



Workshop Manual Amarok 2011 ➤

Transfer box and final drive

Edition 09.2010





List of Workshop Manual Repair Groups

Repair Group

- 00 - Technical data
- 34 - Controls, housing
- 39 - Final drive - rear differential
- 39 - Final drive - front differential
- 39 - Final drive - differential

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



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00 – Technical data

1 Overview - four-wheel drive power train

1 - Front final drive

- ❑ Removing and installing
⇒ [page 37](#)

2 - Front propshaft

- ❑ Removing and installing
⇒ [page 59](#)

3 - From manual gearbox

4 - Transfer box

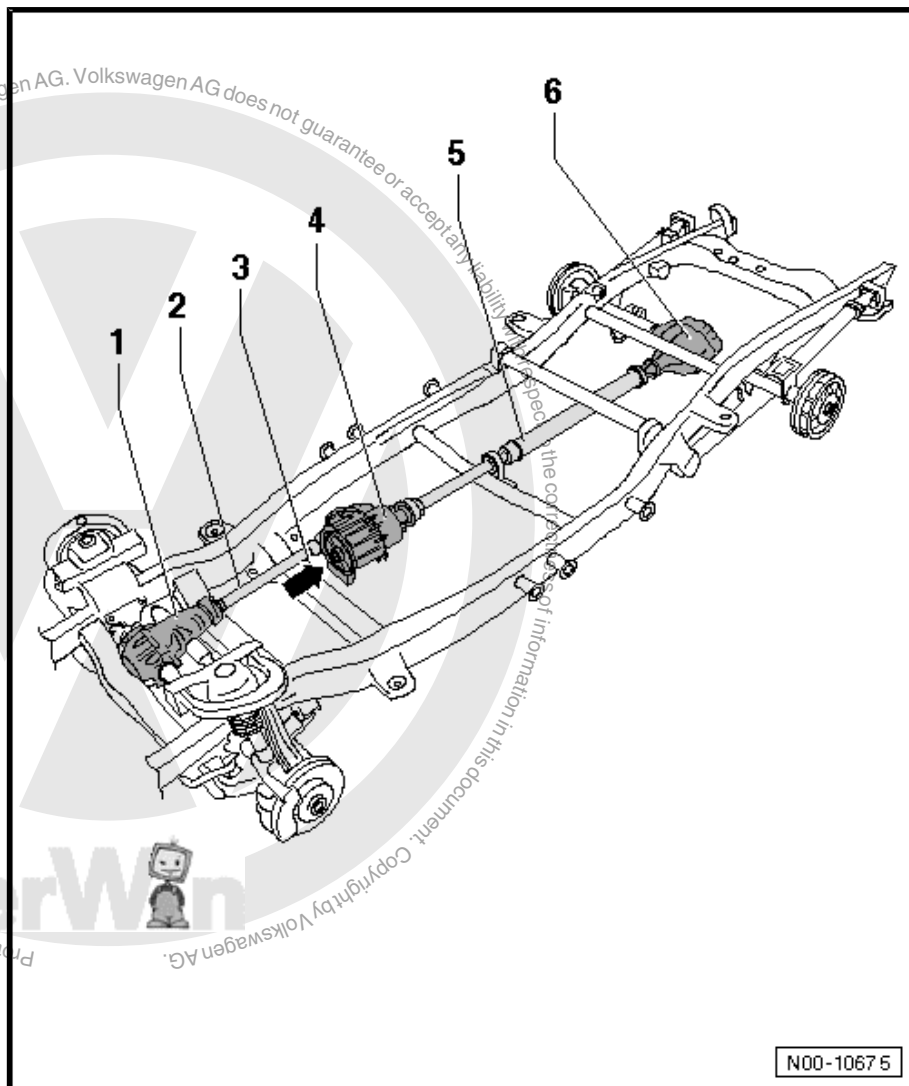
- ❑ With reduction gearing
- ❑ Changing between on-road range „HIGH“ and offroad range „LOW“ is performed using running gear programme switch -E631-
⇒ [page 10](#)
- ❑ Removing and installing
⇒ [page 12](#)

5 - Rear propshaft

- ❑ Removing and installing
⇒ [page 61](#)

6 - Rear final drive

- ❑ Optionally with rear axle differential lock
⇒ [page 28](#)





2 Transfer box identification

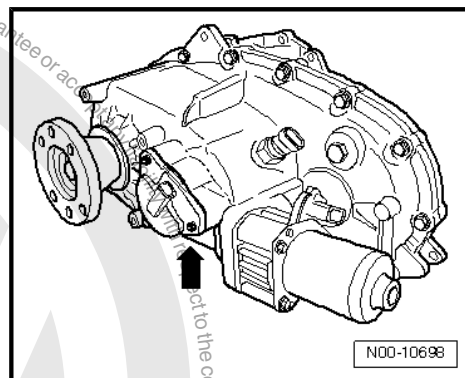
Transfer box 07C is allocated to manual gearbox 06C.

A reduction gearing is integrated into the transfer box.

Codes ⇒ [page 2](#) .

2.1 Location on transfer box

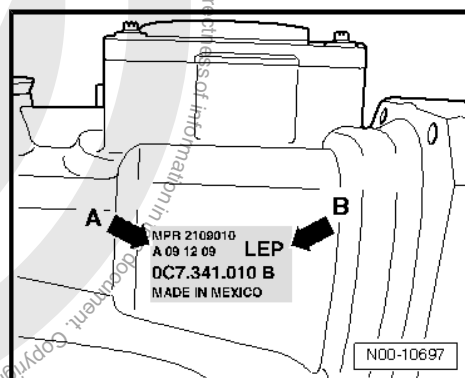
Location on transfer box -arrow-.



Production date -arrow A- and identification code -arrow B- of transfer box

Example	LEP	09	12	09
	Identification code	Day	Month	Year (2009) of manufacture

Additional data depend on manufacture.



2.2 Identification code, assembly allocation, capacities

Transfer box	0C7
Identification code	LEP
Allocation	Model
	Engine
Capacity	1.25 l

The following data can be found in the ⇒ Electronic parts catalogue „ETKA“ .

- ◆ Allocation to corresponding vehicle by identification code of manual gearbox
- ◆ Specification of gear oil



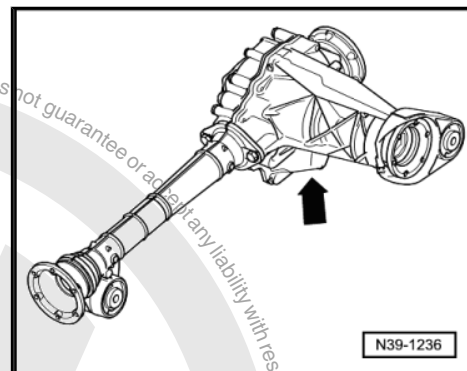
3 Identifying front final drive

Front final drive 0C1 is allocated to manual gearbox 06C.

Codes ⇒ [page 3](#) .

3.1 Location on front final drive

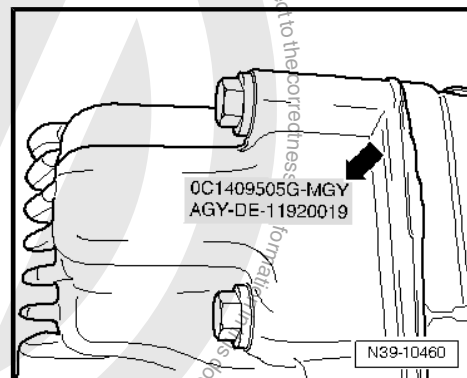
Location on front final drive -arrow-



Codes -arrow- and manufacturing data for front final drive

Example	MGY	5	01	10
Identification code		Day	Month	Year (2010) of manufacture

Additional data depend on manufacture.



3.2 Identification code, assembly allocation, capacities

Front final drive	0C1
Identification code	MQL
Allocation	Model
	Engine
Capacity	0.8 l

The following data can be found in the ⇒ Electronic parts catalogue „ETKA“ .

- ◆ Allocation to corresponding vehicle by engine code
- ◆ Specification of gear oil



4 Rear final drive

4.1 Identification code, assembly allocation, ratios, capacities

Rear final drive	0CC		
Identification code	MQA		MQB
Allocation	Model	Amarok 2011 ►	Amarok 2011 ►
	Engine	2.0 l - 120 kW	2.0 l - 120 kW
Ratio	Final drive	i = 4.1	i = 4.1
Capacity		1.5 l ¹⁾	1.5 l ¹⁾

1) 2.1 l for new fill

The following data can be found in the ⇒ Electronic parts catalogue „ETKA“.

- ◆ Allocation to corresponding vehicle
- ◆ Specification of gear oil



5 Four-wheel drive - notes on performance test

- Only rolling roads with brakes on all 4 rollers may be used for performance tests.



6 General repair notes

To ensure flawless and successful gearbox repairs, the greatest care and cleanliness as well as the use of good and proper tools are essential. Of course, the basic rules for safety also apply during 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 this workshop manual.

6.1 Components

6.1.1 Gearbox

- ◆ When installing the transfer box, ensure that the dowel sleeves between the gearbox and transfer box are correctly installed.
- ◆ Always renew retaining rings for front propshaft on transfer box and front final drive.
- ◆ When installing mounting brackets or waxed components, clean the contact surfaces. Contact surfaces must be free of wax and grease.
- ◆ Allocate bolts and other components using ⇒ Electronic parts catalogue (ETKA) .
- ◆ When changing transfer box, top gearbox up with gear oil ⇒ [page 14](#) .
- ◆ Capacity of transfer box ⇒ [page 2](#) .
- ◆ When changing front final drive, top up with gear oil ⇒ [page 56](#) .
- ◆ Capacity of front final drive ⇒ [page 3](#) .

6.1.2 Rear axle

When changing rear axle, top up with gear oil ⇒ [page 35](#) .

Capacity of rear final drive ⇒ [page 4](#) .

6.1.3 Seals and sealing rings

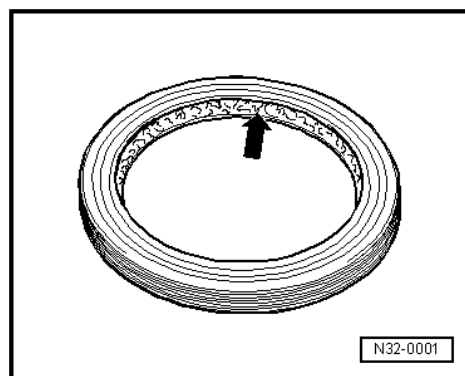
- ◆ Renew seals.
- ◆ Radial oil seals.

Before installing:

Lightly oil outer diameter and half-fill space between sealing lips -arrow- with grease -G 052 128 A1- .

After installation:

- ◆ Check oil level in transfer box ⇒ [page 14](#) .
- ◆ Checking oil level in front final drive ⇒ [page 56](#) .
- ◆ Checking oil level in rear final drive ⇒ [page 3](#) .



6.1.4 Locking devices

- ◆ Renew retaining rings.
- ◆ Do not overstretch retaining rings.
- ◆ Retaining rings must locate properly in grooves.



6.1.5 Nuts and bolts

- ◆ Loosen and tighten bolts and nuts for covers and housings diagonally.
- ◆ Torque settings are specified for uncoiled bolts and nuts.
- ◆ Always renew self-locking bolts and nuts.
- ◆ Ensure with threaded connections that contact surfaces as well as nuts and bolts are rewaxed only after assembly, if necessary.
- ◆ Use a thread chaser to clear residual locking fluid from all threaded holes into which self-locking bolts are to be screwed. Otherwise there is a danger of bolts shearing when subsequently being removed.

6.1.6 Bearing

- ◆ Install needle bearings with lettered side (thicker metal) towards fitting tool.



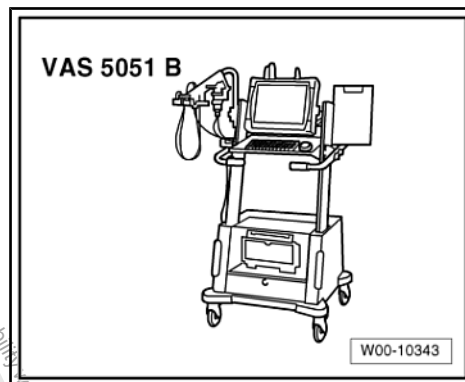


34 – Controls, housing

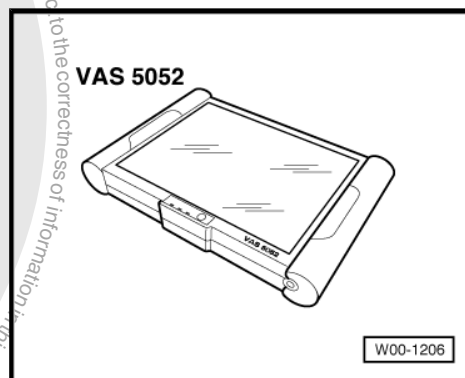
1 Connecting vehicle diagnosis, testing and information system -VAS 5051B- or vehicle diagnosis and service information system -VAS 5052 A- and selecting functions

Special tools and workshop equipment required

- ◆ Vehicle diagnosis, testing and information system -VAS 5051B- or successor.



- ◆ Vehicle diagnosis and service information system -VAS 5052 A- or successor



WARNING

To avoid accident risks, proceed as follows during measuring and test drives:

- ◆ *Use only vehicle diagnosis, testing and information system -VAS 5051B- or vehicle diagnosis and service information system -VAS 5052 A- to read measured value blocks. Always secure device on rear seat and have a second person operate it from there.*

Perform the following steps:



- With ignition switched off, connect vehicle diagnosis, testing and information system -VAS 5051B- to diagnostic connection.

Location: Driver footwell.

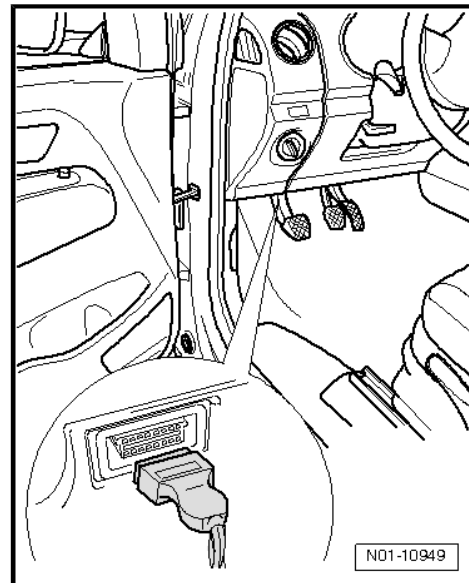
- Switch on tester.

The tester is operational when it displays a picture of a car.

- Switch on ignition.

Starting „guided fault finding“

- Touch Guided fault finding button on screen.
- Select in succession:
 - ◆ Brand
 - ◆ Model
 - ◆ Model year
 - ◆ Version
 - ◆ Engine code
- Confirm input data.

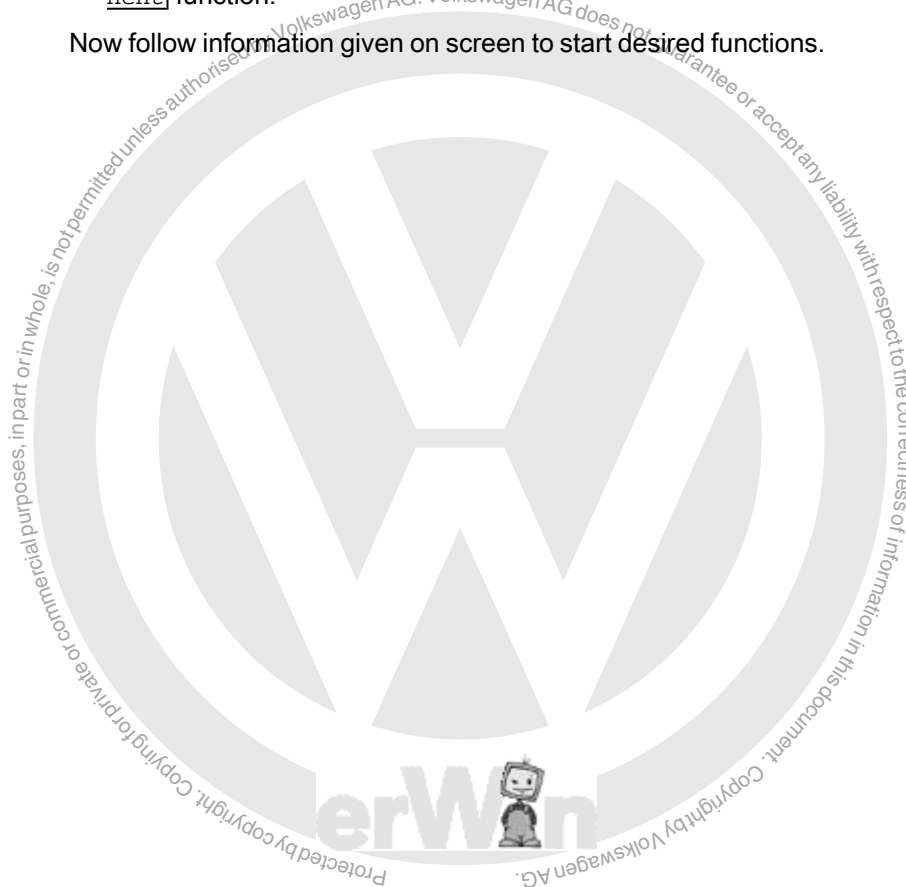


Note

Wait until tester has read all control units in vehicle.

- Press Goto button and select Select function/component function.

Now follow information given on screen to start desired functions.





