

REP-REP-RAF3018N55-1800020 V.11 Removing and installing complete exhaust system (N55)
, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming - data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

18 00 020

Removing and installing complete exhaust system (N55)



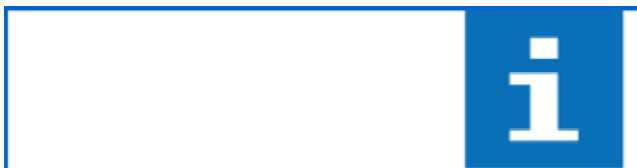
Warning!

Risk of burning!

Only perform this repair work after engine has cooled down.

Danger of injury!

Removal of the exhaust system must be carried out with the assistance of a second person.



Necessary preliminary tasks:

- Only F21, F22, F23, F31, F32, F33, F34:
Remove rear trailing link.
- F23, F31, F33, F34, F36 only:
Remove tension strut (rear axle) left or right.

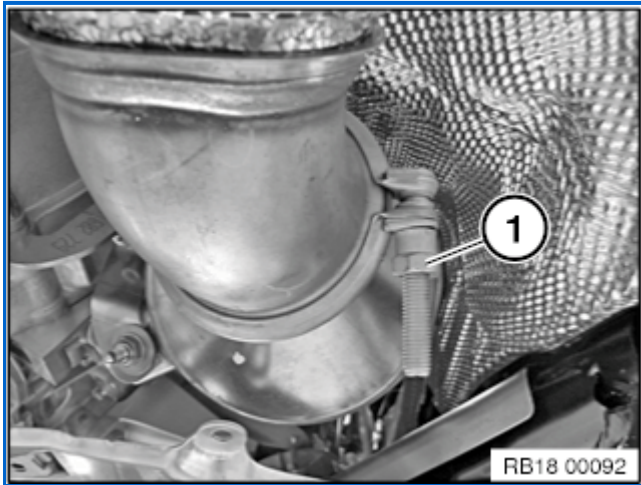


Support exhaust system with a suitable jack and secure it against falling down.

Release clamp (1).

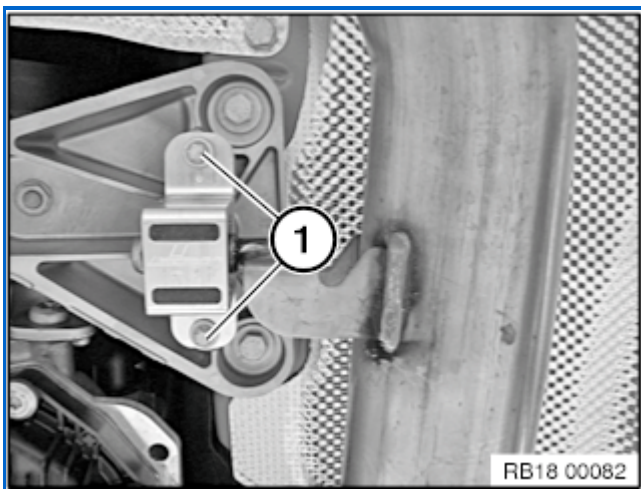
Renew V-band clamp.

Tightening torque [18 31 1AZ](#).



3/8 drive 15mm deep socket

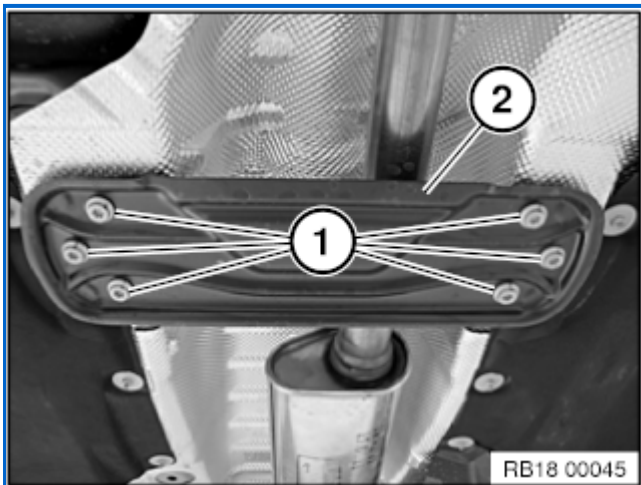
This will usually be rusted which will require more effort to remove than when you replace it with a new V-band clamp.



Release screws (1).

Tightening torque [18 20 2AZ](#).

E10 socket (inverted Torx)



If fitted:

Release screws (1).

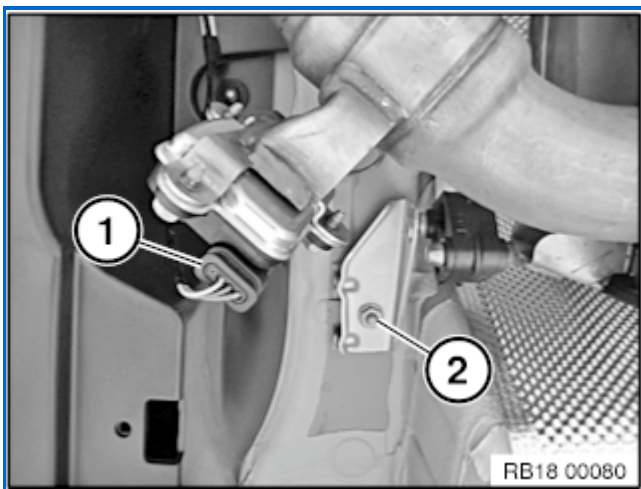
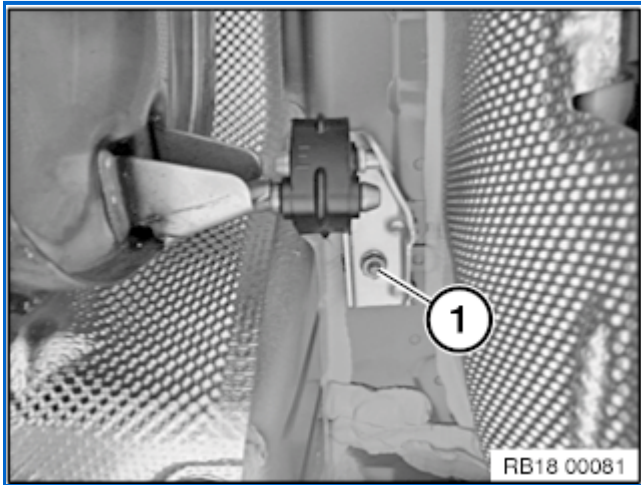
Tightening torque [18 31 3AZ](#).

Remove reinforcement plate (2).

T50 Torx bit

Unfasten nut.

Tightening torque [18 20 3AZ](#).



Unlock connector from exhaust flap and pull off.

Slacken nut (2).

Tightening torque [18 20 3AZ](#).

Lower and remove exhaust system with assistance of a second person.



Installation note:

Check rubber mount for damage.

If necessary, replace damaged rubber mounts.

Check exhaust system for leak tightness.

AZD-AZD-AZDMUC1831-F30N55 V.10 Exhaust pipe with catalytic converter / complete system, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming - data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

18 31 Exhaust pipe with catalytic converter / complete system

	Type	Thread	Tightening specifications	Dimension
1AZ Exhaust system to catalytic converter	N55 / N55 Hybrid		Renew V-band clamp.	30 Nm
2AZ Front pipe with catalytic converter to turbocharger	N55 / N55 Hybrid	M8 x 40	Renew V-band clamp.	13 Nm
3AZ Reinforcement plate to body	N55 / N55 Hybrid	M8		28 Nm
4AZ Exhaust turbocharger with exhaust manifold to cylinder head	N55 / N55 Hybrid	M7		13 Nm
5AZ Clamp between centre silencer and rear silencer	N55 / N55 Hybrid	M10		45 Nm
6AZ Clamp between front pipe and centre silencer	N55 / N55 Hybrid	M10		45 Nm
7AZ Actuator drive for exhaust system to exhaust system	N55 / N55 Hybrid	M6		9 Nm

AZD-AZD-AZDMUC1820-F30N55 V.9 Exhaust system suspension; VIN: [REDACTED]

ISTA system 4.03.21.18572
version

Data version R4.03.21

Programming -
data

VIN [REDACTED]

Vehicle 3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05

Int.lev.works -

Int.lev.(cur.) -

Int.lev.(tar.) -

Mileage 0 km

18 20 Exhaust system suspension

	Type	Thread	Tightening specifications	Dimension
1AZ Catalytic converter to holder	N55 / N55 Hybrid	M8		28 Nm
2AZ Exhaust system on transmission cross-member	N55 / N55 Hybrid	M8		28 Nm
3AZ Exhaust system to body	N55 / N55 Hybrid	M8		19 Nm
4AZ Reinforcement plate to body	N55	M8		28 Nm
5AZ Tension strut to compression strut	N55		Replace screws. Jointing torque Angle of rotation	100 Nm 90 °

REP-REP-RAF2033-3331_TILGER V.13 Removing and installing/replacing vibration absorber, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming - data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

33 31 017

Removing and installing/replacing vibration absorber

Special tools required:

- [2 240 515](#)
- 83 30 2 444 999

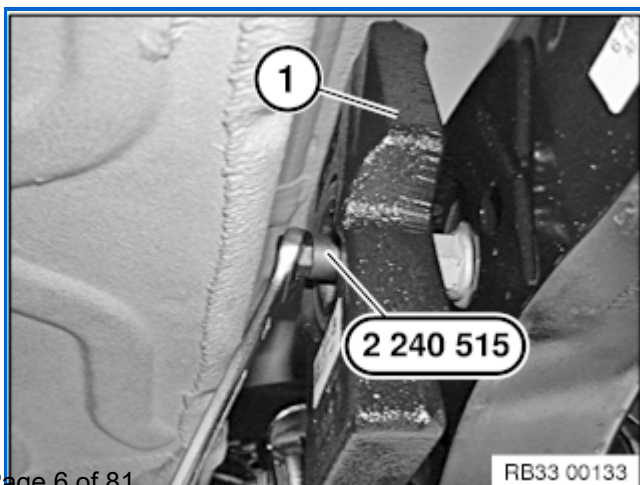


Attention!

Different vibration absorbers are installed depending on the vehicle equipment and motorisation.

The vibration absorbers have different nominal frequencies depending on the equipment and motorisation.

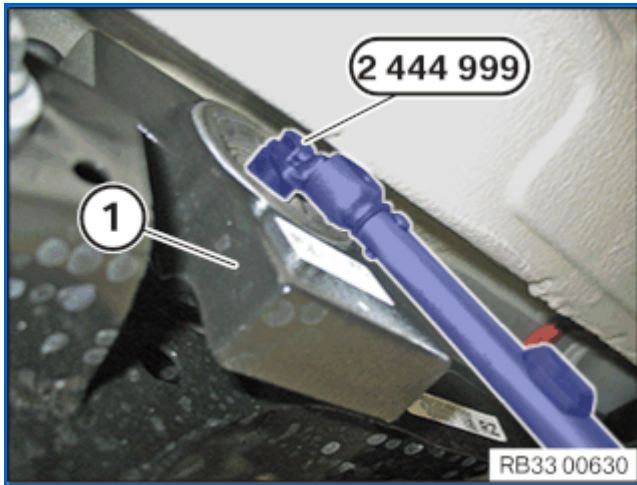
The nominal frequency is noted on the vibration absorber and its observation is mandatory.



