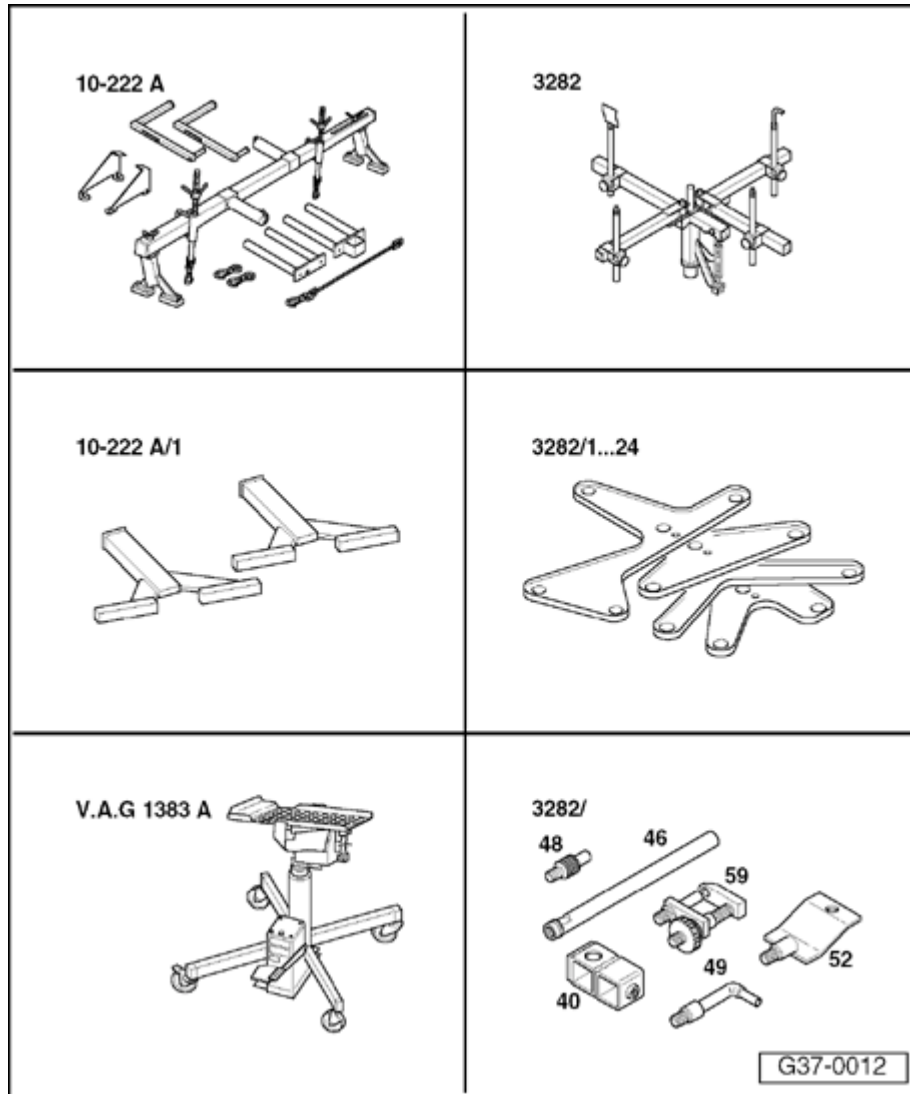


37-71



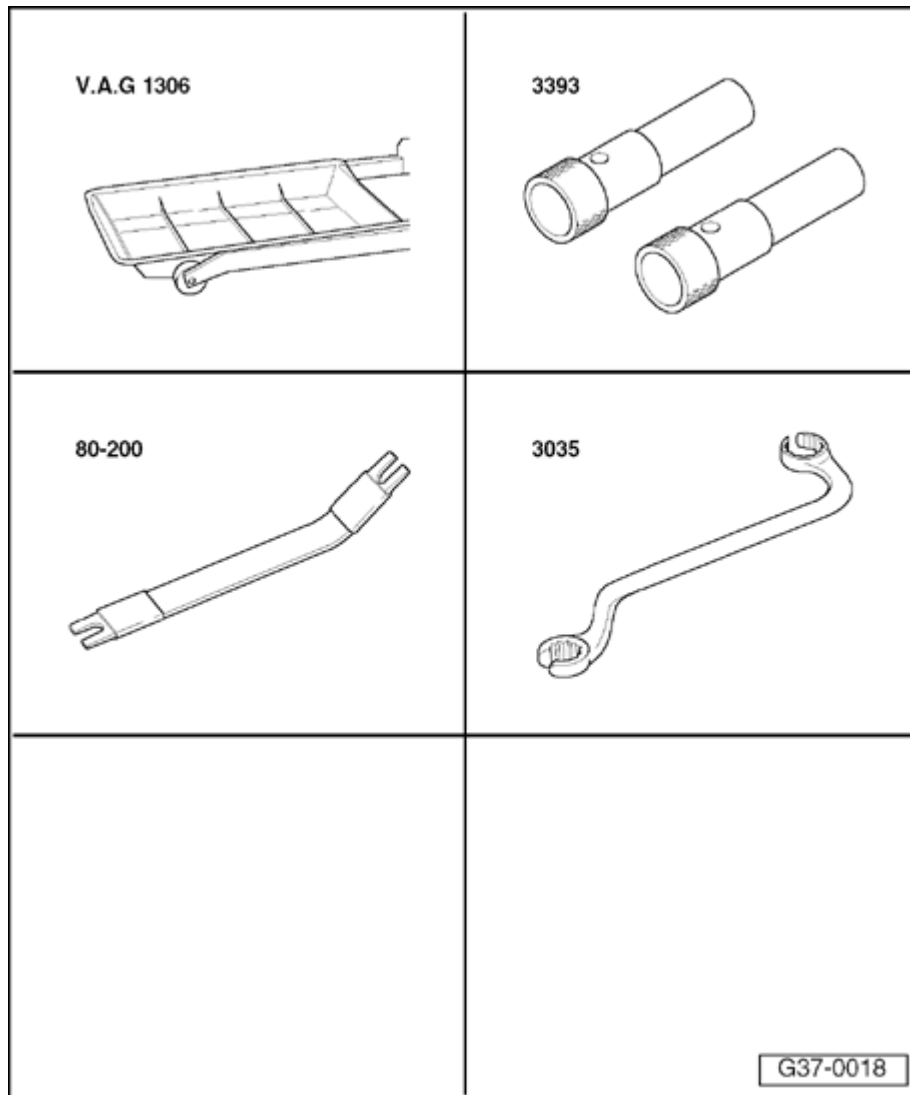
Transmission, removing and installing

Removing

Prepare the following special tools and test equipment for use:

- ◆ 10-222 A engine support bridge
- ◆ 10-222 A/1 bracket for engine
- ◆ 10-222 A/3 engine support adapter
- ◆ V.A.G.1383A lift
- ◆ 3282 transmission support
- ◆ 3282/19 adjustment plate
- ◆ 3282/48 adapter
- ◆ 3282/52 - adapter (3 pcs.)

37-72



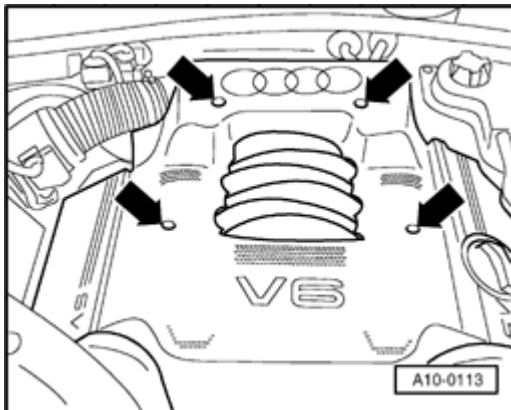
- ◆ VAG1306 drip tray
- ◆ 80-200 pry lever
- ◆ 3035 injector line wrench
- ◆ 3393 Testing Mandrels
- ◆ V175 special tool (nut)

Additional information

- ◆ Repair Manual, Suspension, Wheels, Steering
- ◆ Repair Manual, Electrical Equipment
- ◆ Repair Manual, Engine Mechanical
- Note radio code (for vehicles equipped with coded anti-theft radio).
- Disconnect Ground (GND) strap from battery.

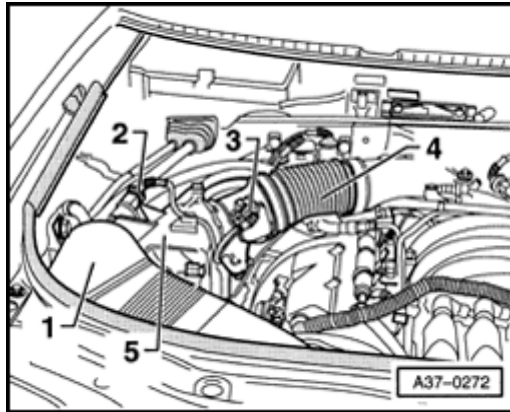
For 6 cylinder gasoline engines except for 2.7 Liter 5V turbo engine:

- Remove engine cover (arrows).

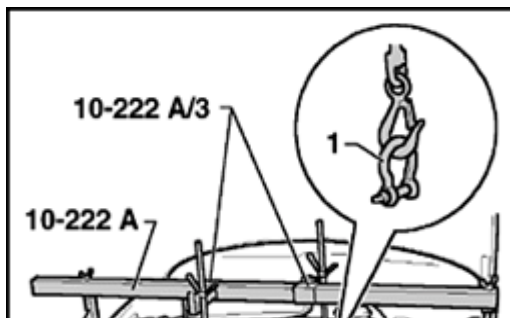


All except 2.7 Liter 5V turbo engine:

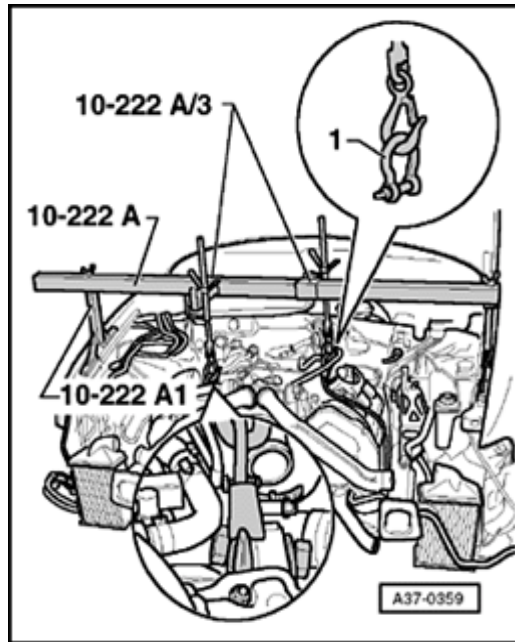
- Remove cover above air filter housing.
- A** - Remove air guide -1- between air filter housing and lock carrier.
- Disconnect connector for Evaporative Emission (EVAP) canister purge regulator valve -2-, and remove valve from bracket. Disconnect connector -3- at Mass Air Flow (MAF) sensor.
- Remove intake air duct -4- from intake manifold.
- Remove upper part of air filter housing -5-.
- Unbolt engine coolant expansion tank and lay aside.
- Remove Heated Oxygen Sensor (HO2S) from front exhaust pipes (left and right).
- Remove upper securing nuts from front exhaust pipes (left and right).

**For all 6 cylinder engines:**

- Assemble both 10-222A/3 engine support adapters for front and rear spindles on support bar.
- A** - Set 10-222A engine support bridge onto the fender mounting flanges using 10-222A/1 brackets.

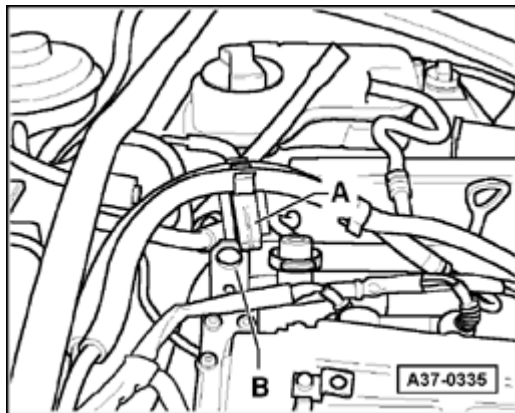


37-75



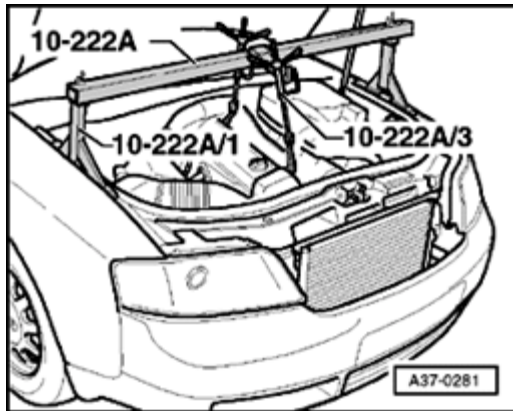
A

- Hang both spindles on the adapters.
- Secure engine to spindles. To do so, additionally use a shackle -1- at the rear side of the engine to avoid damage.

For 4 cylinder engines:

A

- Disconnect connector -A- from bracket -B-.



- Mount 10-222A/3 adapter for spindle at front of support.

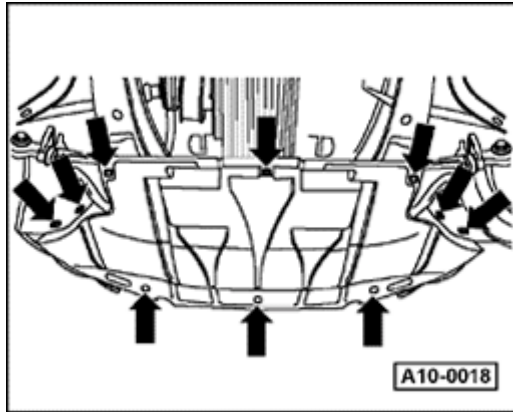
A

- Install 10-222A engine support bridge with 10-222A/1 brackets and support engine/transmission in this position.