2 Electrical and electronic components and their locations for four-wheel drive



Note

- ◆ *Electrical and electronic components of rear axle differential lock ⇒ [page 29](#)*
- ◆ *Refer to ⇒ Self-study programme No. 464 ; Power transmission for more information about function.*
- ◆ *Refer to ⇒ Amarok owner's manual for more information and notes on safety.*

1 - Transfer box control unit - J646-

- ❑ Location: under dash panel
- ❑ Removing and installing ⇒ [page 11](#)

2 - Diagnostic connection

- ❑ Location: in driver footwell

3 - Running gear programme switch -E631-

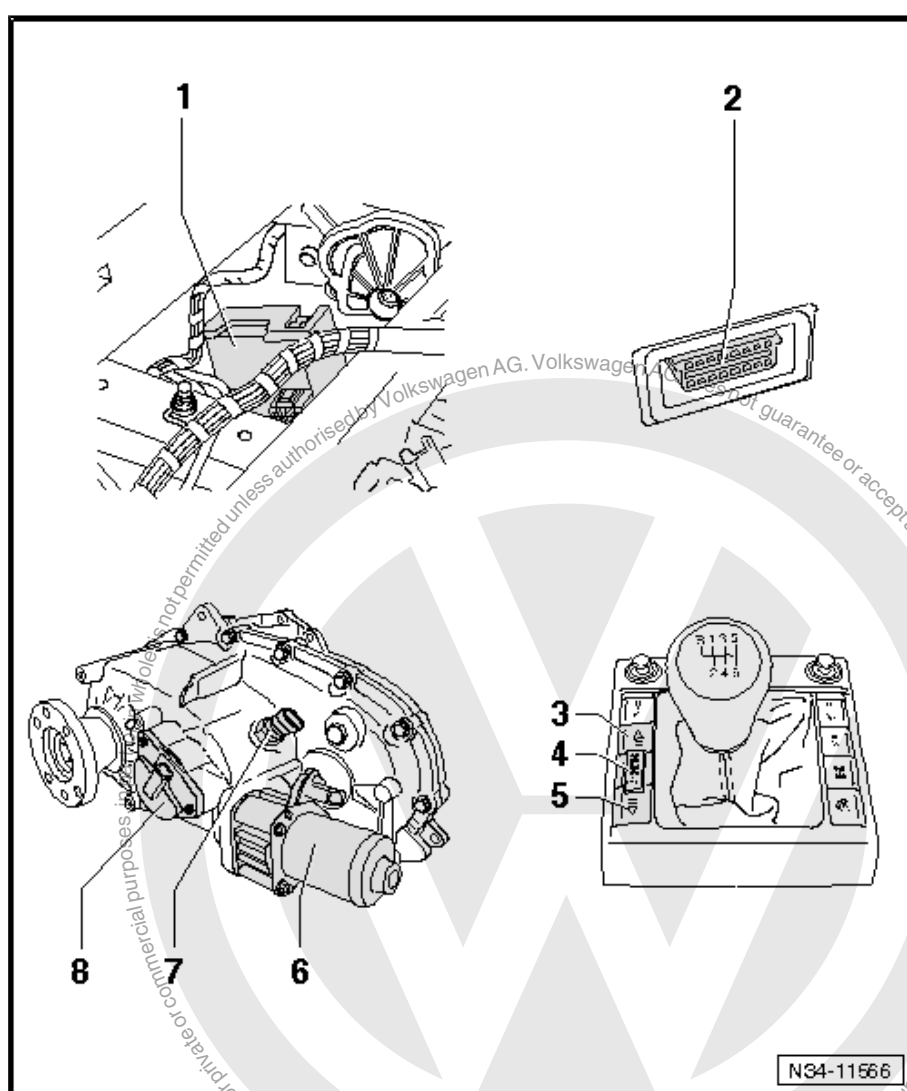
- ❑ Deactivate for four-wheel drive
- ❑ Remove by removing selector mechanism cover ⇒ General body repairs, interior; Rep. gr. 68 ; Compartments, covers and trims; Removing and installing centre console

4 - Transfer box operating unit

- ❑ With reduction gearing warning lamp in transfer box operating unit - K182-
- ❑ With inter-axe lock-up warning lamp in transfer box operating unit - K183-
- ❑ With rear axle differential lock warning lamp in transfer box operating unit -K184-
- ❑ Remove by removing selector mechanism cover ⇒ General body repairs, interior; Rep. gr. 68 ; Compartments, covers and trims; Removing and installing centre console

5 - Running gear programme switch -E631-

- ❑ Activate for four-wheel drive
- ❑ Remove by removing selector mechanism cover ⇒ General body repairs, interior; Rep. gr. 68 ; Compartments, covers and trims; Removing and installing centre console





6 - Transfer box control motor -V455-

- ❑ Location: on transfer box
- ❑ Removing and installing ⇒ [page 25](#)

7 - Transfer box inter-axle lock-up switch -F438-

- ❑ Location: on transfer box
- ❑ Removing and installing ⇒ [page 15](#)

8 - Hall sender for transfer box -G759-

- ❑ Location: on transfer box
- ❑ Removing and installing ⇒ [page 23](#)

2.1 Removing and installing transfer box control unit -J646-

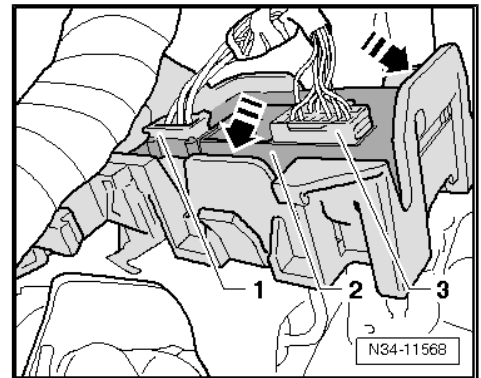
Removing

- Remove connectors -1- and -3- on transfer box control unit -J646- -2-.
- Push locks on bracket in direction of arrow and remove transfer box control unit -J646- .

Installing

Install in reverse order of removal. During this step, observe the following:

Transfer box control unit -J646- must engage in bracket.

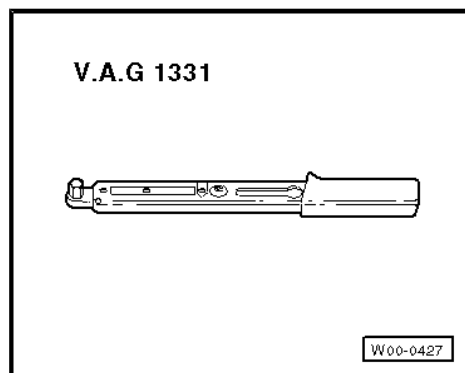




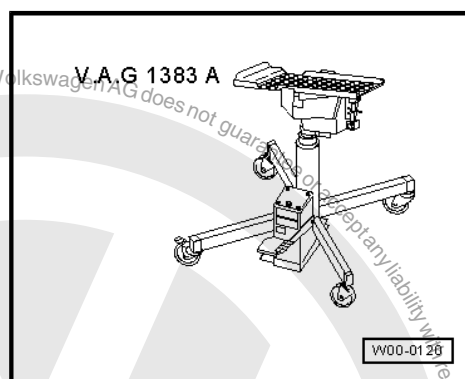
3 Removing and installing transfer box

Special tools and workshop equipment required

- ◆ Torque wrench -V.A.G 1331-



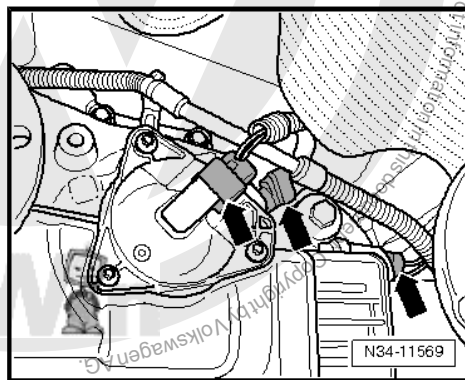
- ◆ Engine and gearbox jack -V.A.G 1383 A-



- ◆ Grease for drive shafts -G 052 738 A2-

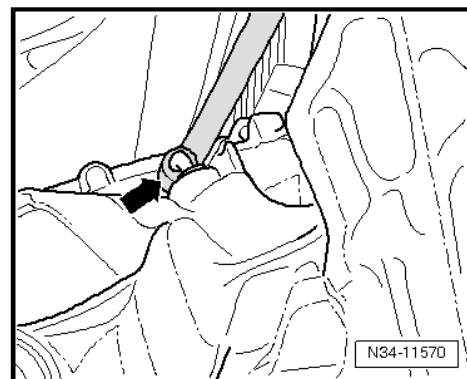
Removing

- Remove rear propshaft ⇒ [page 61](#) .
- Remove front propshaft ⇒ [page 59](#) .
- Pull off connector -arrows- and unclip wiring harness from transfer box.





- Pull breather line - arrow - off transfer box.

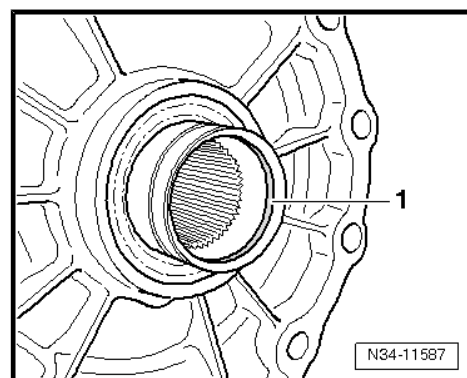
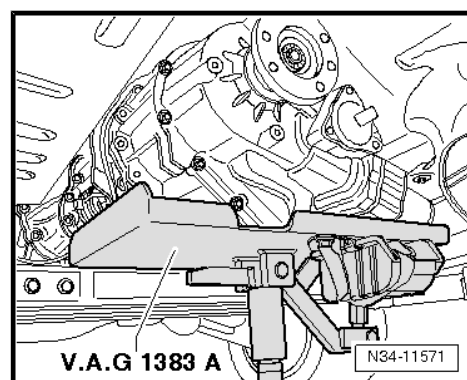


- Position engine and gearbox jack -V.A.G 1383 A- under transfer box.
- Unscrew and remove transfer box/gearbox connecting bolts.
- Press transfer box off gearbox.
- Lower transfer box with engine and gearbox jack -V.A.G 1383 A- .

Installing

Install in reverse order of removal. During this step, observe the following:

- Check whether dowel sleeves for aligning gearbox and transfer box are fitted in gearbox; install if necessary.
- Always renew oil seal to seal transfer box and gearbox -1- and lubricate lightly.
- Grease transfer box input shaft splines and gearbox output shaft splines with drive shaft grease -G 052 738 A2- .
- Push transfer box completely onto gearbox, ensuring that transfer box input shaft splines are centred as they are guided onto the gearbox output shaft.



Caution

Do not use securing bolts to pull transfer box onto the gearbox. Otherwise transfer box will cant.

If splines are correctly positioned and shafts are centred, then transfer box will slide to stop against gearbox.

- Install front propshaft ⇒ [page 59](#) .
- Install rear propshaft ⇒ [page 61](#) .
- Check oil level in transfer box ⇒ [page 14](#) .

Torque setting

Transfer box to gearbox

45 Nm



4 Checking oil level in transfer box or adding oil

Gearbox oil specification ⇒ Electronic parts catalogue „ETKA“

Special tools and workshop equipment required

- ◆ Torque wrench -V.A.G 1331-

Note

- ◆ Oil level is below oil filler hole.
- ◆ Make a tool to check oil level.

Dimension -a- = 37 mm

Dimension -b- = 60 mm

Perform the following steps:

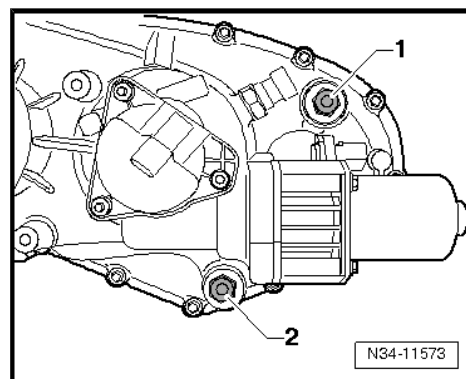
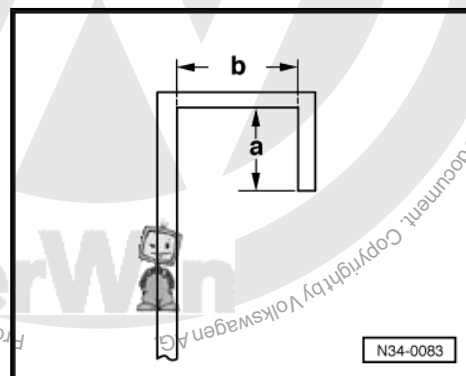
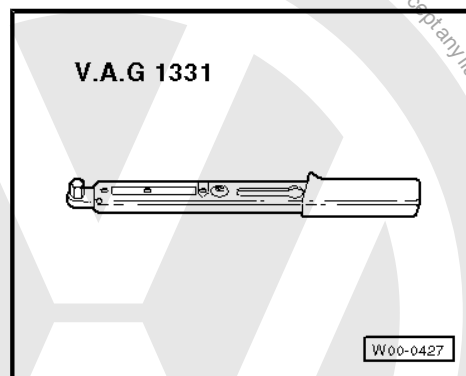
- Raise vehicle ⇒ Maintenance ; Booklet 11 .
- Remove oil filler plug -1-.
- Insert locally manufactured tool into filler hole downwards as far as possible.
- Pull out tool and check oil level on tool. Top up oil if necessary.

Gear oil level is correct if oil level is 32...37 mm below lower edge of filler hole.

- Screw in new oil filler plug and tighten to 27 Nm.

When filling with oil, note the following:

- Remove oil filler plug -1-.
- Fill 1.25 l of gear oil.
- Screw in new oil filler plug and tighten to 27 Nm.





5 Assembly overview - transfer box

1 - Transfer box

2 - Breather pipe

- ☐ Removing ➔ [page 16](#)
- ☐ Driving in ➔ [page 16](#)

3 - Seal

- ☐ For input shaft

4 - Seal

- ☐ Always renew
- ☐ Insert in groove in input shaft ➔ [page 16](#)

5 - Dowel sleeve

- ☐ Qty. 2
- ☐ For centring gearbox/transfer box

6 - Transfer box inter-axle lock-up switch -F438- , 27 Nm

7 - Seal

- ☐ Renew if damaged

8 - Retaining ring

- ☐ On input shaft for front propshaft
- ☐ Renew

9 - Seal

- ☐ On output shaft for front propshaft
- ☐ Renew if damaged

10 - Seal

- ☐ For output shaft for front propshaft
- ☐ 2-piece

11 - Transfer box control motor -V455-

- ☐ Removing and installing ➔ [page 25](#)

12 - Bolt, 12 Nm

13 - Seal

- ☐ Renew if damaged
- ☐ Must lie in peripheral groove of transfer box control motor -V455-

14 - Oil drain plug, 27 Nm

- ☐ Always renew

15 - Oil filler plug, 27 Nm

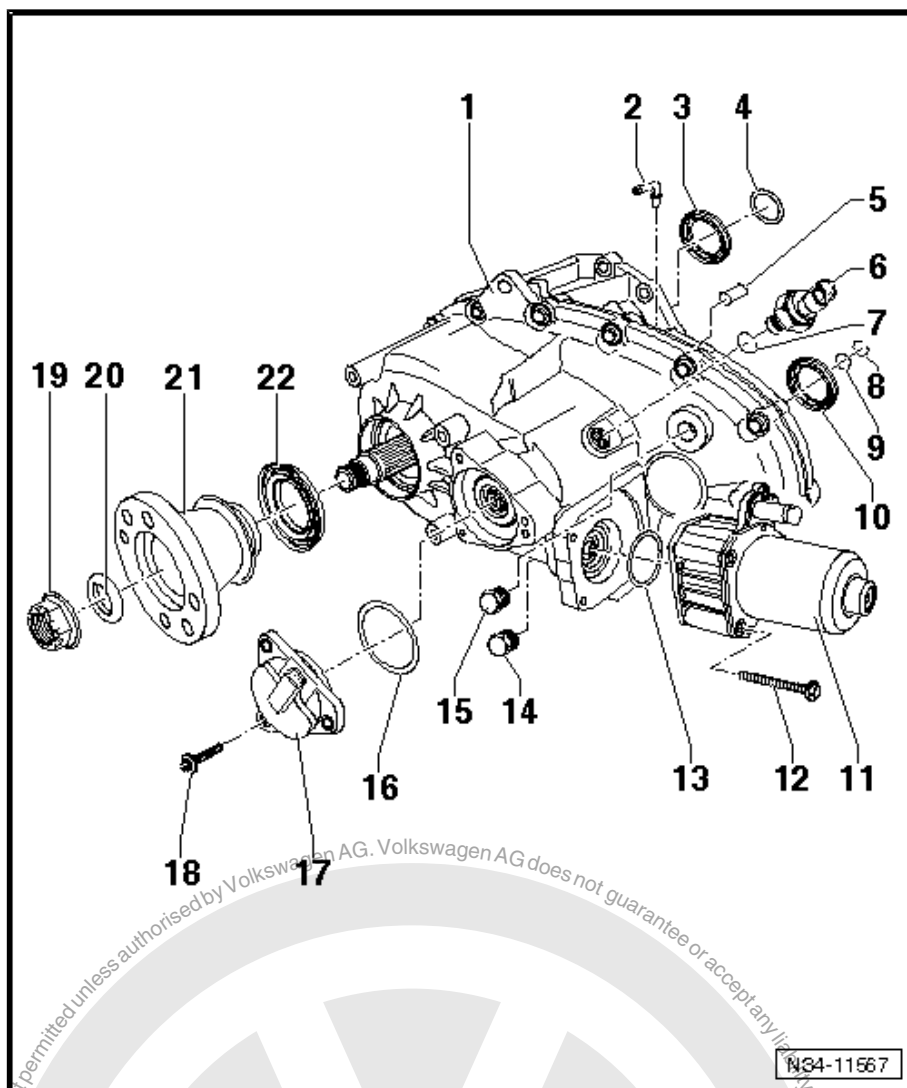
- ☐ Always renew

16 - Seal

- ☐ Renew if damaged
- ☐ Must lie in peripheral groove of Hall sender for transfer box -G739-

17 - Hall sender for transfer box -G739-

- ☐ Removing and installing ➔ [page 23](#)





18 - Bolt, 7 Nm

19 - Nut, 150 Nm

- ☐ Always renew
- ☐ Unscrewing ⇒ [page 21](#)
- ☐ Screwing on ⇒ [page 22](#)

20 - Seal

- ☐ Always renew
- ☐ Coat with gear oil when installing

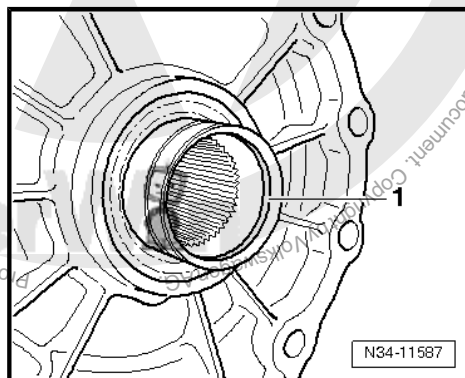
21 - Propshaft flange

- ☐ For rear propshaft.
- ☐ Removing and installing ⇒ [page 20](#)

22 - Seal

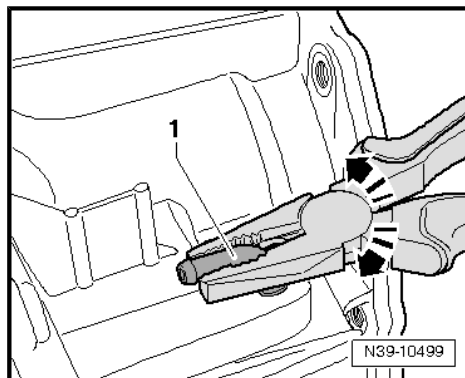
- ☐ For propshaft flange
- ☐ Renew with propshaft flange ⇒ [page 20](#)

Inserting oil seal into groove in input shaft -1-



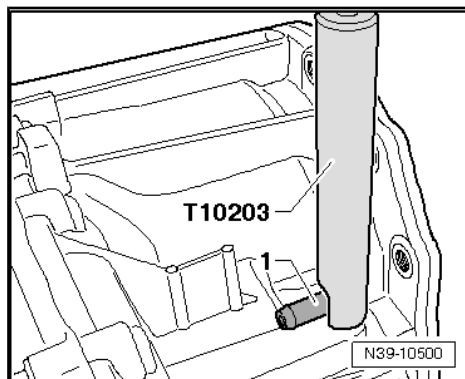
Removing breather pipe

- Use pliers to move breather pipe -1- in directions of both arrows and pull out.



Driving in breather pipe

- Before driving in breather pipe -1-, coat it with Loctite -648- locking fluid.
- Drive breather pipe to stop with thrust piece -T10203- .