Release the screw M8 on the vibration absorber (1) with special tool [2 240 515](#) and ring spanner (AF 13).

Tightening torque [33 17 3AZ](#).

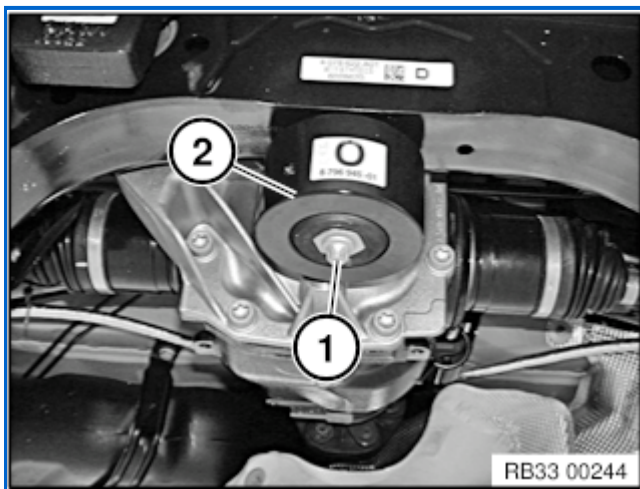
Remove vibration absorber (1).



Release the screw on the vibration absorber with special tool 83 30 2 444 999 and wrench socket.

Remove vibration absorber (1).

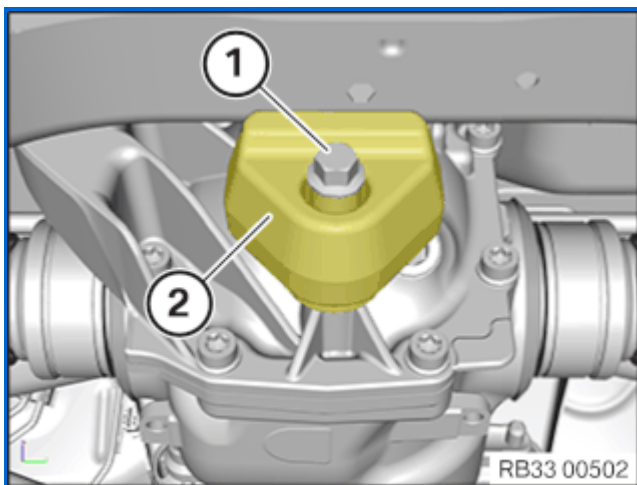
Tightening torque [33 17 7AZ](#).



Loosen screw (1).

Tightening torque [33 17 4AZ](#).

Remove vibration absorber (2).



Loosen screw (1).

Tightening torque [33 17 5AZ](#).

Remove vibration absorber (2).

Installation note:

It is mandatory to ensure correct installation position. The flat side of the vibration absorber (2) faces the rear axle support.

AZD-AZD-AZDMUC3317-F2X_F3X V.14 Rear axle final drive suspension; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

33 17 Rear axle final drive suspension

	Type	Thread	Tightening specifications	Dimension
1AZ Rear differential to rear axle carrier, front	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12	Follow repair instruction.	100 Nm
2AZ Rear differential to rear axle carrier, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M14	Observe instructions in Repair Manual. Renew nut.	165 Nm
3AZ Vibration absorber to screw connection of rear axle differential, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8		28 Nm
4AZ Vibration absorber to rear axle support, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8		19 Nm
5AZ Vibration absorber to rear axle differential	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12	Renew screw.	100 Nm
6AZ Vibration absorber to screw connection of rear axle differential, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M10x32	Renew screw. Jointing torque Angle of rotation	56 Nm 90 °
7AZ Vibration absorber to screw connection of rear axle differential, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	Torx E14 M 10x32	Renew screw. Jointing torque Angle of rotation	56 Nm 90 °

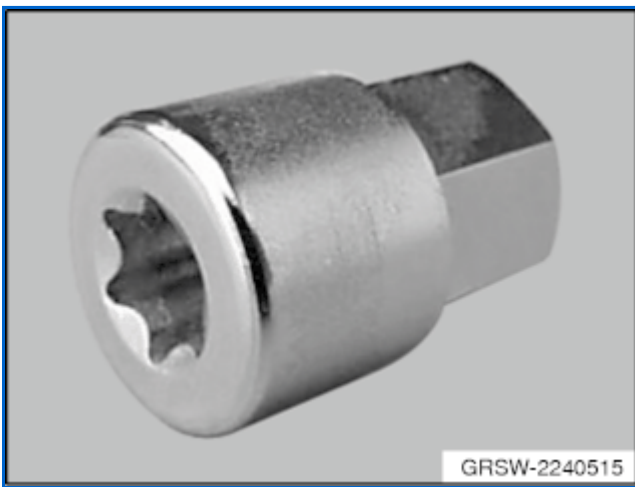
SWZ-SWZ-2240515 V.5 Socket, VIN: XXXXXXXXXX

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming	- data
VIN	XXXXXXXXXX	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

2240515 Socket

Minimum set: Mechanical tools

Mechanical tool



Note: Torx socket E10. For removing and installing vibration absorber on rear axle differential.

Storage Location: B30

SI number: 01 12 11 (724)

REP-REP-RAF3022-2232001_HECK V.1 Replacing rubber mount for transmission mounting, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming - data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

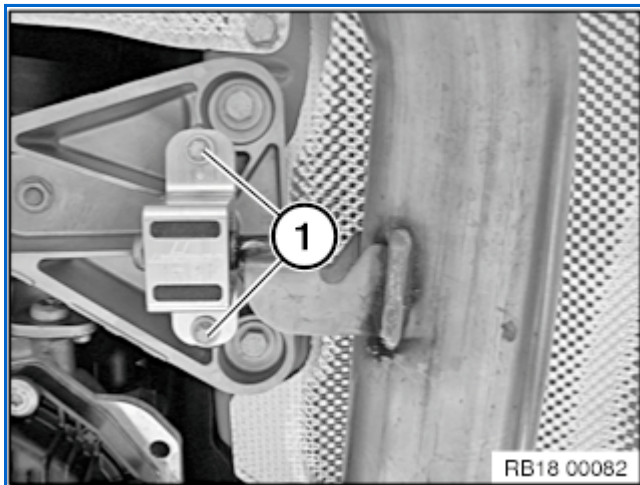
22 32 001

Replacing rubber mount for transmission mounting



Necessary preliminary tasks:

- Remove rear [underbody protection](#).
- Support transmission with lifter.



Release screws (1).

Tightening torque [18 20 2AZ](#).

Detach rubber mount of exhaust system.

Unscrew nuts (1).

Tightening torque [22 32 2AZ](#).

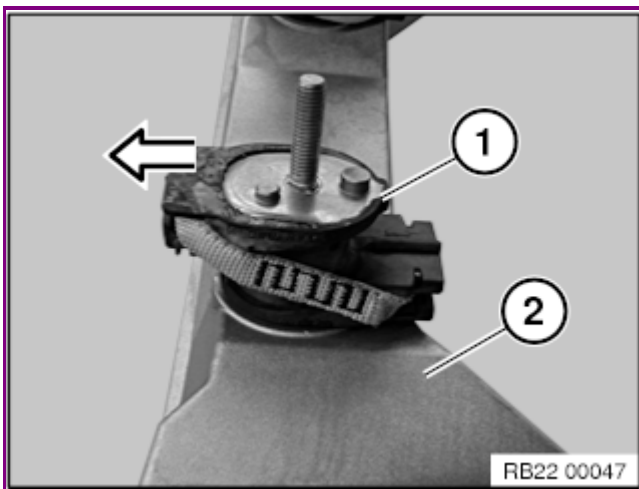
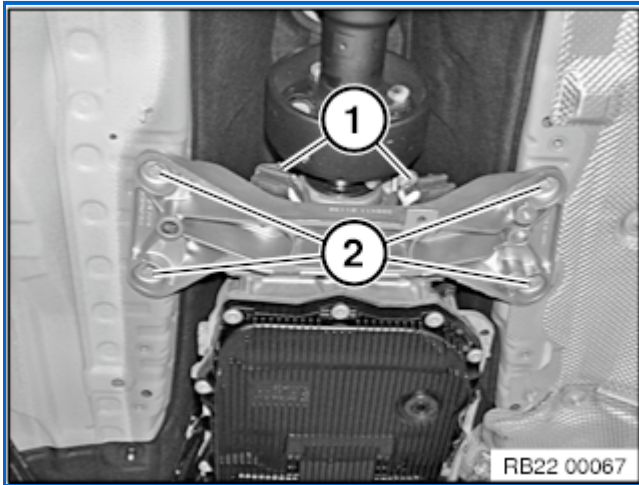
Unfasten screws (2).

Tightening torque [22 32 3AZ](#).

Remove transmission cross member.

Remove rubber mount from transmission cross-member.

Tightening torque [22 32 4AZ](#).



Note the installation position of rubber mount (1) relative to transmission cross-member (2).

Arrow shows in direction of engine/front of vehicle.

AZD-AZD-AZDMUC2232-02 V.40 Transmission mounting; VIN: XXXXXXXXXXISTA system 4.03.21.18572
version

Data version R4.03.21

Programming -
dataVIN XXXXXXXXXX

Vehicle 3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05

Int.lev.works -

Int.lev.(cur.) -

Int.lev.(tar.) -

Mileage 0 km

22 32 Transmission mounting

	Type	Thread	Tightening specifications	Dimension
1AZ Transmission mounting bracket to transmission	F01 / F02 / F03 / F04 / F06 / F07 / F10 / F11 / F12 / F13 / F15 / F16 / F18 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87 / F18 PHEV / F30 PHEV	M10		48Nm
2AZ Rubber mount to transmission bearing support	F01 / F02 / F03 / F04 / F06 / F07 / F10 / F11 / F12 / F13 / F18 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87 / F18 PHEV / F30 PHEV	M8		19 Nm
3AZ Transmission cross member to body	F01 / F02 / F03 / F04 / F06 / F07 / F10 / F11 / F12 / F13 / F18 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87 / F18 PHEV / F30 PHEV	M8		19 Nm
4AZ Transmission cross member to rubber mounts	F01 / F02 / F03 / F04 / F06 / F07 / F10 / F11 / F12 / F13 / F18 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87 / F18 PHEV / F30 PHEV	M8		19 Nm
5AZ Vibration absorber to transmission cross member	F01/ F02 N54 / F10			38 Nm

6AZ	Transmission cross member to rubber mounts (AWD)	F01 / F02 / F06 / F07 / F10 / F11 / F25 / F12 / F13 / F15 / F16 / F20 / F21 / F30 / F31 / F32 / F34 / F36 / F80 / F82 / F83 / F85 / F86 / F15 PHEV	M12		68 Nm
7AZ	Transmission bearing block to transmission (AWD)	F01 / F06 / F07 / F10 / F11	M8		19 Nm
8AZ	Rubber mount to transmission bearing block (AWD)	F01 / F06 / F07 / F10 / F11	M8		19 Nm
9AZ	Rubber mount to transmission bearing block (AWD)	F01 / F06 / F07 / F10 / F11	M8		19 Nm
10AZ	Transmission bearing block to body (AWD)	F01 / F06 / F07 / F10 / F11	M8		19 Nm
11AZ	Transmission cross member to body	F15 / F16 / F85 / F86 / F15 PHEV	M10		38 Nm

REP-REP-RAF3026-2611000 V.14 Removing and installing propeller shaft (inserted)
completely, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming - data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

26 11 000

Removing and installing propeller
shaft (inserted) completely

Special tools required:

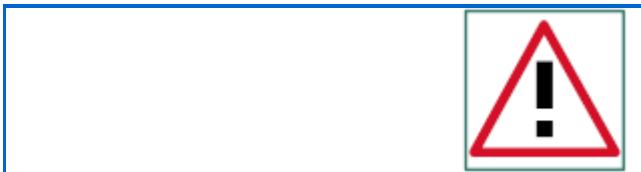
- [00 9 120](#)
- [00 9 130](#)
- [33 0 080](#)
- [33 5 070](#)



Important!