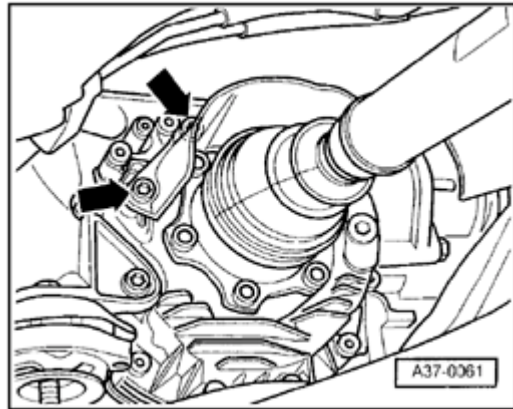
All:

- Take up weight of engine/transmission assembly on spindles.
- Tighten the rear spindle less, to enable later lowering at rear.
- Raise vehicle.
- Remove front wheels.

37-77



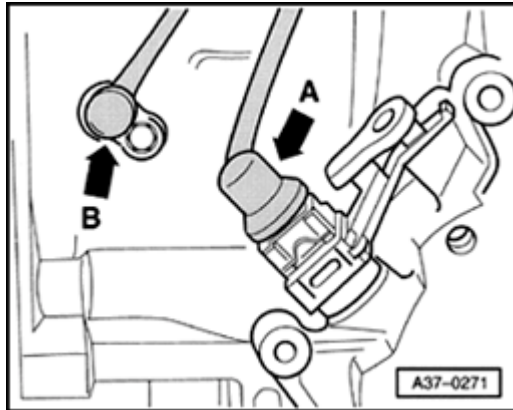
- A**
- Remove sound-deadening pan.



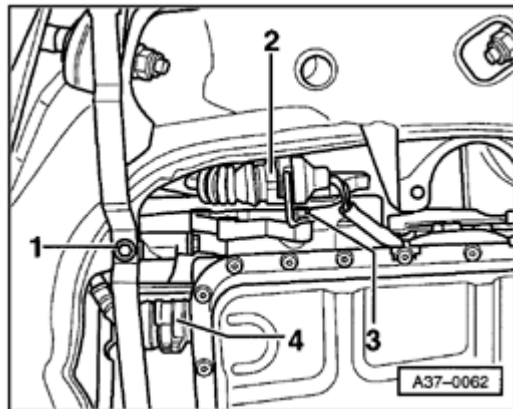
- A**
- Remove left and right heat shields for drive axles (arrows).
 - Disconnect drive axles from transmission drive flanges.

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 40](#)

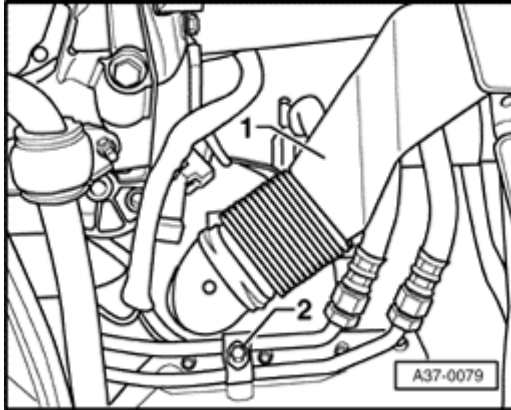
37-78



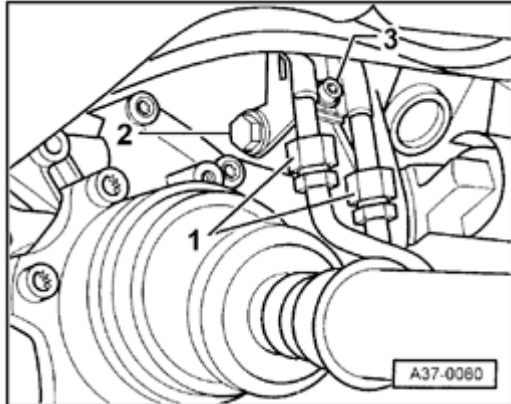
- A**
- Disconnect engine speed (RPM) sensor -G28- (arrow B) from transmission at front left (if installed).
 - Remove connector for speedometer (arrow -A-) from transmission.



- A**
- Remove noise insulation bracket -1-.
 - Swing securing lever -4-, disconnect connector for transmission wiring harness.
 - Disconnect connector -2- of wire for multi-function switch.
 - Unbolt bracket -3- for harness connector.

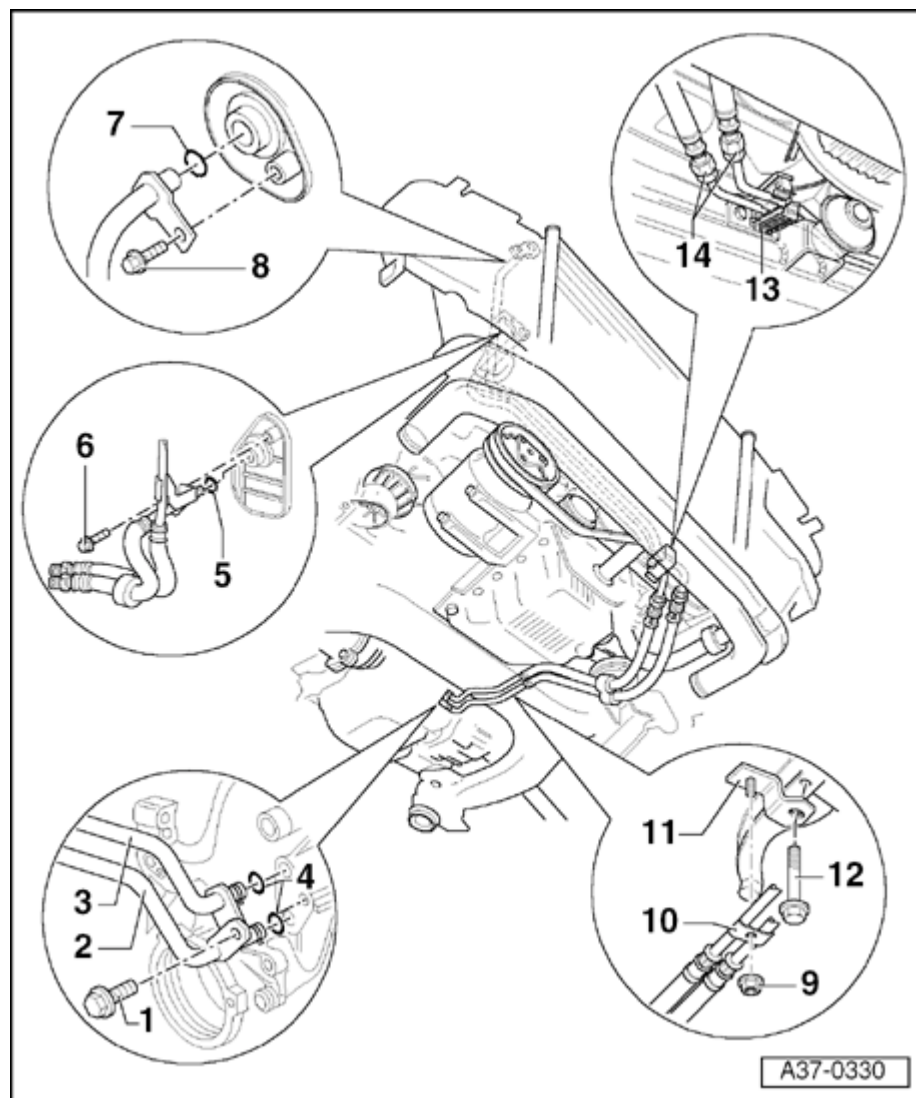
For 6 cylinder engines except for 2.7 Liter 5V turbo engine:

- Unclip vent hose for alternator -1-.
- Unbolt bracket for ATF line -2- at oil pan.



- Separate ATF lines -1- to ATF cooler.
- Plug ATF lines with clean plug.
- Unbolt bracket for ATF line -3-.
- Remove transmission side starter bolt -2-.

37-80



Vehicles with 4 cylinder engine

- Remove bolt -12- to separate bracket for ATF line -11- from engine.
- Remove bolt -1-.
- Pull off lines -2- and -3- from transmission.
- Plug lines and openings at transmission with clean plugs.
- Lay lines aside so they are not damaged.

All except 2.7 Liter 5V turbo engine:

- Remove starter.

⇒ [Repair Manual, Electrical Equipment, Repair Group 27; Starter, removing and installing](#)

Disconnect torque converter from drive plate

For vehicles with hex bolts:

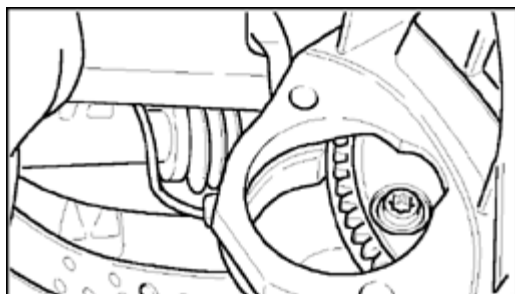
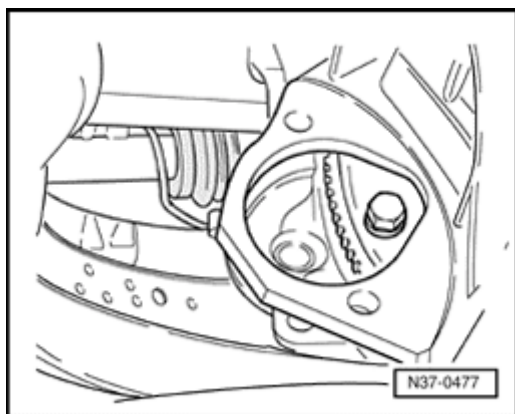
A

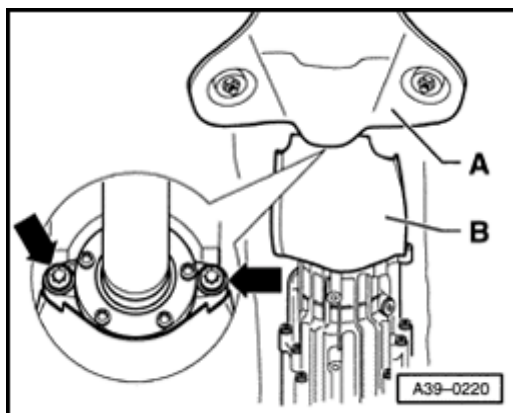
- Remove torque converter from drive plate by removing 3 bolts using special tool V175 (turn crank shaft an additional 1/3 turn every time).

For vehicles with Torx bolts:

A

- Unbolt 3 torque converter bolts from drive plate using respective Torx insert (turn crank shaft an additional 1/3 turn every time).

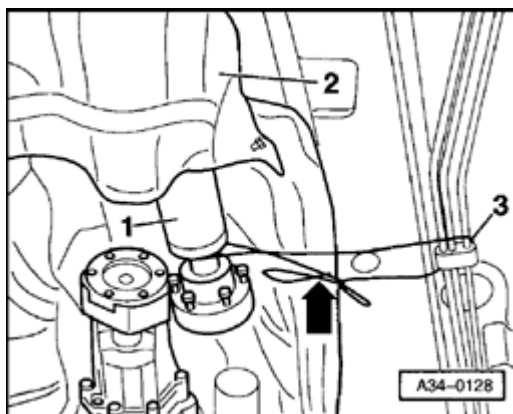


All-wheel-drive vehicles**A**

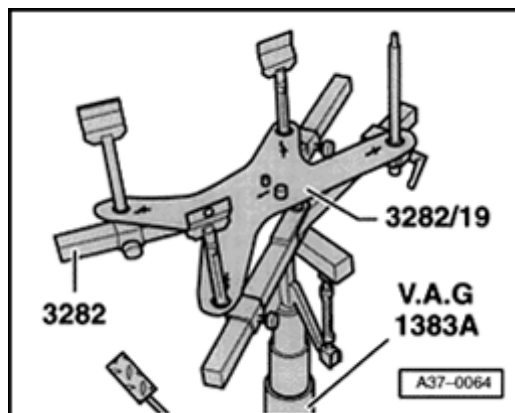
- Remove heat shield -A- above driveshaft.
- Remove rear part of exhaust system if necessary:

⇒ *Repair Manual, Engine Mechanical, Repair Group 26; removing and installing exhaust system.*

- Remove heat shield -2- for driveshaft from cover for Torsen differential (arrows).

**A**

- Unbolt driveshaft from transmission and hang or support.

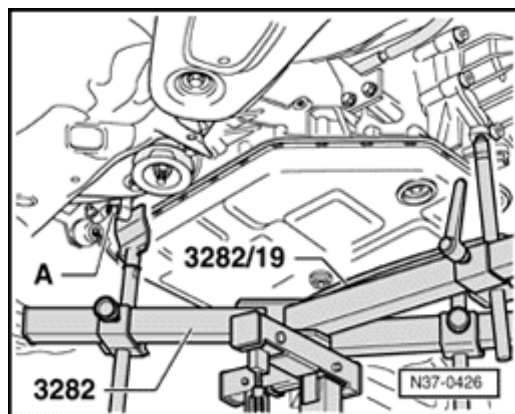
Continuation for all vehicles

A

- Position 3282 transmission support.

Use 3282/19 adjustment plate to position the 3282 transmission support for Automatic Transmission 01V.

The symbols on the adjustment plate indicate the necessary mounts and the arrow points toward front of vehicle.



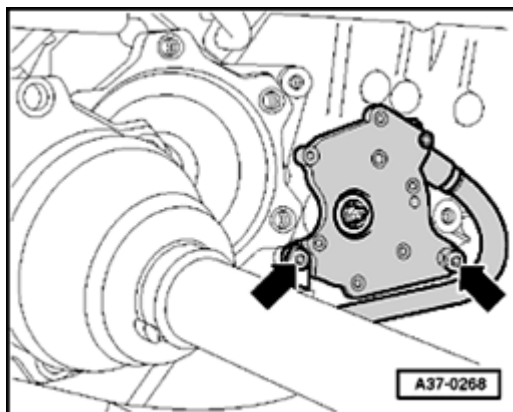
A

- Roll VAG1383A engine/transmission hoist with 3282 transmission support under transmission and support transmission.
- Align adjustment plate parallel to transmission.
- Secure transmission on 3282 transmission support using bolt -A-.