6 Renewing oil seals on transfer box

Renewing input shaft seal ⇒ [page 17](#)

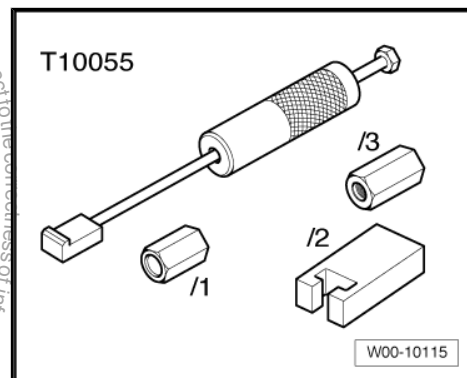
Renewing output shaft oil seal for front propshaft (transfer box installed) ⇒ [page 18](#)

Renewing propshaft flange oil seal (transfer box installed)
⇒ [page 20](#)

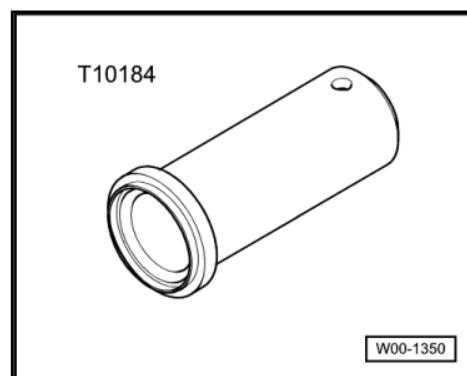
6.1 Renewing input shaft seal

Special tools and workshop equipment required

◆ Puller -T10055-



◆ Thrust piece -T10184-



◆ Sealing grease -G 052 128 A1-

◆ Sheet metal screw, approx. 4 mm in diameter

Removing

– Remove transfer box ⇒ [page 12](#) .



- To pull out seal, screw sheet metal screw of about 4 mm diameter -arrow- into seal.



Caution

Do not screw in sheet metal screw too far to avoid damaging bearing behind it.

- Pull out seal using puller -T10055- .

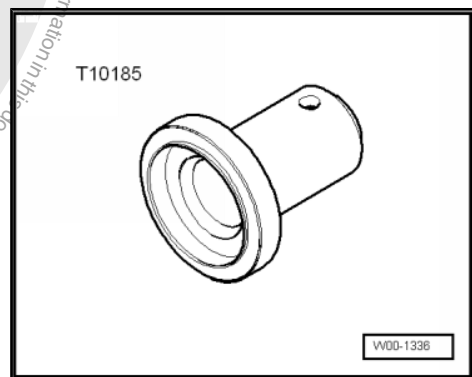
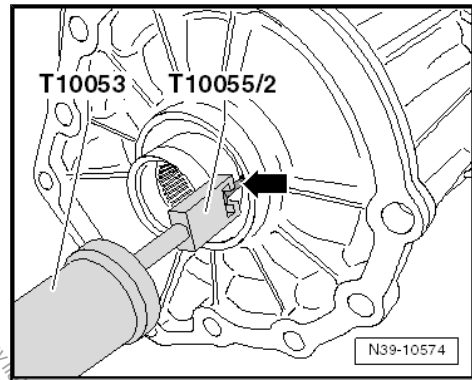
Installing

- Half-fill space between sealing lip and dust lip with sealing grease -G 052 128 A1- .
- Drive in new seal to stop with thrust piece -T10184- , being careful not to cant seal.
- Install transfer box ➔ [page 12](#) .
- Check oil in transfer box ➔ [page 14](#) .

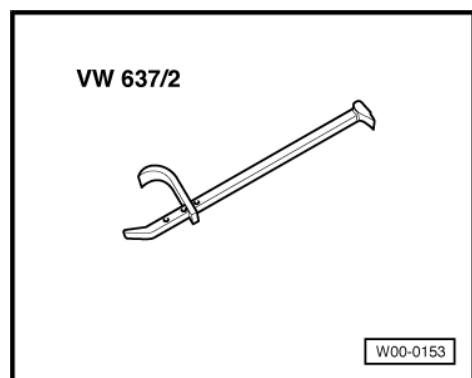
6.2 Renewing output shaft oil seal for front propshaft (transfer box installed)

Special tools and workshop equipment required

- ◆ Thrust piece -T10185-

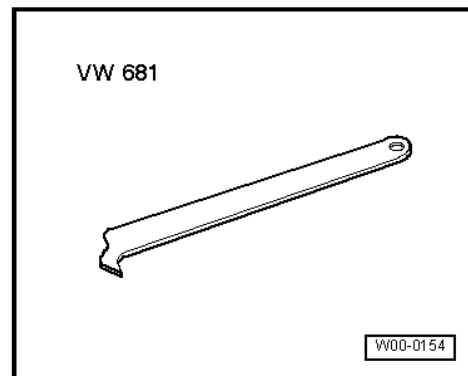


- ◆ Hub grease cap puller -VW 637/2-





- ◆ extractor lever -VW 681-

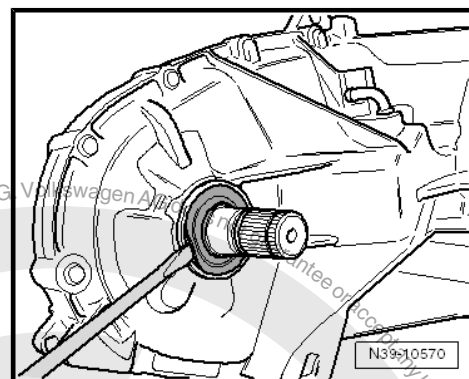


- ◆ Sealing grease -G 052 128 A1-

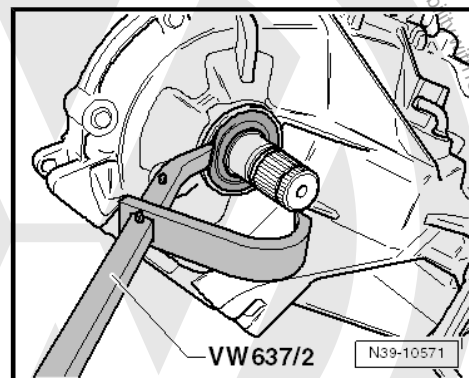
Removing

Perform the following steps:

- Remove front propshaft ⇒ [page 59](#) .
- Lift inner part of seal in three places using a screwdriver, offset 120°



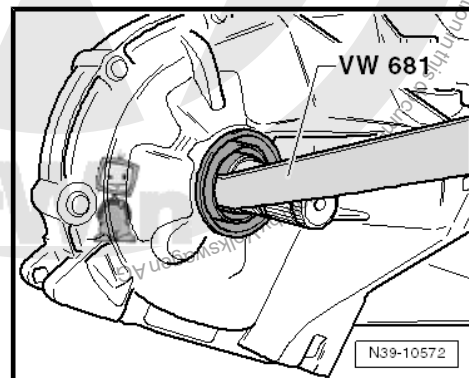
- Pull out seal using hub grease cap puller -VW 637/2- .



- Pull seal out with oil seal extractor lever -VW 681- .

Installing

- Half-fill space between sealing lip and dust lip with sealing grease -G 052 128 A1- .
- Position new seal on transfer box.
- Push inner part of seal onto output shaft as far as possible.
- Drive in new seal to stop with thrust piece -T10185- , being careful not to cant seal.
- Install front propshaft ⇒ [page 59](#) .
- Check oil in transfer box ⇒ [page 14](#) .

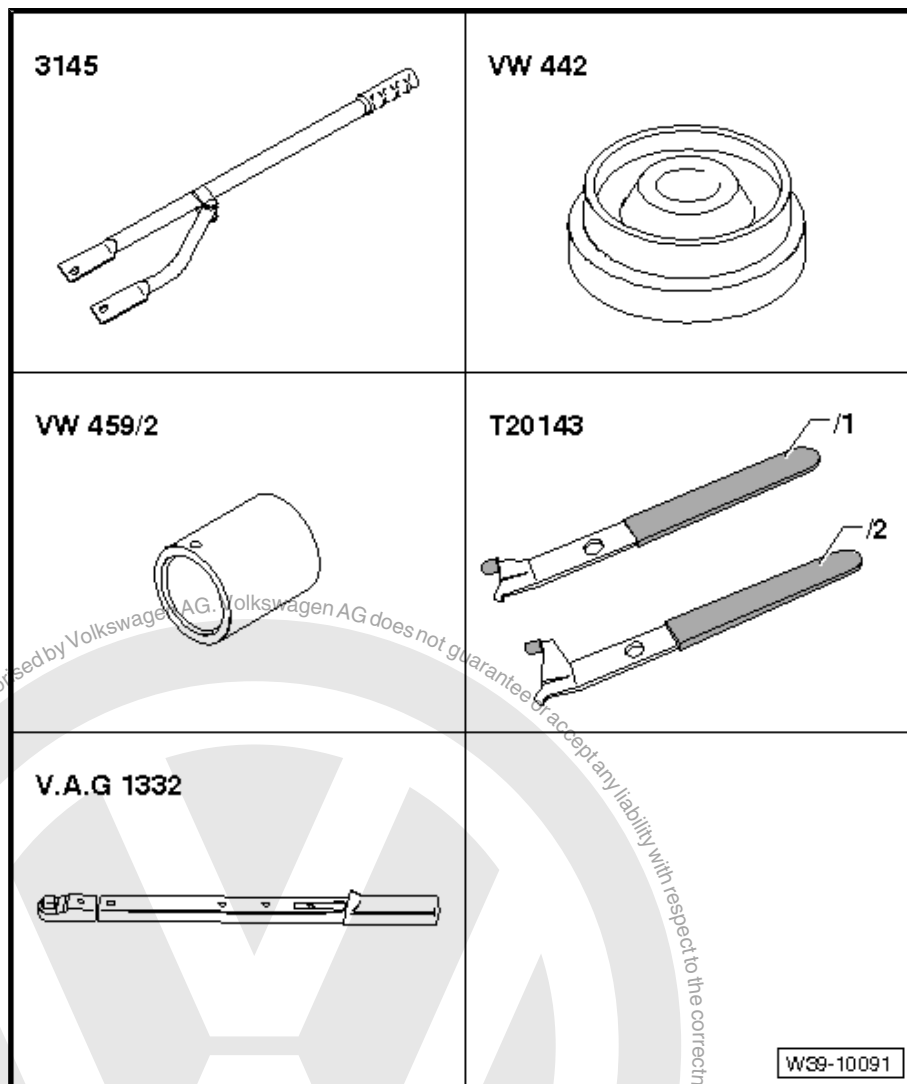




6.3 Renewing propshaft flange oil seal (transfer box installed)

Special tools and workshop equipment required

- ◆ Counterhold -3145-
- ◆ Thrust piece -VW 442-
- ◆ Removal and installing tool -VW 459/2-
- ◆ Puller hooks -T20143/2-
- ◆ Torque wrench -V.A.G 1332-
- ◆ Sealing grease -G 052 128 A1-
- ◆ Bolts M10 x 25 (Qty. 2)



Perform the following steps:



Note

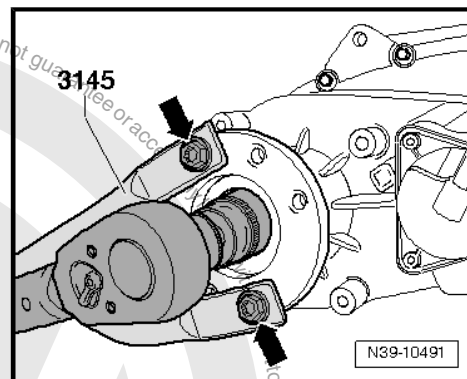
Always renew oil seal and propshaft flange together.

Removing

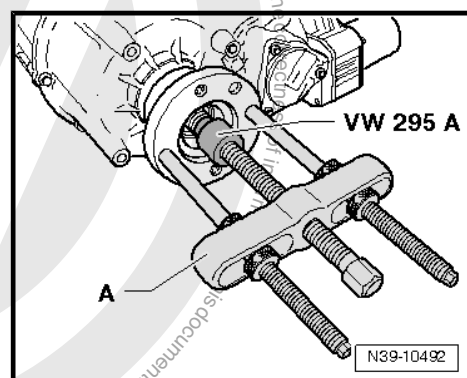
- Remove rear propshaft ⇒ [page 61](#).



- Unscrew nut for propshaft flange. Screw counterhold -3145- onto propshaft flange using two M10 x 25 bolts -arrows- in order to counterhold.
- Place drip tray under transfer box.



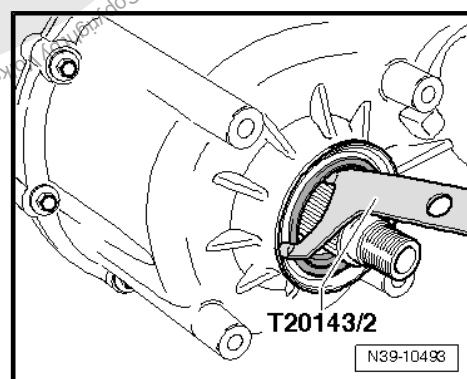
- If necessary, pull off propshaft flange using puller Kukko 18-1 -A- and adapter -VW 295 A-.



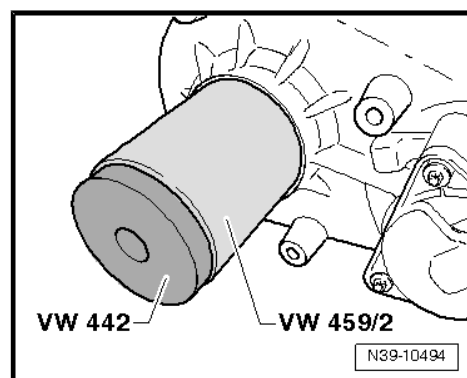
- Pull out seal using puller hooks -T20143/2-.

Installing

- Lightly oil outer circumference of new oil seal.
- Half-fill space between sealing lip and dust lip with sealing grease -G 052 128 A1-.

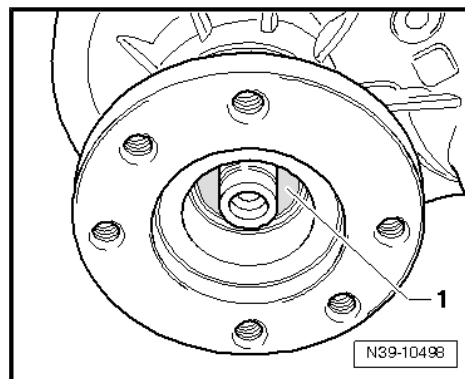


- Drive in new oil seal to stop with thrust piece -VW 442- and removal and installing tool -VW 459/2-, being careful not to cant oil seal.
- Insert new propshaft flange.

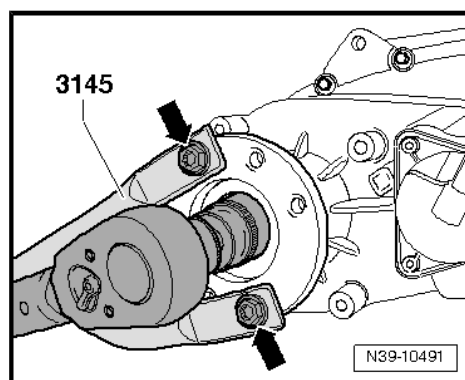




- Moisten new oil seal -1- with gear oil and insert.



- Screw on new nut for propshaft flange and tighten to 150 Nm. Screw counterhold -3145- onto propshaft flange using two M10 x 25 bolts -arrows- in order to counterhold.
- Install rear propshaft ⇒ [page 61](#) .
- Check oil in transfer box ⇒ [page 14](#) .

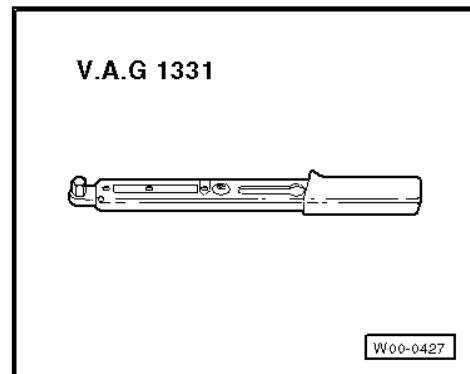




7 Removing and installing Hall sender for transfer box -G759-

Special tools and workshop equipment required

- ◆ Torque wrench -V.A.G 1331-



Perform the following steps:

Removing

- Pull off connector -1-.
- Place drip tray under transfer box.
- Remove bolts -arrows- and pull Hall sender for transfer box -G759- off transfer box.

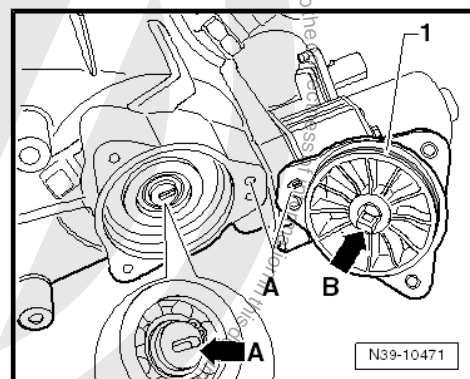
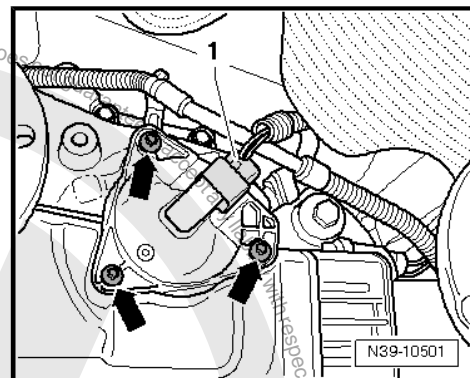
Installing

- Renew oil seal -1- if damaged.



Note

- ◆ The drive for the Hall sender for transfer box -G759- -arrow B- and the mounting for the transfer box -arrow A- are offset. The drive only fits in one position in the mounting for the transfer box.
- ◆ When positioning Hall sender for transfer box -G759- , insert centring pin into hole in transfer box -A-.



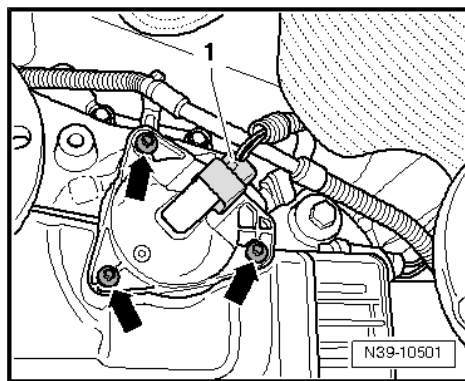
Caution

- ◆ It must be possible to insert Hall sender for transfer box -G759- without exerting great pressure, if necessary check whether driver -arrow B- has been turned through 180° to mounting -arrow A-.

- Insert Hall sender for transfer box -G759- .



- Screw in bolts for Hall sender for transfer box -G759-
-arrows- and tighten to 7 Nm.
- Push on connector -1-.
- Check oil in transfer box ⇒ [page 14](#) .





8 Removing and installing transfer box control motor -V455-

Special tools and workshop equipment required

- ◆ Torque wrench -V.A.G 1331-

V.A.G 1331



W00-0427

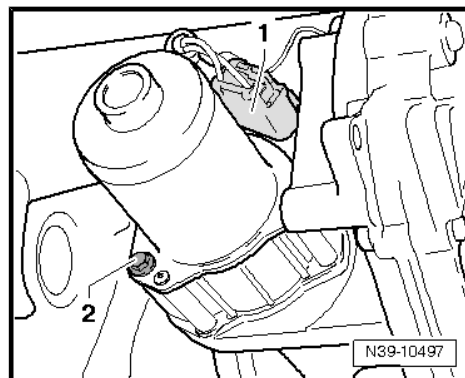
Perform the following steps:

Removing

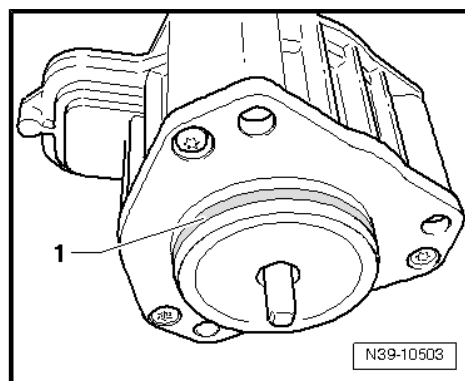
- Raise vehicle ⇒ Maintenance ; Booklet 11 .
- Pull connector -1- off transfer box control motor -V455- .
- Place drip tray under transfer box.
- Remove bolts -2- (Qty. 3) and pull transfer box control motor -V455- off transfer box.

