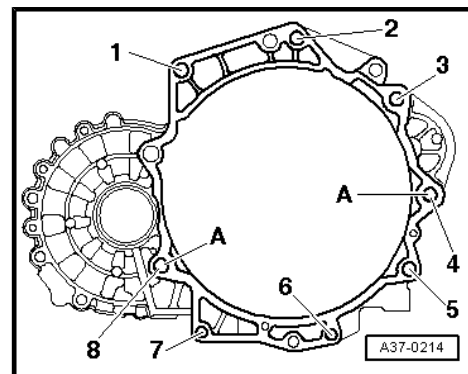
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



2.6 Installing gearbox - vehicles with 2.0 ltr. TDI engine (common rail)

Tightening torques for engine/gearbox joint

Item	Bolt	Nm
1 ... 2	M12×55 ♦ With stud M8 ♦ Renew bolt	80
3 ... 4	M12×165 ♦ With stud M8	80
5	M10×105 ♦ Renew bolt	40
6 ... 7	M10×50 ♦ Renew bolt	40
8	M12×70 ♦ Installed from engine side ♦ Renew bolt	80
A	Dowel sleeves for centralising	



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

Other tightening torques

Component	Nm
Small cover plate for flywheel	10
Heat shield for drive shaft (right-side) to cylinder block	25
Earth wire to top starter bolt	23
Bracket for electrical wiring at bottom starter bolt	23
Selector cable support bracket to gearbox	20

Installing gearbox

Installation is carried out in the reverse order; note the following:



Note

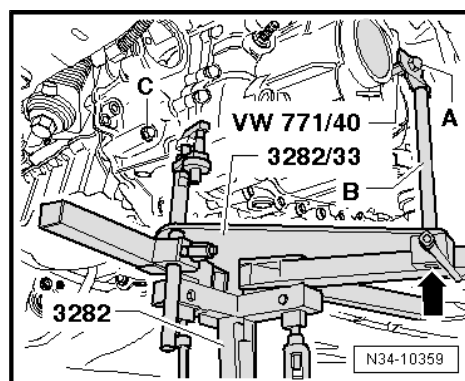
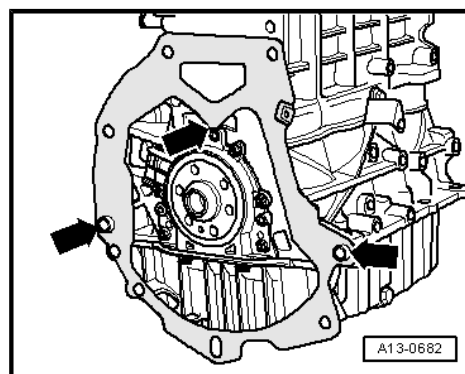


- ◆ *Renew bolts tightened with specified tightening angle.*
- ◆ *Renew self-locking nuts and bolts as well as seals, gaskets and O-rings.*
- ◆ *Use thread tap to remove any remaining locking fluid from all threaded holes which will accommodate self-locking bolts.*
- ◆ *Hose connections and air pipes/hoses must be free of oil and grease prior to fitting.*
- ◆ *Secure all hose connections with the correct hose clips (as original equipment); refer to ➔ *Electronic parts catalogue* .*
- ◆ *All cable ties which are released or cut open when removing must be refitted in the same position when installing.*
- ◆ *When renewing the gearbox, the gearbox selector lever must be transferred to the new assembly.*
- ◆ *Clean input shaft splines and (in the case of a used clutch plate) also clean the hub splines. Remove corrosion and apply only a very thin coating of grease - G 000 100- to the splines. Then move clutch plate backwards and forwards on input shaft until hub moves freely on shaft. It is important to remove excess grease.*

- Check that dowel sleeves -arrows- for centralising engine/gearbox are in the cylinder block; install if necessary.

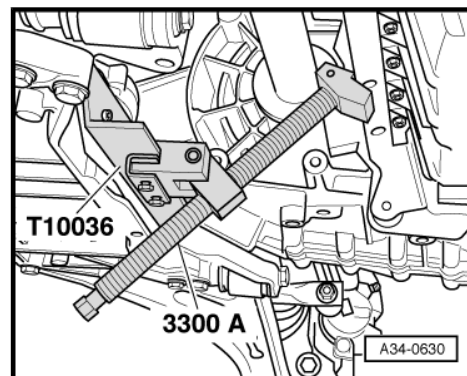
If the dowel sleeves are not fitted, this will lead to gear-change problems, clutch malfunction and in some cases gearbox noise (gears will make rattling noises).

- Make sure that the intermediate plate is engaged on the sealing flange and fitted on the dowel sleeves -arrows-.
- Check that clutch plate is centralised ➔ [page 55](#) .
- Check release bearing for wear. If necessary, renew slave cylinder with release bearing ➔ [page 43](#) .
- Raise gearbox carefully and move to installation position using gearbox support - 3282- .
- Join gearbox to engine, taking care not to trap wiring or other connections.
- Secure gearbox and starter to engine. Tightening torque ➔ [page 120](#)





- Remove engine support - 3300 A- and support - T10036- .



- Lubricate bearings and moving surfaces of gate relay lever -1- with grease - G 000 450 02- .

Metal gate relay lever:

- Insert gate relay lever -1- and secure with securing clip -arrow-.

Plastic gate relay lever -1-:

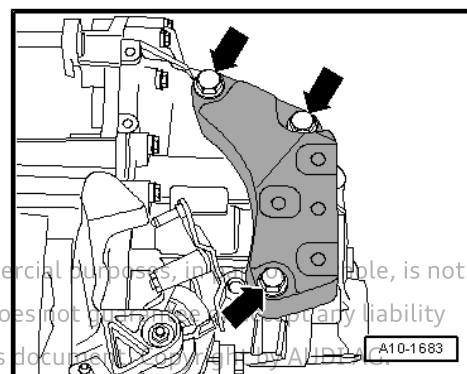
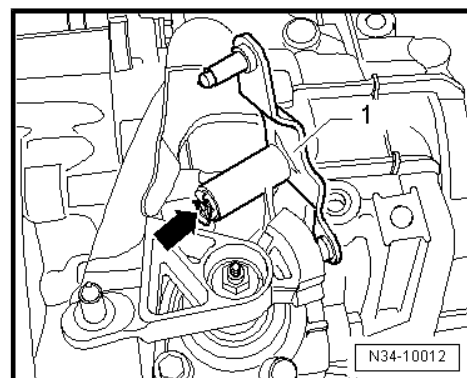
- Fit gate relay lever (with detent catch) ➔ [page 76](#) .
- Fit gate relay lever (with clip) ➔ [page 77](#) .

All vehicles (continued):

- Attach gearbox bracket to gearbox with new hexagon bolts -arrows- and tighten to specified torque. Tightening torque ➔ [page 150](#)



Protected by copyright. Copying for private or commercial purposes, in any form, is not permitted unless authorised by AUDI AG. AUDI AG does not accept any liability with respect to the correctness of information in this document.



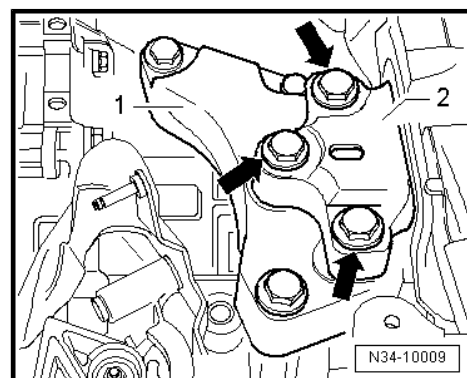
- Align engine/gearbox in installation position. To do so, raise engine/gearbox until gearbox bracket -1- makes full contact with gearbox mounting (left-side) -2-.



Note

Gearbox mounting and gearbox bracket must be parallel to avoid causing damage to thread of gearbox bracket.

- Secure gearbox bracket -1- to gearbox mounting (left-side) -2- with new hexagon bolts -arrows-. Tightening torque ➔ [page 150](#)

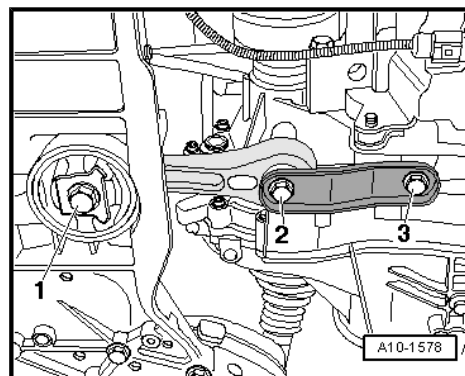


Caution

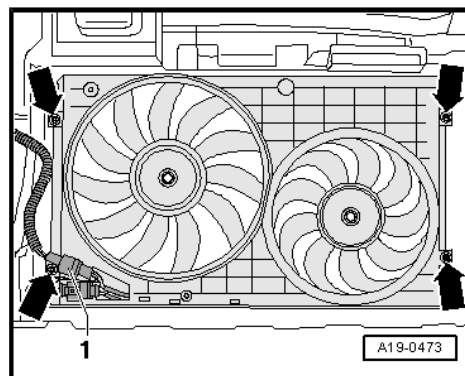
Do not remove support bracket - 10-222A- until all bolts securing the left-hand engine/gearbox mounting have been tightened to the specified torque.



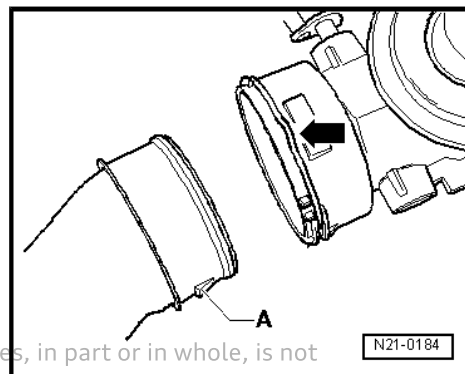
- Fit pendulum support with new bolts -1 ... 3- in accordance with installation instructions ⇒ [page 156](#) . Tightening torques ⇒ [page 150](#)
- Check mountings of engine/gearbox assembly for correct adjustment, and re-adjust if necessary ⇒ Engine, mechanics; Rep. gr. 10 .



- Install radiator cowl -arrows- and attach electrical connector -1-.

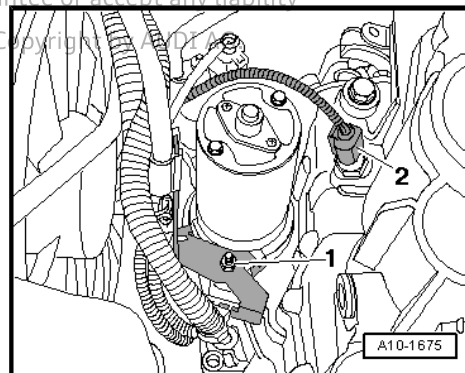


- Install air intake hose. Make sure retaining clip -arrow- snaps onto retaining lug -A-.



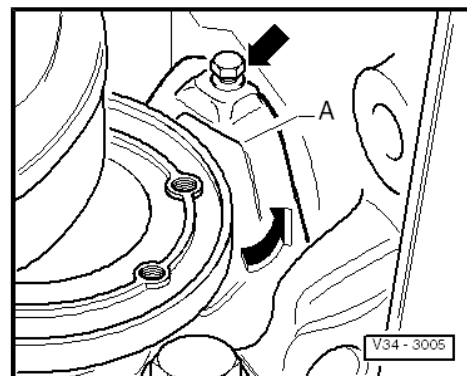
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

- Attach bracket -1-.
- Plug connector -2- onto reversing light switch - F4- .
- Assemble exhaust system and align so it is free of stress ⇒ Rep. gr. 26 .



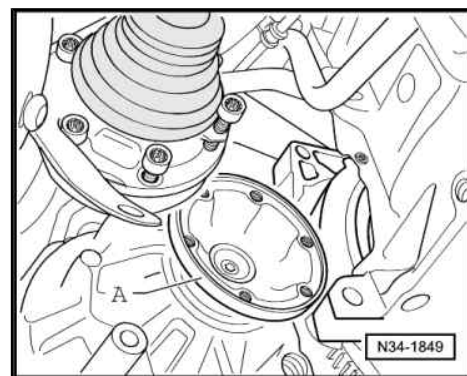


- Install small flywheel cover plate -A-.



Vehicles with flange shaft (right-side): -A-

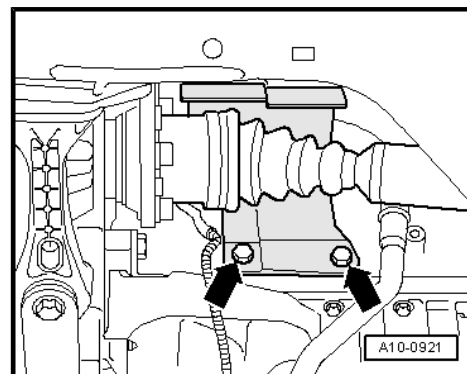
- Bolt drive shaft (right-side) to gearbox flange shaft -A- ⇒ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 .



- Then fit protective cap for inner right constant velocity joint on engine -arrows-.

All vehicles (continued):

- Bolt drive shaft (left-side) to gearbox flange shaft ⇒ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 .

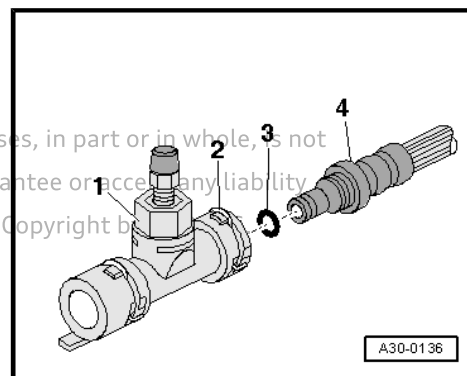


- Push pipe/hose assembly -4- into bleeder connection -1- so that retaining clip -2- snaps into place.

- Pull on pipe/hose assembly to check it is secure.

- Remove hose clamp -3094-.

- Bleed clutch system ➔ [page 41](#)





- Apply a small quantity of grease - G 000 450 02- to pin -arrow- of gearbox selector lever -1-.
- Push gear selector cable onto pin -arrow- and secure with securing clip -3-.