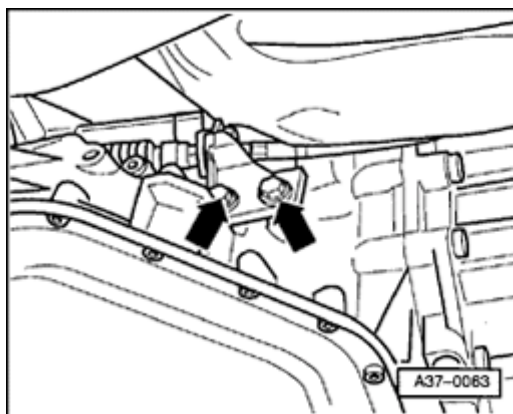
Automatic Transmission 01V with All Wheel Drive is supported at the same positions as the Front Wheel Drive version.

- Remove left and right transmission support with transmission mount ⇒ [page 37-125](#)

37-84

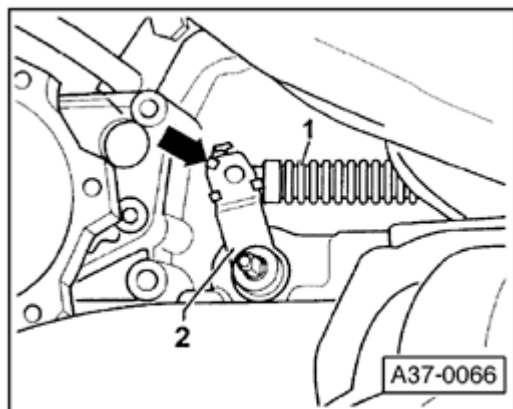


- A
- Unbolt multi-function Transmission Range (TR) switch -F125- for protection against damage (arrows) and expose wiring harness.

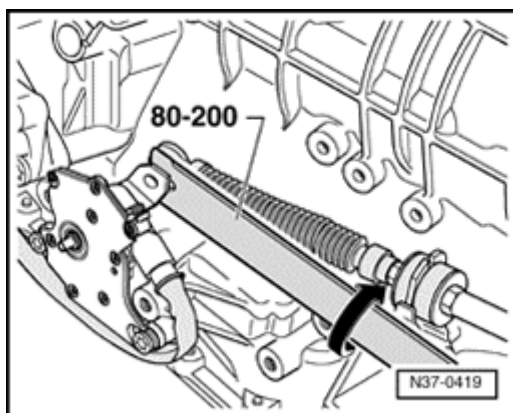


- A
- Mark position of mounting bracket for selector lever cable to transmission housing for re-installation, unbolt mounting bracket (arrows).

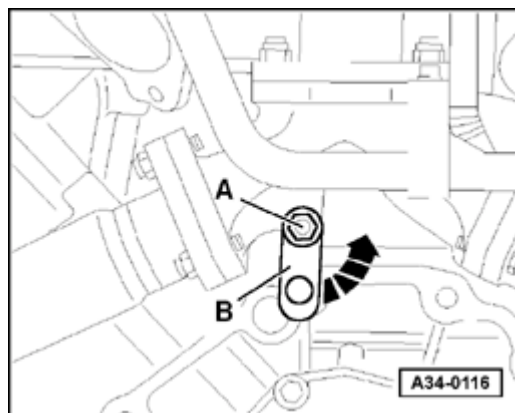
37-85



- A**
- If installed, press off securing brace (arrow) at end of selector lever cable.



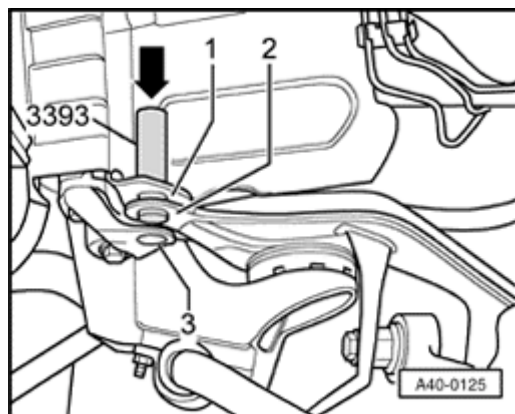
- A**
- Pry off selector lever cable from lever/shift rod (arrow).
 - Remove upper connecting bolts for engine/transmission.

For 6 cylinder TDI engines

- A**
- Loosen bolt -A- (at rear of turbocharger) several turns and rotate brace -B- to side in arrow direction. Then re-tighten bolt -A- lightly.

Note:

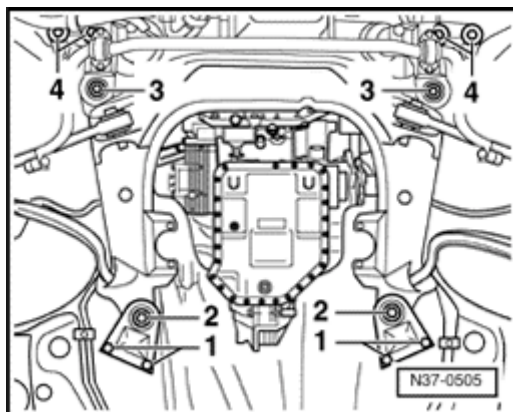
Illustration depicts engine from rear with the transmission removed.

Continuation for all vehicles

- A**
- Before loosening subframe, it must be checked whether holes -1- and -2- (at least) line up using 3393 testing mandrel.

If this is not the case, an axle alignment must be performed after the carrier is installed.

37-87



A

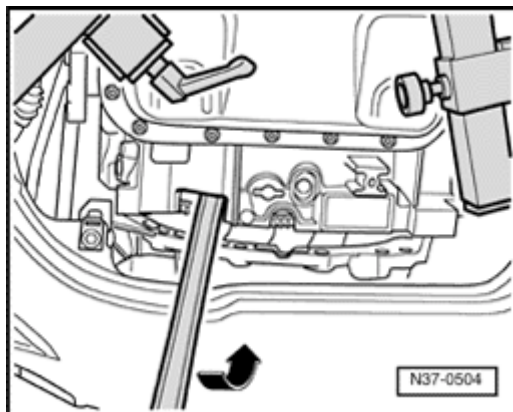
- Remove bolts -1- and -2- at rear of subframe on both sides of vehicle.
- Completely remove bolts -3- at front of subframe on both sides of vehicle.

By removing the bolts, the subframe lowers itself approx. 150 mm at rear edge ⇒ [page 37-88](#) , illustration A37-0067.

- Slightly lower engine/transmission subframe at rear above VAG1383A hoist.
- Remove front exhaust pipes:

⇒ *Repair Manual, Engine Mechanical, Repair Group 26; removing and installing exhaust system.*

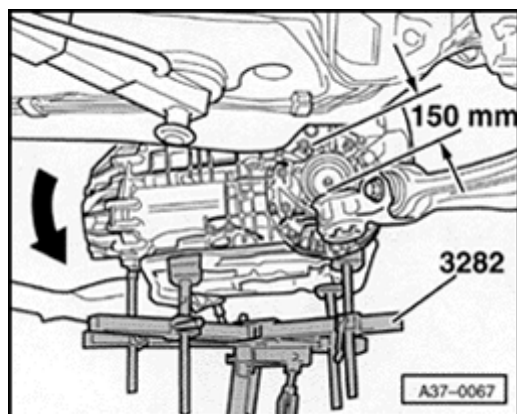
- Remove remaining connection bolts for engine/transmission.
- Press transmission off engine, while pressing torque converter out of drive plate.



A

- Press torque converter against the ATF pump (arrow).

37-88



A

- Rotate transmission (arrow) and carefully move into position between subframe and vehicle floor.
- Lower transmission.
- Secure converter so it does not fall out.

Installing

Installation is reverse of removal, noting the following:

Before installing:

All-wheel-drive vehicles

- Clean threads in driveshaft flange!

Continuation for all vehicles

- Clean ATF lines ⇒ [page 37-158](#) .
- Insert torque converter into transmission ⇒ [page 32-8](#) .

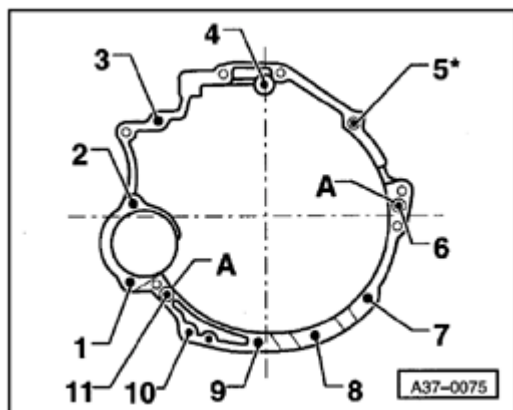
WARNING!

Check installation dimension of torque converter before installing transmission ⇒ [page 32-8](#)

- Make sure bushings are correctly seated.

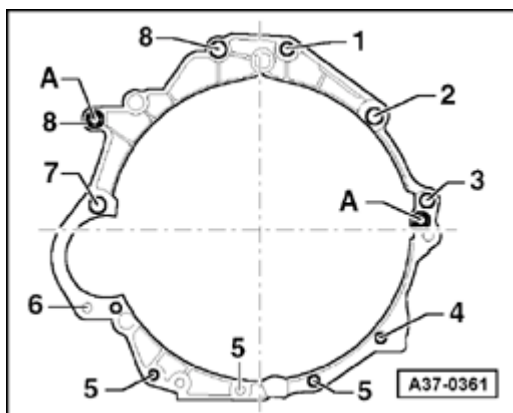
Note:

If the bushings get stuck in the transmission housing, they must be removed and new bushings must be installed on the engine.



➤ **For 4 cylinder engines (5 valve, turbo)**

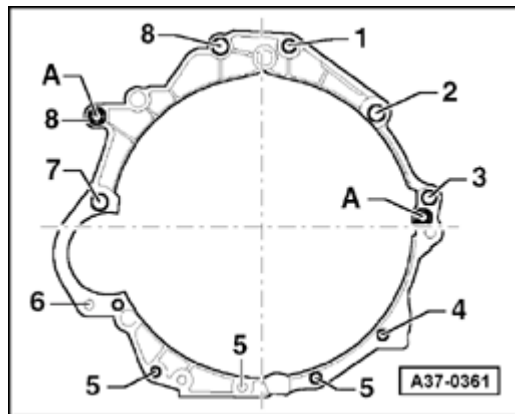
Item A = bushings



➤ **For 6 cylinder gasoline engines:**

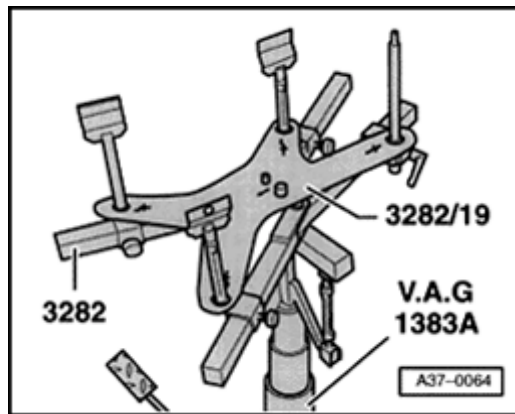
Item A = bushings

37-91



A For 6 cylinder TDI engines

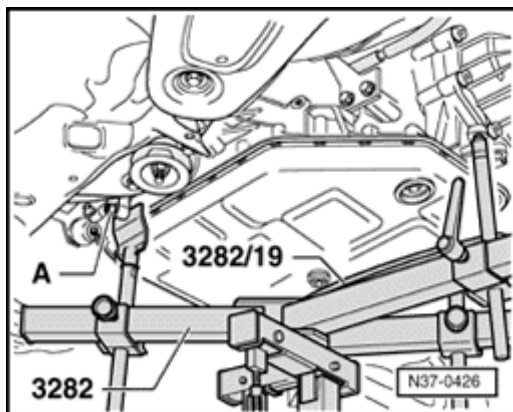
Item A = bushings



A - Position 3282 transmission support.

Use 3282/19 adjustment plate to position the 3282 transmission support for Automatic Transmission 01V.

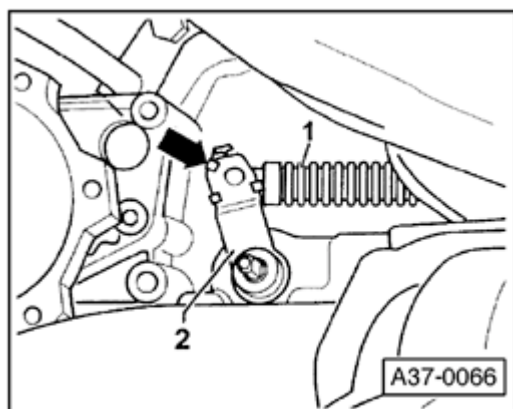
The symbols on the adjustment plate indicate the necessary mounts and the arrow points toward front of vehicle.



- Place transmission onto transmission support.

A

- Secure transmission on 3282 transmission support using bolt -A-.
- Move transmission into position between the lowered subframe and vehicle floor.



A

- Press the lever/shift rod -2- at transmission completely toward rear (toward right in illustration) until park lock is engaged.
- Shift selector lever into "P" and carefully press up ball head of selector lever cable on lever/shift rod -2- using a pair of pliers.
- If installed, press securing brace (arrow) open at end of selector lever cable.

Note:

Do not deform lever/shift rod when pressing up or else shifting cannot be precisely adjusted any more.

- Align transmission properly to engine.

Note:

- ◆ *If installed, place intermediate plate onto bushings.*
- ◆ *Make sure that wires do not get pinched as transmission is docked at engine.*

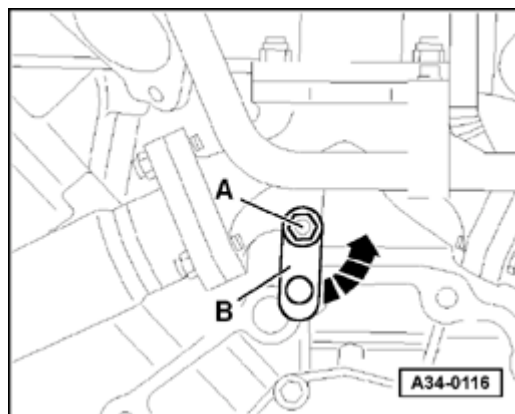
Check whether the torque converter is still properly installed and has not slid out of the converter housing toward the front:

- It must be possible to easily turn torque converter by hand without much force.

WARNING!