Installing

- Renew oil seal -1- if damaged.



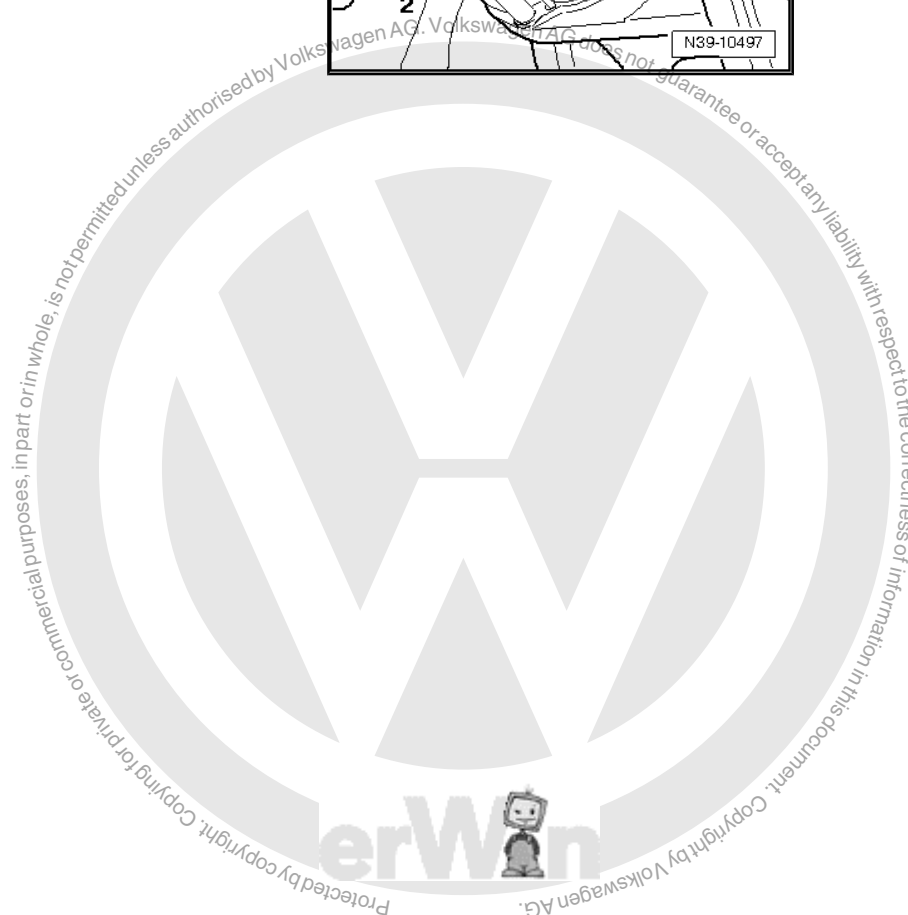
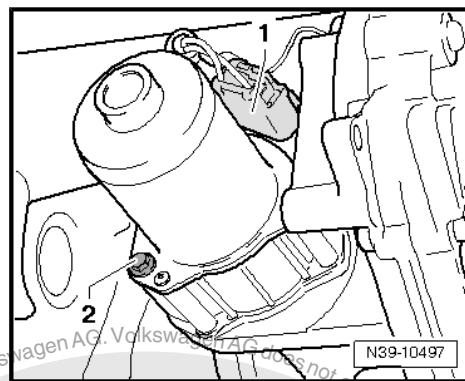
N39-10497



N39-10503



- Screw in bolts -2- (Qty. 3) for transfer box control motor -V455- and tighten to 12 Nm.
- Push on connector -1-.
- Check oil in transfer box ⇒ [page 14](#) .





39 – Final drive - rear differential

1 Rear final drive

Function of rear axle differential lock ⇒ [page 28](#)

Electrical and electronic components and their locations for rear axle differential lock ⇒ [page 29](#)

Checking oil level in rear final drive or adding oil ⇒ [page 35](#)





2 Function of rear axle differential lock

A mechanical rear axle differential lock is now available as an option in the Amarok with four-wheel drive.

When driving offroad, rear axle differential lock improves propulsion on heavy ground, in particular when performing a hill start. All functions that assist braking are deactivated when rear axle differential lock is engaged, therefore rear axle differential lock is only allowed to be engaged when moving off on heavy ground or if carriageway is very soft.

Rear axle differential lock can be engaged in offroad range „LOW“ at speeds up to 30 km/h.

The differential lock is switched on or off via the rear differential lock switch -E121-. The differential lock control unit -J187- checks via the CAN-Bus if the conditions to switch the rear axle differential lock on have been fulfilled. If they have, then rear axle differential lock is activated via axle differential lock Hall sender 1 - G460- and control solenoid -N5-.

Refer to ⇒ Self-study programme No. 464 ; Power transmission for more information about function.

Refer to ⇒ Amarok owner's manual for more information and notes on safety.



3 Electrical and electronic components and their locations for rear axle differential lock



Note

Electrical and electronic components and their locations for four-wheel drive ⇒ [page 10](#)

1 - Differential lock control unit -J187-

Remove by removing centre console ⇒ General body repairs, interior; Rep. gr. 68 ; Compartments, covers and trims; Removing and installing centre console .

2 - Diagnostic connection

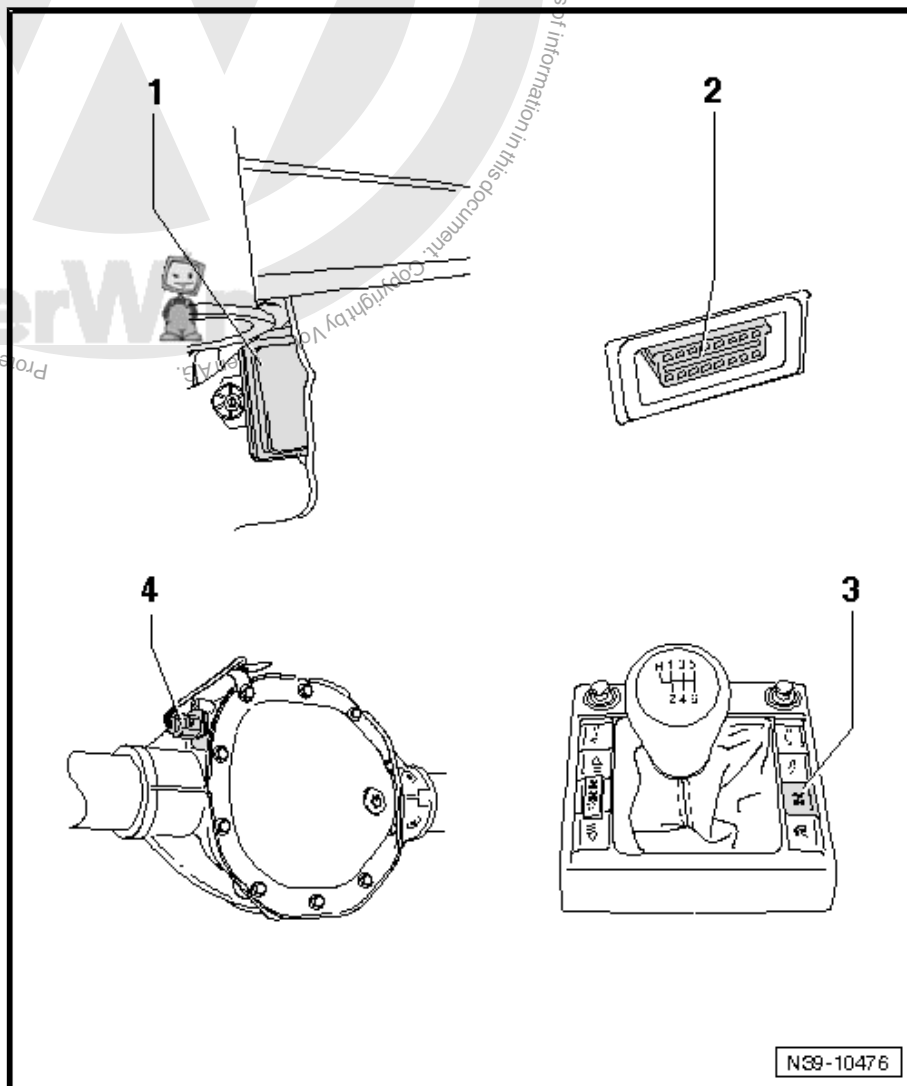
- ☐ Location: in driver foot-well

3 - Rear differential lock switch -E121-

- ☐ Rear axle differential lock warning lamp in transfer box operating unit -K184-
- ☐ Remove by removing selector mechanism cover ⇒ General body repairs, interior; Rep. gr. 68 ; Compartments, covers and trims; Removing and installing centre console .

4 - Hall sender 1 for axle differential lock -G460-

- ☐ With control solenoid - N5-
- ☐ Location: on rear axle

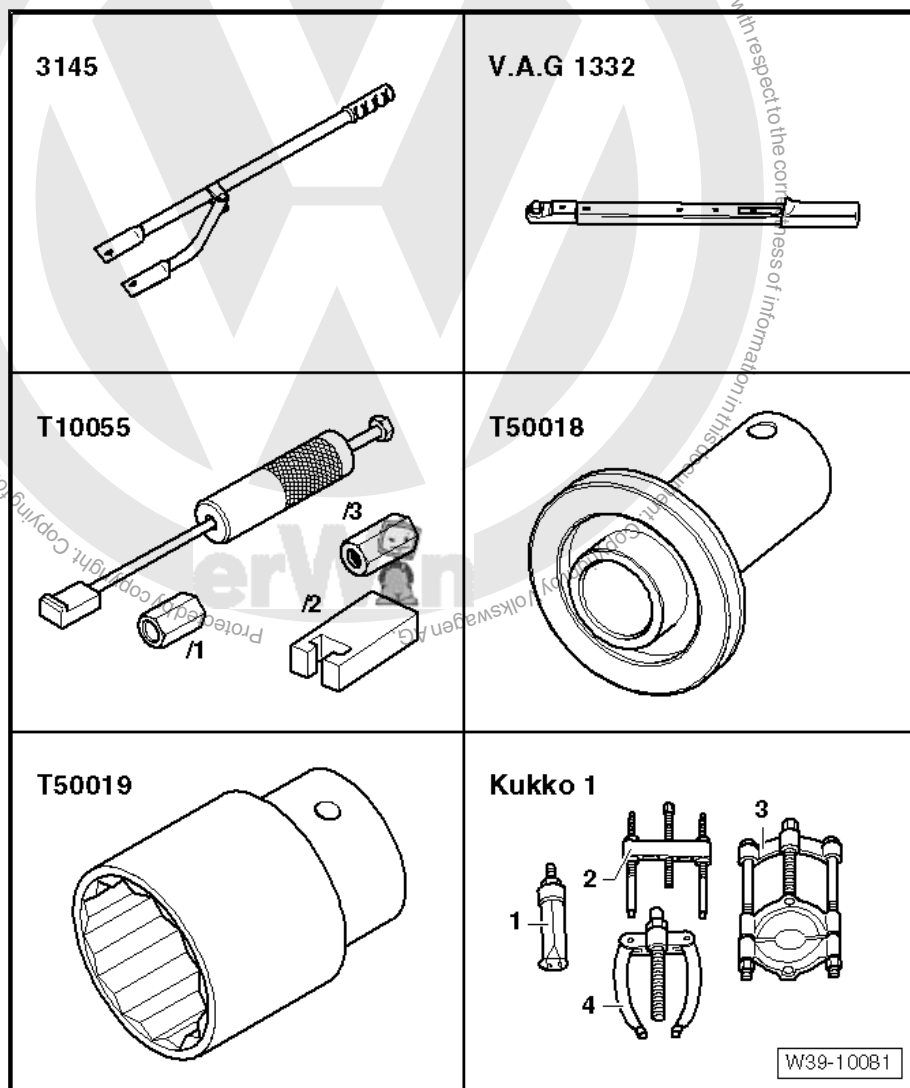




4 Renewing the seal for the propshaft flange of the rear axle

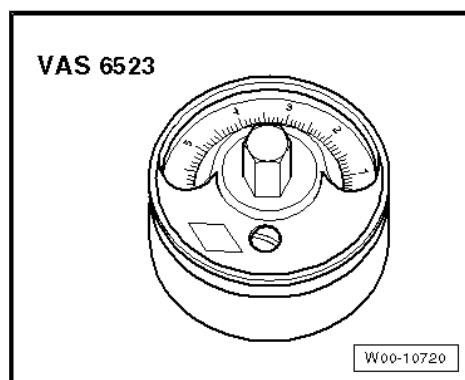
Special tools and workshop equipment required

- ◆ Counterhold -3145- (modifying holes ⇒ [page 30](#))
- ◆ Torque wrench -V.A.G 1332-
- ◆ Puller -T10055-
- ◆ Thrust piece -T50018-
- ◆ Socket, 34 mm -T50019-
- ◆ Separating device Kukko 17-2 -3-
- ◆ Counter support Kukko 18-2 -2-



- ◆ Bearing preload gauge - VAS 6523-

Modifying counterhold -3145-





- Counterhold -3145- is used to loosen and tighten securing nut for propshaft flange. Therefore, drill out both holes in counterhold -3145- to dimension -a- = 10.5 mm Ø.



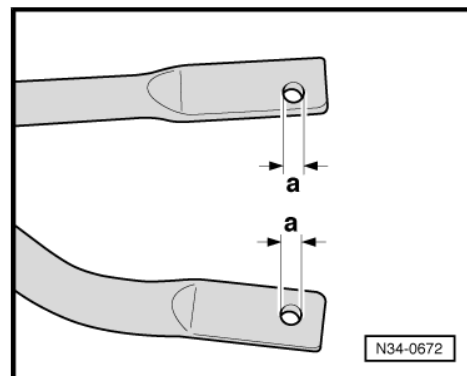
Note

A new counterhold -3145- with 10.5 mm Ø holes will be supplied.

Removing:

Perform the following steps:

- Raise vehicle ⇒ Maintenance ; Booklet 11 .
- Remove rear wheels.
- Release handbrake.



Note

The rear axle shafts must rotate freely, otherwise back brakes off
⇒ Rep. gr. 46 .

- Unbolt propshaft from rear axle ⇒ [page 61](#) .
- Secure propshaft to body.

Vehicle with rear axle differential lock

- Drain gearbox oil via drain plug -arrow-.

Vehicle with no rear axle differential lock

- Extract gearbox oil, for example, with Used oil collection and extraction unit -V.A.G 1782-

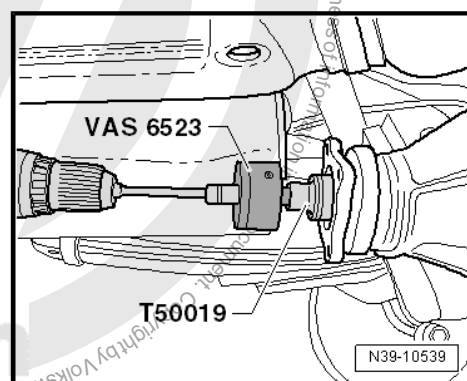
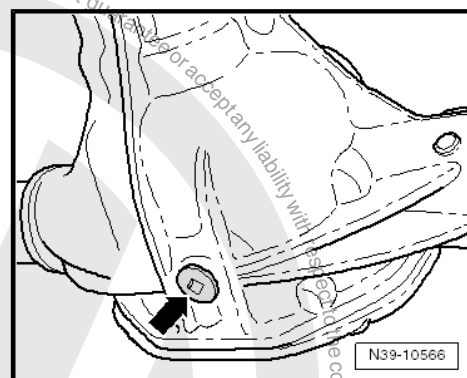
Continuation for all vehicles



Note

Observe environmental regulations for disposal.

- Check drive pinion bearing for axial play (no play permitted).
- Measure friction torque on propshaft flange with 34 mm socket -T50019- , bearing preload gauge -VAS 6523- and cordless power driver 12 V/1.4 Ah -VAS 5825- , for example.



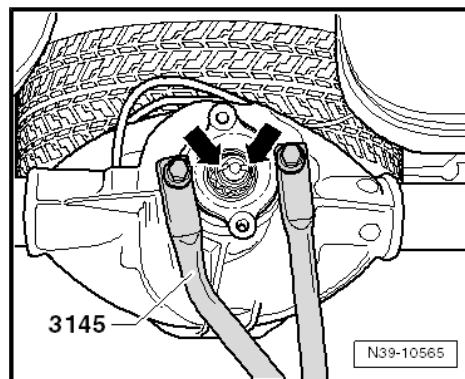
Caution

- ◆ To avoid incorrect measurements, measure friction torque at approx. 50 rpm and turning at least 5 times.
- ◆ Perform measurements carefully and accurately to prevent replacement of axle casing.
- ◆ Do not take any actions to alter friction torque before installing seal on axle.

- Note reading.



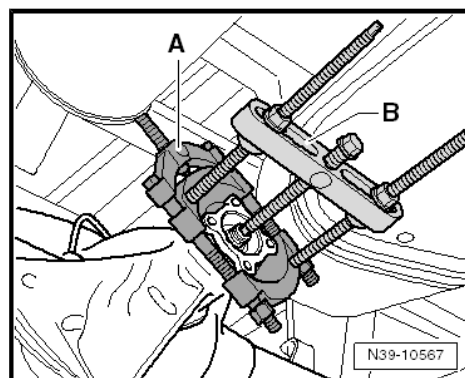
- Remove locking device for nut -arrows-.
- Screw counter-hold tool -3145- onto propshaft flange.
- Remove securing nut using 34 mm socket -T50019- .



- Fit puller, as shown, and pull off propshaft flange.

A - Separating tool Kukko 17-2

B - Counter support Kukko 18-2

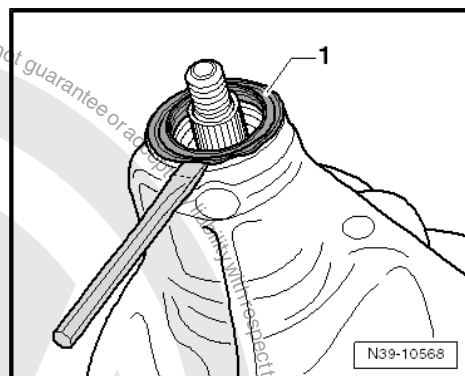


- Drive out seal -1- using a chisel.



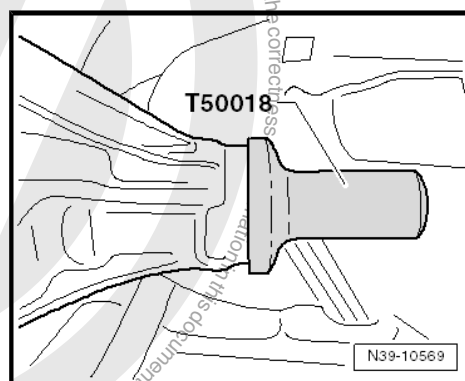
Caution

Do not damage axle casing when driving out seal.



Installing:

- Drive in new seal flush using thrust piece -T50018-
- Install new propshaft flange with new securing nut.