On four-wheel drive vehicles with defective, non-engaging drive, it is imperative that the following information is taken account of.

- Additional work when replacing the propeller shaft.



Important!

Replacement of the sunk nut on the rear axle final drive is absolutely required!

The sunk nut already has a screw locking.

After the propeller shaft has been screwed into the rear axle final drive (sunk nut), a **hardening time of at least 2 hours** is absolutely necessary.

The hardening time may be extended at lower temperatures!

Failure to comply with these instructions may cause

serious damage!



Necessary preliminary tasks:

- Remove [complete exhaust system](#).
- Remove heat shields.
- Support transmission with lifter.
- Remove [cross member](#) if necessary.



Important!

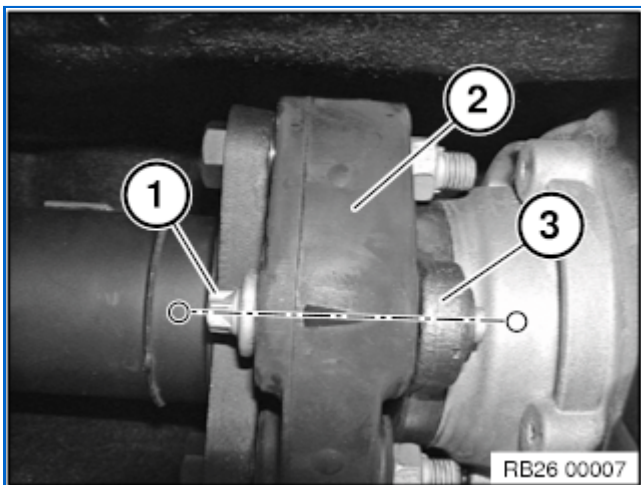
Adhere without fail to the installation and bolt-tightening sequence.

Installation sequence:

1. Join propeller shaft to transmission
2. Join propeller shaft to rear axle final drive
3. Join centre mount

Screw-fastening sequence:

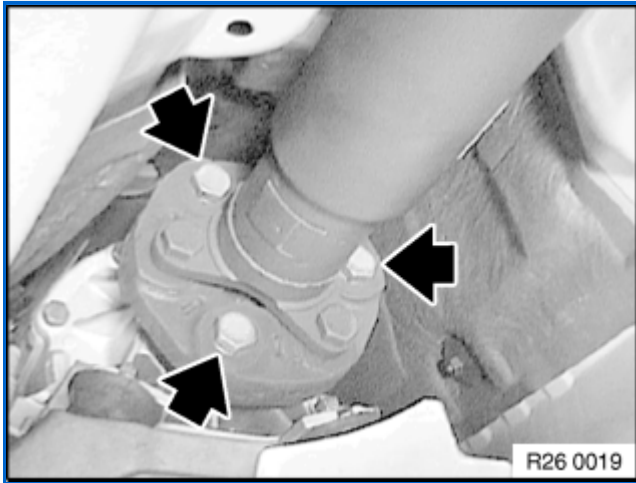
1. Insert nut
2. Flexible disc to transmission
3. Centre mount



Important!

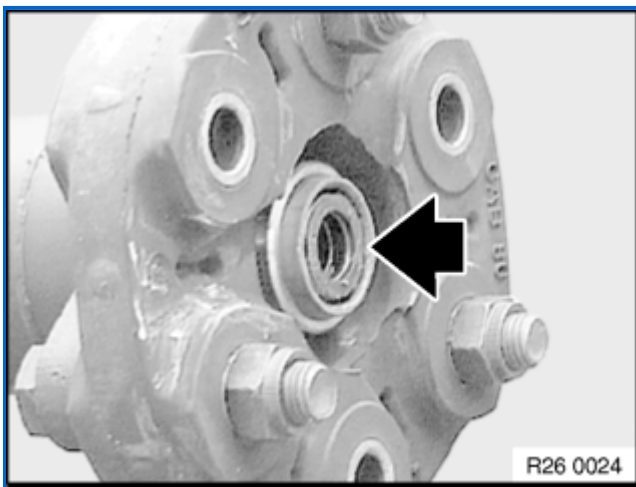
To avoid buzzing sound after refitting the propeller shaft:

1. The flexible disc connection (1) on the front at the propeller shaft **must** be marked in one plane with the flexible disc (2) and the three-bolt flange (3) before removal.
2. During installation the three-bolt flange (3) must be forced back together again with the flexible disc (2) in the same position.
3. Replace ZNS screws and self-locking nuts.



Installation note:

- Renew ZNS screws and self-locking nuts
- Grip mounting bolts of flexible disc at nuts and tighten down by way of bolts.



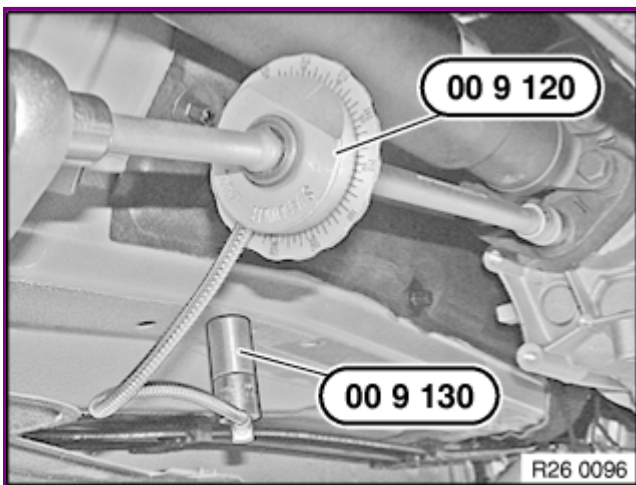
Installation note:

Check centring mount.

If necessary, replace damaged [centring](#).

Grease centring mount.

- Grease: BMW Service [Operating Fluids](#).



Installation note:

Tighten down screws/bolts to specified torque.

Secure angle of rotation special tool [00 9 120](#) with magnets [00 9 130](#) to vehicle underbody and screw down further according to angle of rotation.

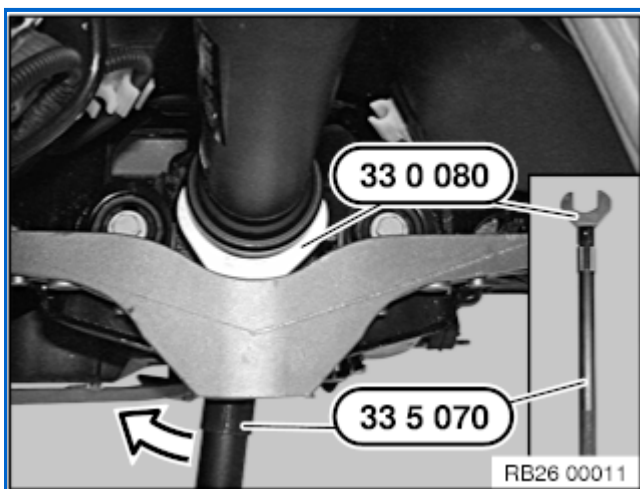
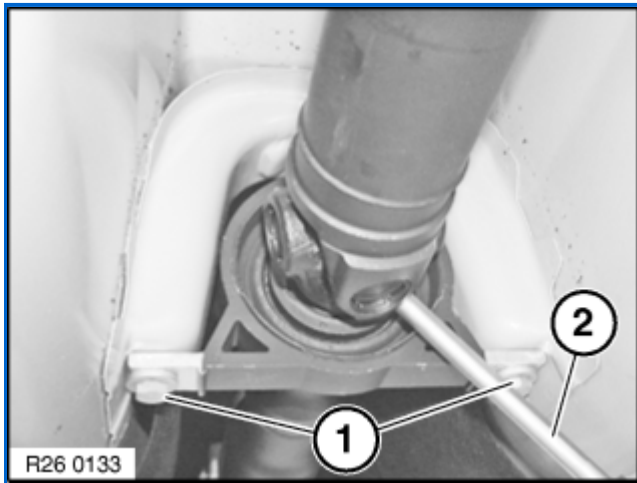
Tightening torque [26 11 1AZ](#).

Slacken screws (1)

Tightening torque [26 11 5AZ](#).

Using a suitable tool (2), secure propeller shaft at centre universal joint against twisting.

Remove screws of centre mount fully only after opening insert nut.



Important!

The bi-hexagonal flange nut must not be used for bracing.

Failure to comply with this instruction may result in serious damage to the rear axle final drive.

Important!

The sunk nut must be opened clockwise - see direction of arrow.

Turning the recessed nut in anticlockwise direction will automatically tighten the recessed nut further and significantly damage the bi-hexagonal flange nut.

If the insert collar of the flange nut was damaged, the propeller shaft can **no longer** be secured using a new sunk nut and the rear axle differential must be replaced.

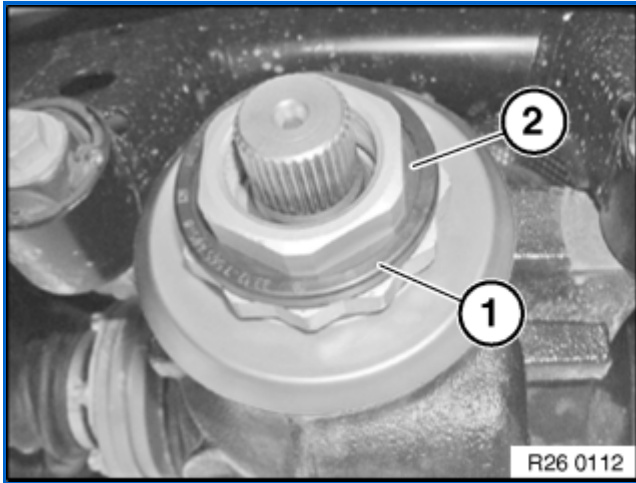
Release sunk nut clockwise with special tools [33 0 080](#) and [33 5 070](#).