In case of an incorrectly inserted torque converter, the coupling plate of the torque converter or the ATF-pump will be destroyed, if the transmission is flanged to the engine.

- If the torque converter is difficult to move, check installation dimension once again ⇒ [page 32-8](#) .



A

For 6 cylinder TDI engines

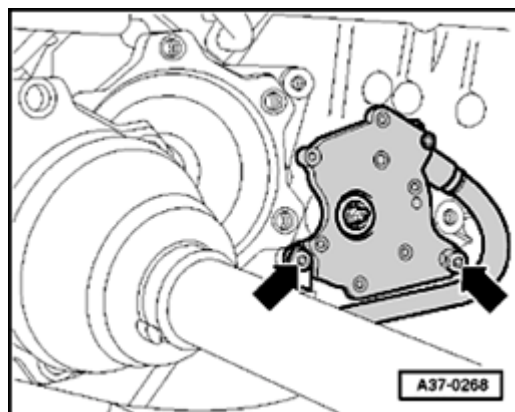
- Check whether brace -B- is still swung to side (arrow direction) before installing the transmission.

Continuation for all vehicles

- Install connecting bolts for engine/transmission.

Note:

Some bolts also have a bracket or a Ground (GND) connection attached
 ⇒ refer to tightening torque tables starting ⇒ [page 37-119](#) onward.



A

- Install multi-function Transmission Range (TR) switch -F125-.
- Slightly raise engine/transmission subframe at rear via VAG1383A hoist.
- Install remaining connecting bolts for engine/transmission.
- Install front exhaust pipes:

⇒ *Repair Manual, Engine Mechanical, Repair Group 26; removing and installing exhaust system.*

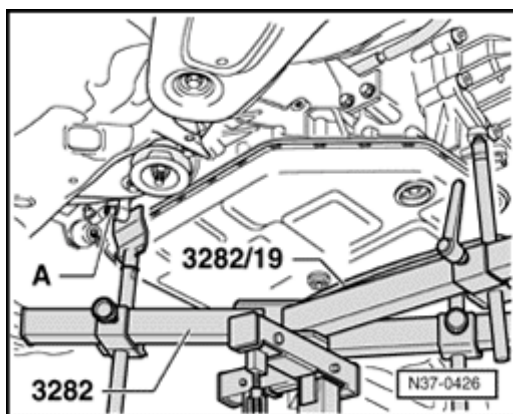
- Install subframe, observe tightening sequence and alignment with master hole.

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 40; Subframe, removing and installing](#)

- Only perform vehicle alignment if necessary.

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 44; Vehicle alignment](#)

- Install transmission supports at left and right with transmission mount ⇒ [page 37-125](#)

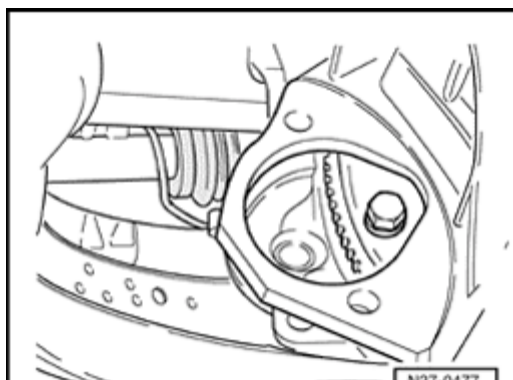


A

- Remove bolt -A- after transmission is bolted to engine.
- Apply corrosion protection to contact surface between bolt -A- and oil pan.

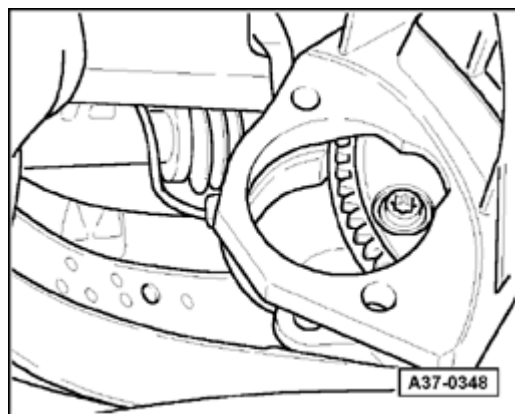
Bolt torque converter to drive plate

For vehicles with hex bolts:



A

- Bolt torque converter to drive plate via 3 bolts using special tool V175 (turn crank shaft an additional 1/3 turn every time).



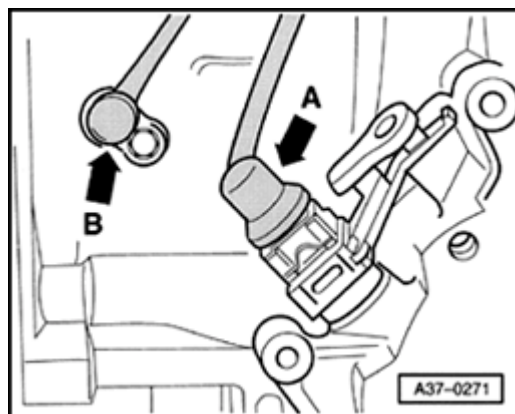
For vehicles with Torx bolts:

A

- Bolt 3 torque converter bolts to drive plate using respective Torx insert (turn crank shaft an additional 1/3 turn every time).
- Install starter.

⇒ [Repair Manual, Electrical Equipment, Repair Group 27; Starter, removing and installing](#)

- Install ATF lines to engine/transmission subframe.
- Install bracket for ATF- line.
- Slightly raise engine/transmission subframe at rear via VAG1383A hoist.

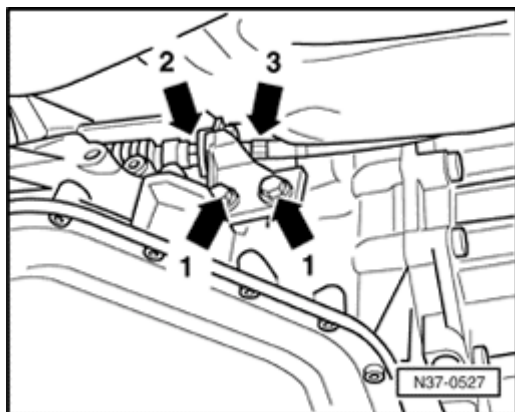


A

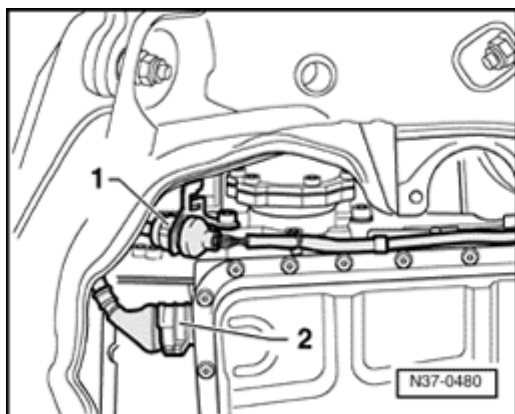
- Bolt in engine speed (RPM) sensor -G28- (arrow -B-) at front left of transmission (if installed).
- Connect connector for speedometer Vehicle Speed Sensor (VSS).
- Bolt drive axles to transmission flanges.

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 40](#)

37-97



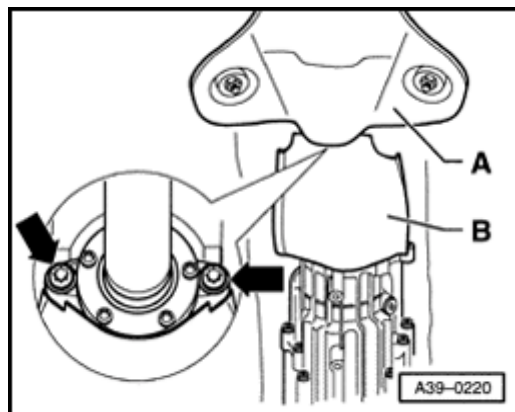
- A**
- Bolt in bolts at mounting bracket of selector lever cable, install selector lever cable and if necessary, adjust.



- A**
- Connect connector of multi-function Transmission Range (TR) switch - 1-.
 - Connect connector for transmission wiring harness and secure using securing lever -2-.
 - Install shielding plate/selector lever cable

All-wheel-drive vehicles

- Bolt driveshaft to transmission flange ⇒ [page 39-79](#) , Driveshaft, removing and installing.



A

- Bolt heat shield -B- for driveshaft to Torsen differential cover (arrows) if installed.
- Install heat shield -A- above driveshaft.

Continuation for all vehicles

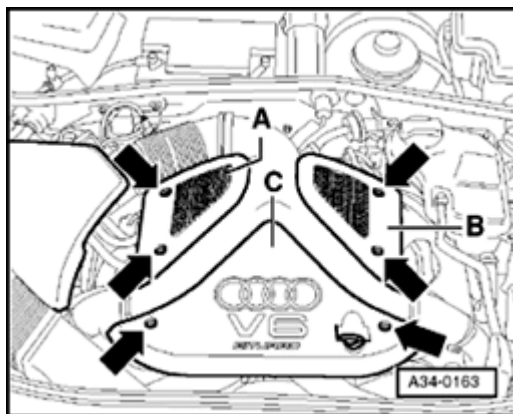
- Install bracket for noise insulation panel.
- Install noise insulation panel.
- Install front wheels.
- Connect battery Ground (GND) strap.
- Check adjustment of selector lever cable ⇒ [page 37-45](#) .
- Check gear oil in final drive with transmission installed ⇒ [page 39-1](#) .
- Then check ATF level and top off ⇒ [Page 37-133](#) onward.
- After connecting battery, enter anti-theft code for radio.

⇒ *Radio operating manual*

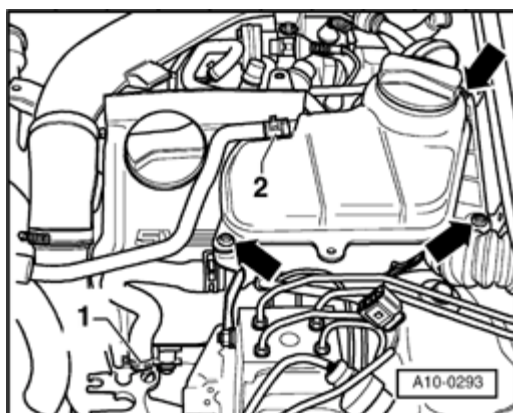
- Fully close power windows to stop.
- Then activate all power window switches ("up") for at least one second to activate automatic window raising/lowering.
- Set clock to correct time.

Tightening torque table ⇒ [Page 37-119](#) onward.

Removing and installing for 2.7 Liter 5V turbo engine:

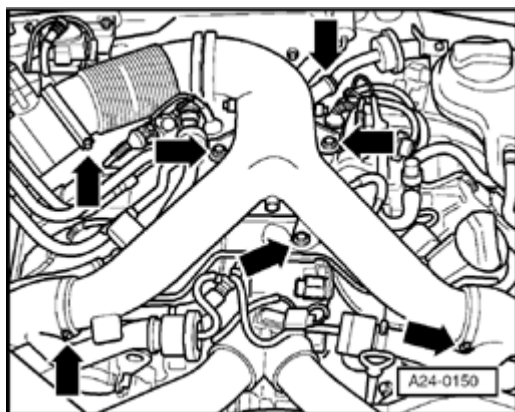


- A**
- Remove bolts (arrows) and remove engine covers -A- and -B-.
 - Remove cover above air filter.

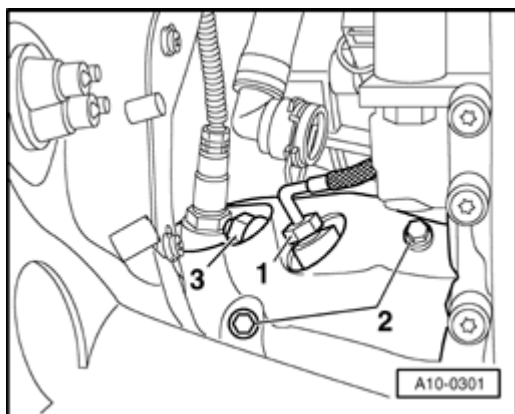


- A**
- Remove coolant expansion tank (arrows) and lay to side.
 - Disconnect connector for coolant level display.
 - Remove cover from valve cover (cylinder bank 4-6).

37-100

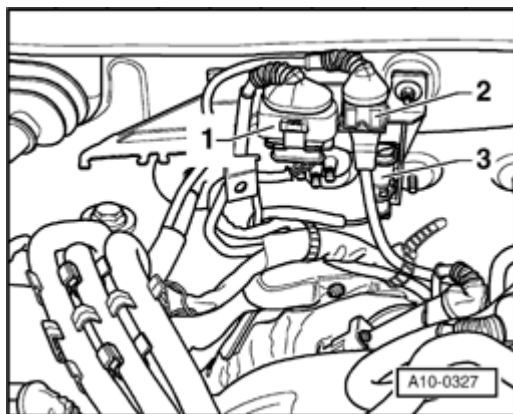


- A**
- Remove air distributor (arrows).



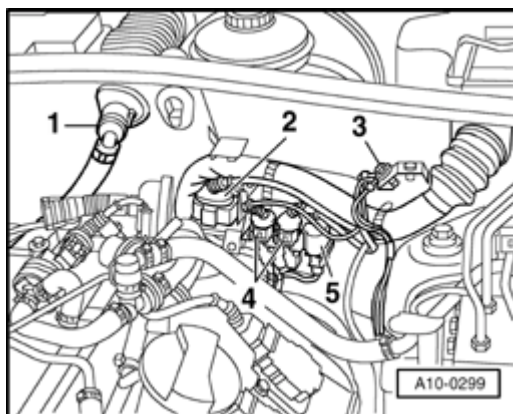
- A**
- Remove heat sensor -1- from right turbocharger using 3035.
 - Remove heat shields -2- from left and right turbochargers.
 - Remove upper bolts -3- to front line to left and right turbochargers.