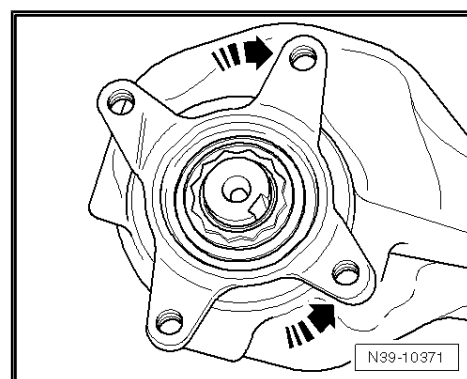
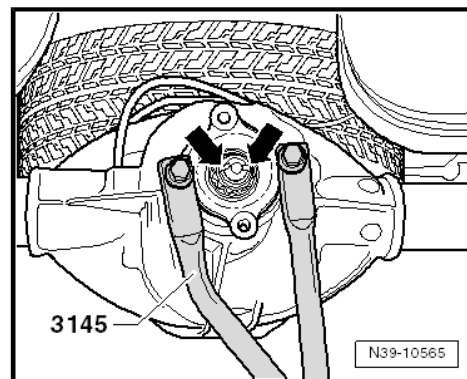
- Screw counter-hold tool -3145- onto propshaft flange.
- Tighten securing nut using 34 mm socket -T50019- , specified torque 30 Nm.
- Check drive pinion bearing for axial play (no play permitted).



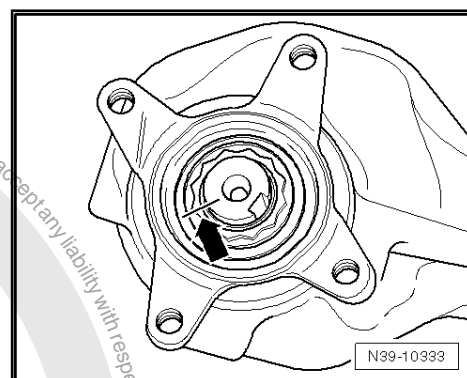
Note

If bearing is not without play, specified torque can be increased in 10 Nm steps to max. 60 Nm. Renew axle casing if bearing is not yet without play at 60 Nm.

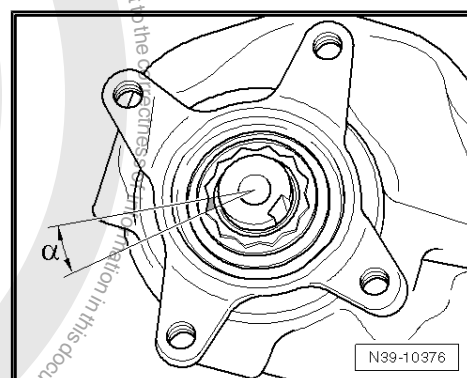
- Remove counterhold tool -3145- .
- To align tapered roller bearings, rotate propshaft flange 15 times clockwise and 15 times anticlockwise.



- Mark position of drive pinion in relation to one edge of securing nut.
- Screw counter-hold tool -3145- onto propshaft flange.

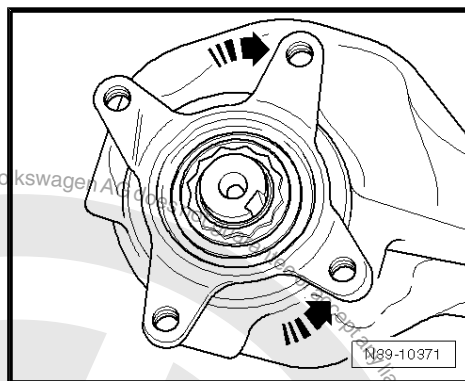


- Turn securing nut 15° further (half of 12-point side) with 34 mm socket -T50019- .
- Remove counterhold tool -3145- .

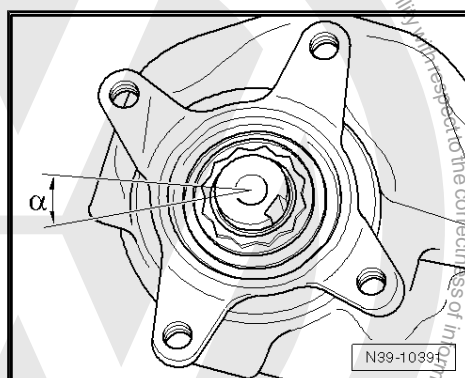




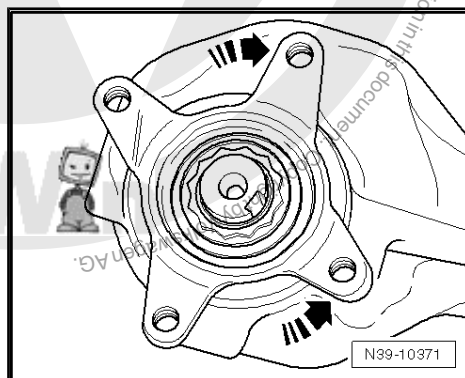
- To align tapered roller bearings, rotate propshaft flange 15 times clockwise and 15 times anticlockwise.
- Screw counter-hold tool -3145- onto propshaft flange.



- Turn securing nut 15° further (half of 12-point side) with 34 mm socket -T50019- .
- Remove counterhold tool -3145- .



- To align tapered roller bearings, rotate propshaft flange 15 times clockwise and 15 times anticlockwise.
- Measure friction torque on propshaft flange with 34 mm socket -T50019- , bearing preload gauge -VAS 6523- and cordless power driver 12 V/1.4 Ah -VAS 5825- .

**Note**

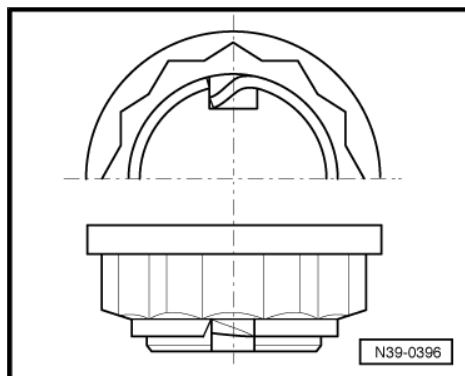
To avoid incorrect measurements, measure friction value at approx. 50 rpm and turning at least 5 times.

Measured friction torque must be 0.1...0.3 Nm above noted value. Renew axle casing if value is above or below specifications.

**Caution**

Never set friction torque by turning securing nut back!

- Lock securing nut.
- Fill with gear oil ➔ [page 35](#) .
- Install propshaft ➔ [page 61](#) .
- Press brake pedal several times until brake shoes make contact with brake drum.



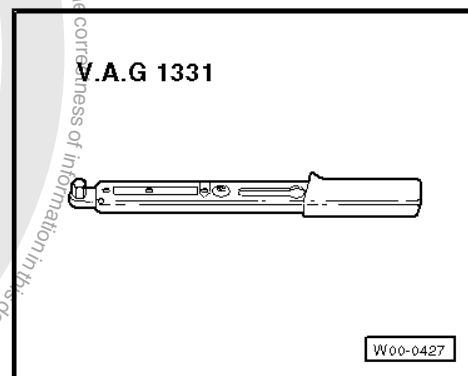


5 Checking oil level in rear final drive or adding oil

Gear oil for the rear final drive is available as a part ⇒ Electronic parts catalogue „ETKA“.

Special tools and workshop equipment required

- ◆ Torque wrench -V.A.G 1331-



Test precondition

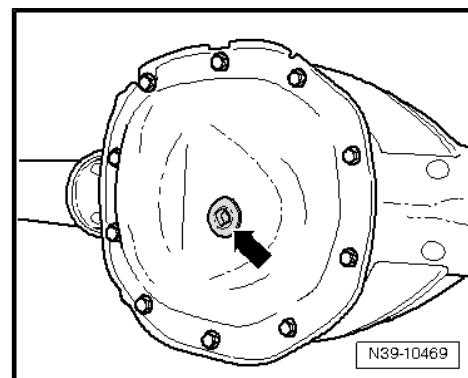
- Vehicle standing on level ground

Perform the following steps:

- Raise vehicle ⇒ Maintenance ; Booklet 11 .
- Remove oil filler plug -arrow-.

The oil level is correct when the rear final drive is filled to the lower edge of the filler hole; top up as required.

- Install oil filler plug -arrow- and tighten to 33 Nm.





39 – Final drive - front differential

1 Front final drive

Removing and installing front final drive ⇒ [page 37](#)

Renewing oil seals on front final drive ⇒ [page 41](#)

Renewing needle bearing for left flange shaft ⇒ [page 50](#)

Renewing bonded rubber bush on front final drive ⇒ [page 52](#)

Checking oil level in front final drive or adding oil ⇒ [page 56](#)



2 Removing and installing front final drive

Special tools and workshop equipment required

- ◆ Torque wrench -V.A.G 1331-
- ◆ Torque wrench -V.A.G 1332-
- ◆ Engine and gearbox jack -V.A.G 1383 A-
- ◆ Retainer -T10149-

2.1 Removing

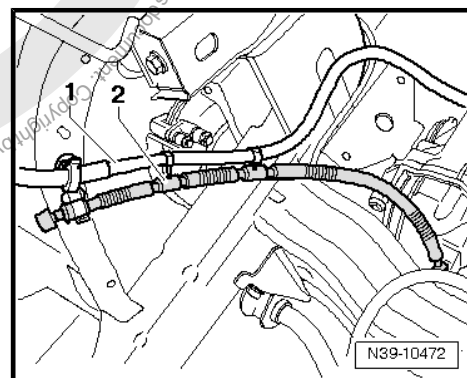
Perform the following steps:

- Raise vehicle ⇒ Maintenance ; Booklet 11 .
- Remove front right wheel.
- Remove engine/gearbox guard ⇒ General body repairs, exterior; Rep. gr. 50 ; Engine/gearbox guard .
- Remove front propshaft ⇒ [page 59](#) .
- Remove right and left drive shafts from front final drive ⇒ Running gear, axles, steering; Rep. gr. 40 .
- Unclip breather hose
-2- at earth cable -1-



Note

Illustration does not show engine to improve clarity.



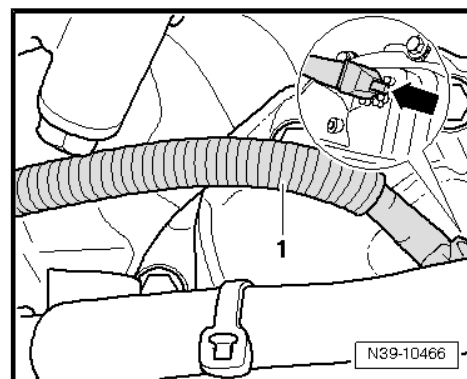
- Carefully pull breather hose -1- off front final drive -arrow-.

Right wheel suspension must be raised in order to remove front securing bolt for front final drive.



WARNING

Before the wheel suspension is raised, the vehicle must be strapped to the lifting platform arms on both sides using tensioning straps -T10038- ⇒ Maintenance ; Booklet 11 Raise vehicle.



- Turn right wheel hub until one of the wheel bolt holes is at the top.

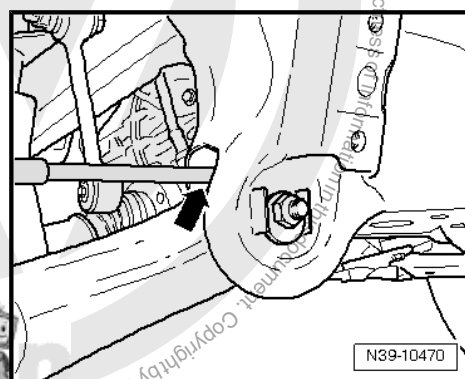
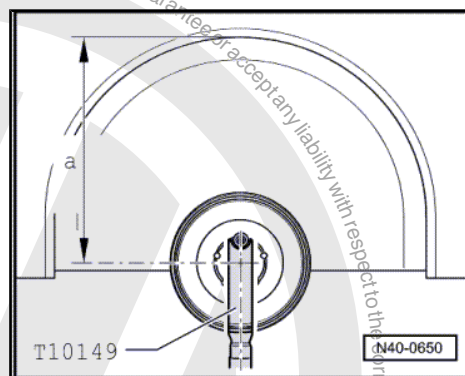


- Attach support -T10149- to wheel hub using wheel bolt and tighten.
- Insert support -T10149- in engine and gearbox jack -V.A.G 1383 A- .

**WARNING**

If the vehicle is not strapped down, there is a danger that the vehicle will slip off the lifting platform!

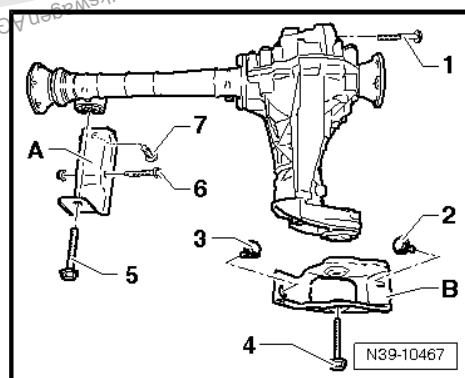
- Raise wheel suspension using engine and gearbox jack - V.A.G 1383 A- until securing bolt for front final drive is accessible above transverse link -arrow-.
- Unscrew and remove securing bolt for front final drive.
- Lower wheel suspension again with engine and gearbox jack -V.A.G 1383 A- .
- Turn steering wheel to right lock.
- Place engine and gearbox jack -V.A.G 1383 A- under front final drive.



- Remove support -A- and support bracket -B-.
- Lower front final drive with engine and gearbox jack -V.A.G 1383 A- .
- Remove engine and gearbox jack -V.A.G 1383 A- .

A second mechanic is required to remove front final drive.

- First pull right drive shaft off front final drive, followed by left drive shaft.
- Remove front final drive downwards.



2.2 Installing

Perform the following steps:

**Note**

- ◆ Always renew securing bolts and hexagon nuts.
- ◆ Torque settings ⇒ Running gear, axles, steering; Rep. gr. 40 ; Repairing front axle
- Checking oil level in front final drive ⇒ Page ⇒ [page 56](#) .
- Turn steering wheel to right lock.
- Insert front axle drive with help from a second mechanic.
- First position left drive shaft on front final drive, followed by right drive shaft.
- Support front final drive with engine and gearbox jack -V.A.G 1383 A- .



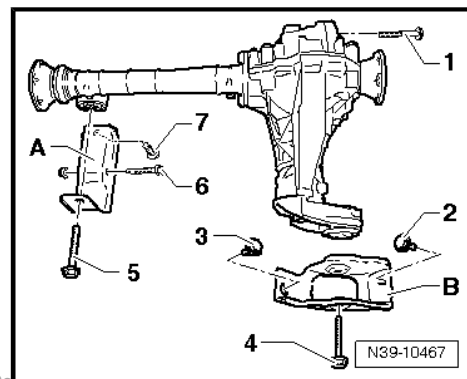
- Insert support bracket -B-.
- Position new securing bolts -2- and -3-, but do not tighten yet.
- Remove engine and gearbox jack -V.A.G 1383 A- .

Right wheel suspension must be raised in order to install front securing bolt for front final drive.



WARNING

Before the wheel suspension is raised, the vehicle must be strapped to the lifting platform arms on both sides using tensioning straps -T10038- → Maintenance ; Booklet 11 Raise vehicle.

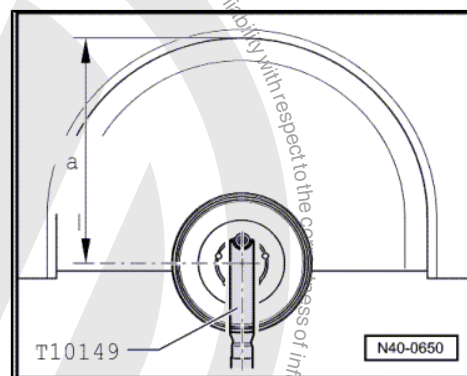


- Turn right wheel hub until one of the wheel bolt holes is at the top.
- Attach support -T10149- to wheel hub using wheel bolt and tighten.
- Insert support -T10149- in engine and gearbox jack -V.A.G 1383 A- .

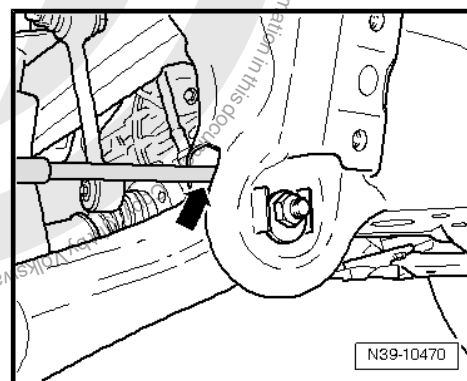


WARNING

If the vehicle is not strapped down, there is a danger that the vehicle will slip off the lifting platform!

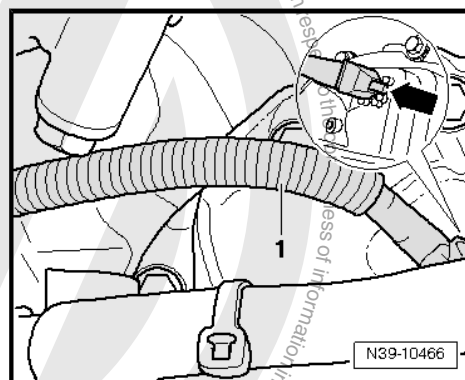
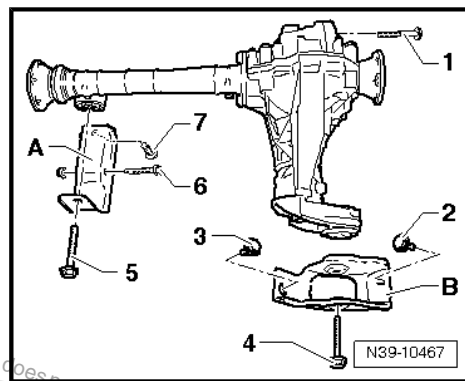


- Raise wheel suspension using engine and gearbox jack - V.A.G 1383 A- until securing bolt for front final drive is accessible above transverse link -arrow-.





- Position new securing bolt for front final drive -1-, but do not tighten yet.
- Position new securing bolt for front final drive -4-, but do not tighten yet.
- Insert support -A-.
- Position new securing bolt for front final drive -5-, but do not tighten yet.
- Position new securing bolts -6- and -7-.
- First tighten securing bolt -7- and then securing bolt -6-.
- Tighten securing bolt for front final drive -1-.
- Lower wheel suspension again with engine and gearbox jack -V.A.G 1383 A- .
- Tighten securing bolt for front final drive -4-.
- Tighten securing bolt for front final drive -5-.
- First tighten securing bolt -2- and then securing bolt -3-.
- Carefully push connection nipple of breather line -1- into front final drive. When doing this the connecting nipple must be inserted between the raised portions of the housing and be horizontal -arrow-.

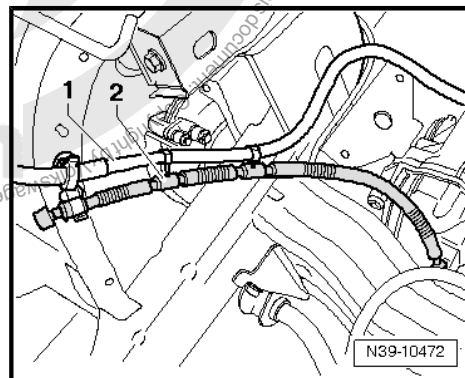


- Clip in breather hose -2- on earth cable -1-.

**Note**

Illustration does not show engine to improve clarity.