Metal gate relay lever -2-

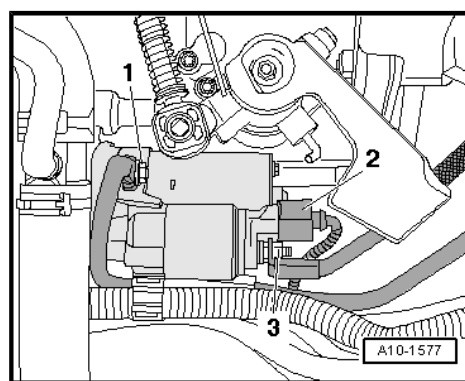
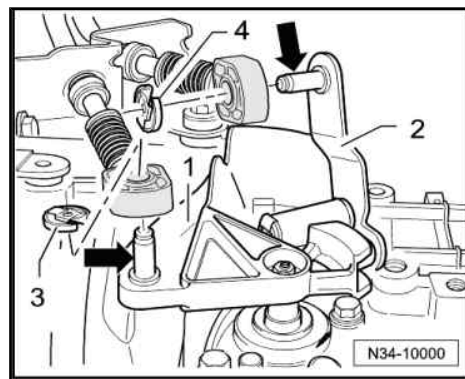
- Apply a small quantity of grease - G 000 450 02- to pin -arrow- of gate relay lever -2-.
- Push gate selector cable onto pin -arrow- and secure with securing clip -4-.

Plastic gate relay lever -2-

- Insert gate selector cable in cable end-piece.

All vehicles (continued)

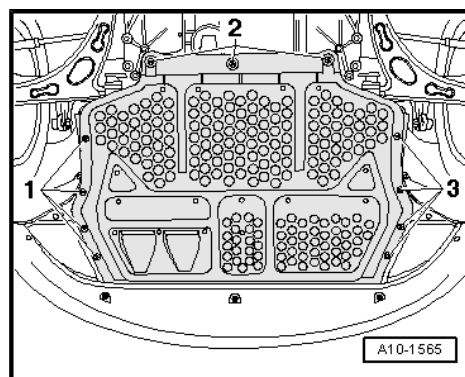
- Adjust selector mechanism ⇒ [page 84](#).
- Fit earth wire -1-.
- Install battery tray and battery ⇒ Electrical system; Rep. gr. 27 .
- Install air cleaner housing ⇒ Rep. gr. 23 .
- Install engine cover panel.



- Install wheel housing liner (left-side).

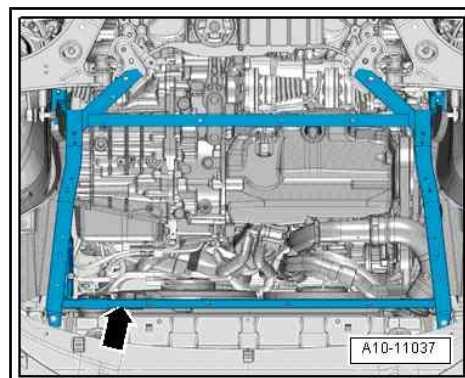
Audi A3

- Install noise insulation (bottom) -fasteners 1 ... 3-.



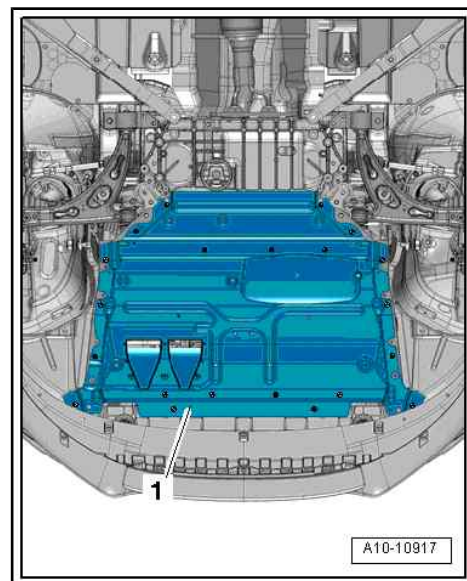
Audi A3 Cabriolet

- Install noise insulation frame -arrow- ⇒ Rep. gr. 50 .





- Install noise insulation (centre) -1- ⇒ Rep. gr. 50 .



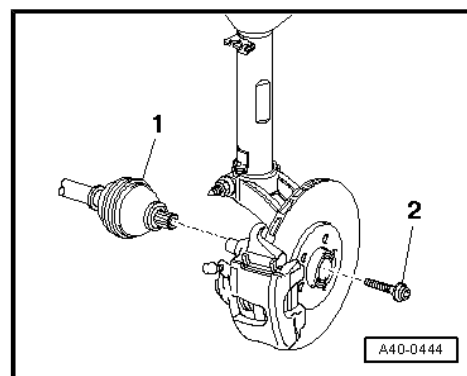
All vehicles (continued)

Secure drive shaft (left-side) with new bolt -2- ⇒ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 ; Removing and installing drive shafts .



Note

Wheels must not be in contact with ground when tightening drive shaft as otherwise wheel bearing could be damaged.



2.7 Transporting gearbox



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

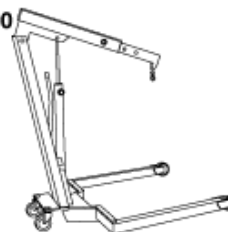


**Special tools and workshop
equipment required**

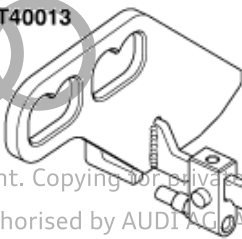
10-222 A/2



VAS 6100



T40013



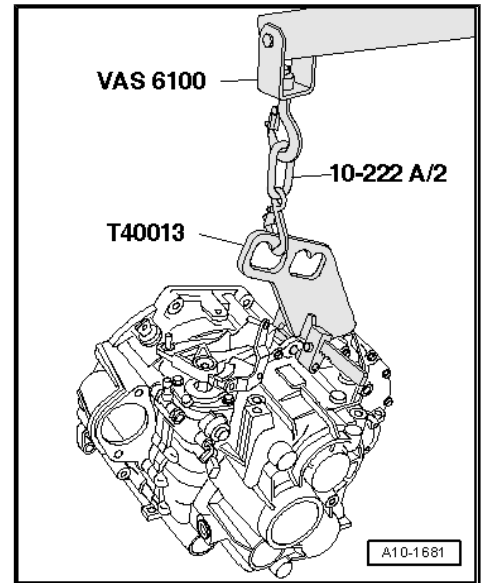
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

G34-0029

- ◆ Hooks - 10 - 222 A /2-
- ◆ Workshop hoist - VAS 6100-
- ◆ Lifting tackle - T40013-



- Attach lifting aid - T40013- to gearbox and engage locking mechanism.
- Hook workshop hoist - VAS 6100- onto lifting aid using hooks - 10 - 222 A /2- .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



3 Exploded view - assembly mountings

1 - Bolt

- ☐ 60 Nm + 90°
- ☐ Gearbox bracket to gearbox
- ☐ Renew

2 - Bolts

- ☐ Pendulum support to gearbox



Caution

On 02Q manual gearboxes, HeliCoil inserts may be fitted in the bolt connections for the pendulum support. These thread inserts are standard on gearboxes manufactured from 28 05 7 onwards.

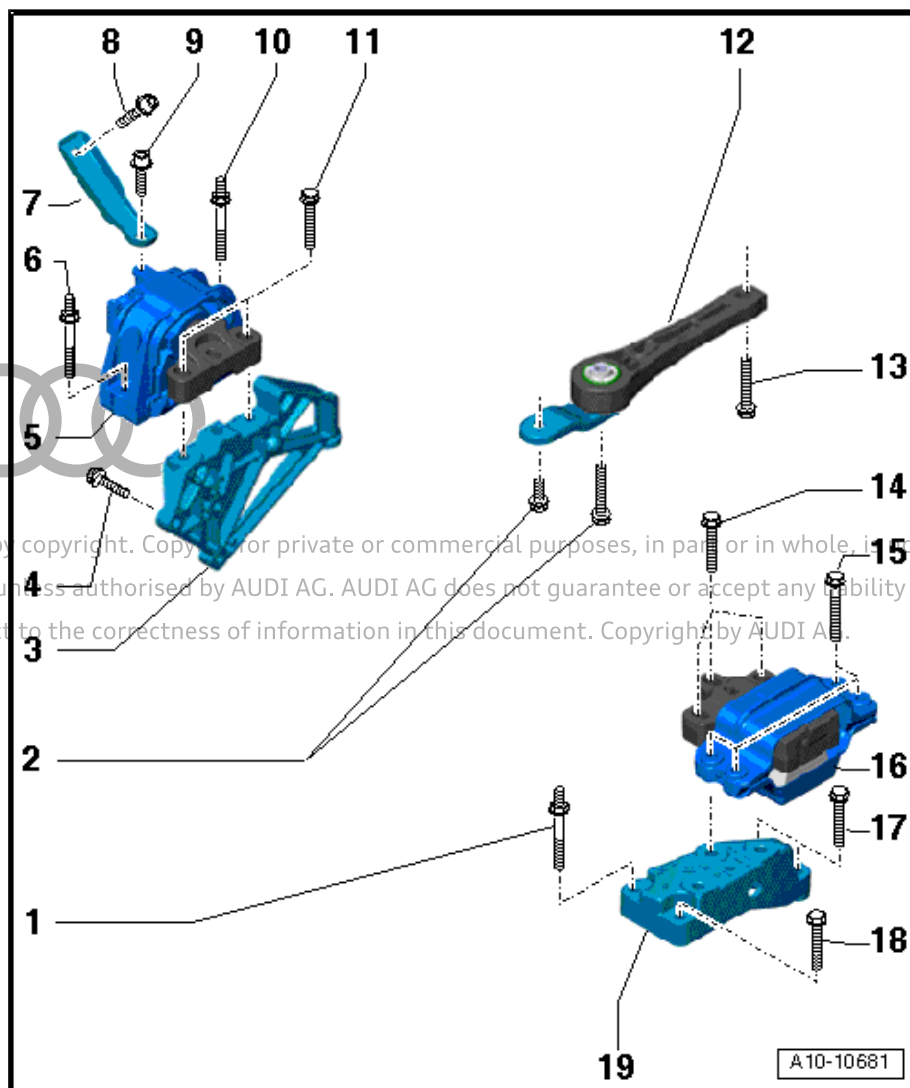
Identification ⇒ page 152

Bolts of property class 10.9 must be used on all gearboxes with HeliCoil thread inserts.

Bolts of property class 8.8 are specified for gearboxes without thread inserts.

For correct version, refer to ⇒ Electronic parts catalogue

The specified tightening torque for the bolts depends on the property class.



- Gearbox with thread inserts ⇒ [page 152](#)
 - ☐ 50 Nm + 90°
- Gearbox without thread inserts ⇒ [page 152](#)
 - ☐ 40 Nm + 90°
 - ☐ Always renew

3 - Engine support

- ☐ Different versions ⇒ Electronic parts catalogue

4 - Bolt

- ☐ Engine support to engine
- ☐ Tightening torque ⇒ Rep. gr. 10

5 - Engine mounting

6 - Bolt

- ☐ Engine mounting to body
- ☐ Tightening torque ⇒ Rep. gr. 10



7 - Connecting bracket

8 - Bolt

- ☐ Connecting bracket to engine mounting
- ☐ Tightening torque ⇒ Rep. gr. 10

9 - Bolt

- ☐ Connecting bracket to body
- ☐ Tightening torque ⇒ Rep. gr. 10

10 - Bolt

- ☐ Engine mounting to body
- ☐ Tightening torque ⇒ Rep. gr. 10

11 - Bolts

- ☐ Engine mounting to engine support
- ☐ Tightening torque ⇒ Rep. gr. 10

12 - Pendulum support

- ☐ Removing and installing ⇒ [page 155](#)

13 - Bolt

- ☐ 100 Nm + 90°
- ☐ Pendulum support to subframe
- ☐ Renew

14 - Bolt

- ☐ 60 Nm + 90°
- ☐ Gearbox mounting to gearbox bracket
- ☐ Renew

15 - Bolt

- ☐ 40 Nm + 90°
- ☐ Gearbox mounting to body
- ☐ Renew

16 - Gearbox mounting

- ☐ Removing and installing ⇒ [page 153](#)
- ☐ Fit to gearbox bracket, tightening torque ⇒ [page 152](#)

17 - Bolt

- ☐ 60 Nm + 90°
- ☐ Gearbox bracket to gearbox
- ☐ Renew

18 - Bolt

- ☐ 60 Nm + 90°
- ☐ Gearbox bracket to gearbox
- ☐ Renew

19 - Gearbox bracket

- ☐ Fit to gearbox, tightening torque ⇒ [page 152](#)

Protected by copyright. Any reproduction, in part or in whole, is not permitted unless authorized by Audi AG. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

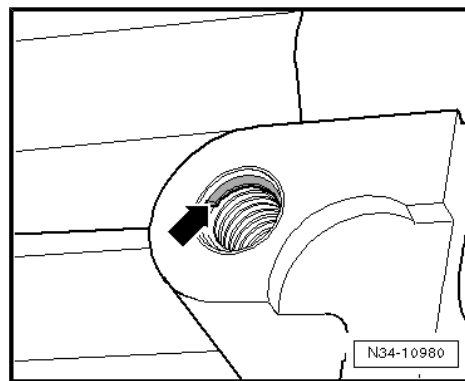


Gearbox with thread inserts (e.g. "HeliCoil") for securing pendulum support



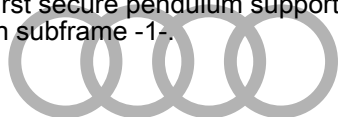
Note

- ◆ Gearboxes manufactured from 28 05 7 onwards have thread inserts (e.g. "HeliCoil") in the bolt holes for the pendulum support.
- ◆ These can be recognised by the shoulder on the first thread turn -arrow-.
- ◆ Different tightening torques ⇒ [Item 2 \(page 150\)](#)
- ◆ Select correct securing bolts from ⇒ *Electronic parts catalogue*.