Tightening torque [26 11 6AZ](#).

Remove retaining clip (1) and gasket (2).

Installation note:

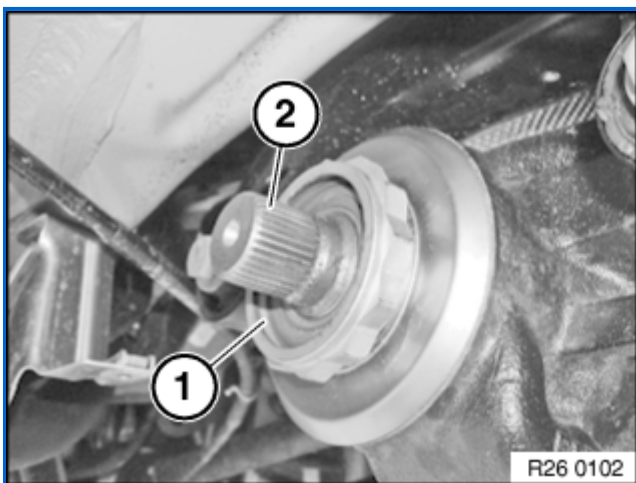
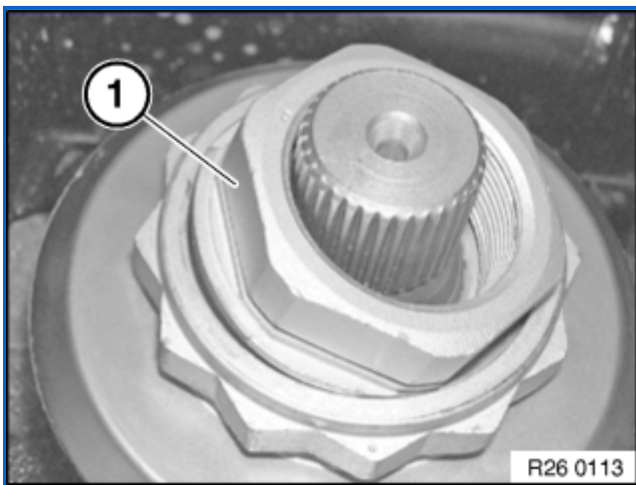
Retaining clip and gasket must be replaced.



Remove insert nut (1).

Installation note:

Insert nut must be replaced.



Before installing propeller shaft:

Clean insert collar (1) on flange nut and spline teeth on bevel pinion (2).

Top up insert collar (1) with grease.

Grease: BMW Service [Operating Fluids](#).

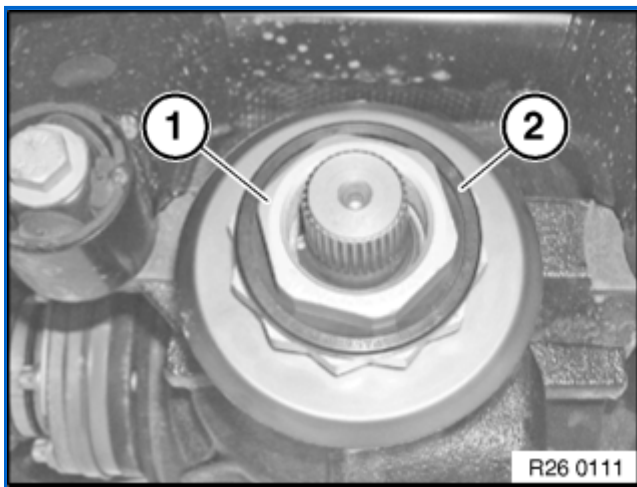
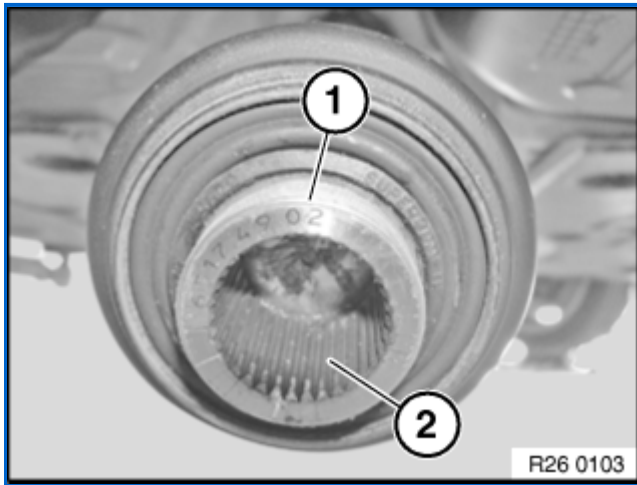
Clean thread (1) of joint hub to remove adhesive residues.

Clean hub teeth (2), then coat with grease.

Grease: BMW Service [Operating Fluids](#).

Important!

Thread of joint hub must **not** be fouled with grease.



Place insert nut (1) with seal in insert collar of flange nut.
Install retaining clip (2).



Important!

Adhere without fail to the installation and bolt-tightening sequence.

Installation sequence:

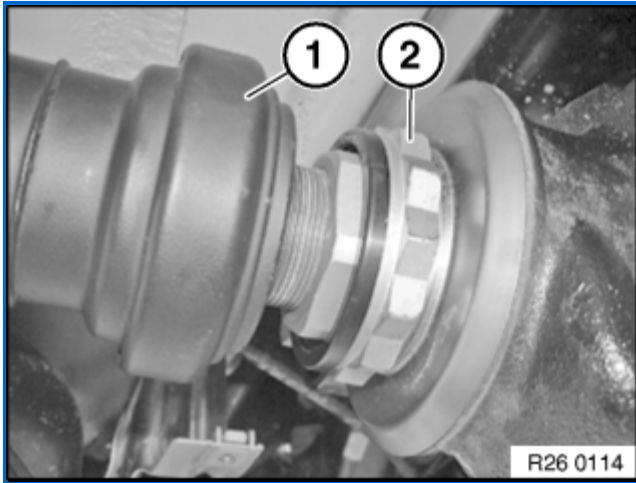
1. Join propeller shaft to transmission
2. Join propeller shaft to rear axle final drive
3. Join centre mount

Screw-fastening sequence:

1. Insert nut
2. Flexible disc to transmission
3. Centre mount

Slide propeller shaft (1) to the limit position onto insert nut and secure.

Secure propeller shaft at centre universal joint against



turning with a mounting lever.

Important!

The bi-hexagonal flange nut (2) must not be used for bracing.

Failure to comply with this instruction may result in serious damage to the rear axle final drive.

Insert nut must be screwed into place **within 5 min.**

Tightening torque [26 11 6AZ](#).

AZD-AZD-AZDMUC2611-02 V.42 Propeller Shaft. complete; VIN: [REDACTED]

ISTA system 4.03.21.18572
version

Data version R4.03.21

Programming -
data

VIN [REDACTED]

Vehicle 3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05

Int.lev.works -

Int.lev.(cur.) -

Int.lev.(tar.) -

Mileage 0 km

26 11 Propeller Shaft. complete

	Type	Thread	Tightening specifications	Dimension
1AZ Front flexible disc to transmission output flange ZNS screws and nuts All versions			Replace screws and nuts, jointing torque and angle of rotation must be observed without fail. Tightening via screw	
	F01 / F02 / F03 / F06 / F07 / F10 / F11 / F12 / F13 / F15 / F16 / F18 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F85 / F86 / F18 PHEV / F15 PHEV / F87 / F30 PHEV	M12-10.9	Jointing torque	55 Nm
			Angle of rotation	90 °
2AZ Front flexible disk to propeller shaft ZNS screws and nuts All versions			Replace screws and nuts, jointing torque and angle of rotation must be observed without fail. Tighten via nut	
	F01 / F02 / F03 / F06 / F07 / F10 / F11 / F12 / F13 / F15 / F16 / F18 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F85 / F86 / F18 PHEV /	M12-10.9	Jointing torque	55 Nm

	F15 PHEV / F87 / F30 PHEV		Angle of rotation	90 °
3AZ Flexible disc, rear, to transmission drive flange (inserted) ZNS screws and nuts All versions			Replace screws and nuts, jointing torque and angle of rotation must be observed without fail. Tightening via screw	
	F01 / F02 / F03 / F06 / F07 / F10 / F11 / F12 / F13 / F18 / F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F36 / F85 / F86 / F18 PHEV	ASA M12-10.9	Jointing torque	55 Nm
			Angle of rotation	90 °
4AZ Flexible disc, rear, to propeller shaft ZNS screws and nuts All versions			Replace screws and nuts, jointing torque and angle of rotation must be observed without fail. Tighten via nut	
	F01 / F02 / F03 / F06 / F07 / F10 / F11 / F12 / F13 / F18 / F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F85 / F86 / F18 PHEV	M12-10.9	Jointing torque	55 Nm
			Angle of rotation	90 °
5AZ Centre mount to body	F01 / F02 / F03 / F06 / F07 / F10 / F11 / F12 / F13 / F15 / F16 / F18 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F85 / F86 / F18 PHEV / F15 PHEV / F87 / F30 PHEV			19 Nm
6AZ Input flange, rear axle final drive Insert nut to	F01 / F02 / F03 / F06 / F07 / F10 / F11 / F12 / F13 / F18		Replace insert nut! Allow min. 2 hours hardening time	

propeller shaft/three-hole flange)			Jointing torque Loosen the insert nut through 90° Tightening torque	120 Nm 85 Nm
	F15 / F16 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F85 / F86 PHEV / F15 PHEV / F87 / F30 PHEV			85 Nm
7AZ Front propeller shaft to transfer box/front axle differential	F01 / F02 / F06 / F07 / F10 / F11 / F12 / F13 / F15 / F16 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 / F34 / F36 / F85 / F86 / F15 PHEV		Renew screws, jointing torque and angle of rotation must be observed without fail. Jointing torque Angle of rotation	 20 Nm 45 °
8AZ Constant velocity joint propeller shaft to rear axle differential	F06 M6 / F10 M5 / F12 M6 / F13 M6	M10	Replace screws and shims, jointing torque and angle of rotation must be observed without fail. Jointing torque Angle of rotation	 20 Nm 90 °
9AZ Front propeller shaft to rear propeller shaft/constant velocity joint	F06 M6 / F10 M5 / F12 M6 / F13 M6	M12x1		60 Nm

SBS-ANL-SBS1996-HG26_A2 V.1 1.1 Grease for fitted propeller shaft, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

Enclosure 2 to SI 26 03 96 (145), edition 06/2006

1.1 Grease for fitted propeller shaft

The following grease should be used for greasing the hub spline of the propeller shaft at the final drive unit/output flange:

<i>Trade name</i>	<i>BMW part number</i>	<i>Container size</i>
Castrol Optitemp HT LF1	83 23 0 417 754	50 g tube

Status 06/2006

SWZ-SWZ-0490504 V.18 Torque angle measuring dial; VIN: [REDACTED]