- Install front propshaft ➔ [page 59](#) .
- Attach drive shafts to flange shafts ➔ Running gear, axles, steering; Rep. gr. 40 .
- Install engine/gearbox guard ➔ General body repairs, exterior; Rep. gr. 50 ; Engine/gearbox guard .
- Install wheel ➔ Running gear, axles, steering; Rep. gr. 44 ; Fitting wheel and tyre; Fitting wheel .





3 Renewing oil seals on front final drive

Renewing oil seal for left flange shaft ⇒ [page 41](#)

Renewing seal for right flange shaft ⇒ [page 42](#)

Renewing input shaft seal ⇒ [page 44](#)

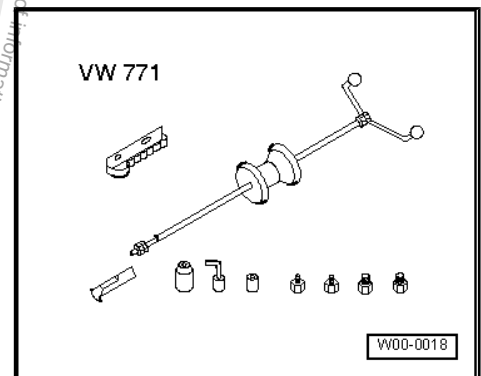
Renewing dust cap for left flange shaft ⇒ [page 47](#)

Renewing dust cap for right flange shaft ⇒ [page 48](#)

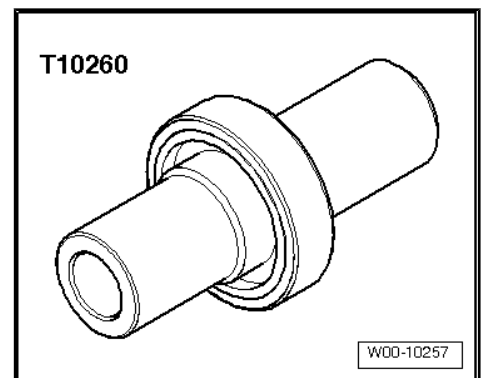
3.1 Renewing oil seal for left flange shaft

Special tools and workshop equipment required

- ◆ Multipurpose tool -VW 771-



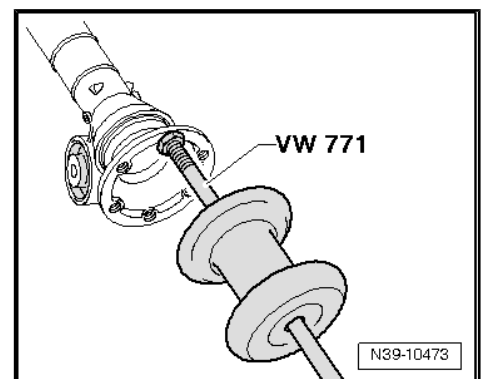
- ◆ Thrust piece -T10260-



- ◆ Sealing grease -G 052 128 A1-

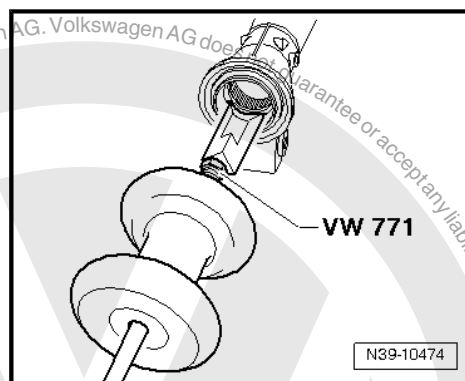
Perform the following steps:

- Remove front final drive ⇒ [page 37](#) .
- Pull out left flange shaft using multipurpose tool -VW 771- .

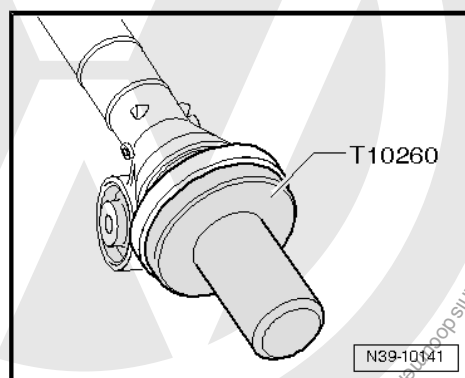




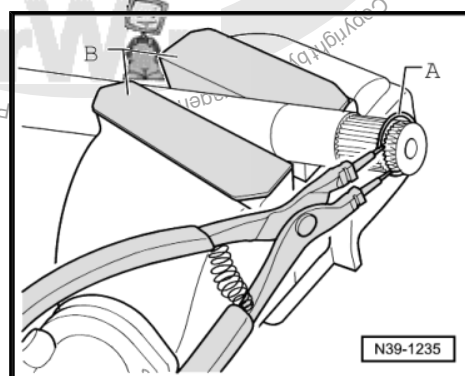
- Pull out oil seal for flange shaft using multipurpose tool -VW 771- .



- Drive in new oil seal to stop using thrust piece -T10260- .
- Half-fill space between sealing lip and dust lip with sealing grease -G 052 128 A1- .
- Before installing flange shaft, check dust cap for damage and renew if necessary ⇒ [page 47](#) .



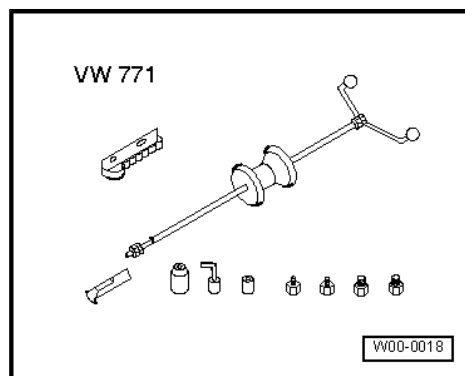
- Clamp flange shaft in vice using jaw protectors -B- .
- Remove retaining ring -A- using pliers .
- Insert new retaining ring in groove in flange shaft, being careful not to overstretch ring.
- Drive in flange shaft using a plastic head hammer .
- Check oil in front final drive ⇒ [page 56](#) .
- Install front final drive ⇒ [page 38](#) .



3.2 Renewing seal for right flange shaft

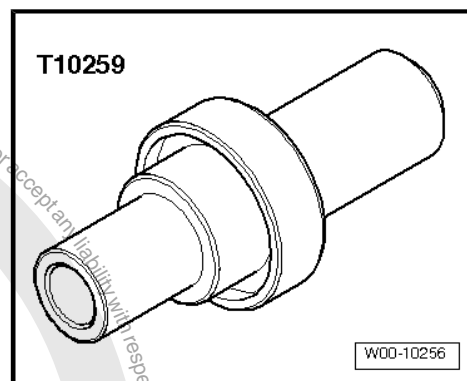
Special tools and workshop equipment required

- ◆ Multipurpose tool -VW 771-





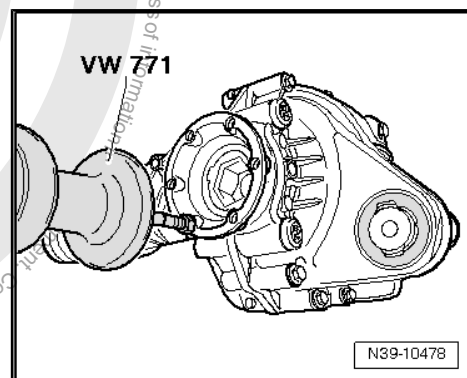
◆ Thrust piece -T10259-



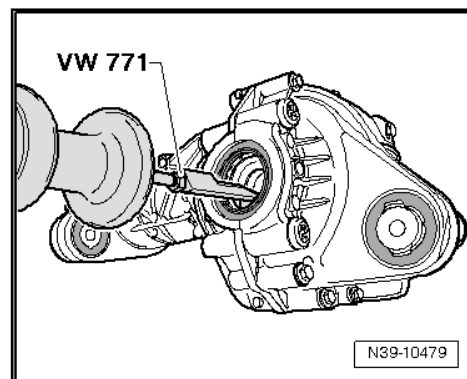
◆ Sealing grease -G 052 128 A1-

Perform the following steps:

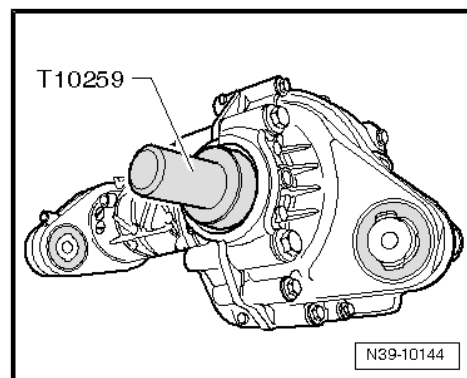
- Remove front final drive => [page 37](#) .
- Pull out right flange shaft using multipurpose tool -VW 771- .



- Pull out oil seal for flange shaft using multipurpose tool -VW 771- .

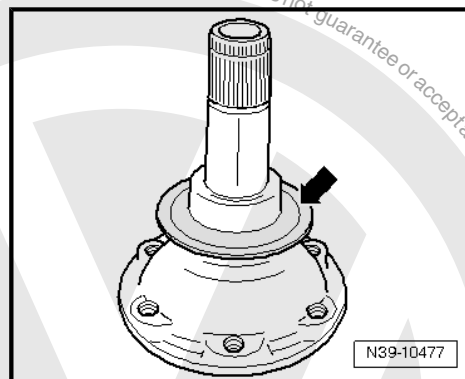


- Drive in new oil seal to stop using thrust piece -T10259- .
- Half-fill space between sealing lip and dust lip with sealing grease -G 052 128 A1- .

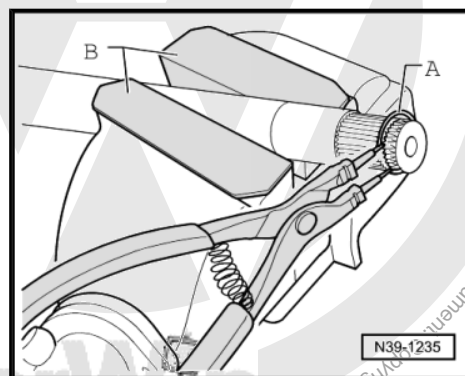




- Before installing flange shaft, check dust cap -arrow- for damage and renew if necessary ⇒ [page 48](#) .



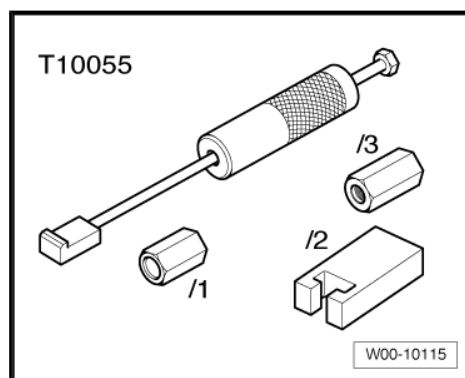
- Clamp flange shaft in vice using jaw protectors -B-.
- Remove retaining ring -A- using pliers.
- Insert new retaining ring in groove in flange shaft, being careful not to overstretch ring.
- Drive in flange shaft using a plastic head hammer .
- Check oil in front final drive ⇒ [page 56](#) .
- Install front final drive ⇒ [page 38](#) .



3.3 Renewing input shaft seal

Special tools and workshop equipment required

- ◆ Puller -T10055-



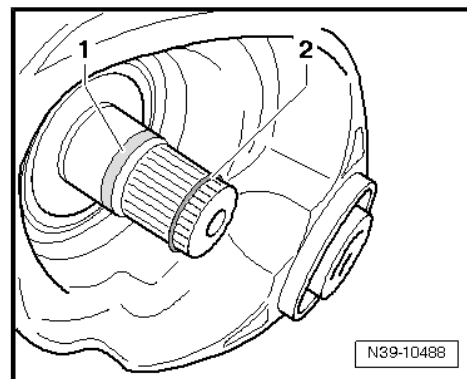
- ◆ Thrust piece -T10430-
- ◆ Thrust piece -T10430/1-
- ◆ 2 self-tapping screws with 4 mm diameter
- ◆ Sealing grease -G 052 128 A1-

Perform the following steps:

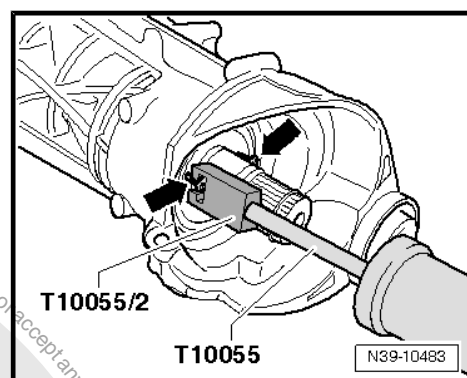
- Remove front propshaft ⇒ [page 59](#)



- Pull off oil seal -1- and retaining ring -2-.
- To be able to screw self-tapping screws -arrows- into sealing cover, first use drift to punch 2 holes in sealing cover.



- Screw in self-tapping screws with 4 mm diameter.
- Pull out dust cap using puller -T10055- .
- Use a drift to punch 2 holes in oil seal.



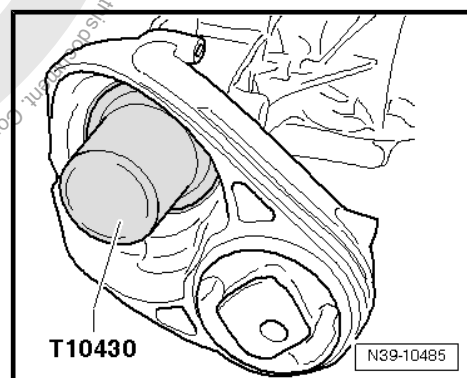
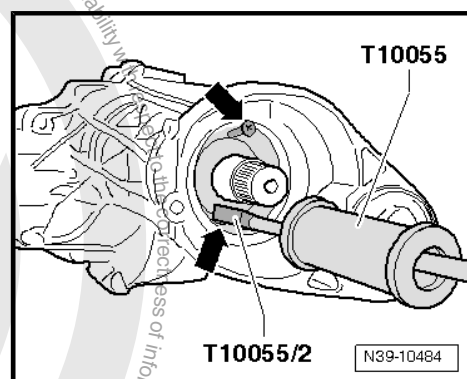
- Screw in self-tapping screws with 4 mm diameter.



Note

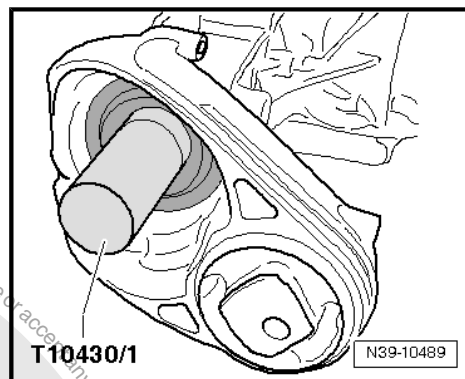
Do not screw in sheet metal screw too far to avoid damaging bearing behind it.

- Pull out seal using puller -T10055- .
- For new seal, half-fill space between sealing lip and dust lip with sealing grease -G 052 128 A1- .
- Mask off splines of stub shaft with adhesive tape.
- Push new oil seal as far as oil seal seat on final drive.
- Drive in seal to stop with thrust piece -T10430- , being careful not to cant seal.

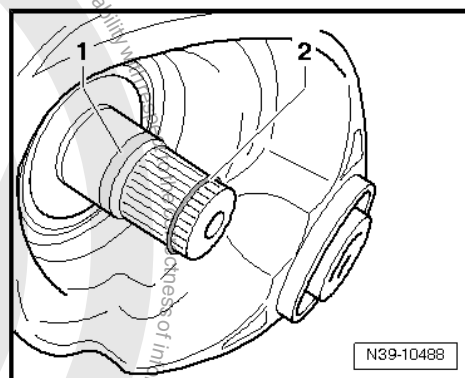




- Drive on new dust cap with thrust piece -T10430/1- .



- Insert new oil seal -1- and new retaining ring -2-.
- Check oil in front final drive ⇒ [page 56](#) .
- Install front propshaft ⇒ [page 60](#)

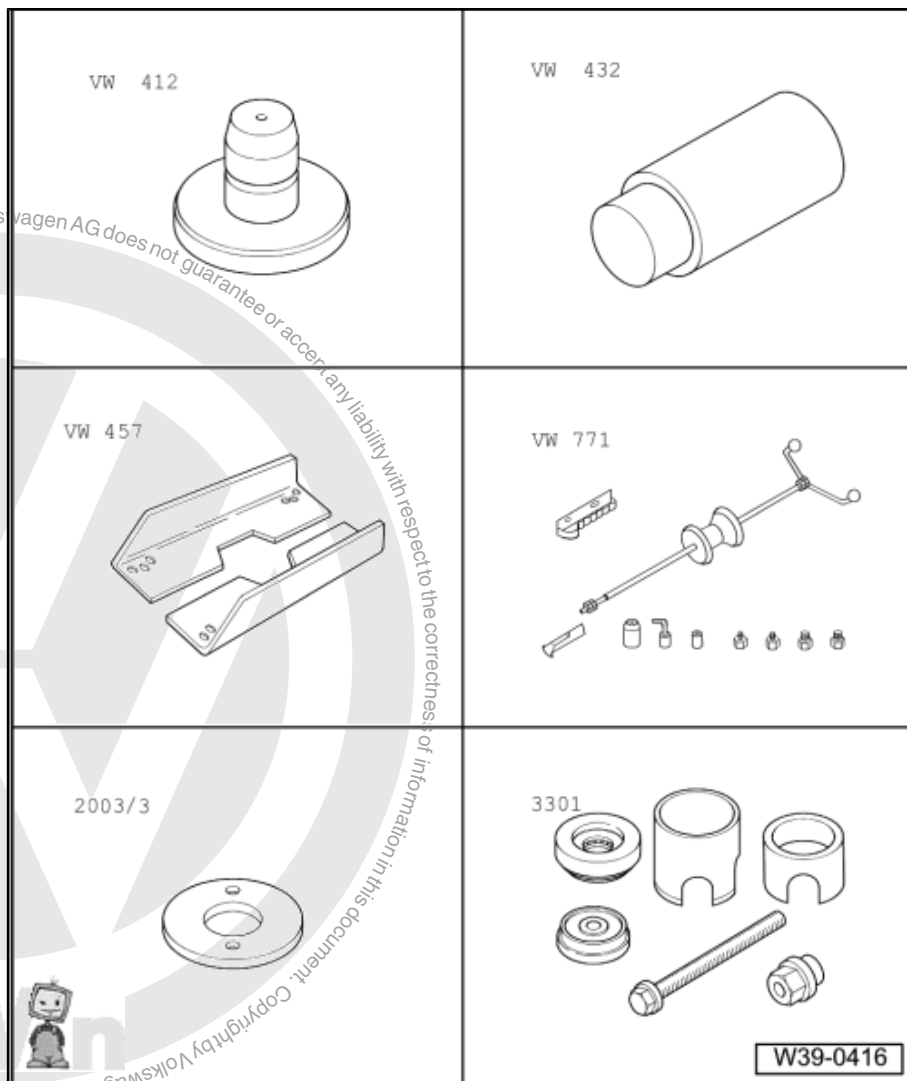




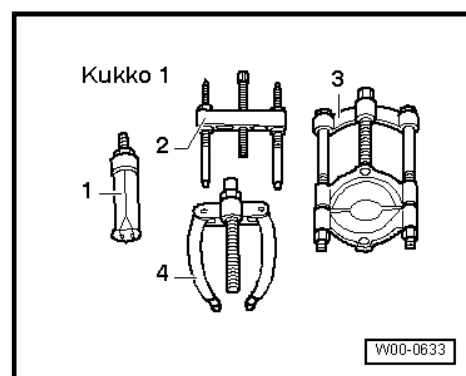
3.4 Renewing dust cap for left flange shaft

Special tools and workshop equipment required

- ◆ Press tool -VW 412-
- ◆ Thrust piece -VW 432-
- ◆ Support rails -VW 457-
- ◆ Pulling ring -2003/3-
- ◆ Assembly tool -3301-
- ◆ Sealing grease -G 052 128 A1-



- ◆ -3- - Separating device Kukko 17-2



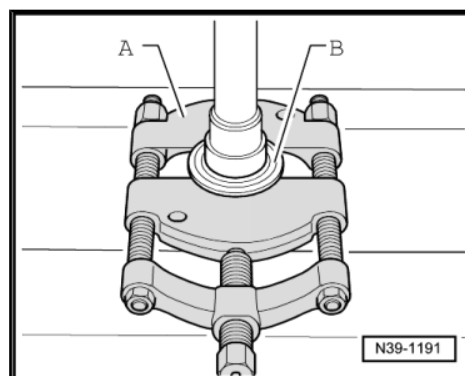
- Flange shaft removed, removing ➔ [page 41](#)



Perform the following steps:

- Press dust cap -B- off flange shaft.