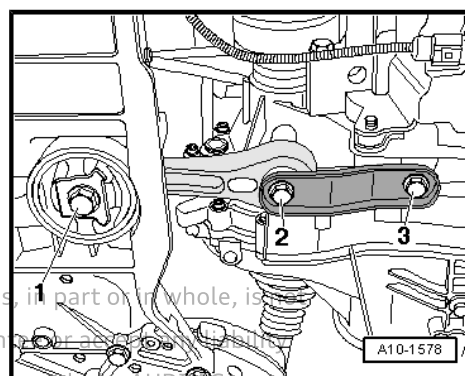


Installing pendulum support

- Renew bolts.
- First secure pendulum support to gearbox (-2- and -3-), then on subframe -1-.

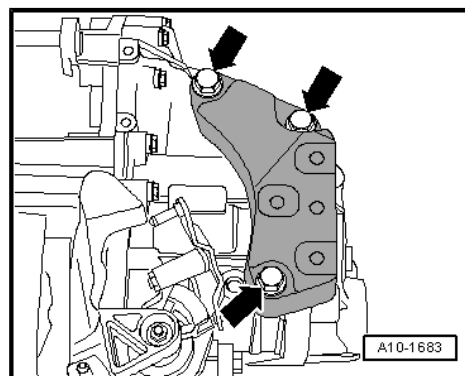


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee the accuracy of the information with respect to the correctness of information in this document. Copyright by AUDI AG.



Assembly mounting on gearbox side: tightening sequence

- First secure gearbox bracket to gearbox -arrows-.



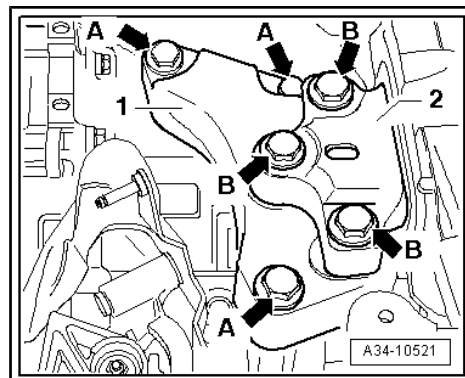
- Pull gearbox up with spindle on support bracket - 10 - 222 A- until gearbox bracket -1- contacts support arm of gearbox mounting -2-.
- Hand-tighten bolts -arrows B- initially.



Caution

Screw in bolts straight when fitting as otherwise the threads in the support arm of the gearbox mounting will be damaged.

- ◆ **The gearbox bracket -1- and the support arm of the gearbox mounting -2- must be aligned in absolutely parallel position before fitting the bolts -arrows B-. If necessary, lift gearbox at rear using trolley jack.**



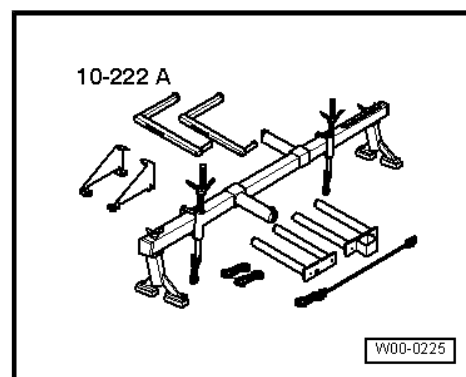
- Only tighten bolts after subframe has been installed ⇒ Rep. gr. 40 and assembly mountings aligned ⇒ Rep. gr. 10.



3.1 Removing and installing gearbox mounting

Special tools and workshop equipment required

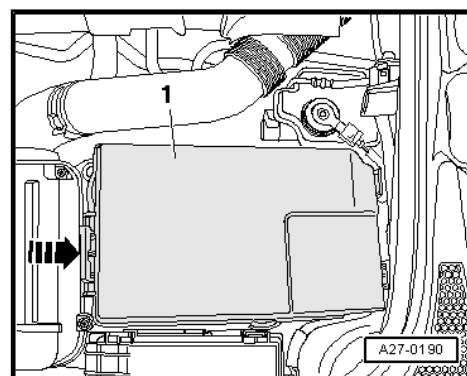
- ◆ Support bracket - 10 - 222 A-



Removing

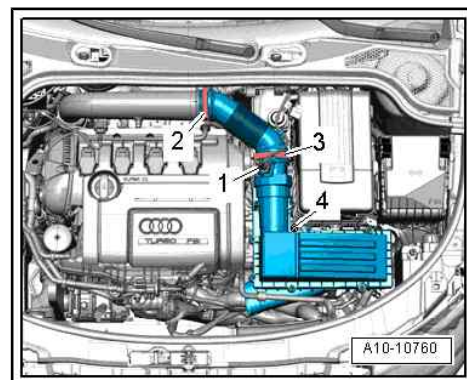
Caution
When disconnecting the battery there is a risk of irreparable damage to electronic components.
◆ **Observe the correct procedure for disconnecting the battery ⇒ *Electrical system*; Rep. gr. 27.**

- Press release tab -arrow- and remove cover -1- over battery.
- With ignition switched off, disconnect and remove battery ⇒ Rep. gr. 27 .



Vehicles with air cleaner housing in front of battery

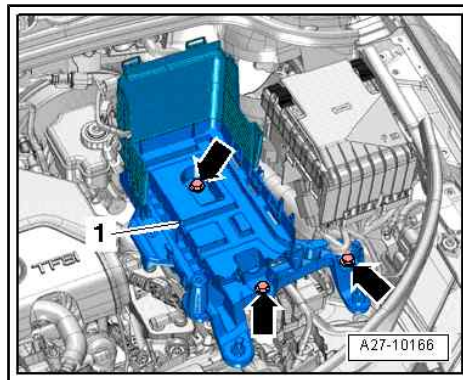
- Remove complete air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .



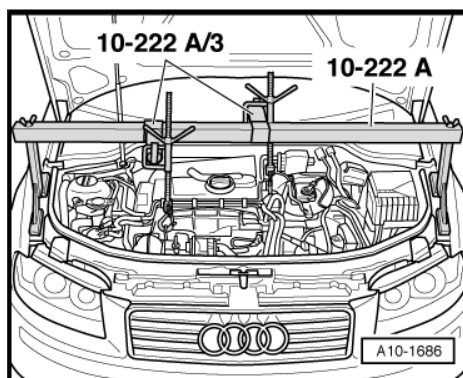


All vehicles (continued)

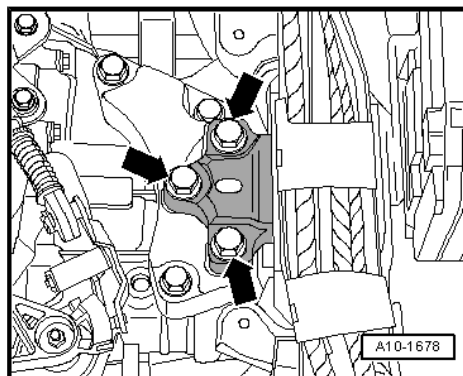
- Remove bolts -arrows- and take out battery mounting -1- .



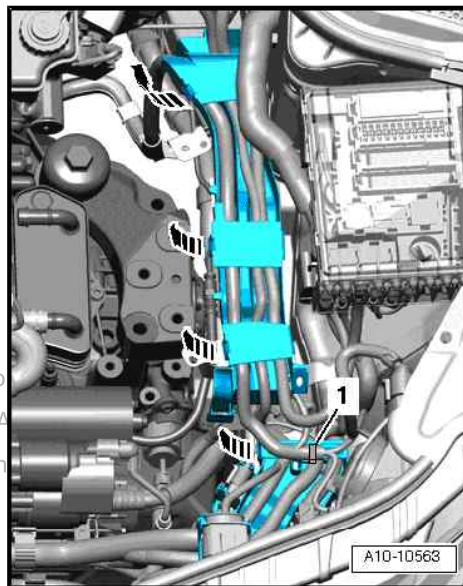
- Remove engine cover panel ⇒ Rep. gr. 10 .
- Set up support bracket - 10 - 222 A- with adapters - 10 - 222 A /3- on wing mounting flanges.
- Engage hooks of spindles on lifting eyes.
- Take up weight of engine evenly with both spindles; do not lift.



- Remove bolts -arrows-.



- Open retainers for wiring duct -arrows-.
- Cut open cable tie -1- and push electrical wiring to one side.
- Unclip wiring duct.



Protected by copyright. Copying for private or commercial use is not permitted unless authorised by AUDI AG. AUDI AG is not responsible with respect to the correctness of information in this manual.

not
ty



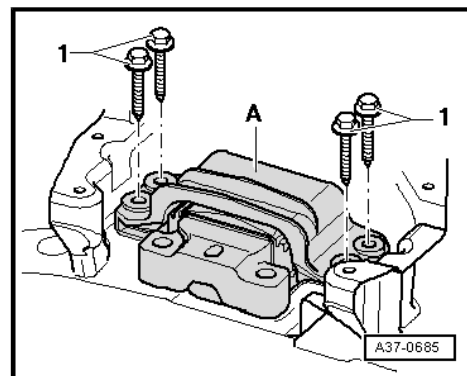
- Remove bolts -1- and detach gearbox mounting -A-.

Installing

- Tightening torques
⇒ ["3 Exploded view - assembly mountings", page 150](#)

Installation is carried out in reverse order; note the following:

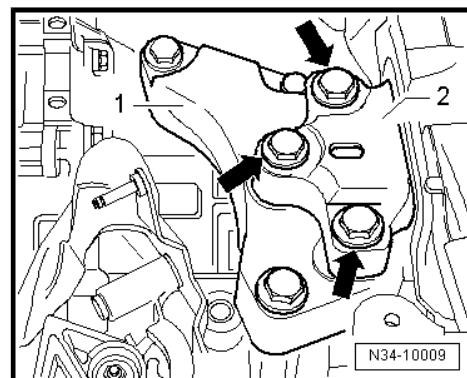
- Secure gearbox mounting -A- to longitudinal member.



Caution

Insert bolts straight when fitting as otherwise the threads in the gearbox bracket -1- can be damaged.

- ◆ *The gearbox bracket -1- and the support arm of the gearbox mounting -2- must be aligned in absolutely parallel position before fitting the bolts -arrows-. If necessary, lift gearbox at rear using trolley jack.*



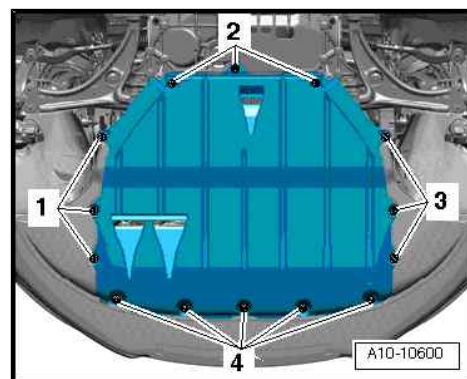
- Pull gearbox up with spindle on support bracket until gearbox bracket -1- contacts support arm of gearbox mounting -2-.
- Adjust assembly mountings ⇒ Rep. gr. 10 .
- Secure support arm of gearbox mounting -2- to gearbox bracket.
- Detach support bracket - 10 - 222 A- from engine.
- Install engine cover panel ⇒ Rep. gr. 10 .
- Install battery tray and battery ⇒ [Electrical system; Rep. gr. 27.](#)
- Install air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24

3.2 Removing and installing pendulum support

Removing

Proceed as follows:

- Release fasteners -1 ... 4- and remove centre noise insulation.



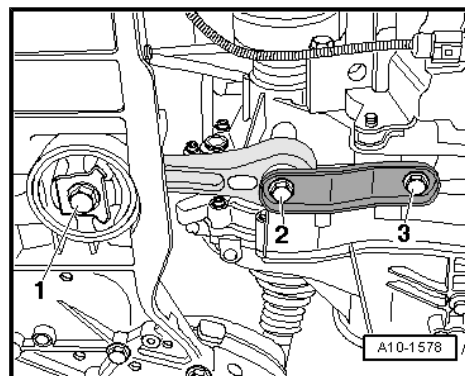


- Unscrew bolts -1 ... 3- and remove pendulum support.

Installing pendulum support

Installation is carried out in reverse order; note the following:

- Tightening torques
⇒ [“3 Exploded view - assembly mountings”, page 150](#)

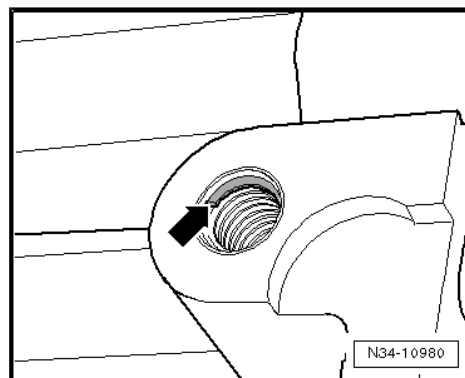


Gearbox with thread inserts (e.g. “HeliCoil”) for securing pendulum support

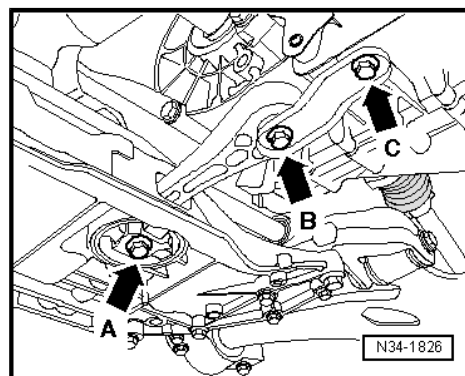


Note

- ◆ Gearboxes manufactured from 28 05 7 onwards have thread inserts (e.g. “HeliCoil”) in the bolt holes for the pendulum support.
- ◆ These can be recognised by the shoulder on the first thread turn -arrow-.
- ◆ Different tightening torques ⇒ [Item 2 \(page 150\)](#)
- ◆ Select correct securing bolts from ⇒ *Electronic parts catalogue* .