ISTA system 4.03.21.18572
version

Data version R4.03.21

Programming -
data

VIN [REDACTED]

Vehicle 3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05

Int.lev.works -

Int.lev.(cur.) -

Int.lev.(tar.) -

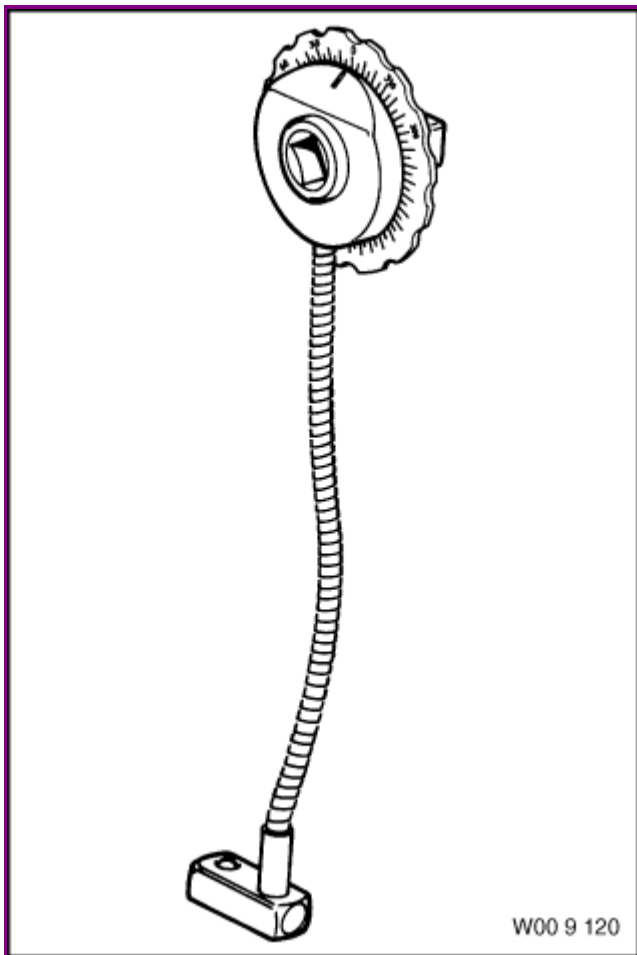
Mileage 0 km

0490504 Torque angle measuring dial

009120

Minimum set: Mechanical tools

AM



Note:

For torsion angle adjustment of
cylinder head bolts (all engines) And
reinforcement plate front axle support
E46

Storage Location: A4

SWZ-SWZ-0495108 V.11 Magnet&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming	- data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

0495108 Magnet

009130

Minimum set: Mechanical tools

Mechanical tool



Note: (Magnet with 1/2 " connection) For securing torque angle dial 00 9 120 to body.

Storage Location: A52

SI number: 01 17 04 (130)

SWZ-SWZ-0496959 V.13 Wrench; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming	- data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

0496959 Wrench**330080****Minimum set: Mechanical tools****AM**In conjunction with: [33 5 070 = 0495554](#)

Note: For loosening and tightening the propeller shaft to rear axle final drive screw connection (slot nut). SW50. Replaces SWZ 33 5 040 (0495551) as well from 09/2014.

Storage Location: B28

SI number: 01 11 10 (641)

SWZ-SWZ-0495554 V.13 Extension&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

0495554 Extension

335070

Minimum set: Mechanical tools

AM



Note: (2 pieces) Pull-out extension for 33 5 040, 33 5 050, 33 5 060.

Storage Location: A18

B18

SI number: 01 21 06 (300)

Consisting of:

1 = [0495592](#)

Extension

Note: (Extension (1 item))
discontinued, can only be ordered
using complete tool

REP-REP-RAF2033-3310023 V.11 Replacing radial shaft seal for output shaft at rear axle differential, left or right; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming - data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

33 10 023

Replacing radial shaft seal for output shaft at rear axle differential, left or right

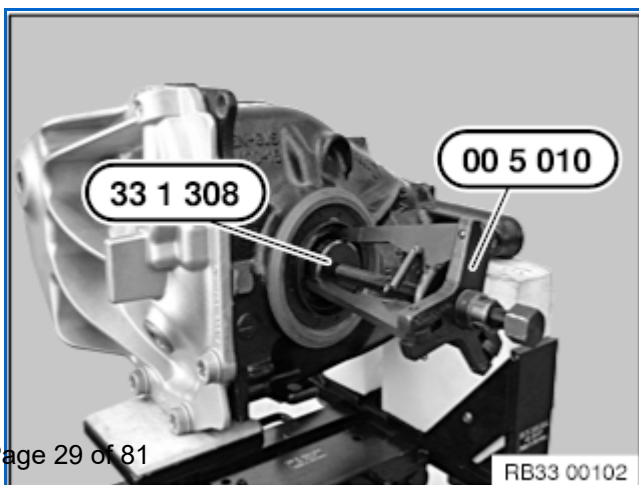
Special tools required:

- [00 5 010](#)
- [33 1 308](#)
- [00 5 500](#)
- [33 4 320](#)
- [33 5 130](#)
- 33 5 140

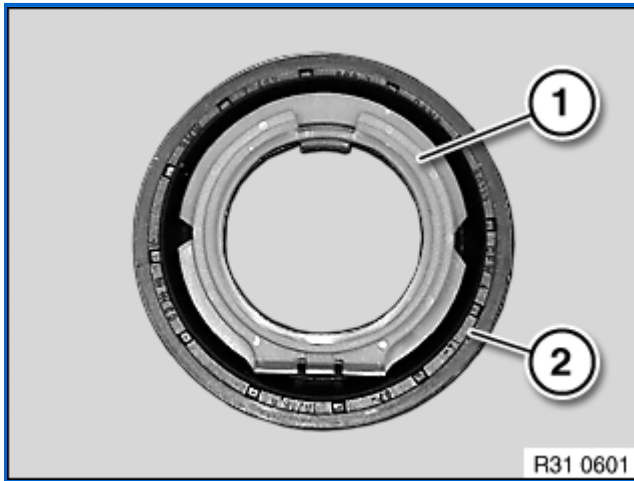


Necessary preliminary tasks:

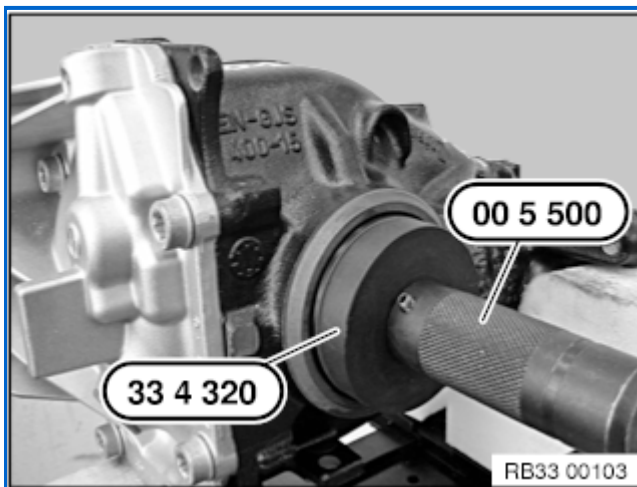
- Remove [rear axle final drive](#).



Pull out radial shaft seal with special tools [00 5 010](#) and [33 1 308](#).

**Note:**

The installation protective ring (1) serves to protect the sealing lips of the radial shaft seal (2) when installing the output shaft.



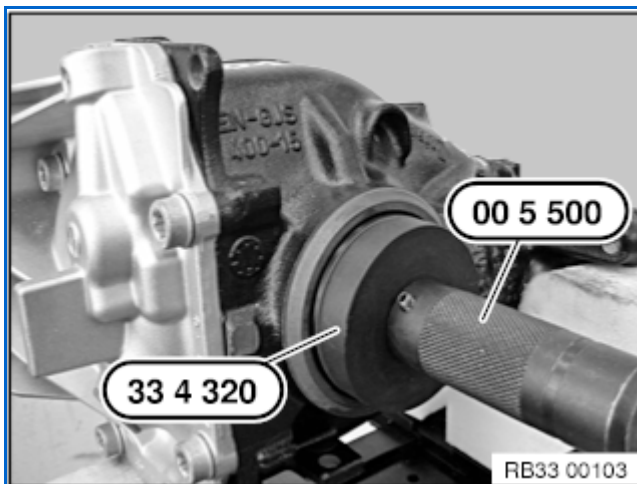
Depending on rear axle differential, the special tools of this or the next graphic are to be used.

Important!

Installation protective ring must not slip out of shaft seal!

Coat housing sheet metal flange and sealing lips of new radial shaft seal with [approved final drive oil](#).

Drive new radial shaft seal firmly home with special tools [00 5 500](#) and [33 4 320](#).



Note: Depending on rear axle differential, the special tools of this or the next graphic are to be used.

Important!

Installation protective ring must not slip out of shaft seal!

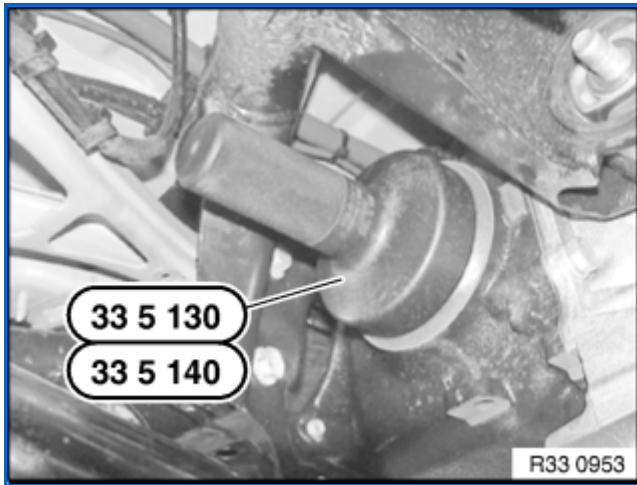
Coat housing sheet metal flange and sealing lips of new radial shaft seal with approved final drive oil.

Drive new radial shaft seal firmly home with special tools [00 5 500](#) and [33 4 320](#).

Note: Depending on rear axle differential, the special tools of this or the previous graphic are to be used.

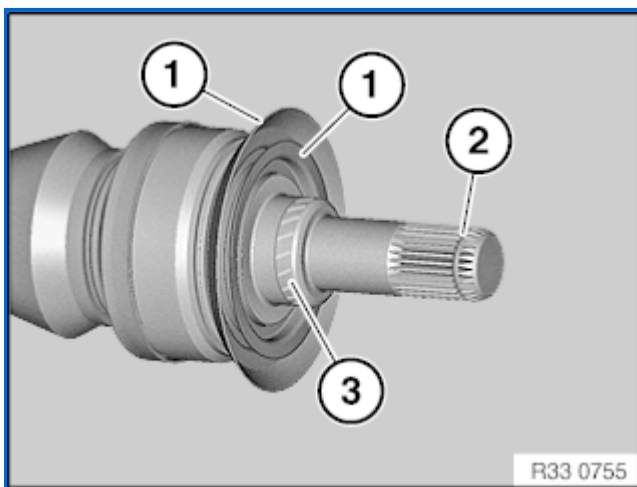
Important!