A - Separating tool Kukko 17-2

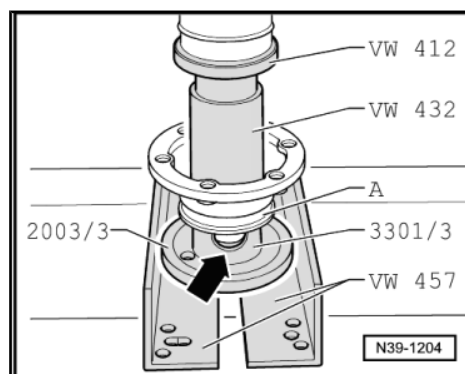


- Press on dust cap for flange shaft -A-.



Note

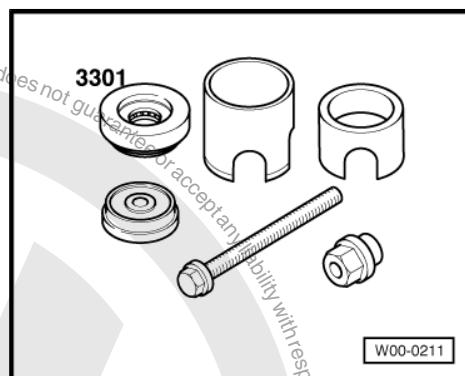
Position sleeve -3301/3- with notch -arrow- facing dust cap -A-.



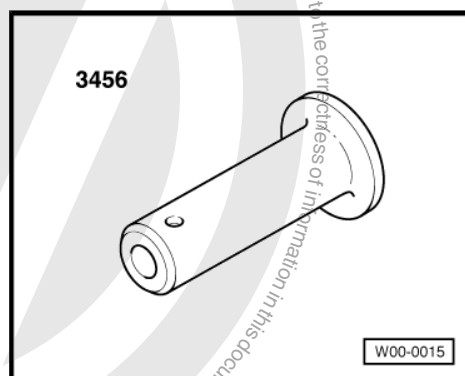
3.5 Renewing dust cap for right flange shaft

Special tools and workshop equipment required

- ◆ Assembly tool -3301-

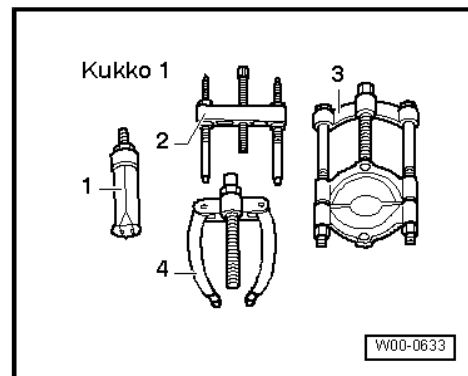


- ◆ Thrust piece -3456-





◆ -3- - Separating device Kukko 17-2

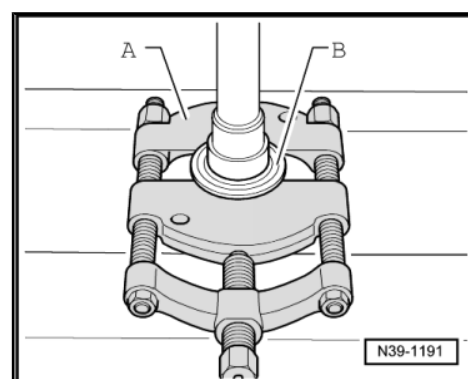


- Flange shaft removed, removing ⇒ [page 42](#)

Perform the following steps:

- Press dust cap -B- off flange shaft.

A - Separating tool Kukko 17-2

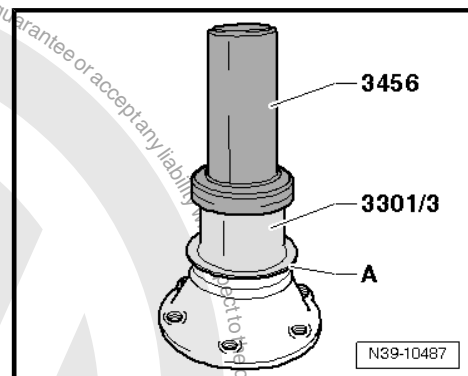


- Drive on new dust cap for flange shaft -A- using thrust piece -3456- and sleeve -3301/3-.



Note

Position sleeve -3301/3- with notch facing dust cap -A-.

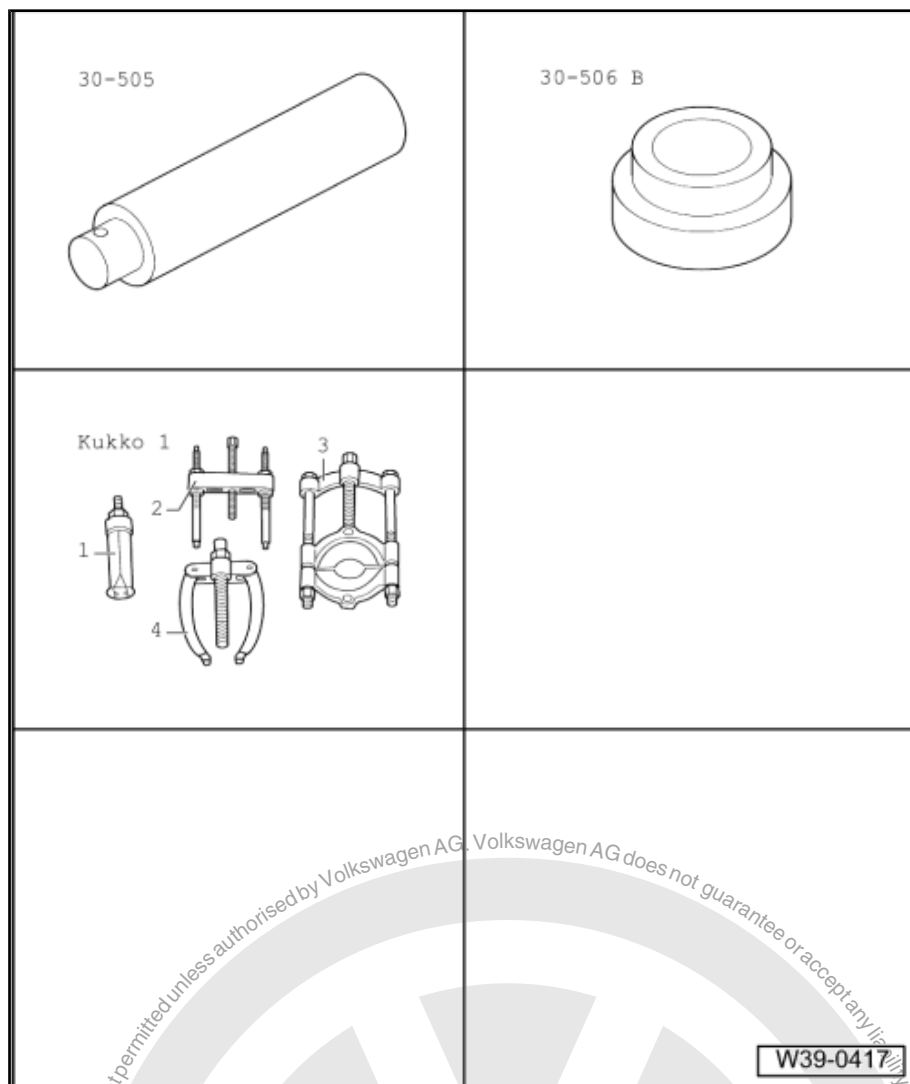




4 Renewing needle bearing for left flange shaft

Special tools and workshop equipment required

- ◆ Press tool -30 - 505-
- ◆ Press tool -30 - 506 B-
- ◆ Internal puller Kukko 21-6 -1-
- ◆ Counter support Kukko 22-2 -4-

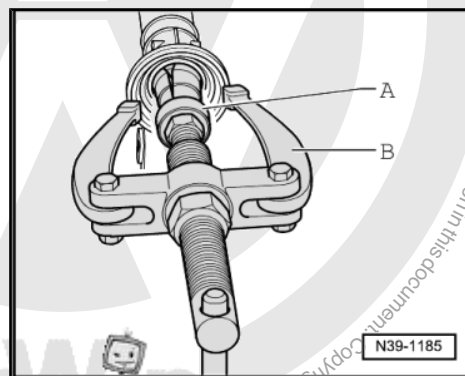


Perform the following steps:

- Remove front final drive ⇒ [page 37](#) .
- Remove left flange shaft and oil seal ⇒ [page 41](#) .
- Pull out left flange shaft needle bearing.

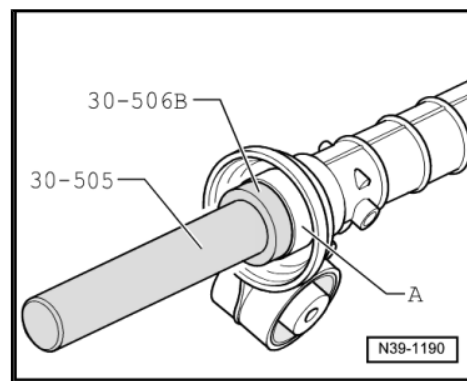
A - Internal puller Kukko 21-6

B - Counter support Kukko 22-2





- Drive in needle bearing for left flange shaft -A- to stop.
- Install left flange shaft and oil seal ➤ [page 41](#) .
- Check oil in front final drive ➤ [page 56](#) .
- Install front final drive ➤ [page 38](#) .





5 Renewing bonded rubber bush on front final drive

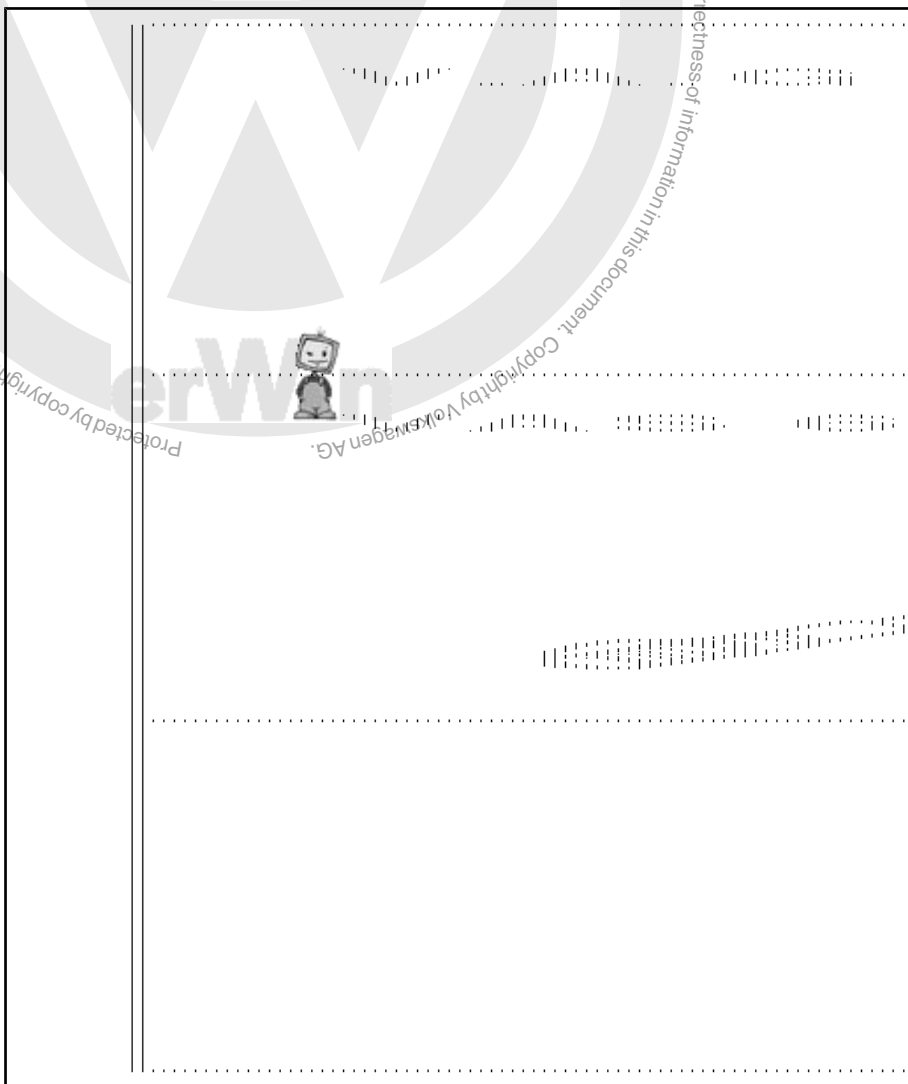
Pulling bonded rubber bush on rear housing out and in
⇒ [page 52](#) .

Pulling bonded rubber bush on front housing out and in
⇒ [page 53](#) .

Pulling bonded rubber bush on left of housing out and in
⇒ [page 54](#) .

Special tools and workshop equipment required

- ◆ Assembly tool -T10435-
- ◆ Assembly tool -T10254-
- ◆ Foot pump -VAS 6179-
- ◆ Hydraulic press -VAS 6178-
- ◆ Tube -30 - 14-



5.1 Pulling bonded rubber bush on rear housing out and in

Perform the following steps:

Pulling out

- Set foot pump -VAS 6179- to lowest setting.



- Pulling out bonded rubber bush.



Note

Washer -A- from assembly tool -T10435-

Pulling in

- Position bonded rubber bush in installation position on front final drive.

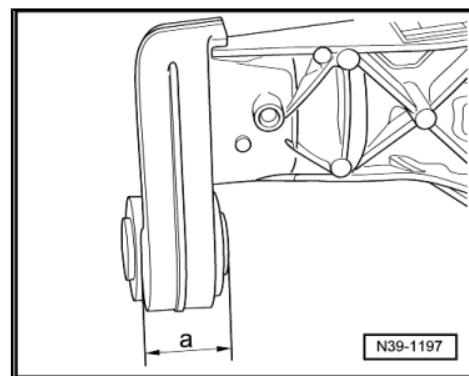
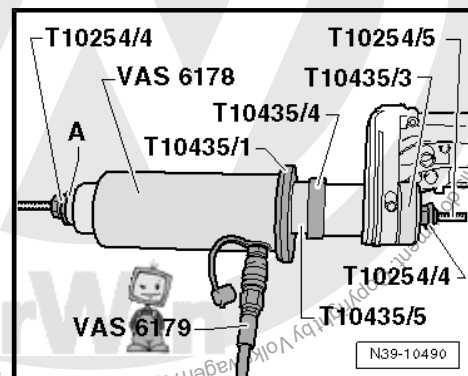
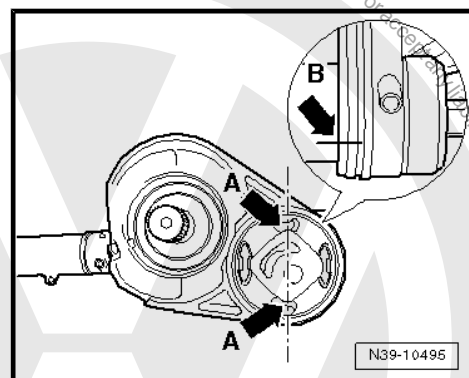
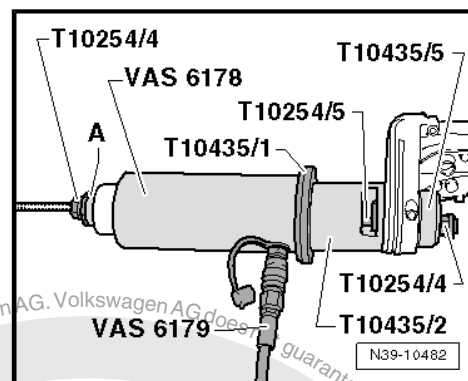


Note

Corners and small recesses of bonded rubber bush -arrows A- must be at right angles to final drive.

- Mark installation position -arrow B- of bonded rubber bush.
- Pull in bonded rubber bush until dimension -a- \Rightarrow page 53 is reached.

- Pull-in depth for bonded rubber bush
Dimension -a- = 47.4 mm



5.2 Pulling bonded rubber bush out of and into front of housing

Perform the following steps:

Pulling out

- Set foot pump -VAS 6179- to lowest setting.



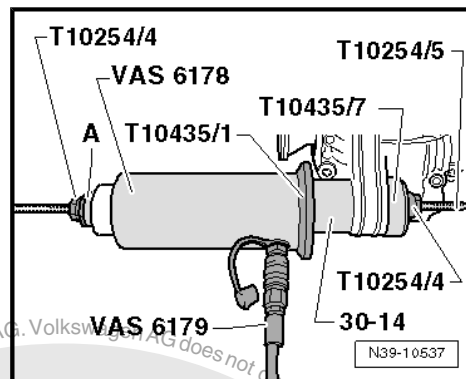
- Pulling out bonded rubber bush.



Note

Washer -A- from assembly tool -T10435-

Pulling in



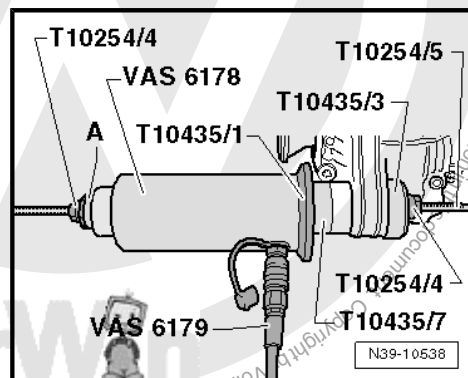
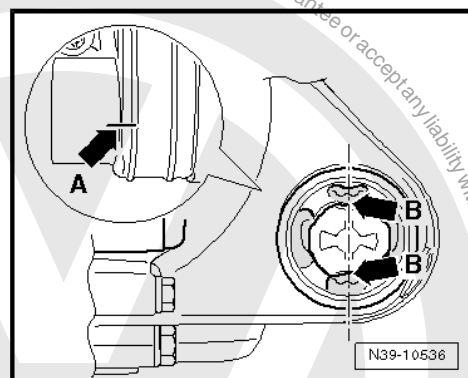
- Position bonded rubber bush in installation position on front final drive.



Note

Small recesses of bonded rubber bush -arrows B- must be at right angles to final drive.