- First secure pendulum support to gearbox -arrow B- and -arrow C-, then on subframe -arrow A-.
- Install noise insulation ⇒ General body repairs, exterior; Rep. gr. 66 ; Noise insulation; Exploded view - noise insulation .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



4 Gear oil

⇒ [“4.1 Distinguishing manual gearboxes for oil filling”, page 157](#)

⇒ [“4.2 Checking gear oil level”, page 157](#)

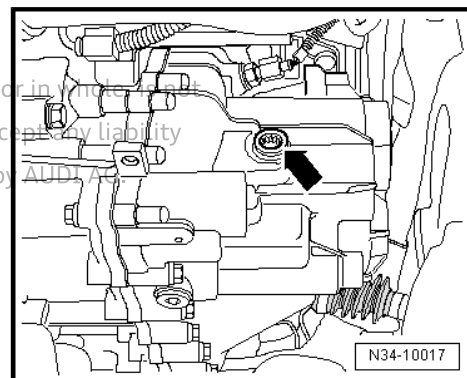
⇒ [“4.2.3 Tightening torque for oil filler/oil drain plug”, page 161](#)

4.1 Distinguishing manual gearboxes for oil filling

There is no oil filler plug -arrow- on some manual gearbox versions.

Please note the following table.

Manual gearbox with oil filler plug	Manual gearbox without oil filler plug
⇒ “4.2.1 Checking gear oil level - gearbox with oil filler plug”, page 157	Checking gear oil level • Gearbox installed ⇒ “4.2.2 Checking gear oil level - gearbox without oil filler plug”, page 159
	Filling up with gear oil ◆ Gearbox has been removed and is to be repaired ⇒ Servicing - manual gearbox; Rep. gr. 34 ; Dismantling and assembling gearbox; Exploded view - gearbox



4.2 Checking gear oil level

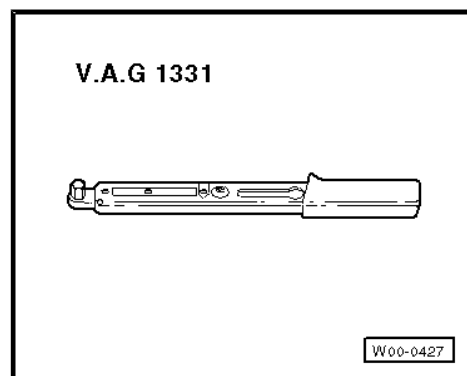
⇒ [“4.2.1 Checking gear oil level - gearbox with oil filler plug”, page 157](#)

⇒ [“4.2.2 Checking gear oil level - gearbox without oil filler plug”, page 159](#)

4.2.1 Checking gear oil level - gearbox with oil filler plug

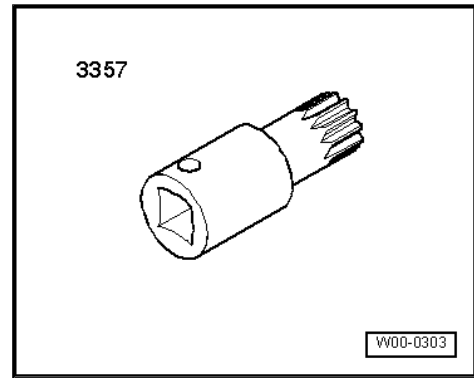
Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1331-

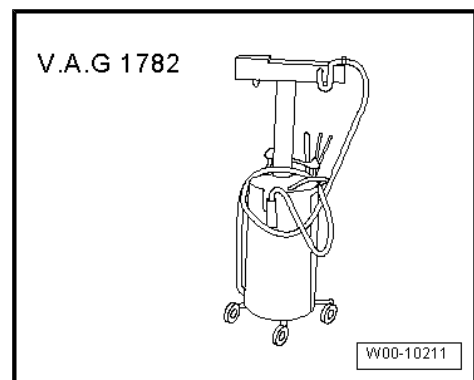




◆ Socket - 3357-

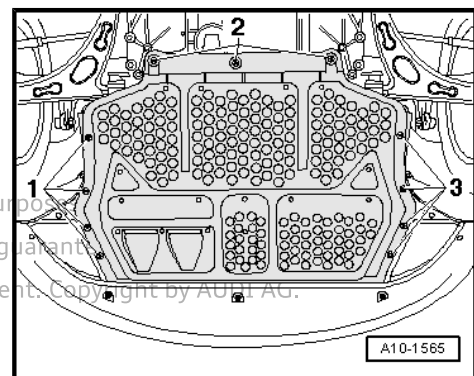


- ◆ Or
- ◆ 17 mm socket (hexagon key)
- ◆ Used oil collection and extraction unit - V.A.G 1782-

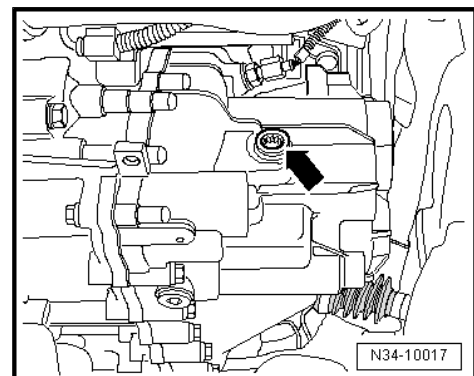


Procedure

- Tightening torque ⇒ [page 161](#)
- Drive vehicle onto a four-column lifting platform or over an inspection pit (vehicle must be horizontal).
- Remove noise insulation (centre) by releasing fasteners -1 ... 3-.
- Place used oil collection and extraction unit - V.A.G 1782- below gearbox.

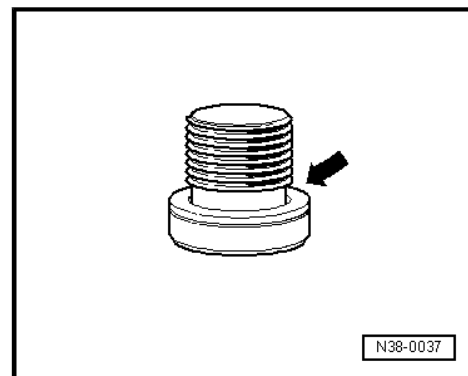


- Remove oil filler plug -arrow- in manual gearbox.
- Specification: oil level up to bottom lip of filler hole
- Top up with gear oil if necessary; specification ⇒ Electronic parts catalogue .



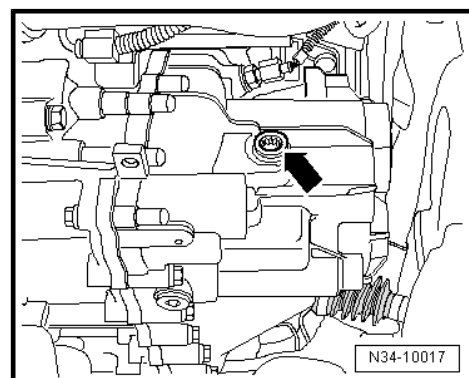


- Screw in and tighten plug with new seal -arrow-, if fitted
⇒ ["4.2.3 Tightening torque for oil filler/oil drain plug", page 161](#) .
- Install noise insulation ⇒ General body repairs, exterior; Rep. gr. 66 ; Noise insulation; Exploded view - noise insulation .



4.2.2 Checking gear oil level - gearbox without oil filler plug

- On gearboxes without an oil filler plug -arrow-, it is not possible to check the oil level by carrying out a visual inspection.
- The oil must be drained completely and the gearbox must then be filled with a precisely defined quantity of oil.



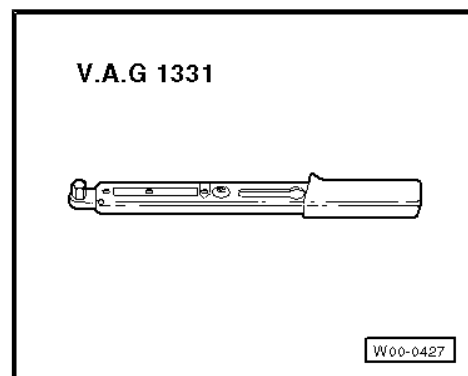
Special tools and workshop equipment required

- ◆ Multi-point bit - 3357- for oil drain plug with multi-point socket

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG

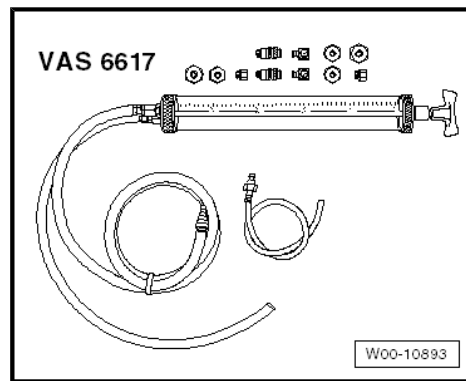


- ◆ Torque wrench - V.A.G 1331-





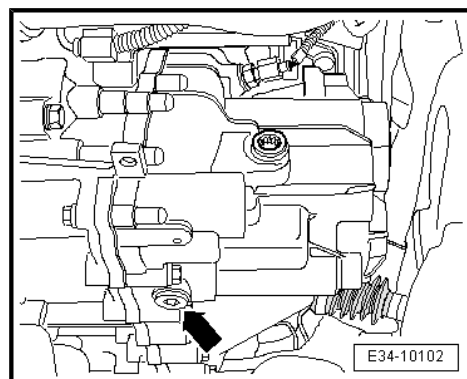
- ◆ Hand pump for gear oil - VAS 6617-



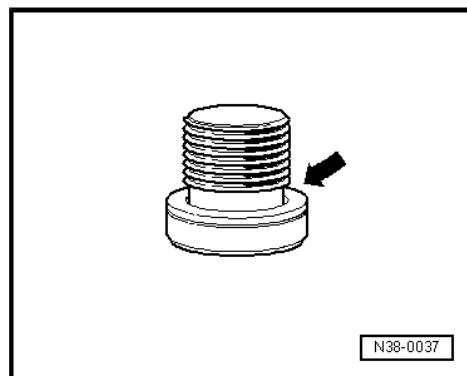
- ◆ Adapter -VAS 6617/11- (not illustrated)
- ◆ Measuring container, capacity at least 3 litres

Procedure

- Gear oil specifications ⇒ Electronic parts catalogue
- Remove one-piece noise insulation / noise insulation (front) ⇒ General body repairs, exterior, Rep. gr. 66 ; Noise insulation; Exploded view - noise insulation
- Place measuring container with capacity of at least 3 litres underneath (container must have been cleaned thoroughly).
- Remove oil drain plug -arrow- and drain gear oil into measuring container until no more oil drips out.

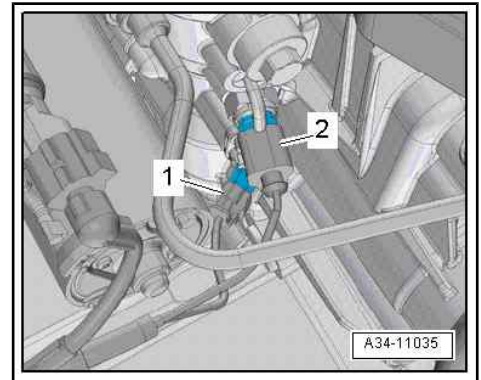


- Screw in and tighten oil drain plug with new seal -arrow-, if fitted
⇒ [“4.2.3 Tightening torque for oil filler/oil drain plug”, page 161](#).
- Check quantity of oil in measuring container and top up if necessary.
- Specification: 2.15 ltr.



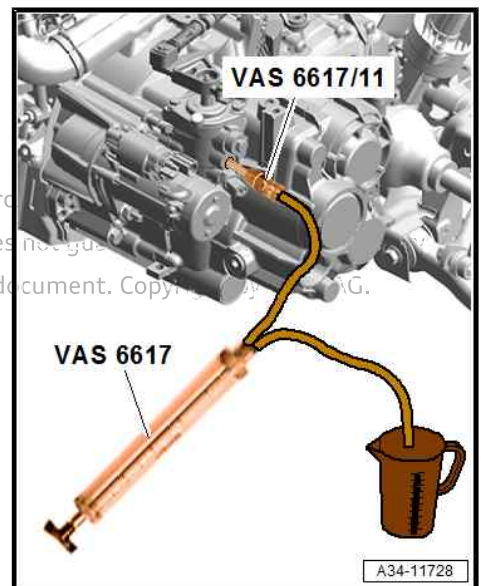


- Unplug electrical connector -2- and unscrew reversing light switch - F4- .



- Fill gearbox with 2.15 ltr. of gear oil via hole for reversing light switch using hand pump for gear oil - VAS 6617- and adapter -VAS 6617/11- .

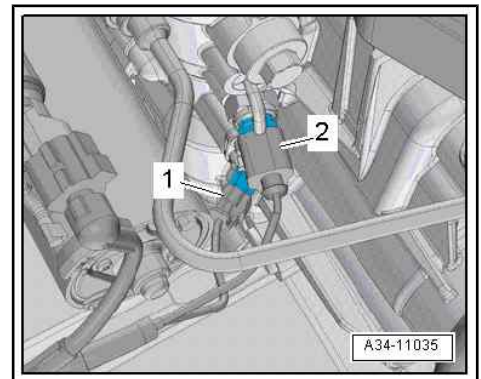
Protected by copyright. Copying for private or commercial use is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee the correctness of information in this document. Copyright © Audi AG.



- Secure reversing light switch - F4- and plug in electrical connector -2-.