Installation protective ring must not slip out of shaft seal!



Coat housing sheet metal flange and sealing lips of new radial shaft seal with approved final drive oil.

Drive the new radial shaft seal firmly home with following special tools [33 5 130](#) or 33 5 140.



Important!

High installation forces indicate that the output shaft spline teeth are damaged or deformed!

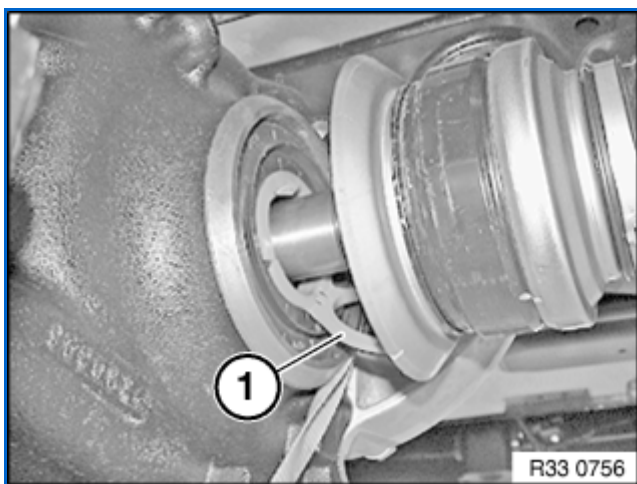
Installation note:

Check gearing and replace components if damaged.

Check dust plate (1) for damage, renew if necessary.

If the previous output shaft is reinstalled, circlip (2) must be renewed.

Coat highlighted contact surface (3) of output shaft with [approved final drive oil](#).



Insert output shaft into rear axle differential.

Pull out assembly protection ring at lug (1) until one of the two predetermined breaking points gives.



After installation:

- Check [transmission oil level](#), correct if necessary.

SWZ-SWZ-0492104 V.3 Synchronising key&comma; VIN: [REDACTED]

ISTA system 4.03.21.18572
version

Data version R4.03.21

Programming -
data

VIN [REDACTED]

Vehicle 3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05

Int.lev.works -

Int.lev.(cur.) -

Int.lev.(tar.) -

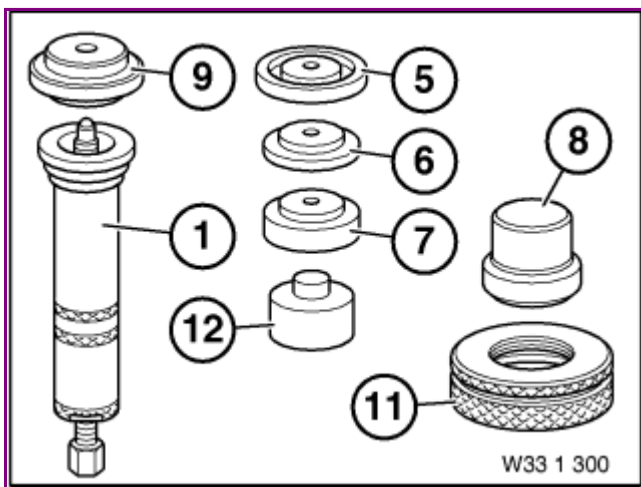
Mileage 0 km

0492104

Synchronising key

331308

AM



Note:

Storage Location: Y4

SWZ-SWZ-0490466 V.14 Puller&comma; VIN: [REDACTED]

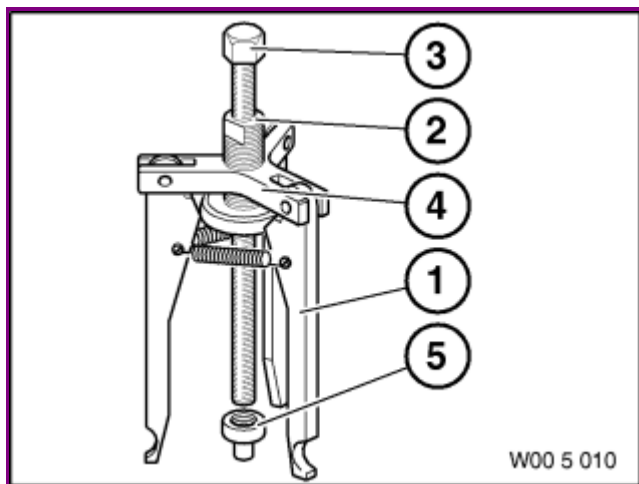
ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming	- data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

0490466 Puller

005010

Minimum set: Mechanical tools

AM



Note: (universal puller) For removing radial shaft seals 00 5 011 for E90

Storage Location: A16

Consisting of:

1 = 0490467 Claw

Note: (Extractor claw (3 pieces required)) Deletion, only available via tool set

2 = 0490468 Spindle

Note: (Guide spindle) Deletion, only available via tool set

3 = 0490469 Spindle

Note: (Pressure spindle)

4 = 0490470 Fixture

Note: (Holding star) For holding the extractor claws Deletion, only available via tool set

5 = 0490471 Synchronising key

Note:

SWZ-SWZ-0495860 V.10 Mandrel&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming	- data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

0495860 Mandrel**335130****Minimum set: Mechanical tools****Mechanical tool**

Note: For driving the radial shaft seal of the output shaft into the rear axle final drive. Rear axle final drive: 188

Storage Location: C21

SI number: 01 01 07 (333)

REP-REP-RAF2033-3310016 V.17 Removing and installing (replacing) rear axle differential; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

33 10 016

Removing and installing
(replacing) rear axle differential

Special tools required:

- 33 5 206
- 33 5 200
- 33 5 124
- [2 240 465](#)
- 33 5 121
- 33 5 122
- 33 5 123
- 2 360 787
- 2 240 265
- 2 240 464
- 33 5 125
- 2 360 944



Warning!

Rear axle differential must be lashed with tensioning strap 33 5 206 to prevent it from falling out when the output shafts are pressed off.

Important!

When reinstalling the current rear axle differential, [both radial shaft seals of the output shafts](#) must be



replaced!

The circlips on both output shafts must be replaced!

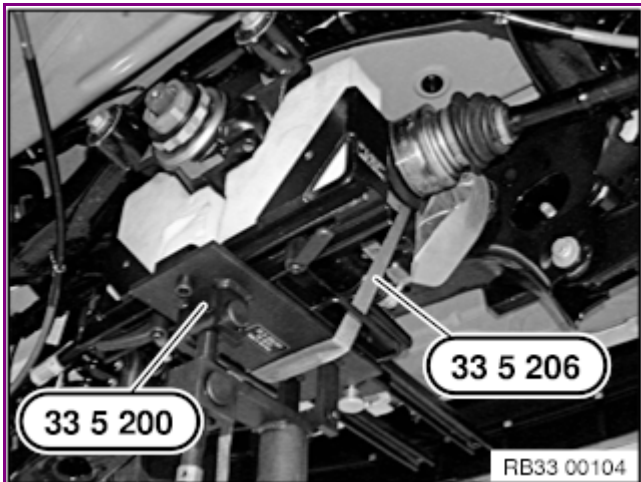


Necessary preliminary tasks:

- Remove [vibration absorber](#) at screw connection of rear of rear axle differential.
- If necessary, remove rear tension struts.
- Remove [propeller shaft from rear axle differential](#).
 - Disconnect propeller shaft at rear axle differential.
 - Release centre mount.
 - Tie up propeller shaft to underbody.

Note:

Bending the propeller shaft by an excessive angle can cause premature damage to the joint/propeller shaft!



Position special tool 33 5 200 on workshop jack.

Support rear axle final drive 33 5 200 with special tool .

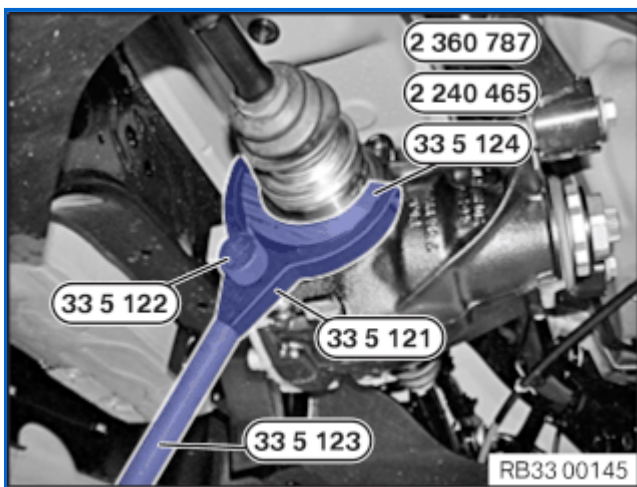
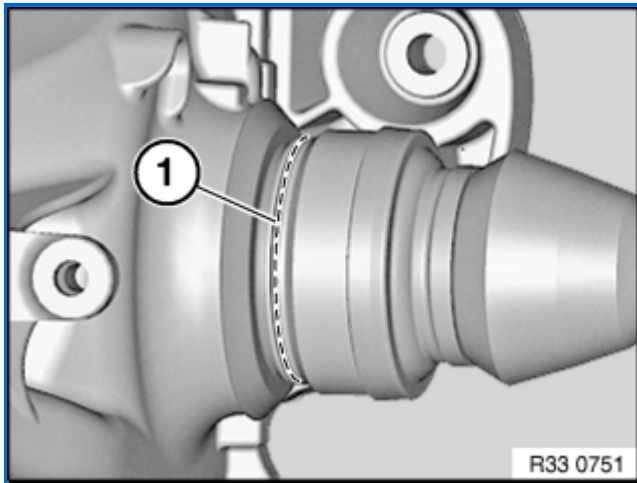
Lash rear axle final drive unit to special tool 33 5 200 with tightening strap 33 5 206.

Important!

Securing strap 33 5 206 must be passed through between output shafts and rear axle final drive cover.

Important!

Insert special tools 33 5 124 or [2 240 465](#) into the all-round slot (1) of the output shaft!



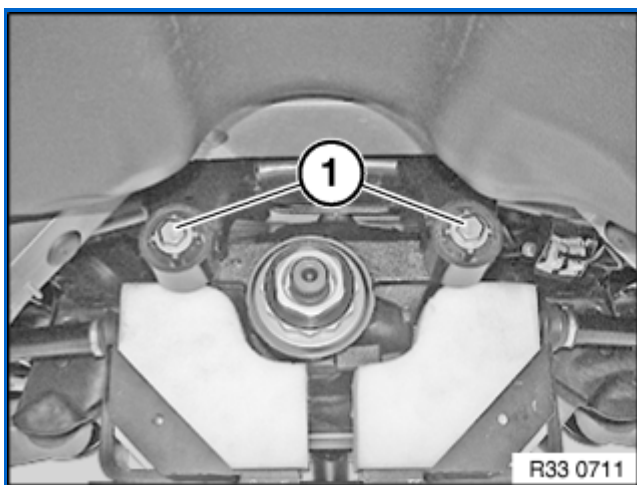
Left output shaft only:

Press out the output shaft from the rear axle differential with jerky movements using the following special tools.