- Mark installation position -arrow A- of bonded rubber bush.
- Pull in bonded rubber bush until it is centred in front final drive housing.



5.3 Pulling bonded rubber bush on left of housing out and in

Perform the following steps:

Pulling out

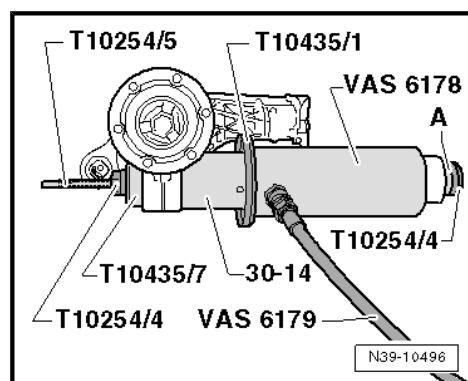
- Set foot pump -VAS 6179- to lowest setting.
- Pulling out bonded rubber bush.



Note

Washer -A- from assembly tool -T10435-

Pulling in



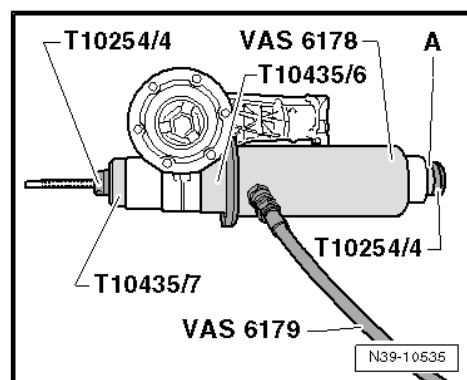
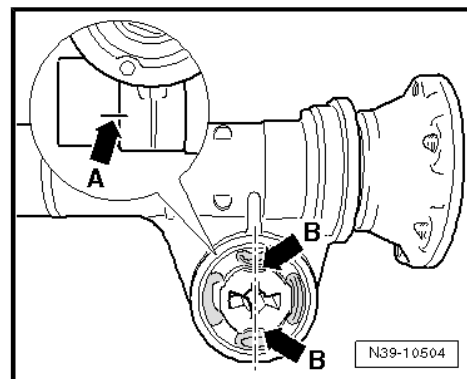


- Position bonded rubber bush in installation position on left of final drive.

i Note

Small recesses of bonded rubber bush -arrows B- must be at right angles to final drive.

- Mark installation position -arrow A- of bonded rubber bush.
- Pull in bonded rubber bush until it is centred in housing on left of final drive.





6 Checking oil level in front final drive or adding oil

Gear oil for the front final drive is available as a part ⇒ Electronic parts catalogue „ETKA“.

Special tools and workshop equipment required

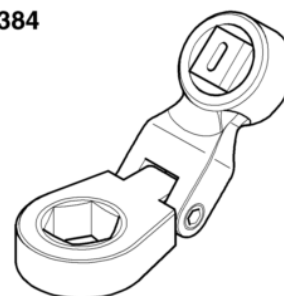
- ◆ Torque wrench -V.A.G 1331-
- ◆ Ring ratchet spanner, 13 mm AF -T10384-
- ◆ Bit -T50039-

V.A.G 1331



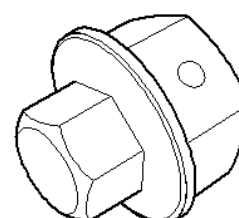
W00-0427

T10384



W00-10649

T50039



W00-10920



Note

- ◆ *Front final drive has a fill-for-life oil fill. It is only necessary to check oil level or to top up oil after renewal of oil seal or if final drive is replaced. Due to poor accessibility of oil filler plug when installed, oil level should be checked or oil should be replenished prior to installation.*
- ◆ *The special tool indicated is to be used.*

Test precondition

- Front final drive in installation position



Perform the following steps:

- Remove oil filler plug -arrow-.

The oil level is correct when the front final drive is filled to the lower edge of the filler hole; top up as required.

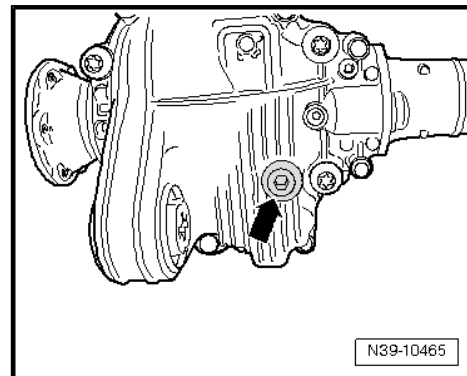
- Install oil filler plug -arrow- and tighten to 35 Nm.

With the component in its installed position

- Unscrew the oil filler plug -arrow- with a combination of ring ratchet spanner, 13 mm AF, -T10384- and bit -T50039- .

The oil level is correct when the front final drive is filled to the lower edge of the filler hole; top up as required.

- If necessary, replenish oil via the breather hose, using a standard funnel ⇒ [page 37](#) .



WARNING

Danger of burning.

Exhaust system can be hot.

Allow exhaust system to cool down before replenishing oil.

- Screw in the oil filler plug -arrow- with a combination of ring ratchet spanner, 13 mm AF, -T10384- and bit -T50039- and tighten to 35 Nm.





39 – Final drive - differential

1 Propshafts



Note

- ◆ *If propshaft is disconnected only from the rear axle, the propshaft must be raised and secured or supported.*
- ◆ *Keep propshaft straight; store and transport fully extended only.*
- ◆ *No repairs can be made to the propshaft.*

Assembly overview - propshaft ⇒ [page 58](#)

Removing and installing rear propshaft ⇒ [page 61](#)

Removing and installing front propshaft ⇒ [page 59](#)

1.1 Assembly overview - propshafts



Note

- ◆ *No repairs can be made to the propshaft.*
- ◆ *Illustration shows propshafts of four-wheel drive.*



1 - Seal

- ☐ On front final drive
- ☐ Renew if damaged
- ☐ Grease with drive shaft grease -G 052 738 A2-

2 - Retaining ring

- ☐ On front final drive
- ☐ Renew

3 - Front propshaft

- ☐ Four-wheel drive only
- ☐ Removing and installing
⇒ [page 59](#)
- ☐ Markings on pin of front final drive and front propshaft must be in alignment

4 - Retaining ring

- ☐ Renew
- ☐ Grease with drive shaft grease -G 052 738 A2-

5 - Seal

- ☐ Renew if damaged

6 - Transfer box

- ☐ Four-wheel drive only

7 - Bolt, 50 Nm + turn 90° further

- ☐ Renew

8 - Rear propshaft

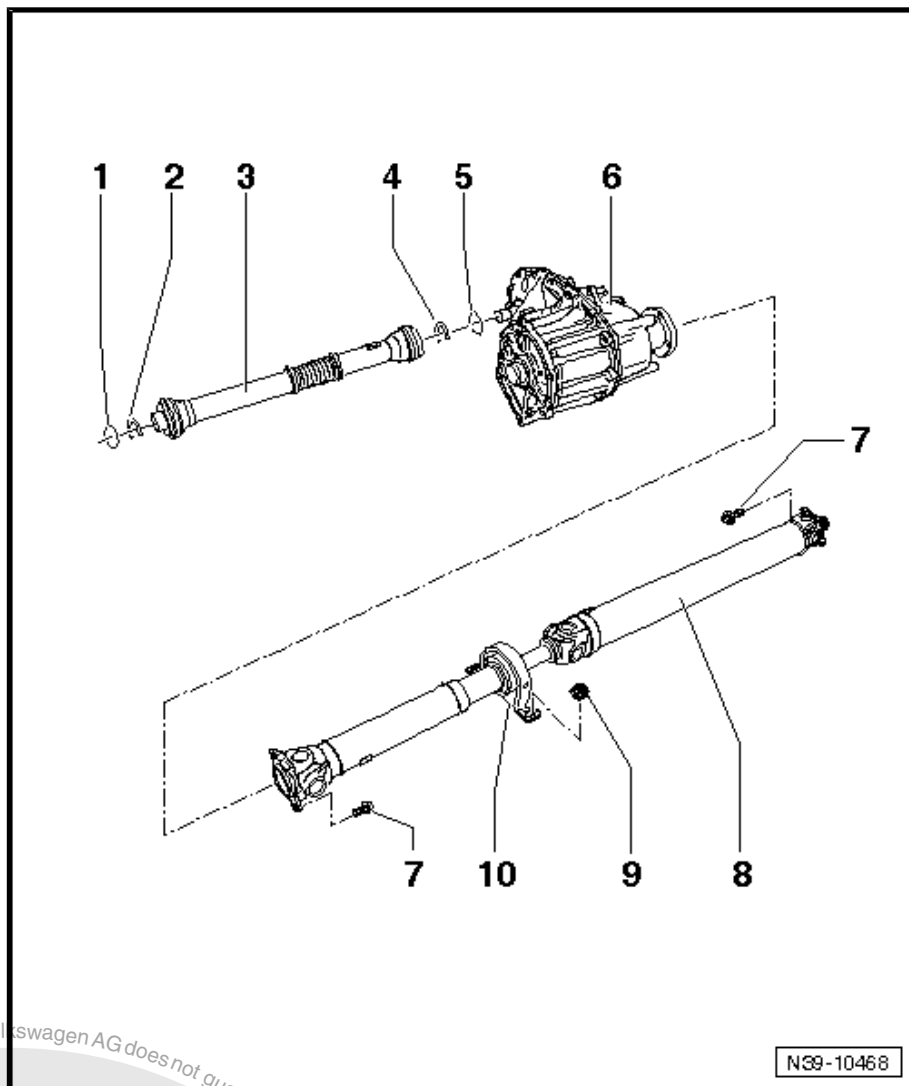
- ☐ Removing and installing
⇒ [page 61](#)

9 - Hexagon nut, 20 Nm and then turn 90° further

- ☐ Renew

10 - Centre bearing

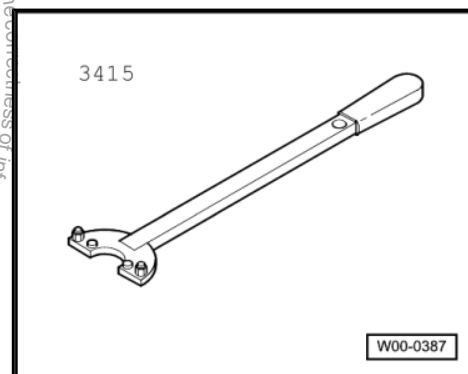
- ☐ Installing intermediate bearing free of tension ⇒ [page 63](#)



1.2 Removing and installing front propshaft

Special tools and workshop equipment required

- ◆ Counterhold -3415-



- ◆ Grease for drive shafts -G 052 738 A2-

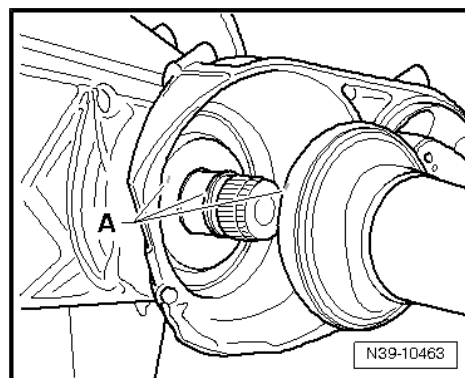


Perform the following steps:

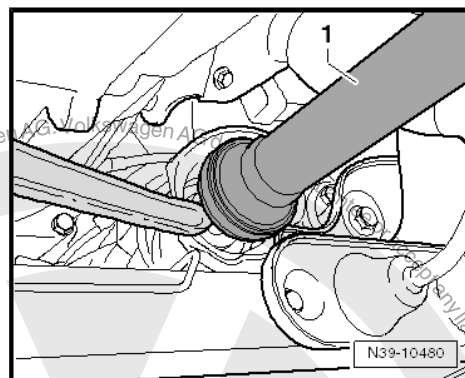
Removing

Before removing, mark positions of all parts relative to each other. Reinstall in the same position otherwise imbalance will be excessive, the mountings could be damaged causing rumbling noises.

- Raise vehicle ⇒ Maintenance ; Booklet 11 .
- Remove engine/gearbox guard ⇒ General body repairs, exterior; Rep. gr. 50 ; Engine/gearbox guard .
- Check if there are markings (paint spots) -A- on front propshaft and on front final drive.
- If these markings are not present, then mark position of propshaft flange in relation to front final drive with paint.



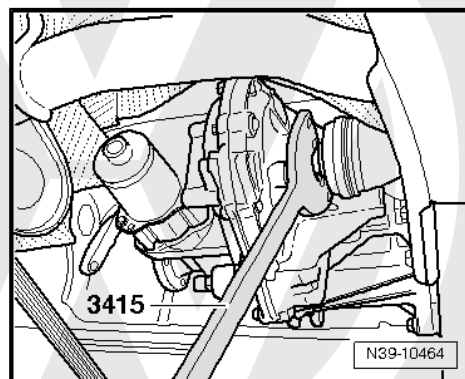
- Prise front propshaft -1- off final drive using assembly lever.



- Push front propshaft off transfer box using counterhold -3415- .
- Remove front propshaft.

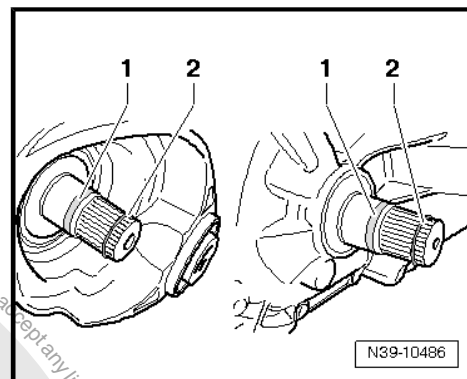
Installing

Install in reverse order of removal. During this step, observe the following:





- Renew oil seals -1- if damaged.
- Renew retaining rings -2-.
- Grease splines of shafts and oil seals -1- with drive shaft grease -G 052 738 A2- .

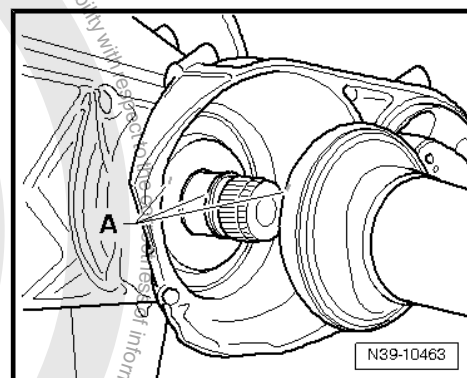


- Markings -A- must be aligned with one another as far as possible.
- Position front propshaft on front final drive.

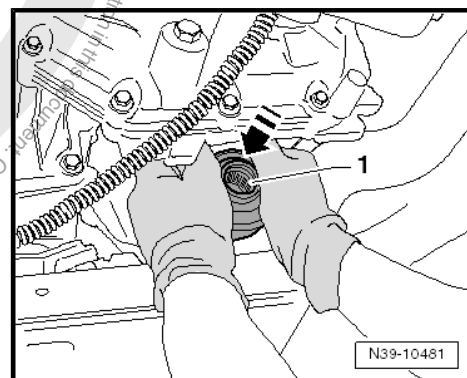


Caution

Wear protective gloves!



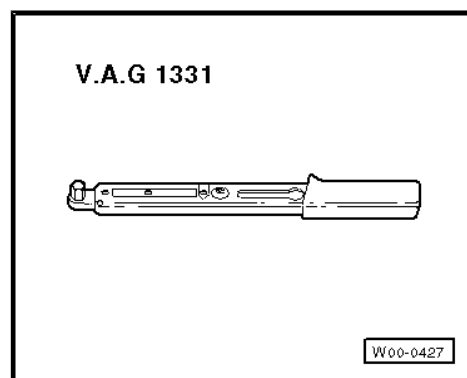
- Then push front propshaft -1- onto shaft forcefully by hand until it engages.
- Pull on front propshaft to check propshaft has engaged correctly.
- Position front propshaft on transfer box.
- Push front propshaft onto shaft until it engages.
- Pull on front propshaft to check propshaft has engaged correctly.
- Install engine/gearbox guard ⇒ General body repairs, exterior; Rep. gr. 50 ; Engine/gearbox guard .



1.3 Removing and installing rear propshaft

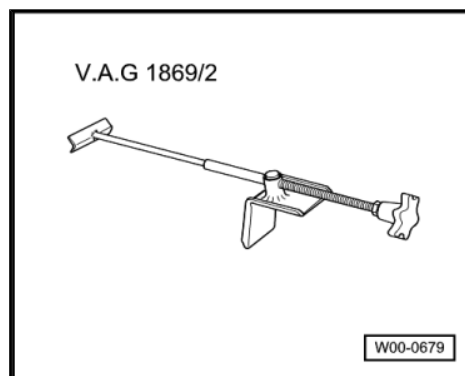
Special tools and workshop equipment required

- ◆ Torque wrench -V.A.G 1331-

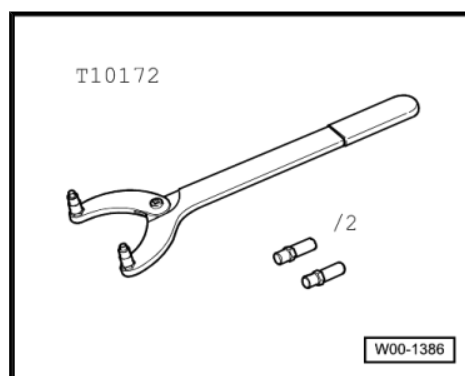




- ◆ Brake pedal actuator -V.A.G 1869/2- (vehicles with rear-wheel drive)



- ◆ Counterhold -T10172- (vehicles with four-wheel drive)



Note

- ◆ *If possible, use a twin pillar lifting platform when working on the propshaft.*
- ◆ *Remove and install propshaft with the help of a second mechanic.*
- ◆ *Before removing, mark positions of all parts relative to each other. Reinstall in the same position otherwise imbalance will be excessive, the mountings could be damaged causing rumbling noises.*
- ◆ *Keep propshaft straight; store and transport fully extended only.*
- ◆ *Do not let propshaft »hang« during removal; always support it.*
- ◆ *Always pull propshaft from or push it onto drive flange horizontally.*

Perform the following steps:

Removing

Vehicles with rear-wheel drive

- Fit brake pedal actuator -V.A.G 1869/2- .
- Raise vehicle ⇒ Maintenance ; Booklet 11 .
- Unscrew securing bolts for propshaft on propshaft flanges, but do not remove them yet.

Vehicles with four-wheel drive

- Raise vehicle ⇒ Maintenance ; Booklet 11 .



- Unscrew securing bolts for propshaft on propshaft flanges, but do not remove them yet. Brace using counterhold -T10172-.

Continuation for all vehicles



Caution

To prevent noises due to imbalance, mark the position of the propshaft relative to the flanges.

- Mark position of propshaft in relation to propshaft flanges.
- Unscrew hexagon nuts for centre bearing -arrows-.



Note

A second mechanic is required for the further removal of the propshaft.



Caution

To avoid damaging the protective boot in the centre bearing, remove, store and install the propshaft with the joint as straight as possible.

- Unscrew propshaft at propshaft flanges and remove propshaft with joint positioned as straight as possible.

Installing

Install in reverse order of removal. During this step, observe the following:

- Install all parts which were marked in relation to each other in their original positions.
- Install propshaft with new bolts. Torque setting ⇒ [page 58](#)

Installing intermediate bearing free of tension

- All propshaft bolts are tightened.
- Align intermediate bearing in its elongated holes so that neither propshaft nor intermediate bearing is under tension.
- Tighten new hexagon nuts. Torque setting ⇒ [page 58](#)