Tightening torques

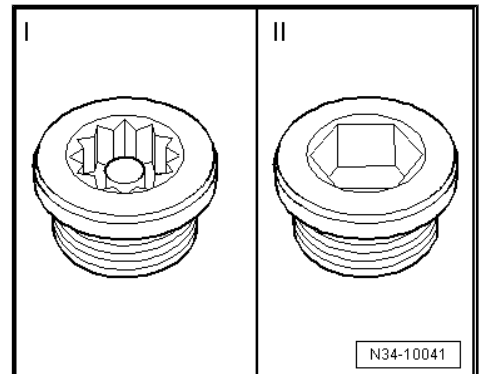
- ◆ Reversing light switch : 20 Nm
- ◆ ⇒ General body repairs, exterior; Rep. gr. 66 ; Noise insulation; Exploded view - noise insulation



4.2.3 Tightening torque for oil filler/oil drain plug

Different versions of oil filler/oil drain plug

- I - Oil filler/oil drain plug with multi-point socket: 45 Nm
- II - Oil filler/oil drain plug with hexagon socket 35 Nm





5 Exploded view - selector unit

1 - Bearing bush

- ❑ For selector shaft
- ❑ Removing and installing
⇒ Servicing 6-speed manual gearbox 02Q, front-wheel drive and four-wheel drive; Rep. gr. 34 ; Dismantling and assembling gearbox; Exploded view - gearbox housing and selector mechanism

2 - Selector unit

- ❑ Consists of selector shaft and selector mechanism cover
- ❑ Components cannot be separated from each other
- ❑ Different versions
- ❑ For correct version, refer to ⇒ Electronic parts catalogue
- ❑ Removing and installing (with gearbox installed)
⇒ [page 165](#)

3 - O-ring

- ❑ Fit in circular slot on selector mechanism cover
- ❑ Lubricate with gear oil before installing
- ❑ Always renew

4 - Cap

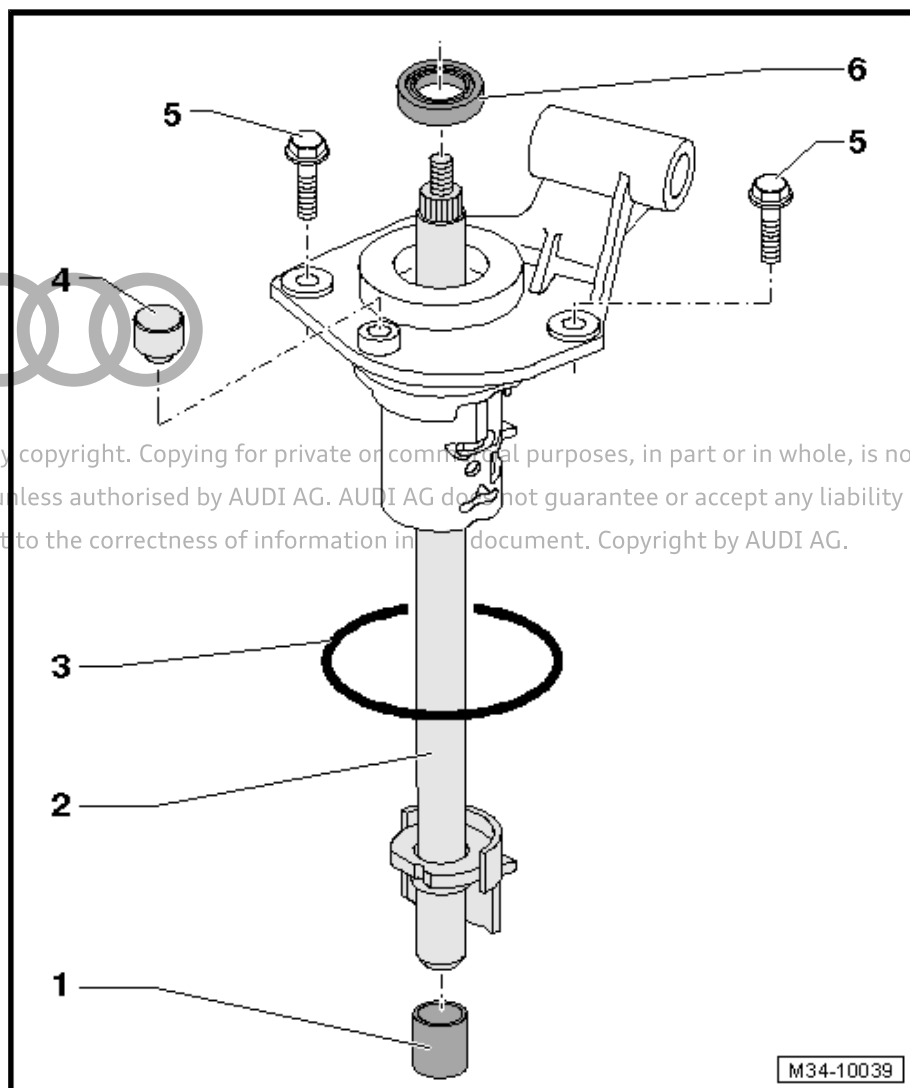
- ❑ For gearbox breather

5 - Bolt

- ❑ For selector unit on gearbox housing
- ❑ 20 Nm
- ❑ Always renew

6 - Oil seal for selector shaft

- ❑ Renewing ⇒ [page 162](#)

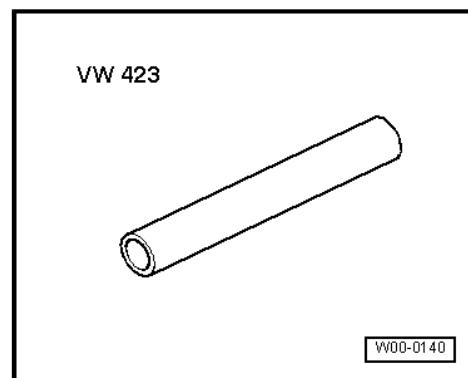


5.1 Renewing oil seal for selector shaft

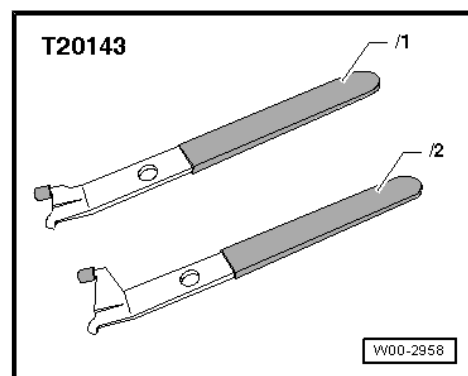
Special tools and workshop equipment required



◆ Tube - VW 423-



◆ Extractor lever - T20143/1-



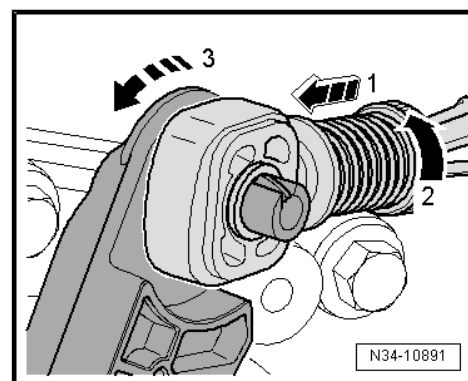
◆ Sealing grease - G 052 128 A1-

Procedure

- Remove air cleaner housing completely ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .

Plastic gate relay lever:

- To prevent damage to gate selector cable, cable end-piece must be detached from gate selector cable before removing relay lever.
- Pull locking mechanism forwards in direction of -arrow 1- onto stop and then turn to left in direction of -arrow 2- to lock.
- Then press gate relay lever forwards (in direction of -arrow 3-).
- Do not detach cable end-piece from gate relay lever until gate relay lever has been removed ⇒ [page 77](#) .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Metal gate relay lever:

- Detach securing clip -2- and push gate relay lever -3- sideways out of bearing.

Plastic gate relay lever -1-:

- Removing gate relay lever (with detent catch) ⇒ [page 76](#)
- Remove gate relay lever (with clip) ⇒ [page 77](#)

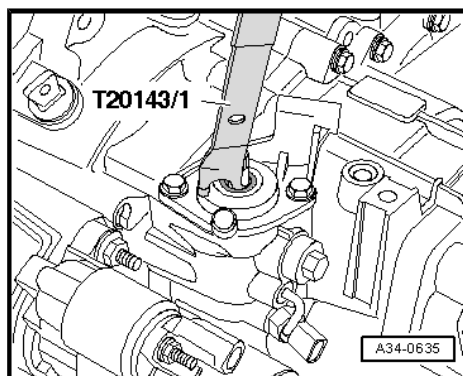
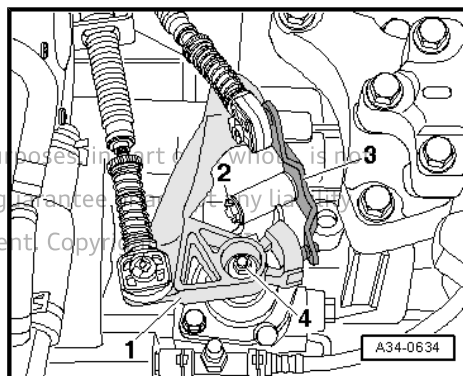
All vehicles (continued):



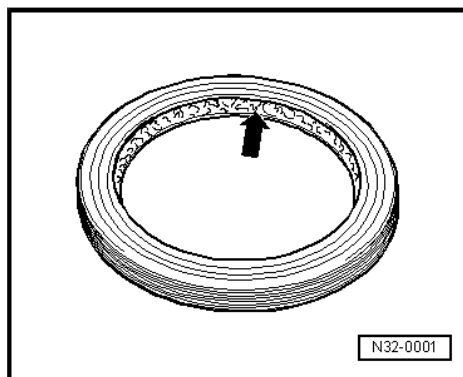
Note

If the gearbox support makes it impossible to remove the gate relay lever, remove the gate selector cable from the gate relay lever. Guide the slide block out of gearbox selector lever.

- Remove nut -4- and take out gearbox selector lever -1-.
- Pry out oil seal using extractor lever - T20143/1 -.



- Lightly oil outer circumference of new oil seal.
- Drive in new oil seal onto stop (take care to keep oil seal straight).
- Pack space between sealing lip and dust lip -arrow- half full with sealing grease - G 052 128 A1- .



- Drive in oil seal using tube - VW 423- .

Perform further installation in reverse order, paying attention to the following:

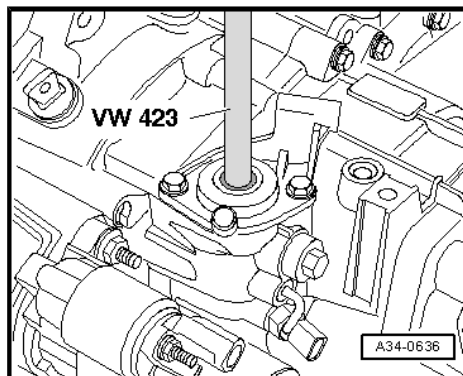
- Install gearbox selector lever and gate relay lever ⇒ [page 69](#) / ⇒ [page 73](#) .



Note

The gearbox selector lever can only be installed in one position.

- Install air cleaner housing ⇒ Rep. gr. 23 or ⇒ Rep. gr. 24 .





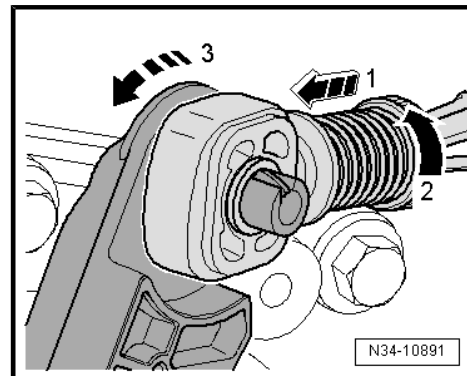
5.2 Removing and installing selector unit

Removing

- Remove complete air cleaner housing (does not apply to engine codes BWA and BPY) ⇒ Rep. gr. 24 ; Air cleaner; Exploded view - air cleaner housing .

Plastic gate relay lever -1-:

- Pull locking mechanism forwards in direction of -arrow 1- onto stop and then turn to left in direction of -arrow 2- to lock.
- Press gate relay lever forwards (in direction of -arrow 3-) and at the same time pull gate selector cable out of cable end-piece.
- Remove gate relay lever (with detent catch) ⇒ [page 76](#) .
- Remove gate relay lever (with clip) ⇒ [page 77](#) .



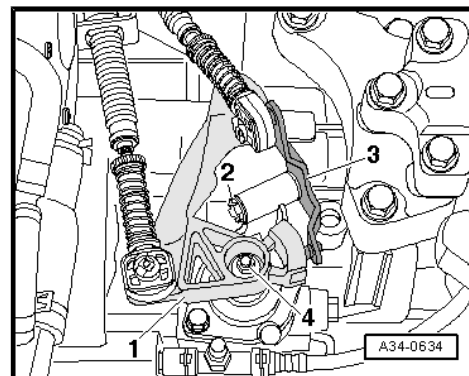
Metal gate relay lever:

- Detach securing clip -2- and push gate relay lever -3- sideways out of bearing.



Note

If the gearbox bracket makes it impossible to remove the gate relay lever, remove the gate selector cable from the gate relay lever. Guide the slide block out of gearbox selector lever.



All vehicles (continued):

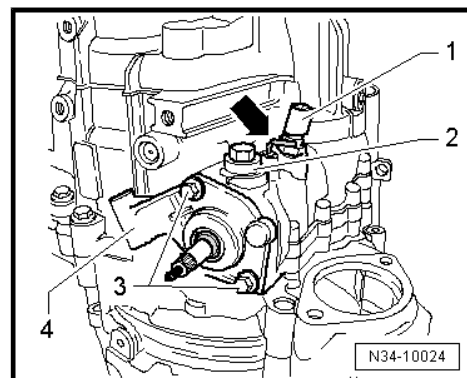
- Remove nut -4- and take out gearbox selector lever -1-.
- Put selector shaft in neutral position.



Caution

Make sure that the selector shaft is not locked in position by the angled rod -arrow- when carrying out the following steps.

- Remove reversing light switch - F4- -1-.
- Remove locking bolt -2-.
- Unscrew bolts -3-.
- Pull selector shaft with selector mechanism cover -4- out of gearbox housing.