Complete special tools depending on the motorisation.

- N13, B38,
N20B20: 33 5 121, 33 5 122, 33 5 123, [2 240 465](#)
- N47, B47, N55,
N57: 33 5 121, 33 5 122, 33 5 123, 33 5 124
- N20B28: 33 5 121, 33 5 122, 33 5 123 and
33 5 124 or 2 360 787

The thrust piece of the screw 33 5 122 must be in contact with the rear axle differential.



Release screws (1).

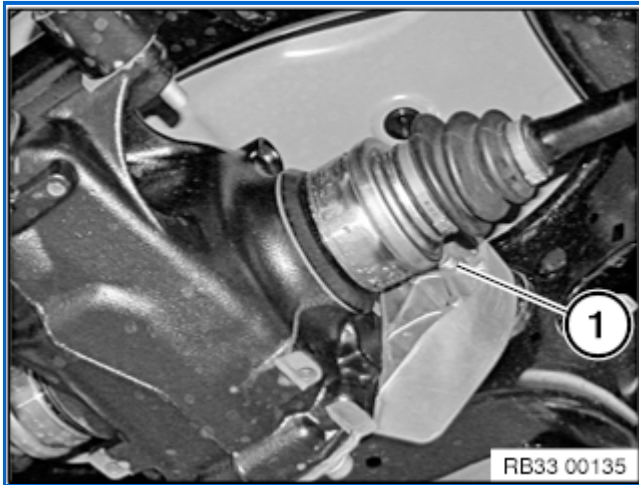
Tightening torque [33 17 1AZ](#)

Installation note:

Adhere to the installation sequence at the end of the document in order to prevent distortion of the rear axle final drive during installation and thereby avoid potential complaints about noise.

Release nut (1) and push screw towards rear to the limit position.

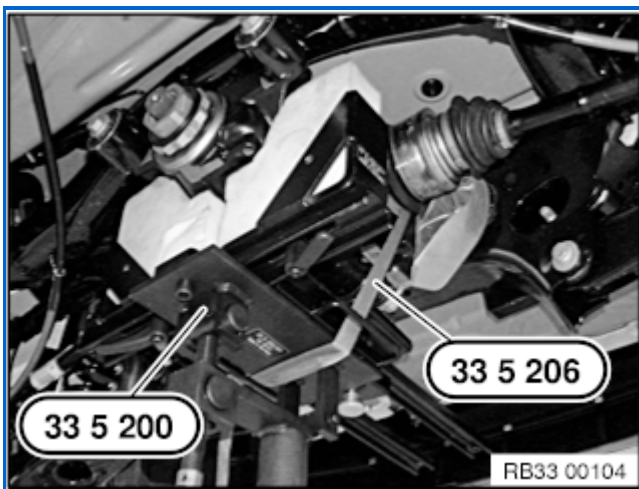
Tightening torque [33 17 2AZ](#).



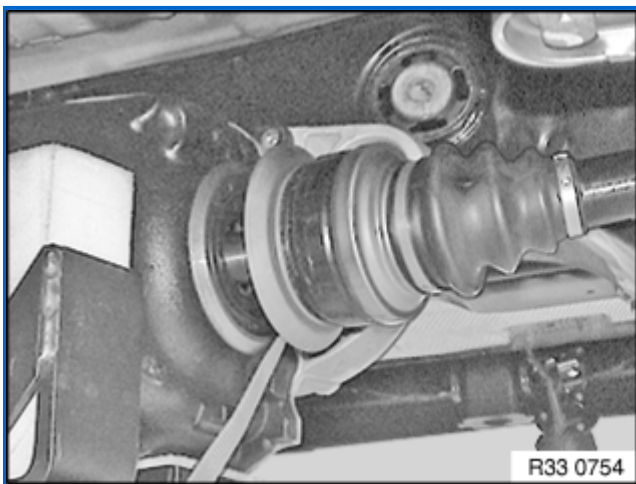
Installation note:

Replace nut.

Adhere to the installation sequence at the end of the document in order to prevent distortion of the rear axle final drive during installation and thereby avoid potential complaints about noise.



Lower rear axle final drive with special tool 33 5 200.



Press (tilt) rear axle final drive on right upwards.

Feed out left output shaft in downward direction and tie up.

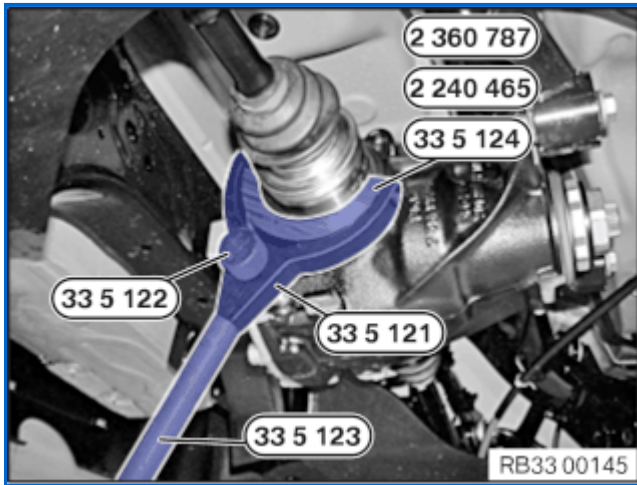
Swing rear axle final drive towards left side.

Right output shaft:

Press out the output shaft from the rear axle differential with jerky movements using the following special tools.

Complete special tools depending on the motorisation.

- N13, B38,



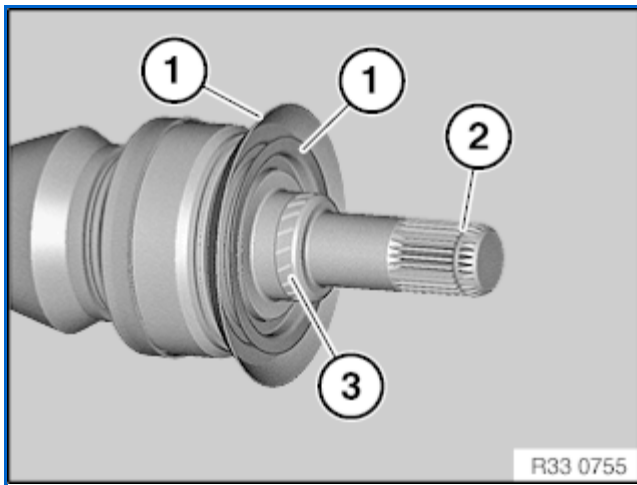
N20B20: 33 5 121, 33 5 122, 33 5 123, 2 240 265

- N47, B47, N55,
N57: 33 5 121, 33 5 122, 33 5 123, 33 5 124
- N20B28: 33 5 121, 33 5 122, 33 5 123 and
33 5 124 or 2 360 787

The thrust piece of the screw 33 5 122 must be in contact with the rear axle differential.

Feed out output shaft and tie up.

Remove rear axle final drive.



Important!

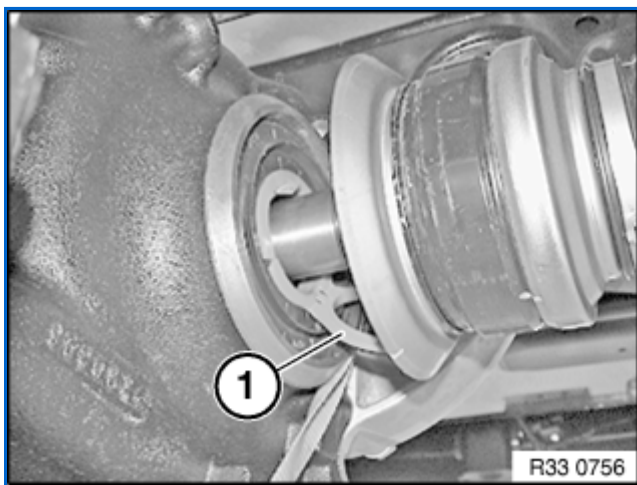
High installation forces indicate that the output shaft spline teeth are damaged or deformed!

Check gearing and replace components if damaged.

Check dust plate (1) for damage, renew if necessary.

Circlip (2) must be renewed!

Coat highlighted contact surface (3) of output shaft with [approved final drive oil](#).

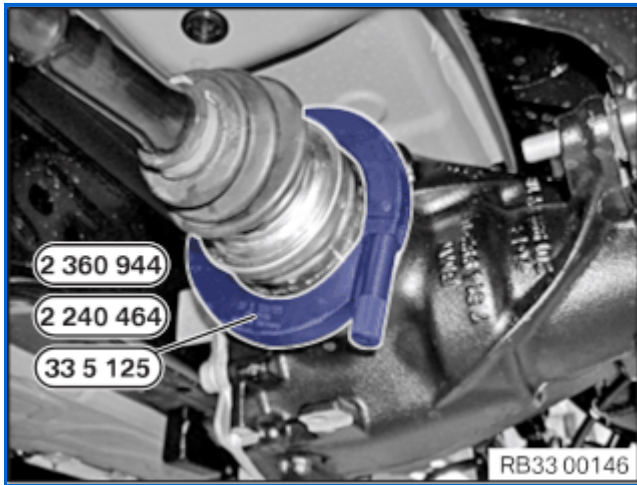


Installation note:

Insert output shaft into rear axle final drive.

Pull out assembly protection ring at lug (1) until one of the two predetermined breaking points gives.

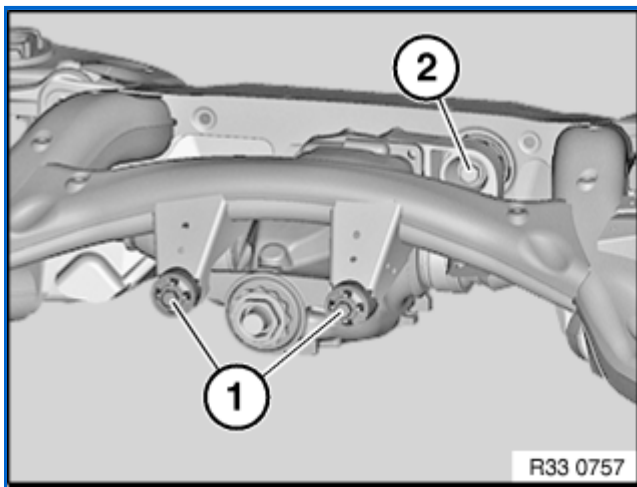
Press the output shaft into the rear axle differential using the following special tools (depending on motorisation) and a rubber mallet.



- N13, B38, N20B20: 2 240 464
- N47, B47, N55, N57: 33 5 125
- N20B28: 33 5 125 or 2 360 944

Installation note:

The output shafts must audibly snap in place on the rear axle differential.