37-101



A

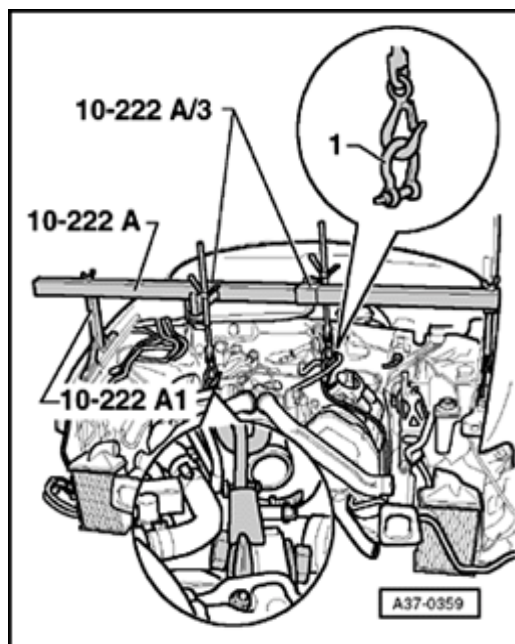
- Disconnect connector -1- for oxygen sensor (right side) at bulkhead.
- Expose wire with connector to oxygen sensor.



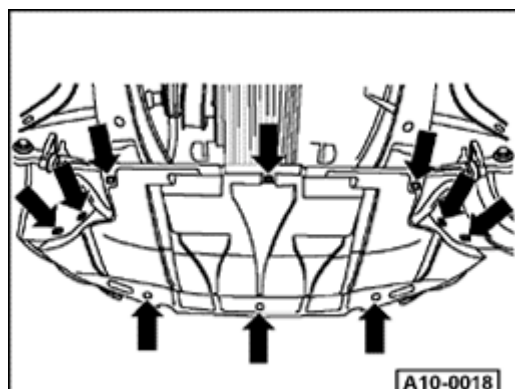
A

- Disconnect connectors -2- of left oxygen sensor at bulkhead and remove lower part of connectors from bracket.
- Expose wire with connector to oxygen sensor.
- Remove all connecting bolts for engine/transmission which can be reached from the top.

- Assemble both 10-222A/3 engine support adapters for front and rear spindles on support bar.

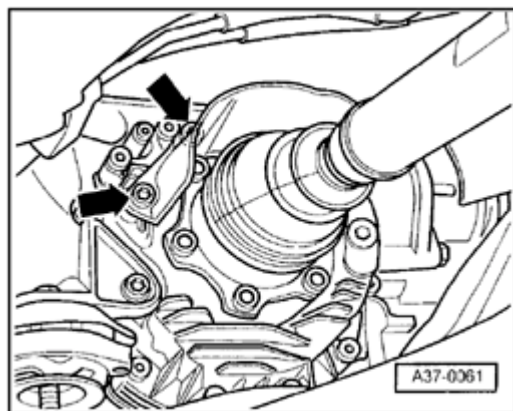


- A
 - Set 10-222A engine support bridge onto the fender mounting flanges using 10-222A/1 brackets.
 - Hang both spindles on the adapters.
 - Secure engine to spindles. To do so, additionally use a shackle -1- at the rear side of the engine to avoid damage.
 - Take up weight of engine/transmission assembly on spindles.
 - Tighten the rear spindle less, to enable later lowering at rear.
 - Raise vehicle.
 - Remove front wheels.



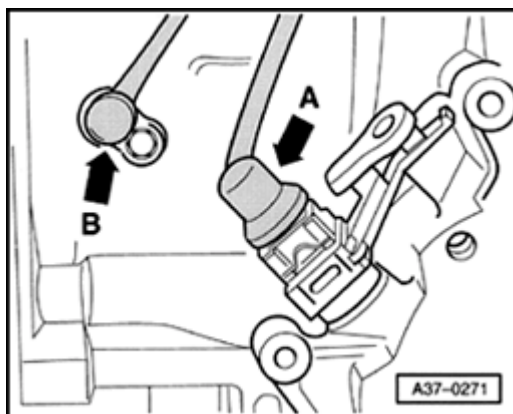
- A
 - Remove sound-deadening pan.
 - Remove bracket for noise insulation panel.

37-103



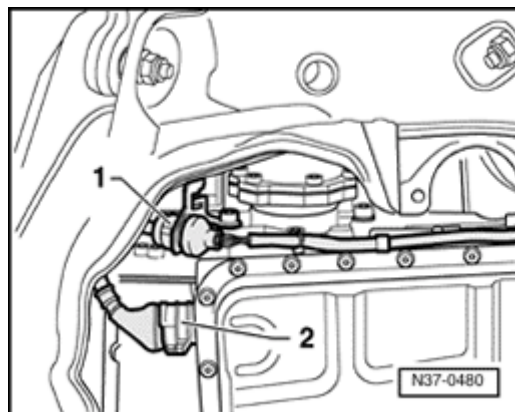
- A**
- Remove left and right heat shields for drive axles (arrows).
 - Disconnect drive axles from transmission drive flanges.

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 40](#)

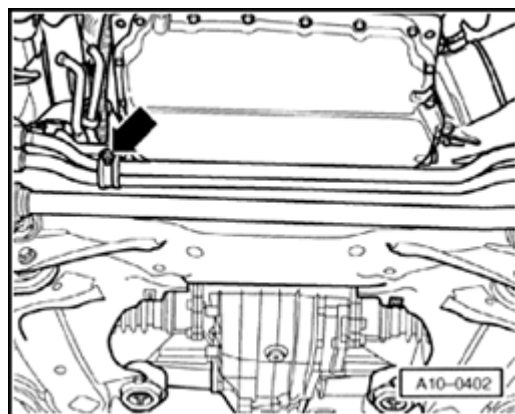


- A**
- Unbolt engine speed (RPM) sensor -G28- (arrow B) from transmission at front left.
 - Remove connector for speedometer (arrow -A-) from transmission.

37-104



- A**
- Disconnect connector -1- from wire for multi-function switch.
 - Swing securing lever -2-, disconnect connector for transmission wiring harness.

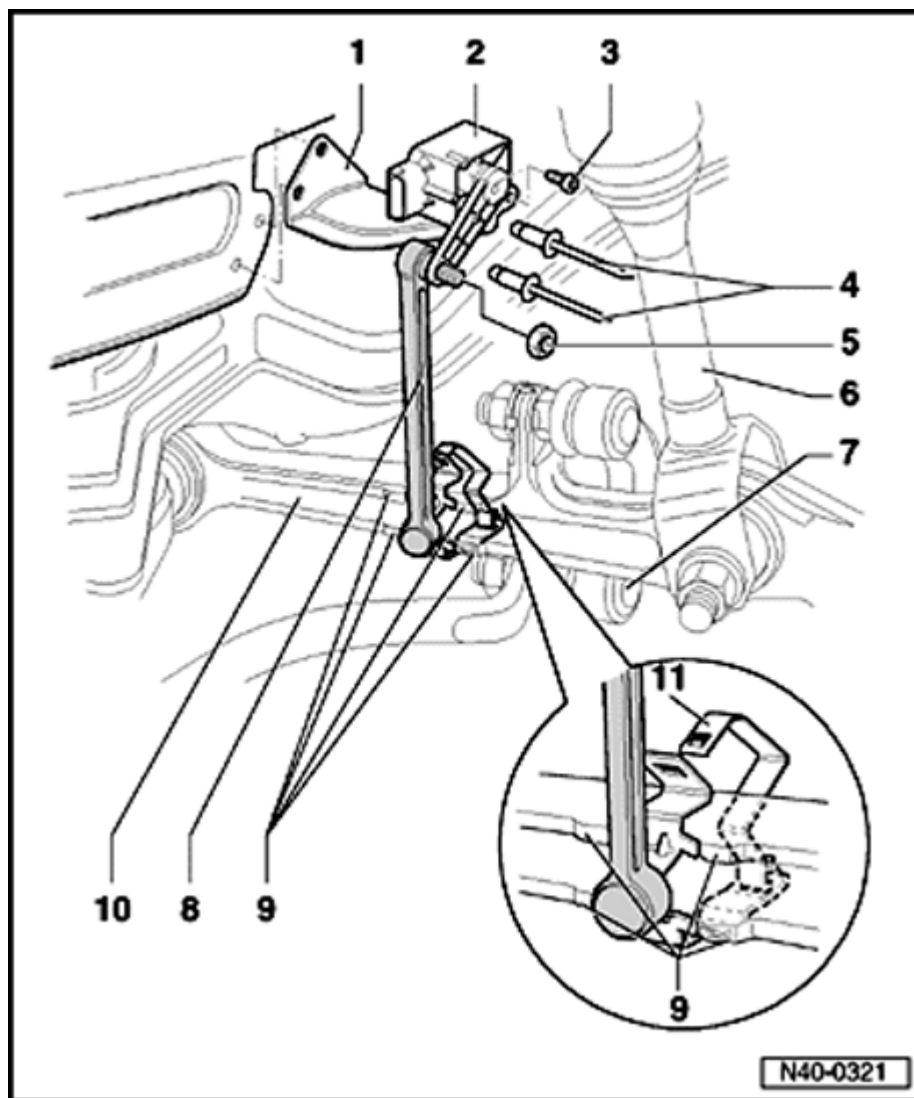


- A**
- If necessary, remove A/C line from oil pan (arrow) for better access to the starter.

WARNING!

Do not open refrigerant circuit for A/C system.

37-105

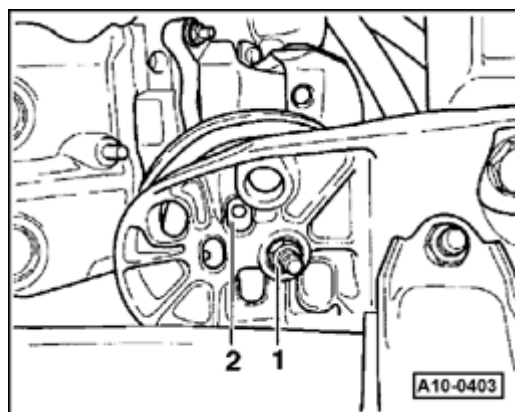


For vehicles with the illustrated vertical headlight aim control system, notes in the following repair manuals must be observed before lowering subframe;

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 40; control arm removing and installing; sensor for vehicle leveling in vehicles with automatic vertical headlight aim control regulation.](#)

Otherwise the sensor may be destroyed.

37-106



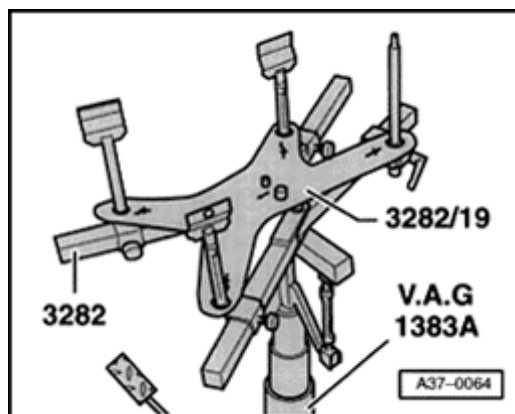
- Loosen left and right transmission mounts from subframe ⇒ [page 37-125](#)

A

- Mark installation positions for threaded assemblies -1- and positioning sleeves -2-.
- Remove nuts -1- on left and right engine mounts.

Note:

When installing, make sure that locating sleeves -2- engage again.



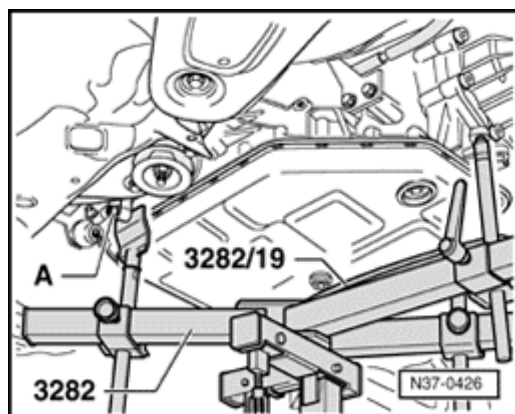
A

- Position 3282 transmission support.

Use 3282/19 adjustment plate to position the 3282 transmission support for Automatic Transmission 01V.

The symbols on the adjustment plate indicate the necessary mounts and the arrow points toward front of vehicle.

37-107



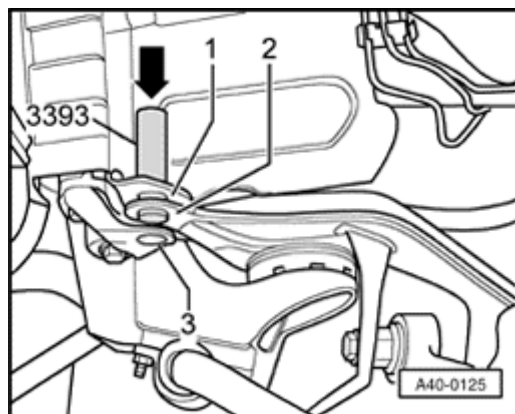
A

- Roll VAG1383A engine/transmission hoist with 3282 transmission support under transmission and support transmission.
- Align adjustment plate parallel to transmission.
- Secure transmission on 3282 transmission support using bolt -A-.

Automatic Transmission 01V with All Wheel Drive is supported at the same positions as the Front Wheel Drive version.

WARNING!

When working on the subframe, all precautions and notes which are listed in ⇒ [Repair Manual, Suspension, Wheels, Steering](#) must be observed.

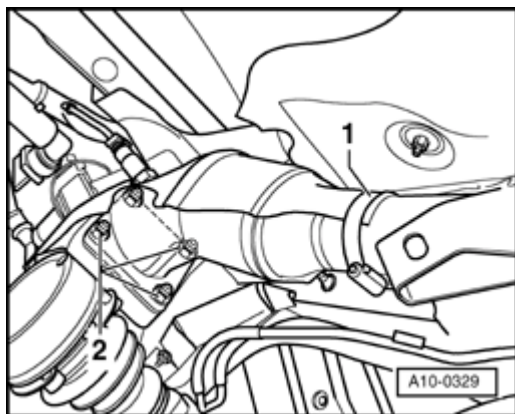


A

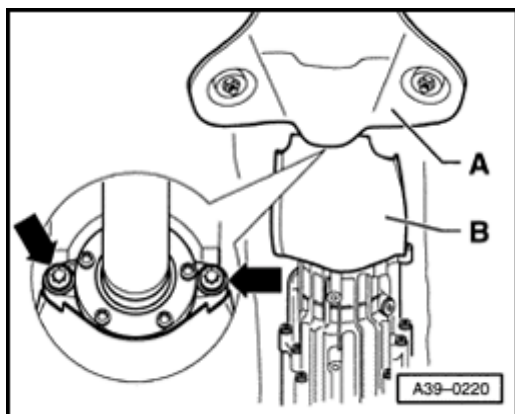
- Before loosening carrier, special tool 3393 must be used to check whether holes -1- and -2- line up.
- Completely lower subframe at rear and front.