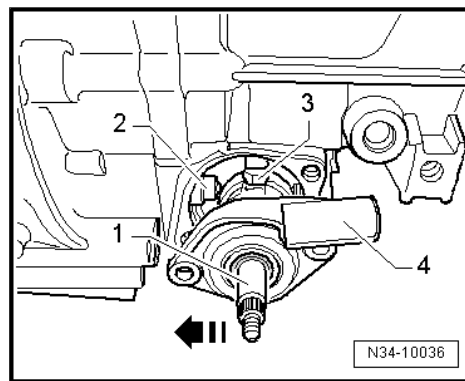


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Installing

- Tightening torques ⇒ Servicing 6-speed manual gearbox 02Q; Rep. gr. 34 ; Dismantling and assembling gearbox; Exploded view - gearbox housing and selector mechanism
- Now push selector shaft -1- against stop sleeve -2- in direction of -arrow- and run selector finger -3- down through selector forks and onto stop.
- Selector mechanism cover -4- should be parallel to joint surface on gearbox housing.
- Selector shaft should move up and down easily (gate selector movement).



Note

If the selector mechanism cover is not parallel with the joint surface, the selector shaft is not seated in its bottom mounting.

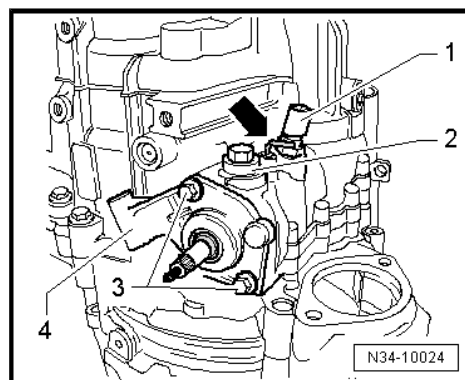
- Tighten bolts -3- for selector mechanism cover -4-.
- Screw in locking bolt -2-; angled rod -arrow- must be released.
- Install reversing light switch - F4- -1-.
- Install gearbox selector lever and gate relay lever ⇒ [page 69](#) / [⇒ page 73](#) .



Note

The gearbox selector lever can only be installed in one position.

- Install air cleaner housing (does not apply to engine codes BWA and BPY) ⇒ Rep. gr. 24 ; Air cleaner; Exploded view - air cleaner housing .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



6

Dismantling and assembling gearbox

For a detailed description please refer to the Workshop Manual

⇒ Servicing 6-speed manual gearbox 02Q; Rep. gr. 34 ; Dismantling and assembling gearbox.

Reproduction or copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



7 Gearbox housing, clutch housing

For a detailed description please refer to the Workshop Manual
⇒ Servicing 6-speed manual gearbox 02Q; Rep. gr. 34 ; Gearbox
housing, clutch housing .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



35 – Gears, shafts

1 Input shaft

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without the prior written consent of Audi AG. Audi AG does not warrant or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

For a detailed description please refer to the Workshop Manual
➔ Servicing 6-speed manual gearbox 02Q; Rep. gr. 35; Input shaft.



2 Output shaft

For a detailed description please refer to the Workshop Manual
⇒ Servicing 6-speed manual gearbox 02Q; Rep. gr. 35 ; Output
shaft .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



39 – Final drive - differential

1 Oil seals

⇒ [“1.1 Overview of fitting locations - oil seals”, page 171](#)

⇒ [“1.2 Renewing flange shaft oil seal \(left-side\)”, page 172](#)

⇒ [“1.3 Renewing stub shaft oil seal \(right-side\) - up to gearbox manufacturing date 31 10 4”, page 175](#)

⇒ [“1.4 Renewing flange shaft oil seal \(right-side\) - from gearbox manufacturing date 01 11 4 onwards”, page 179](#)

⇒ [“1.5 Renewing input shaft oil seal”, page 182](#)

1.1 Overview of fitting locations - oil seals

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of

1 - Oil seal

- ❑ For flange shaft (right-side)

- ❑ ⇒ [“1.3 Renewing stub shaft oil seal \(right-side\) - up to gearbox manufacturing date 31 10 4”, page 175](#)

- ❑ Renewing
⇒ [“1.4 Renewing flange shaft oil seal \(right-side\) - from gearbox manufacturing date 01 11 4 onwards”, page 179](#)

2 - Oil seal

- ❑ For selector shaft
- ❑ Renewing ⇒ [page 162](#)

3 - Gearbox selector lever

4 - Nut

- ❑ Tightening torque
⇒ [Item 17 \(page 70\)](#)

5 - Oil seal

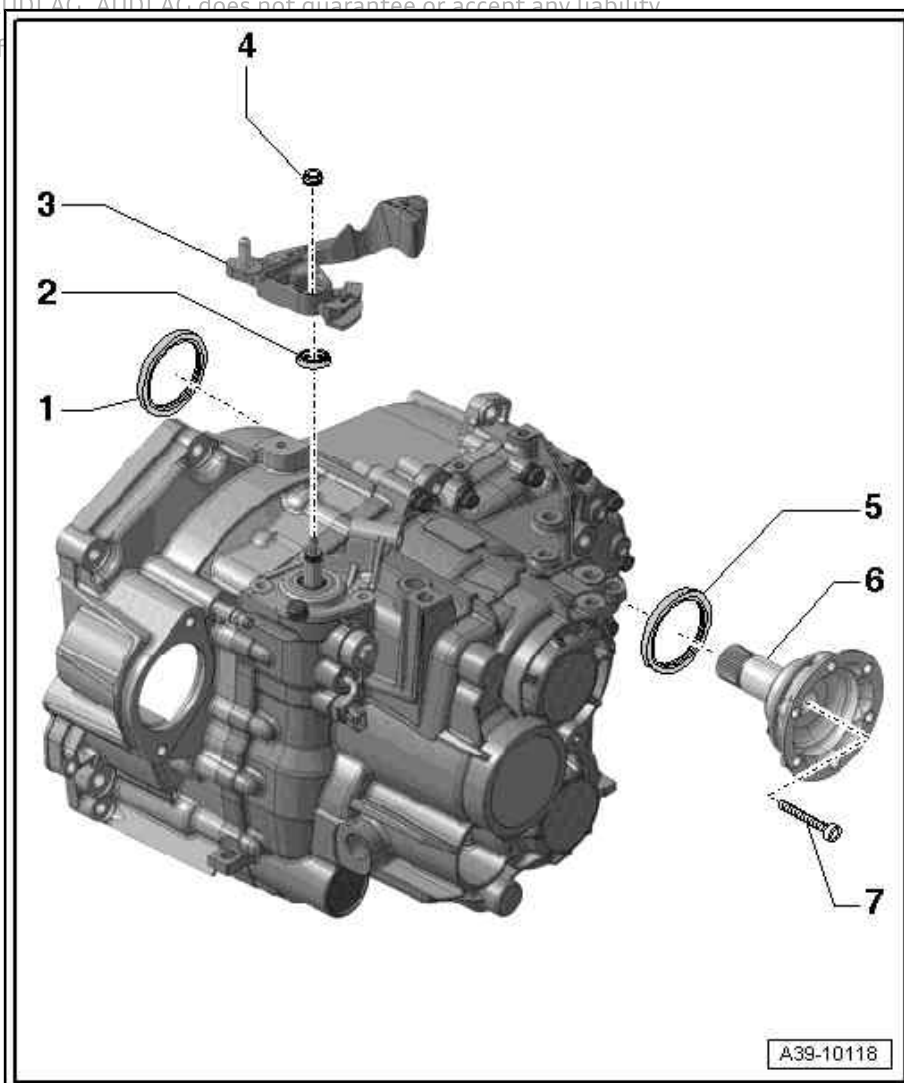
- ❑ For flange shaft (left-side)
- ❑ Renewing
⇒ [“1.2 Renewing flange shaft oil seal \(left-side\)”, page 172](#)

6 - Flange shaft

- ❑ ⇒ [“1.3 Renewing stub shaft oil seal \(right-side\) - up to gearbox manufacturing date 31 10 4”, page 175](#)
- ❑ Removing and installing (right-side)
⇒ [“1.4 Renewing flange shaft oil seal \(right-side\) - from gearbox manufacturing date 01 11 4 onwards”, page 179](#)
- ❑ Removing and installing (left-side) ⇒ [“1.2 Renewing flange shaft oil seal \(left-side\)”, page 172](#)

7 - Countersunk bolt

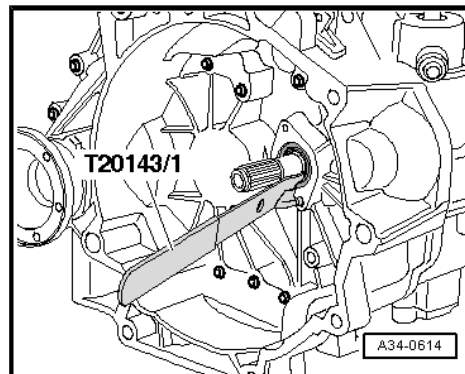
- ❑ 33 Nm





- ❑ For flange shaft (right and left)

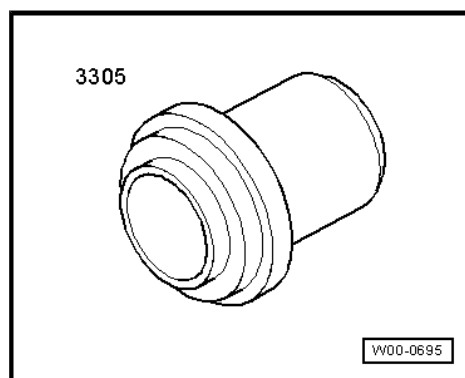
⇒ **"1.5 Renewing input shaft oil seal", page 182**



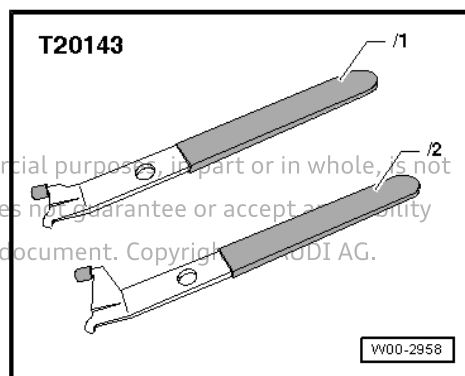
1.2 Renewing flange shaft oil seal (left-side)

Special tools and workshop equipment required

- ◆ Thrust piece - 3305-



- ◆ Extractor lever - T20143/2-



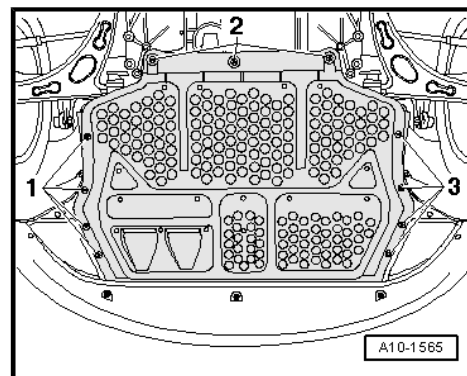
- ◆ Drip tray
- ◆ Sealing grease - G 052 128 A1-

Removing

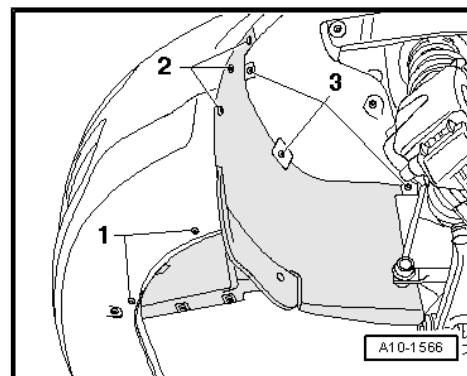
- Gearbox in vehicle



- Remove front left wheel.
- Remove noise insulation (centre) by releasing fasteners -1 ... 3-.



- Remove noise insulation (left-side) -fasteners 1 ... 3-.
- Unbolt drive shaft from gearbox flange.

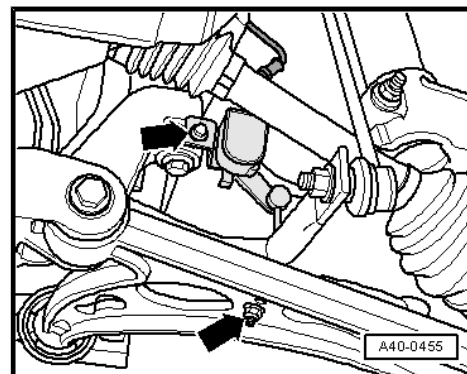


- If fitted, remove vehicle level sender (front left) - G78-
-arrows-.

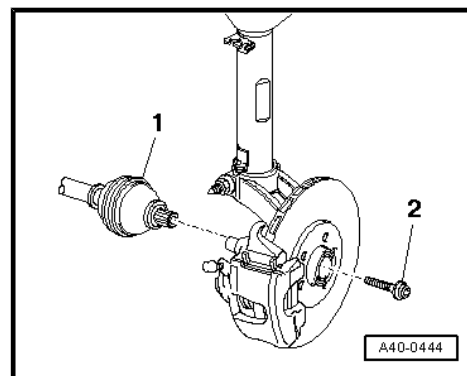


WARNING

The wheel bearing must not be under load (vehicle must not be standing on its wheels) when slackening the flange bolt securing the drive shaft.



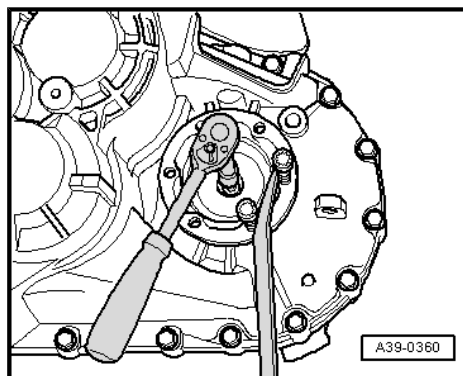
- Have a second mechanic apply the footbrake.
- Remove flange bolt -2- from left drive shaft.
- Remove drive shaft (left-side) ⇒ Rep. gr. 40 .



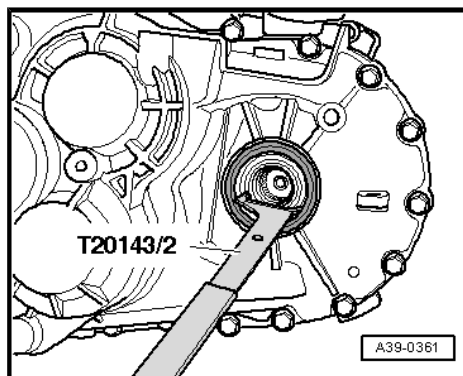
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



- Place drip tray under gearbox.
- Remove left flange shaft securing bolt; to do so, screw two bolts into flange and counterhold flange shaft with tyre iron or other suitable lever.
- Pull out flange shaft.