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 40; Subframe, removing and installing](#)

37-108

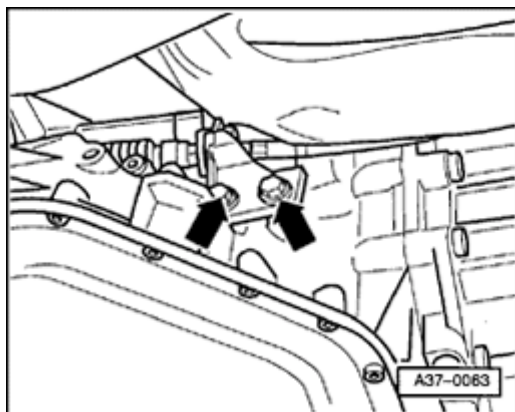


- A**
- Mark installation position of protector shield and hose clamp -1- at left and right exhaust pipe using a waterproof marker, to quickly find the correct installation position when re-installing.
 - Remove hose clamp -1- from left and right protector shield for turbocharger.
 - Unbolt left and right exhaust pipes -2- from turbocharger.

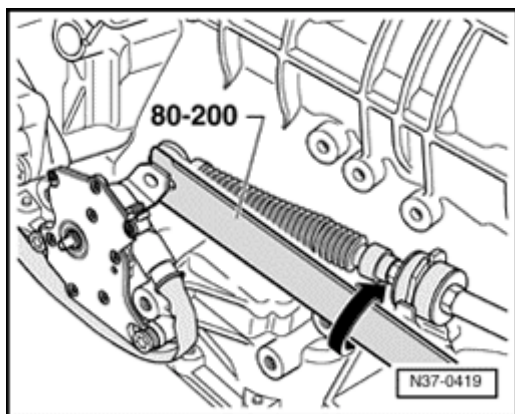


- A**
- Remove heat shield -A- above driveshaft.
 - Remove rear part of exhaust system if necessary:
- ⇒ *Repair Manual, Engine Mechanical, Repair Group 26; removing and installing exhaust system.*
- Remove heat shield -2- for driveshaft from cover for Torsen differential (arrows).
 - Unbolt driveshaft from transmission and hang or support.

37-109



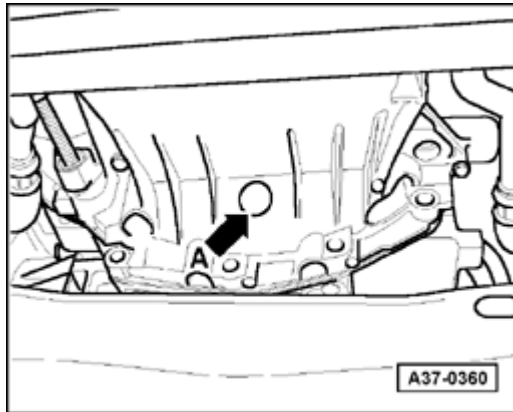
- A**
- Mark position of mounting bracket for selector lever cable to transmission housing for re-installation, unbolt mounting bracket (arrows).



- A**
- Pry off selector lever cable from lever/shift rod using 80-200 (arrows).

37-110

Removing 3 torque converter bolts



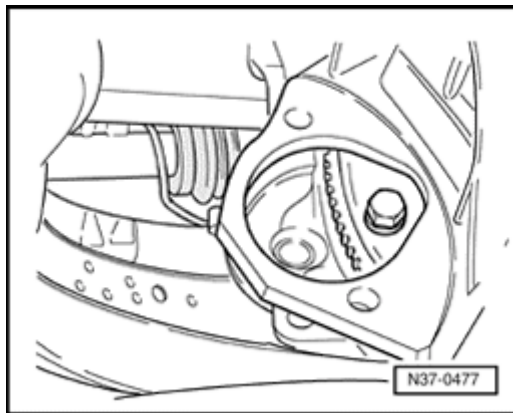
A

- Remove plug above opening -A- in engine flange.
- Remove torque converter bolts from drive plate via opening -A- in engine flange (turn crankshaft 1/3 rotation each time).

If opening -A- is not present, perform the following two work steps to be able to remove the 3 bolts of the torque converter.

- Remove starter.

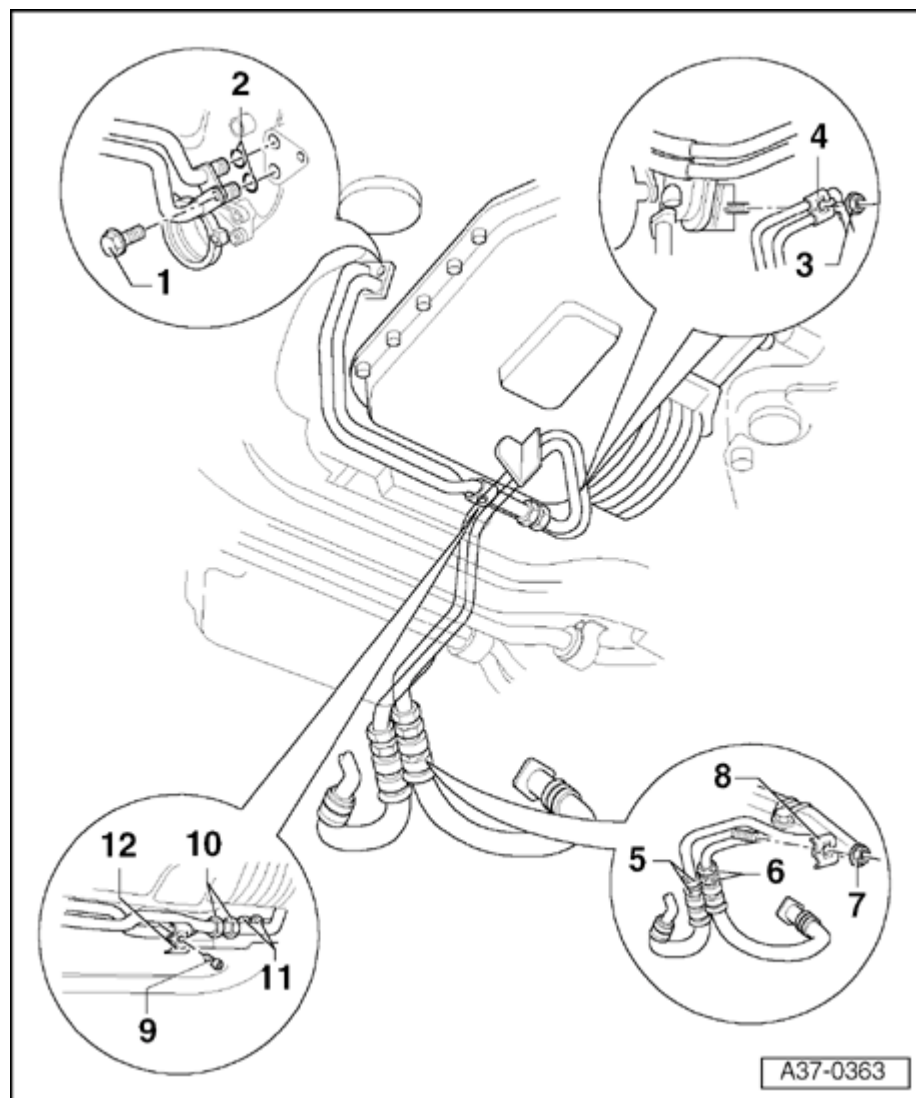
⇒ [Repair Manual, Electrical Equipment, Repair Group 27; Starter, removing and installing](#)



A

- Remove torque converter from drive plate by removing 3 bolts using special tool V175 (turn crank shaft an additional 1/3 turn every time).

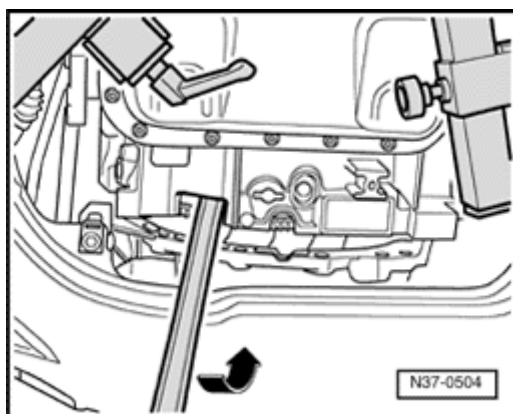
37-111



- Remove bolt -9- with bracket -12-.
- Disconnect ATF lines at bolts -10- and -11- and plug the lines with clean plugs.
- Loosen nut -3- with bracket -4- in order to prevent tension when removing and installing.

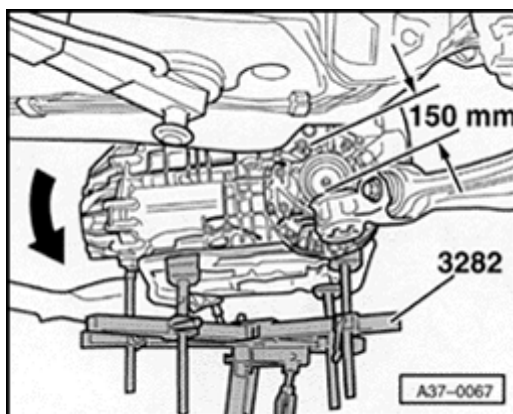
37-112

- Remove remaining connection bolts for engine/transmission.
- Press transmission off engine, while pressing torque converter out of drive plate.



A

- Press torque converter against the ATF pump (arrow).



A

- Rotate transmission (arrow) and carefully move into position between subframe and vehicle floor.
- Lower transmission.
- Secure converter so it does not fall out.

Installing

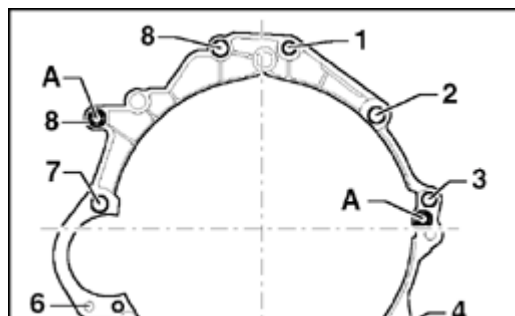
Installation of transmission is the reverse of removal. The following points must also be observed:

Before installing:

- Clean threads in driveshaft flange using a tap.
- Clean ATF lines ⇒ [page 37-158](#) .
- Insert torque converter into transmission ⇒ [page 32-8](#) .
- Make sure bushings are correctly seated.

Note:

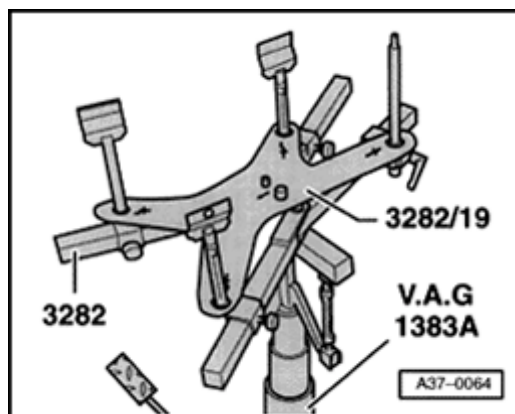
If the bushings get stuck in the transmission housing, they must be removed and new bushings must be installed on the engine.



For 2.7l 5V turbo engines

Item A = bushings

37-114

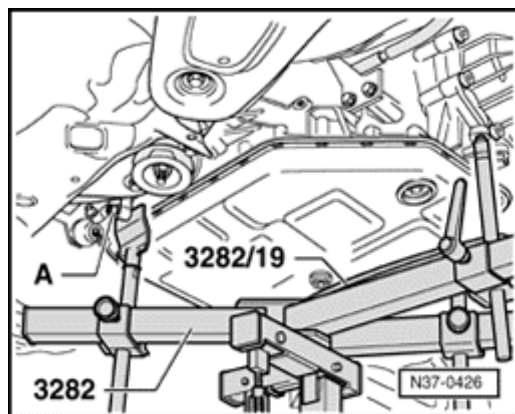


- A**
- Position 3282 transmission support.

Use 3282/19 adjustment plate to position the 3282 transmission support for Automatic Transmission 01V.

The symbols on the adjustment plate indicate the necessary mounts and the arrow points toward front of vehicle.

- Place transmission onto transmission support.

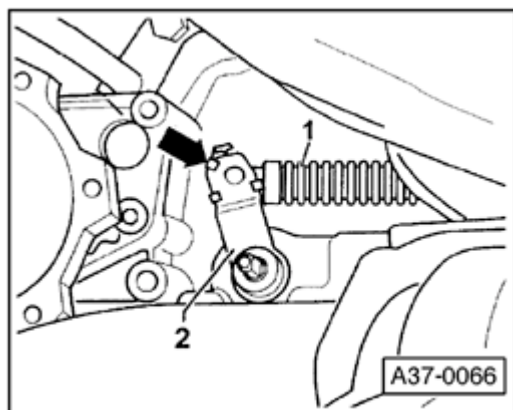


- A**
- Secure transmission on 3282 transmission support using bolt -A-.
 - Move transmission into position between the lowered subframe and vehicle floor.

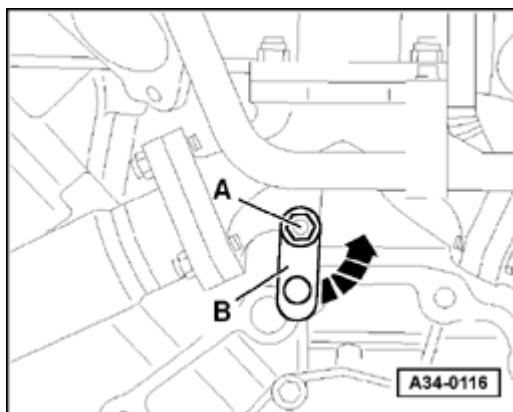
During this, the subframe is lowered approx. 150 mm at rear ⇒ [page 37-88](#) , illustration A37-0067.

- Align transmission properly to engine.

37-115



- A**
- Press the lever/shift rod -2- at transmission completely toward rear (toward right in illustration) until park lock is engaged.
 - Shift selector lever into "P" and carefully press up ball head of selector lever cable on lever/shift rod -2- using a pair of pliers.

Note:

- A**
- Do not deform lever/shift rod when pressing up or else shifting cannot be precisely adjusted any more.*

Note:

- ◆ *Place intermediate plate onto bushings.*
- ◆ *Make sure that wires do not get pinched as transmission is docked at engine.*

Check whether the torque converter is still properly installed and has not slid out of the converter housing toward the front:

- It must be possible to easily turn torque converter by hand without much force.

WARNING!

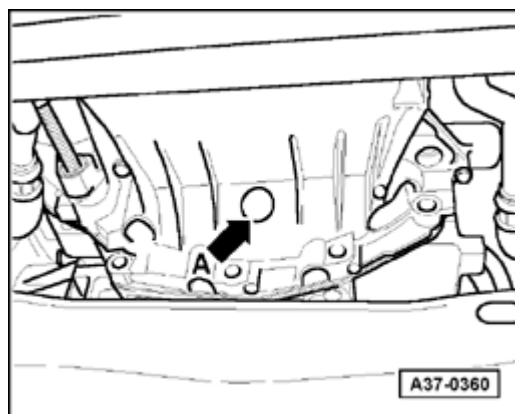
In case of an incorrectly inserted torque converter, the coupling plate of the torque converter or the ATF-pump will be destroyed, if the transmission is flanged to the engine.

- If the torque converter is difficult to move, check installation dimension once again ⇒ [page 32-8](#) .
- Install connecting bolts for engine/transmission.

Note:

Some bolts also have a bracket or a Ground (GND) connection attached ⇒ refer to tightening torque tables starting ⇒ [page 37-119](#) onward.

37-117



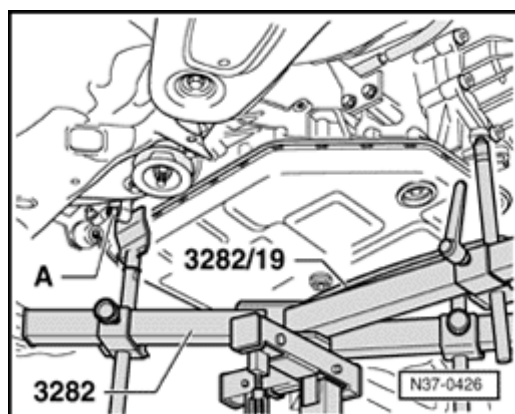
- A**
- Install bolts of torque converter through opening -A- in engine flange to the drive plate (turn crankshaft 1/3 rotation each time).
 - Insert plug into opening -A- in engine flange.
 - Install subframe, observe tightening sequence and alignment with master hole.

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 40; Subframe, removing and installing](#)

- Only perform vehicle alignment if necessary.

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 44, Vehicle alignment](#)

- Install transmission supports at left and right with transmission mount
⇒ [page 37-125](#)



- A**
- Remove bolt -A- after transmission is bolted to engine.
 - Apply corrosion protection to contact surface between bolt -A- and oil pan.
 - Bolt on ATF lines ⇒ [page 37-149](#)

- Bolt drive axles to transmission flanges.

⇒ [Repair Manual, Suspension, Wheels, Steering, Repair Group 40](#)

- Bolt driveshaft to transmission flange ⇒ [page 39-79](#) , Driveshaft, removing and installing.
- After connecting battery, enter anti-theft code for radio.

⇒ *Radio operating manual*

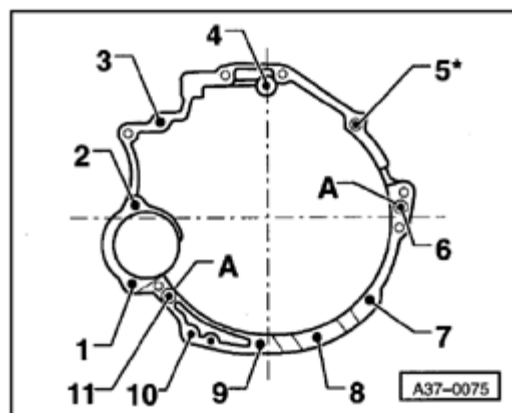
- Check adjustment of selector lever cable ⇒ [page 37-45](#) .
- Check gear oil in final drive with transmission installed ⇒ [page 39-1](#) .
- Then check ATF level and top off ⇒ [Page 37-133](#) onward.
- Fully close power windows to stop.

- Then activate all power window switches ("up") for at least one second to activate automatic window raising/lowering.
- Set clock to correct time.

Tightening torques

Notes:

- ◆ *Tightening torques are valid only for nuts and bolts that are lightly greased, oiled, covered with a thin coat of phosphate or blackened.*
- ◆ *Other lubricants are permitted, e.g. engine oil or transmission fluid, however they may not contain graphite.*
- ◆ *Do not use any degreased parts.*



▲ Engine/transmission mount for 4 cylinder engines (5 valve, turbo)

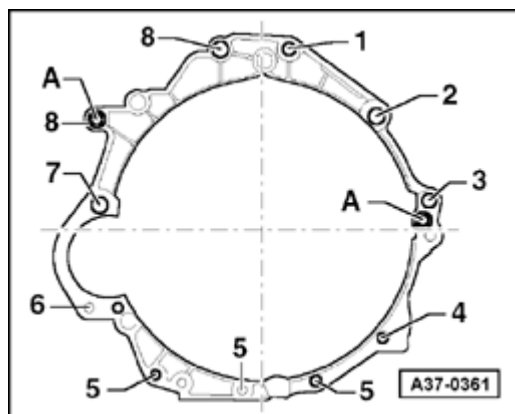
Item no.	Bolt	Nm
1, 8, 9, 10	M10 X 45	45
2, 3, 4, 11	M12 X 67	65
5	M12 x 110	65
6	M12 x 90	65
7 1)	M10 x 60	45

1) With nut

Item A = bushings

Bolts -3- and -5- also secure a bracket for cables.

37-120



▲ Engine/transmission mount for 6 cylinder gasoline engines except for 2.7 Liter 5V turbo engine

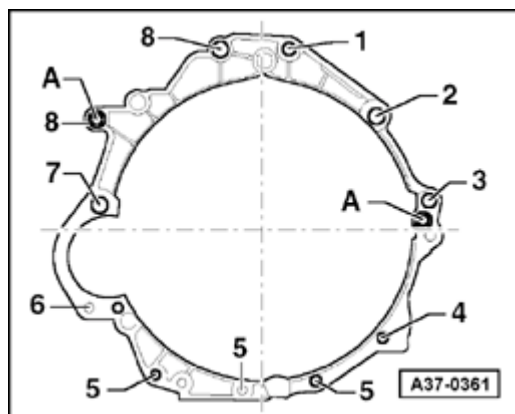
Item no.	Bolt	Nm
1	M12 X 67	65
2	M12 x 90	65
3	M12 x 75	65
4 1)	M10 x 60	45
5	M10 X 45	45
6	M10 x 80	65
7 2)	M12 x 110	65
8	M12 X 67	65

1) With nut

2) With bracket for ATF- lines

Item A = bushings

37-121



▲ Engine/transmission mount for 6 cylinder TDI engines

Item no.	Bolt	Nm
1 ³⁾	M12 x 80	65
2 ⁴⁾	M12 x 90	65
3	M12 x 75	65
4 ¹⁾	M10 x 60	45
5	M10 X 45	45
6	M10 x 80	65
7 ²⁾	M12 x 110	65
8 ²⁾	M12 X 67	65

1) With nut

2) With bracket for ATF- lines

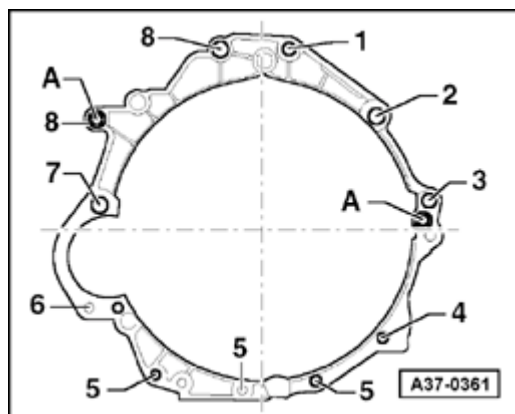
3) With bracket for turbocharger

4) With bracket for cables

5) With additional Ground (GND) connection

Item A = bushings

37-122



▲ Engine/transmission mount for 2.7l 5V turbo engines

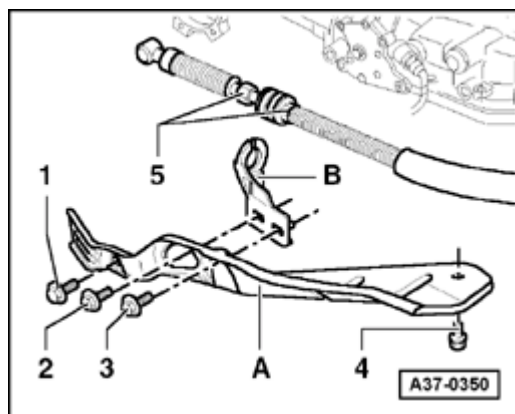
With 11 mm intermediate plate

Item no.	Bolt	Nm
1	M12 x 90	65
2	M12 x 100	65
3	M12 x 90	65
4 ¹⁾	M10 x 70	45
5	M10 x 60	45
6	M10 x 100	65
7	M12 x 110	65
8	M12 x 80	65

¹⁾ With nut

Item A = bushings

37-123



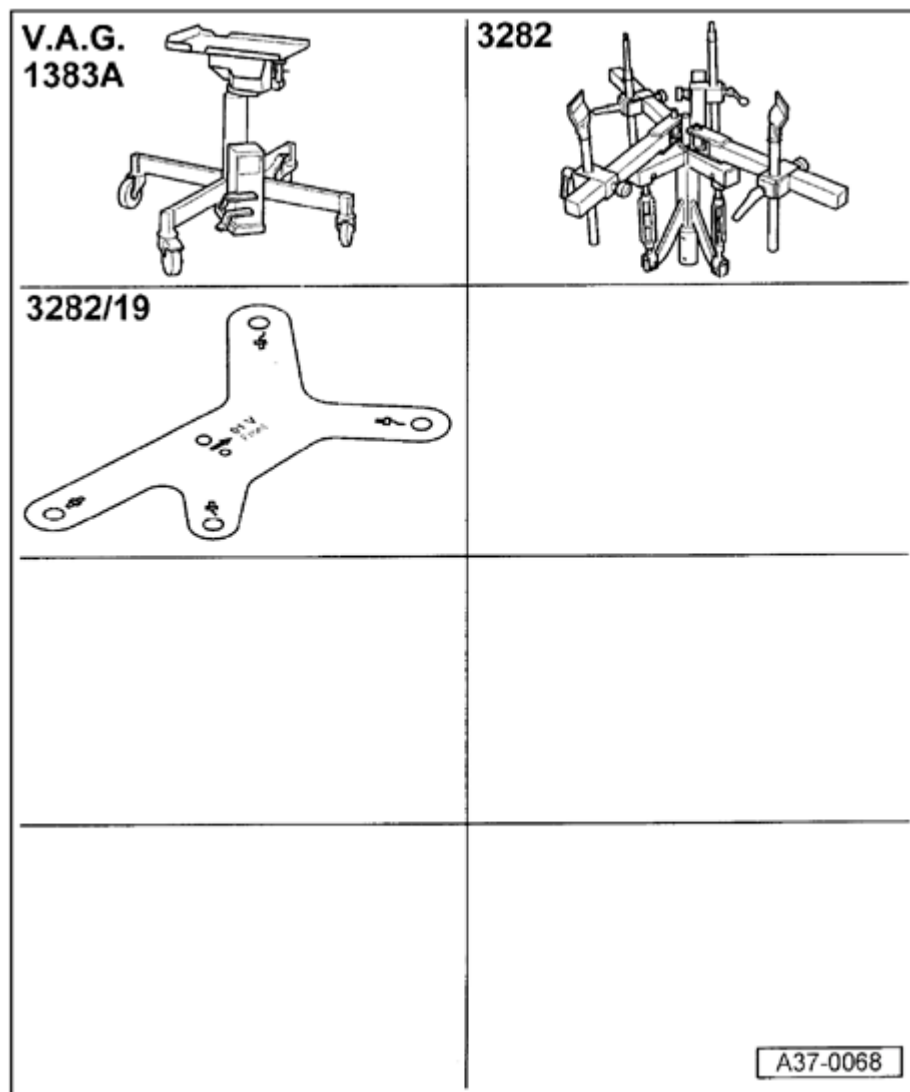
A Valid for all engine/transmission types:

Components	Tightening torques	
Mounting bracket to transmission (2x M8), item no. 2 and 3	23 Nm	
Heat shield/selector lever cable to transmission, item no. 1	M6	9 Nm
	M8	23 Nm
Heat shield/selector lever cable to transmission, M8, item no. 4	23 Nm	
Selector lever cable to mounting bracket -B-, item no. 5	12 Nm	

37-124

Component		Nm
Nuts/Bolts	M6	10
	M8	20
	M10	45
	M12	65
Except for the following:		
Drive plate to Torque converter	M10 x1	85
Installing ATF lines		Page ⇒ Page 37-149 onward
multi-function Transmission Range (TR) switch -F125- to transmission		8
Three Way Catalytic Converter (TWC) to mounts		25
Bracket for noise insulation to subframe		10
Heat shield for drive axle		25
Heat shield to turbocharger		10

37-125



Right and left transmission mounts, removing and installing

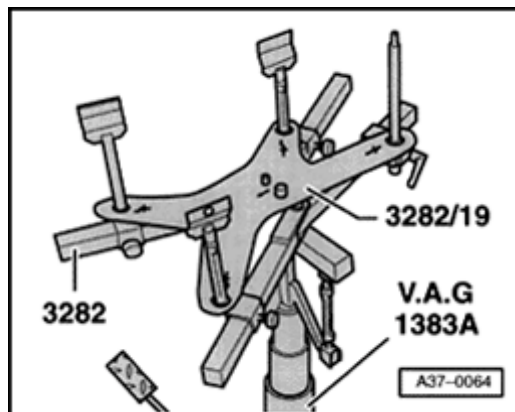
Special Tools and equipment

- ◆ Engine/transmission support VAG1383A engine/gearbox jack
- ◆ 3282 transmission support
- ◆ 3282/19 adjustment plate

Removing

Note:

Transmission must be supported as indicated when both transmission supports are removed. Transmission does not need to be supported this way when only one of the transmission supports is being removed.