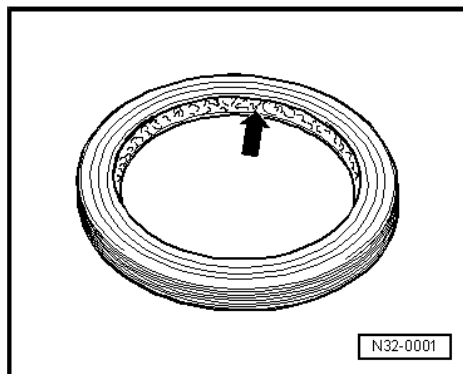


- Pull out flange shaft oil seal using extractor lever - T20143/2- .



Installing

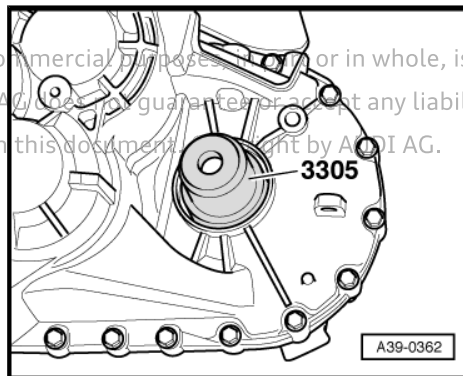
- Lightly oil outer circumference of new oil seal.
- Pack space between sealing lip and dust lip -arrow- half full with sealing grease - G 052 128 A1- .



- Drive in new oil seal as far as stop using thrust piece - 3305- (keep oil seal straight while installing).
- Push flange shaft in towards gearbox housing and tighten securing bolt. Tightening torque ⇒ [Item 7 \(page 171\)](#)

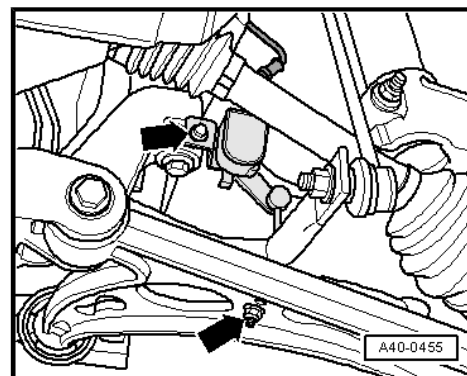
Perform further installation in reverse order, paying attention to the following:

- Install drive shaft (left-side) ⇒ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 .
- Fill up oil in gearbox and check oil level ⇒ [page 157](#) .





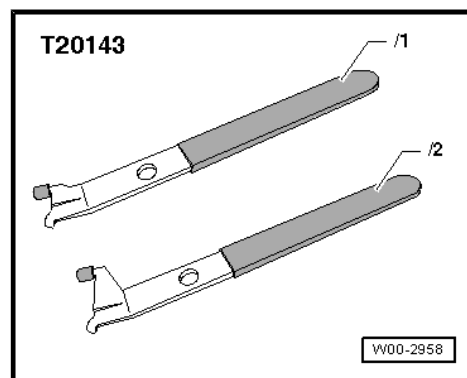
- If fitted, install vehicle level sender (front left) - G78- -arrows- and adjust headlights using function "Basic setting" ⇒ Maintenance ; Booklet 404 .



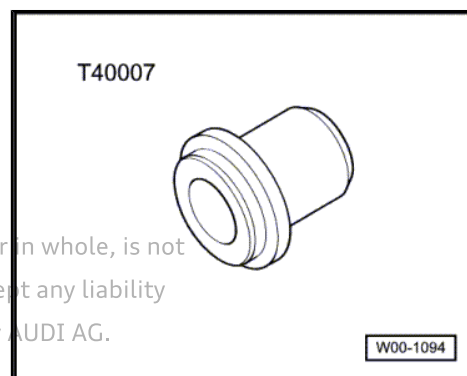
1.3 Renewing stub shaft oil seal (right-side) - up to gearbox manufacturing date 31 10 4

Special tools and workshop equipment required

- ◆ Extractor lever - T20143/-



- ◆ Thrust piece - T40007-



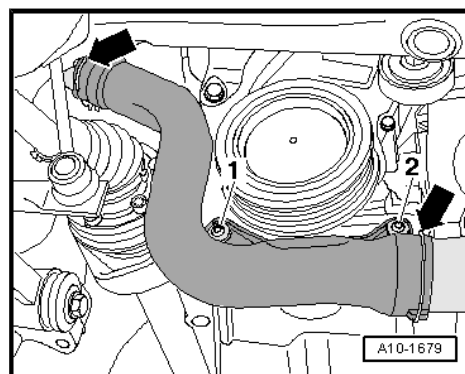
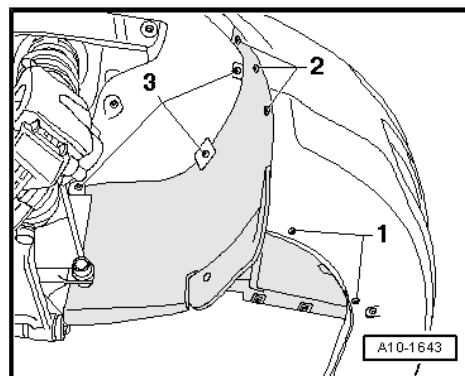
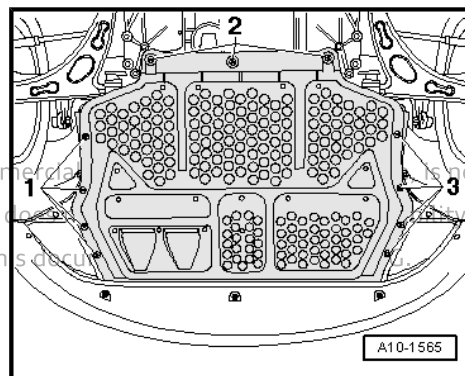
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- ◆ Drip tray
- ◆ Sealing grease - G 052 128 A1-
- ◆ Grease for clutch plate splines - G 000 100-



Procedure

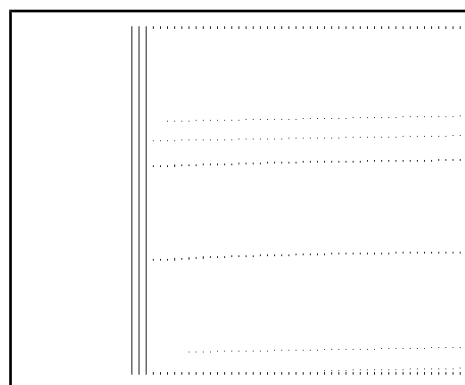
- Gearbox in vehicle
- Remove front right wheel.
- Remove noise insulation (centre) by releasing fasteners -1 ... 3-.
- Remove noise insulation (right-side) -fasteners 1 ... 3-.
- Remove bolts -1- and -2-.
- Lift retaining clips -arrows- slightly and remove right-side air pipe.



Note

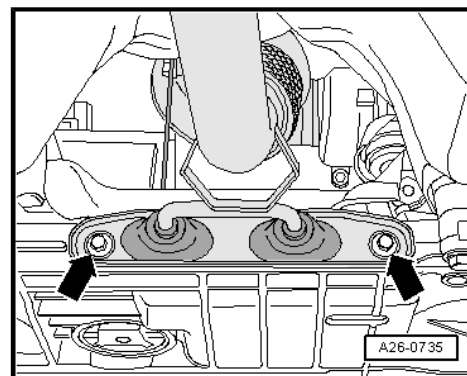
To avoid damage, the flexible joints in the front exhaust pipe must not be bent more than 10°.

- Disconnect exhaust system at clamp -arrows-.
- Push clamp towards the rear.

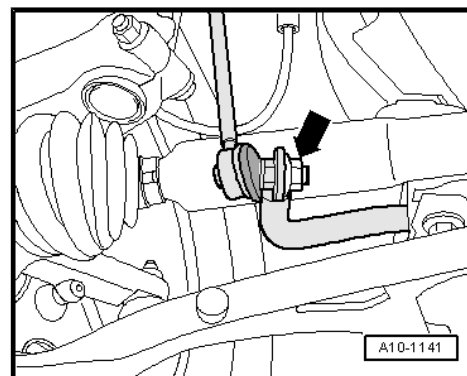




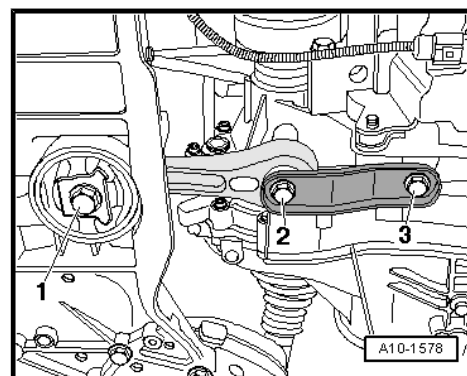
- Unbolt support bracket for exhaust system -arrows-.



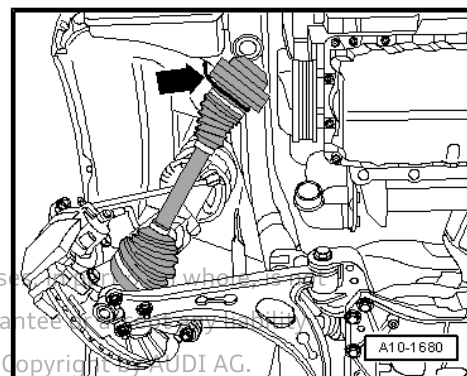
- Unscrew coupling rods on left and right of anti-roll bar -arrow-.



- Remove bolts -1 ... 3- and detach pendulum support.



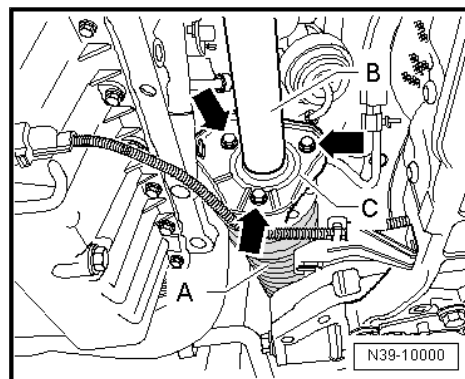
- Unscrew right drive shaft from intermediate bearing.
- Turn steering wheel to the right.
- Pivot right drive shaft towards the front and tie up on longitudinal member, as illustrated.



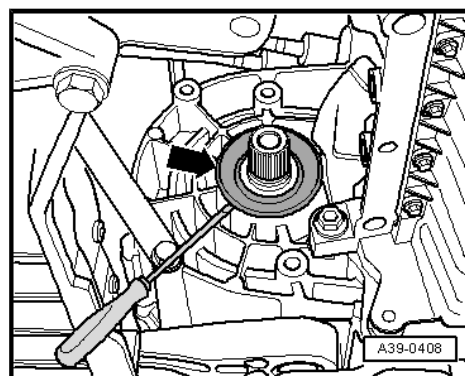
Protected by copyright. Copying for private or commercial purposes without permission is prohibited. Audi AG does not guarantee the accuracy of the information in this document. Copyright © AUDI AG.



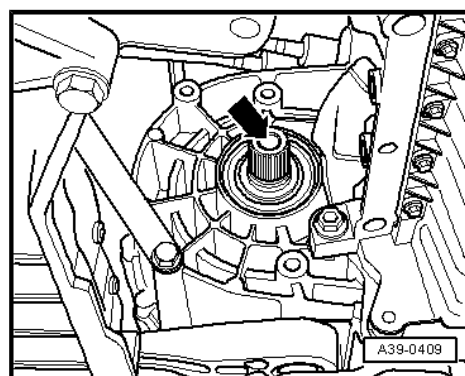
- Unbolt intermediate shaft -B- from bearing bracket -C- -arrows- and pull intermediate shaft off stub shaft in gearbox.



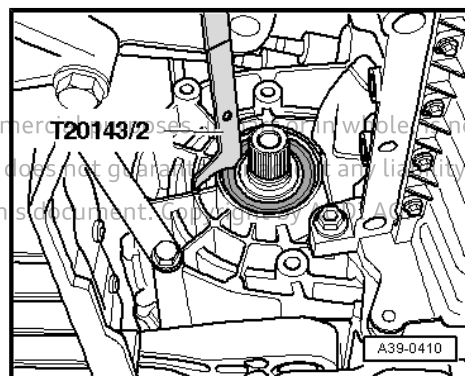
- Lever off dust cap with a screwdriver -arrow-.



- Remove bolt -arrow- securing stub shaft (right side).
- Place drip tray under gearbox.
- Pull out stub shaft.



- Pull out stub shaft oil seal using extractor lever - T20143/2 - .

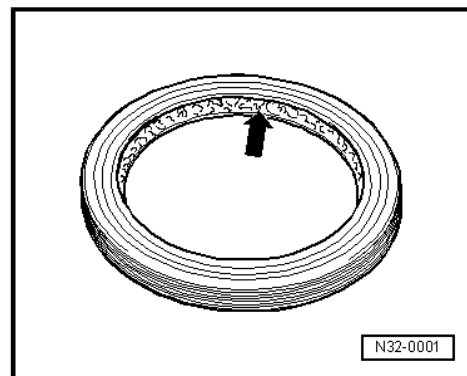


Protected by copyright. Copying for private or commercial use without permission is prohibited. Audi AG does not guarantee the accuracy of the information in this document. Audi AG is not liable for any damage or loss resulting from the use of this document.