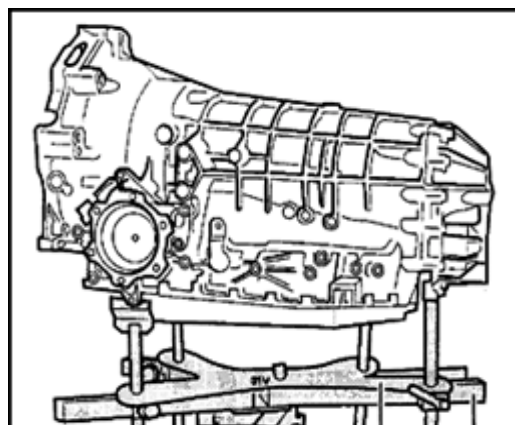


A

- Prepare 3282 transmission support for Automatic Transmission 01V with 3282/10 adjustment plate and place it on the VAG1383A engine/transmission hoist.

Note:

The symbols on the adjustment plate indicate the necessary mounts for Automatic Transmission 01V and the arrow points toward front of vehicle.

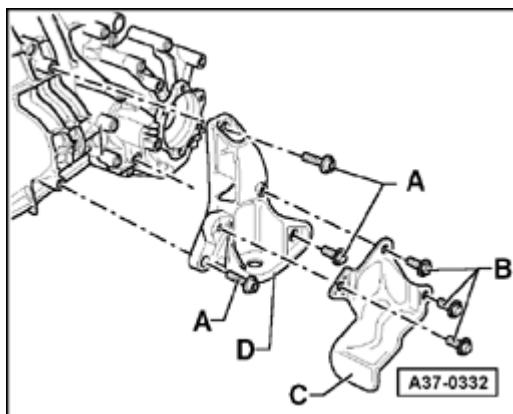


A

- Roll VAG1383A engine/transmission hoist with 3282 transmission support under transmission and support transmission.

Note:

If 3282 transmission support is not available, transmission can be supported using the VAG1383A transmission lift and the 1359/2 universal mount.



Right transmission support

- A**
- Remove heat shield -C-.

Note:

The right heat shield is not installed on 6 cylinder TDI engines.

- Remove right heat shield -D- by removing bolts -A- from transmission.

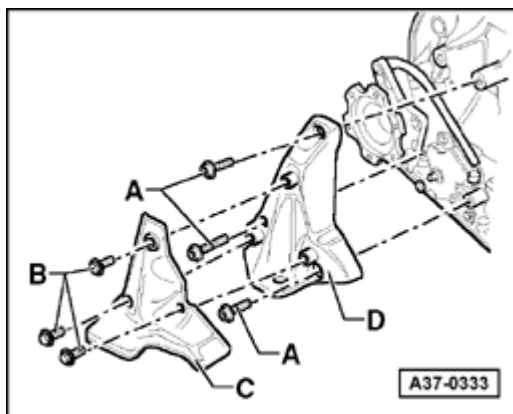
Left transmission support

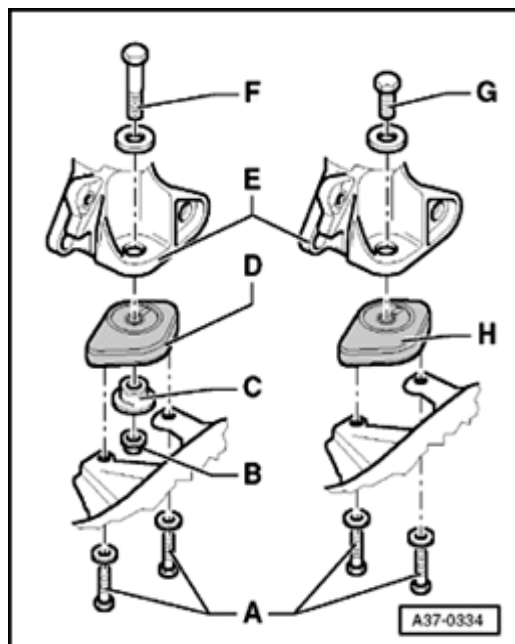
- A**
- Remove heat shield -C-.

Note:

The left heat shield is not installed on 4 cylinder gasoline engines.

- Remove left heat shield -D- by removing bolts -A- from transmission.





Left and right transmission supports

A

- Remove transmission supports -E-.

D - transmission mount (traditional)

H- hydraulic transmission mount

Note:

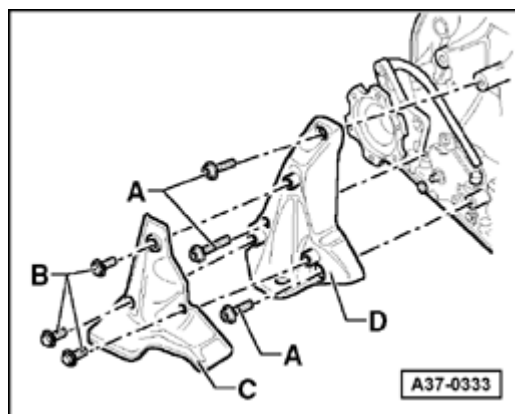
Items -C- and -B- are not installed on vehicles with hydraulic transmission bearing -H-, because bolt -G- is threaded directly into the transmission bearing.

Installing

Installation is the reverse of removal.

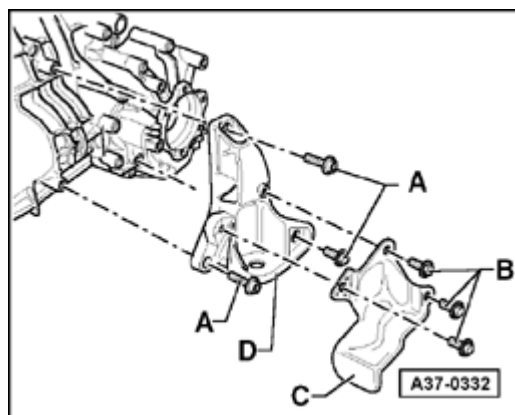
Tightening torques for left and right transmission supports

Item no.	Bolt	Number	Nm
A	M 8 x 22	2 each	27
B to F	M 10 x 70	1	50
G	M 10 x 35	1	50



A Tightening torques for left transmission support

Item no.	Bolt	Number	Nm
A	M 10 x 30	2	40
	M 10 x 50	1	
B	M 6 x 22	3	10

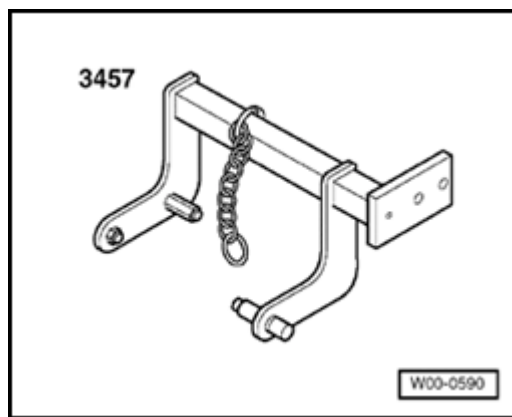


A Tightening torques for right transmission support

Item no.	Bolt	Number	Nm
A	M 10 x 30	3	40
B	M 6 x 22	3	10

Automatic transmission, transporting

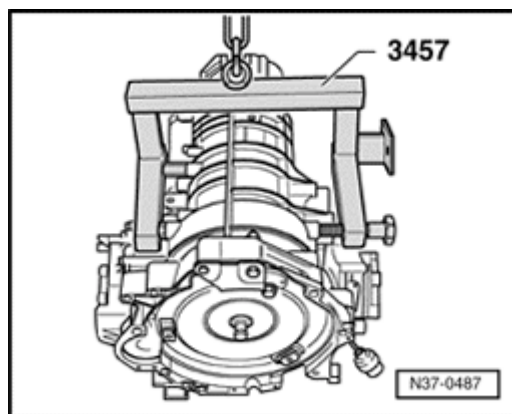
Special tools and equipment



A

- ◆ 3457 attachment and holding rig

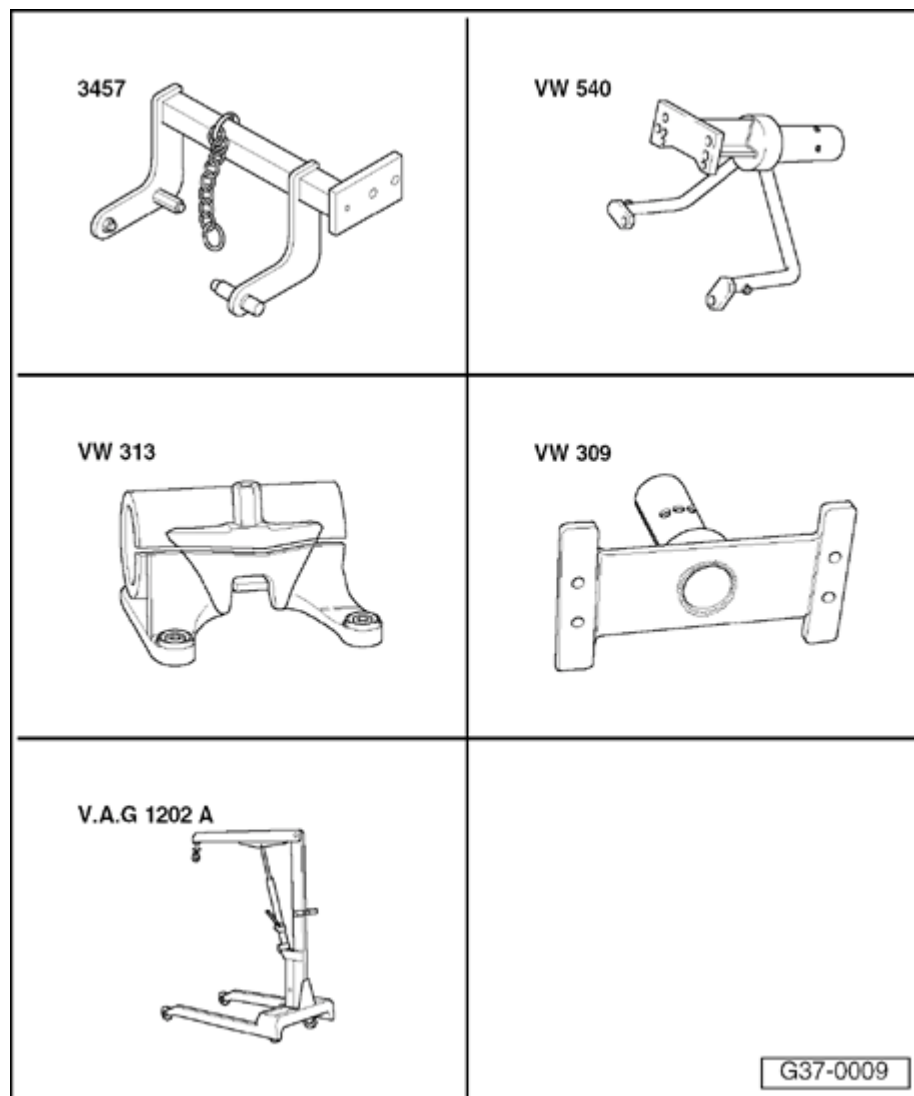
The 3457 attachment and holding rig can be used when transporting the transmission and for setting up the 3282 transmission support.



A

- Attach the 3457 attachment and holding rig at the transmission housing mounts and secure.

37-131

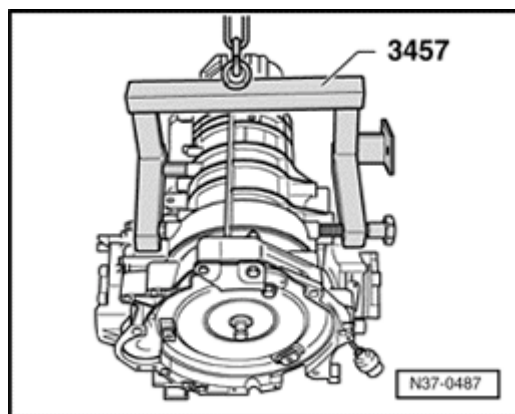


Transmission, attaching to assembly stand

Special Tools and equipment

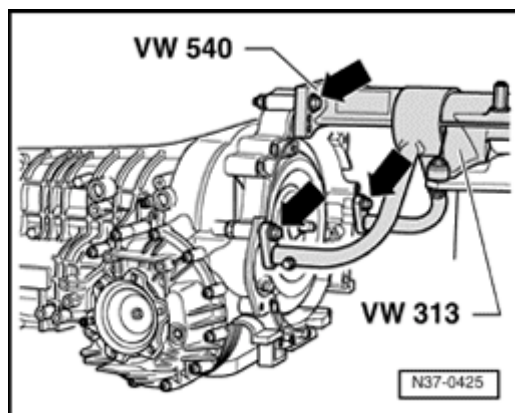
- ◆ 3457 attachment and holding rig
- ◆ VW540 holding fixture (only for transmission with FWD)
- ◆ VW313 holding fixture
- ◆ VW309 holding plate
- ◆ VAG1202A engine hoist

37-132



- A
- Attach the 3457 attachment and holding rig at the transmission housing mounts and secure.
 - Bolt the attachment and holding rig to the VW 309 holding plate and place this into the VW313 holding fixture using a workshop crane.

For transmissions with Front Wheel Drive (FWD), the VW540 holding fixture can also be used to secure the transmission to the VW313 holding fixture.



- A
- Secure transmission to VW540 holding fixture (arrows) and insert in VW313 holding fixture.

WARNING!

The center of gravity of the transmission is located outside the turning center at holding fixture. To turn the transmission, a second technician must hold the transmission housing to prevent back-swing.

Note:

Vents for the transmission housing and final drive must be closed before turning a filled transmission on the assembly stand so that the oil pan faces upward .