Installing

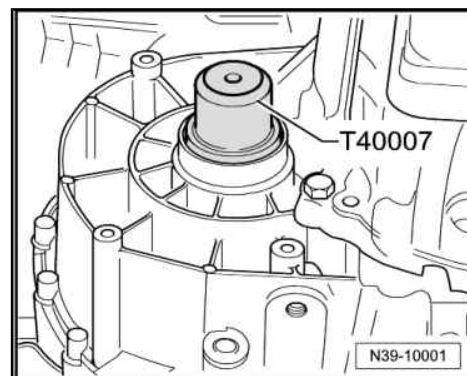
- Lightly oil outer circumference of new oil seal.
- Pack space between sealing lip and dust lip -arrow- half full with sealing grease - G 052 128 A1- .



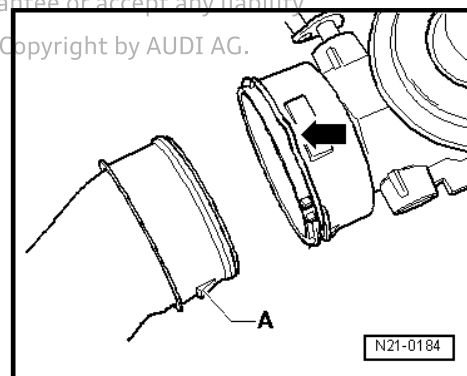
- Drive in new oil seal as far as stop using thrust piece - T40007- (keep oil seal straight while installing).
- Push stub shaft in towards gearbox housing and tighten securing bolt. Tightening torque ➔ [Item 7 \(page 171\)](#)

Perform further installation in reverse order, paying attention to the following:

- Apply grease for clutch plate splines - G 000 100- to splines on stub shaft.
- Install intermediate shaft and right drive shaft ➔ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 .
- Install anti-roll bar ➔ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 .



- When installing air pipes with plug-in connections, make sure retaining clip -arrow- snaps onto retaining lug -A-.
- Install exhaust system and ensure stress-free alignment ➔ Engine, mechanics; Rep. gr. 26 .
- Fill up oil in gearbox and check oil level ➔ [page 157](#) .



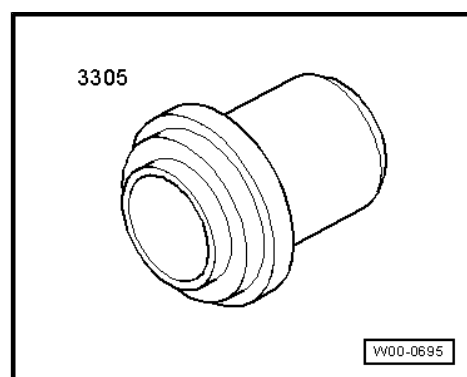
Tightening torque

Component	Nm
Air pipe to engine	10
Support bracket for exhaust system to subframe	23

1.4 Renewing flange shaft oil seal (right-side) - from gearbox manufacturing date 01 11 4 onwards

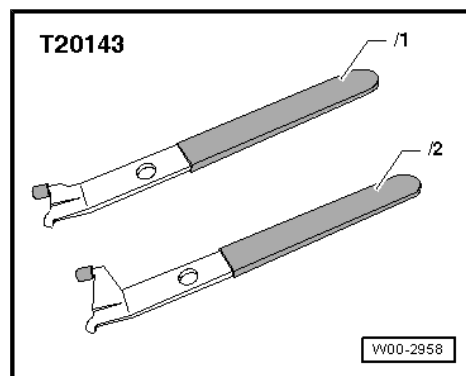
Special tools and workshop equipment required

- ◆ Thrust piece - 3305-

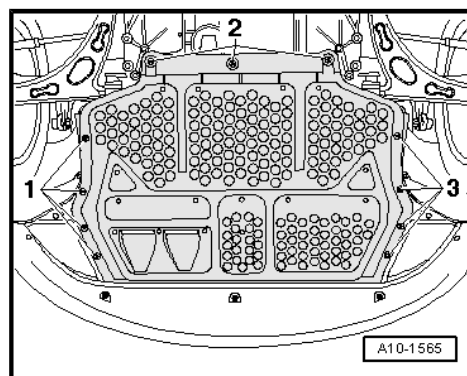




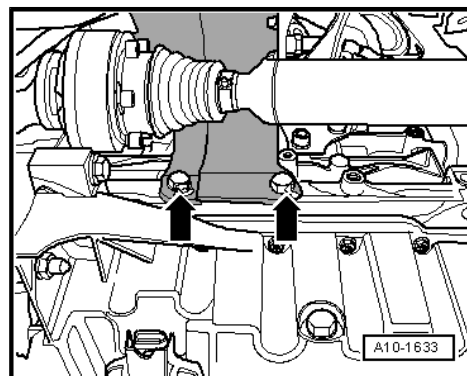
- ◆ Extractor lever - T20143/2-



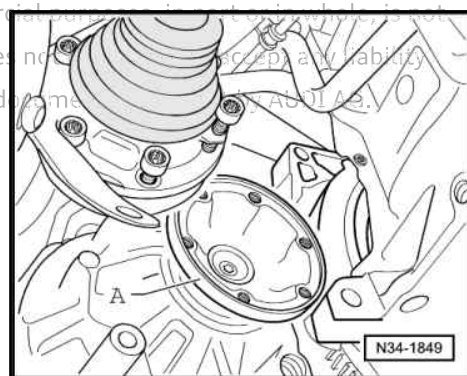
- ◆ Drip tray
- ◆ Sealing grease - G 052 128 A1-
- Gearbox in vehicle
- Remove noise insulation (centre) by releasing fasteners -1 ... 3-.



- Unbolt heat shield for drive shaft (right-side) -arrows-.

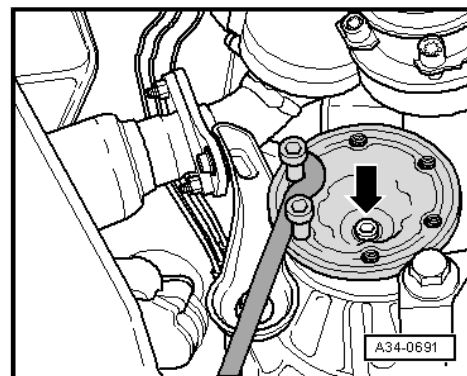


- Remove drive shaft (right-side) from gearbox flange shaft -A-.
- Secure drive shafts with wire, taking care not to damage surface protection.



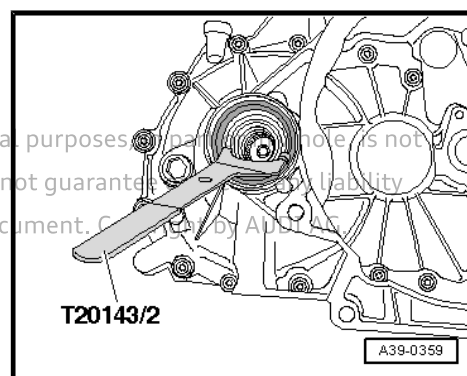


- Remove flange shaft securing bolt -arrow-. To do so, screw two bolts into flange and counterhold flange shaft with tyre iron or other suitable lever.
- Place drip tray below gearbox.
- Pull out flange shaft and spring.



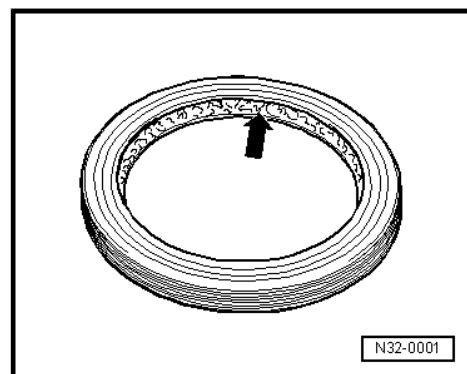
- Pull out flange shaft oil seal using extractor lever - T20143/2- .

Protected by copyright. Copying for private or commercial purposes, in particular for advertising or promotional purposes, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee the accuracy, completeness or reliability of the information in this document. Copyright by Audi AG.

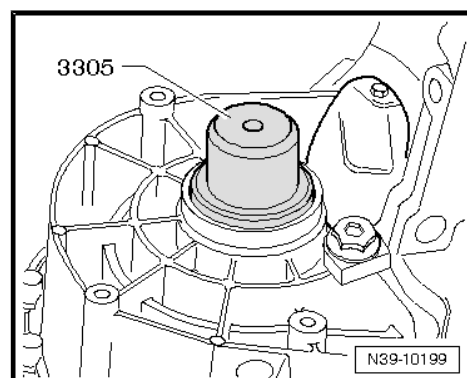


Installing

- Lightly oil outer circumference of new oil seal.
- Pack space between sealing lip and dust lip -arrow- half full with sealing grease - G 052 128 A1- .



- Drive in new seal onto stop (take care to keep seal straight).





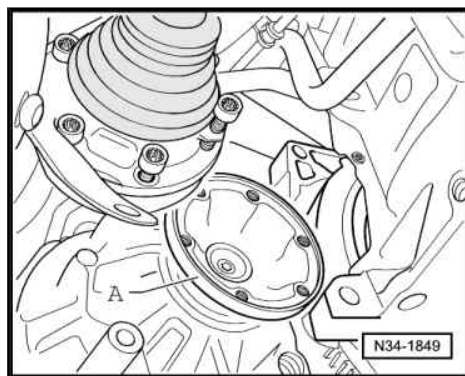
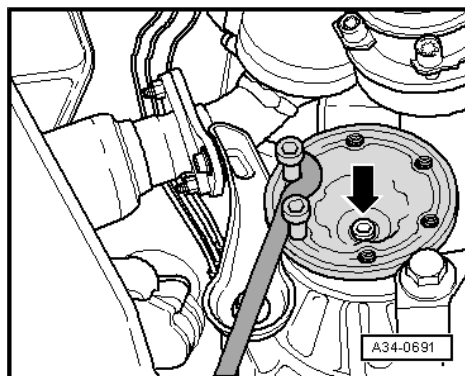
Secure flange shaft with countersunk bolt -arrow- and tighten to specified torque ➔ [Item 7 \(page 171\)](#) .

Perform further installation in reverse order, paying attention to the following:

- Bolt drive shaft (right-side) to gearbox flange shaft -A- ➔ Running gear, front-wheel drive and four-wheel drive; Rep. gr. 40 .
- Install heat shield for drive shaft (right-side).
- Fill up oil in gearbox and check oil level ➔ [page 157](#) .

Tightening torque

Component	Nm
Heat shield for drive shaft (right-side)	25



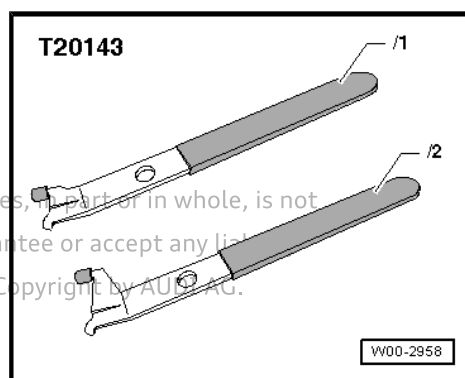
1.5 Renewing input shaft oil seal

Special tools and workshop equipment required

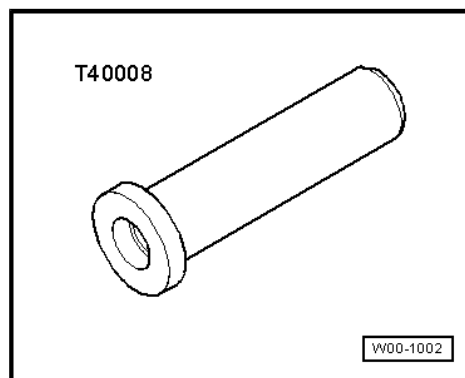
- ◆ Extractor lever - T20143/1-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



- ◆ Thrust piece - T40008-



- ◆ Sealing grease - G 052 128 A1-



Procedure

- Gearbox removed ⇒ [page 87](#) .
- Remove clutch slave cylinder with release bearing ⇒ [page 43](#) .
- Pry out input shaft oil seal using extractor lever - T20143/1- .

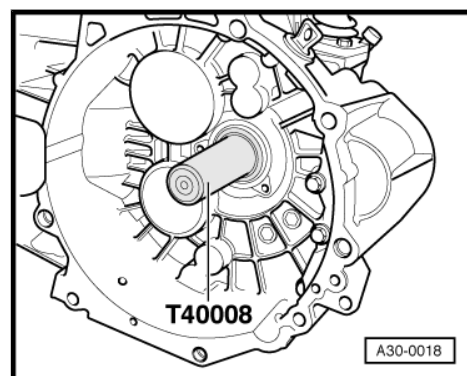
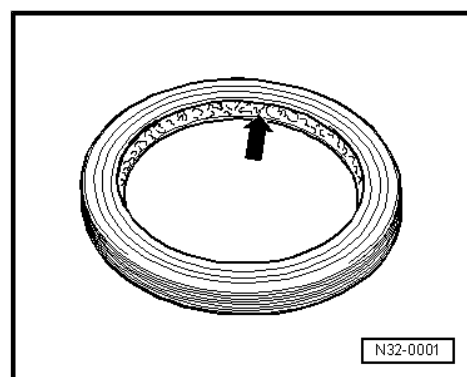
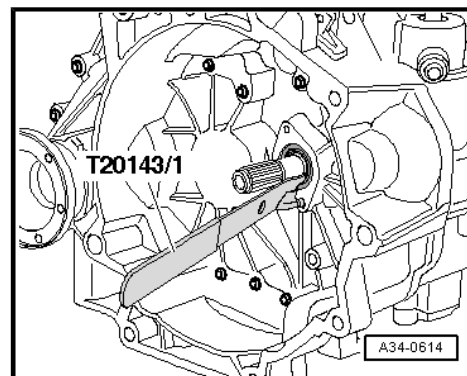


Note

Take care not to damage contact surface for oil seal on input shaft.

- Pack space between sealing lip and dust lip -arrow- half-full with sealing grease - G 052 128 A1- .
- Lightly oil outer circumference of new oil seal.

- Drive in oil seal until flush using thrust piece - T40008- .
- Install clutch slave cylinder with release bearing ⇒ [page 43](#) .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



2 Differential

For a detailed description please refer to the Workshop Manual
⇒ Servicing 6-speed manual gearbox 02Q; Rep. gr. 39 ; Differential .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.