Assembly sequence:

1. Insert the rear axle final drive into the rear axle support using the workshop jack and special tool 33 5 200.
2. Insert screws (1) (do not tighten).
3. Insert bolt from rear and replace nut (2) (do not tighten down).
4. Release securing strap, lower special tool 33 5 200 and move it away.
5. Tighten down screws (1).
Tightening torque [33 17 1AZ](#)
6. Tighten nut (2).
Tightening torque [33 17 2AZ](#)



After installation:

- Check [oil level in the rear axle final drive](#), correct if necessary.

AZD-AZD-AZDMUC3317-F2X_F3X V.14 Rear axle final drive suspension; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

33 17 Rear axle final drive suspension

	Type	Thread	Tightening specifications	Dimension
1AZ Rear differential to rear axle carrier, front	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12	Follow repair instruction.	100 Nm
2AZ Rear differential to rear axle carrier, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M14	Observe instructions in Repair Manual. Renew nut.	165 Nm
3AZ Vibration absorber to screw connection of rear axle differential, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8		28 Nm
4AZ Vibration absorber to rear axle support, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8		19 Nm
5AZ Vibration absorber to rear axle differential	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12	Renew screw.	100 Nm
6AZ Vibration absorber to screw connection of rear axle differential, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M10x32	Renew screw. Jointing torque Angle of rotation	56 Nm 90 °
7AZ Vibration absorber to screw connection of rear axle differential, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	Torx E14 M 10x32	Renew screw. Jointing torque Angle of rotation	56 Nm 90 °

SWZ-SWZ-0495851 V.18 Device&comma; VIN: [REDACTED]

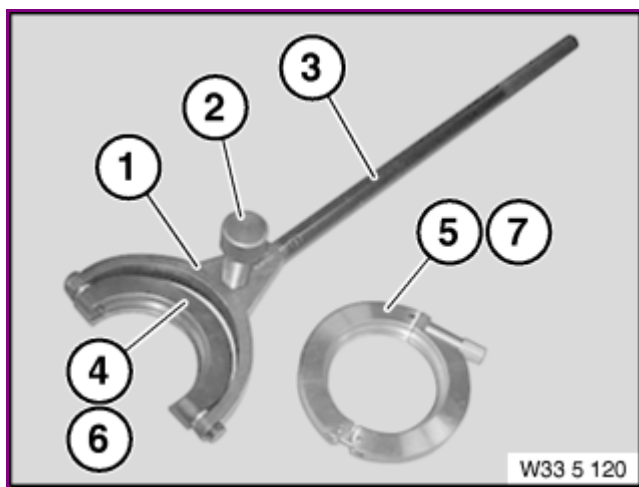
ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	X'/F25/off-road vehicle/X3 xDrive35i/N55/AUTO/US/LL/2015/12		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

0495851 Device

335120

Minimum set: Mechanical tools

AM



Note: For removing and installing output shaft in rear axle final drive.

Storage Location: A22

B22

C22

SI number: 01 01 07 (333)

Consisting of:

- 1 = [0495853](#) Basic body
Note: Only available via complete tool set 33 5 120 -> (83 30 0 495 851).
- 2 = [0495854](#) Screw
Note: (Knurled screw with thrust piece) available as part of set of special tools 33 5 120 -> (83 30 0 495 851) only.
- 3 = [0495855](#) Rod
Note: Only available via complete tool set 33 5 120 -> (83 30 0 495 851).
- 4 = [0495856](#) Shaped element
Note: (Shaped element) shaped element (bearing shell) available as part of set of special tools 33 5 120 ->

(83 30 0 495 851) only.

5 = [0495857](#)

Shaped element

Note: Sale of existing inventory then available as part of set of tools 33 5 120 -> (83 30 0 495 851) only.

7 = [0496795](#)

Shaped part

Note: For driving output shaft into rear axle final drive.

6 = [0496765](#)

Shaped part

Note: For pressing output shaft out of rear axle final drive.

In conjunction with: [33 5 120 = 0495851](#)

REP-REP-RAF2033-3311271 V.9 Replacing rear cover gasket on rear axle final drive, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

33 11 271

Replacing rear cover gasket on rear axle final drive



Warning!

[Danger of poisoning](#) if oil is ingested/absorbed through the skin!

[Risk of injury](#) if oil comes into contact with eyes and skin!



Important!

In event of oil loss, always check rear axle differential for traces of wear and damage.

To avoid leaks on the lid of the rear axle differential, do not use a paper gasket in vehicles with liquid sealing compound!

To prevent the rear axle differential oil from foaming over, make sure that no traces of the liquid sealing compound are pressed into the transmission housing.



Recycling:

Collect and dispose of escaping final drive oil.

Observe country-specific waste disposal regulations.



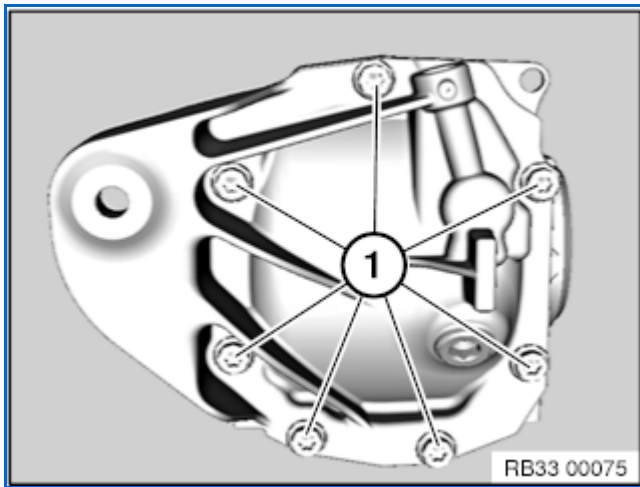
Necessary preliminary tasks:

- Catch or draw off final drive oil.
- Remove [rear axle final drive](#).



Note:

[Rear axle final drive: Assignment to model series](#)



168LW:

Release screws (1).

Tightening torque [33 11 1AZ](#).

Remove cover.

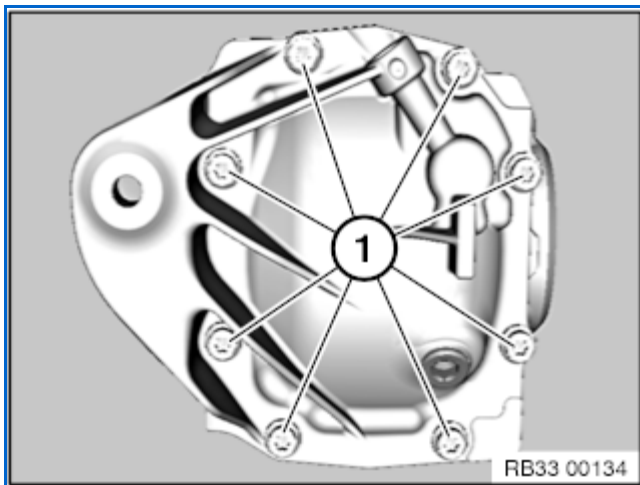
If necessary, remove remnants of liquid sealing compound with a scraper.

Clean sealing face on cover and rear differential.

Installation note:

If a paper gasket was fitted, a paper gasket or liquid sealing compound can be used.

The liquid sealing compound can be found in Main Group 33 in the Electronic Parts Catalogue.



188LW, 215LW:

Release screws (1).

Tightening torque [33 11 1AZ](#).

Remove cover.

If necessary, remove remnants of liquid sealing compound with a scraper.

Clean sealing face on cover and rear differential.

Installation note:

If a paper gasket was fitted, a paper gasket or liquid sealing compound can be used.

The liquid sealing compound can be found in Main Group 33 in the Electronic Parts Catalogue.

**After installation:**

- Add [final drive oil](#).

REP-REP-RAF200-0011_ERGAENZEN V.10 Checking/topping up oil level in rear axle final drive, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

00 11 ...

Checking/topping up oil level in rear axle final drive



Warning!

[Danger of poisoning](#) if oil is ingested/absorbed through the skin!

[Risk of injury](#) if oil comes into contact with eyes and skin!

Risk of damage!

To avoid serious damage to the rear axle final drive, it is essential to use only [approved gearbox oils](#) in the rear axle final drive.



Necessary preliminary work:

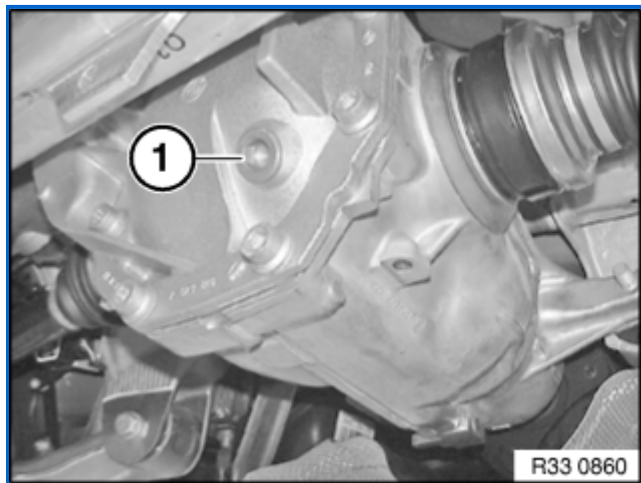
- If necessary, remove trailing links.
- If necessary, remove [vibration absorber on the rear axle differential](#).

Open screw plug (1).

Tightening torque [33 11 2AZ](#).

Check oil level.

If necessary, pour in final drive oil up to lower edge of opening for screw plug (1).



Installation note:

Renew screw plug (1) with O-ring.

AZD-AZD-AZDMUC3311-F2X_F3X V.10 Transmission housing with lid, VIN: XXXXXXXXXX

ISTA system 4.03.21.18572
version

Data version R4.03.21

Programming -
data

VIN

XXXXXXXXXX

Vehicle

3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05

Int.lev.works -

Int.lev.(cur.) -

Int.lev.(tar.) -

Mileage 0 km

33 11 Transmission housing with lid

	Type	Thread	Tightening specifications	Dimension
1AZ Case Covers	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M10	168LW 188LW 215LW	90 Nm
2AZ Screw plug with O-ring	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M22	Renew screw plug with O-ring.	60 Nm

TED-TED-TDMUC3310-188LW_F2X-F3X V.2 Rear axle final drive, 188LW, VIN: XXXXXXXXXX

ISTA system 4.03.21.18572
version

Data version R4.03.21

Programming -
data

VIN

XXXXXXXXXX

Vehicle

3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05

Int.lev.works -

Int.lev.(cur.) -

Int.lev.(tar.) -

Mileage 0 km

33 10 Rear axle final drive 188LW

Use only approved final drive oils (refer to BMW Service Operating Fluids).		
New oil quantity	ltr.	0,8

SBS-ANL-SBS1996-330196149_A2 V.9 2.0 hypoid oils for final drive without disc-type limited-slip differential (BMW/MINI), VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

Enclosure 2 of SI 33 01 96 (149), issue 08/2008; update 07/2015

2.0 hypoid oils for final drive without disc-type limited-slip differential (BMW/MINI)

Exception: E30/325iX differential with viscous self-locking differential.

Up to model year 07/2011:

<i>Trade name</i>	<i>BMW part number</i>	<i>BMW part number</i>	<i>Container size</i>
	China	Rest of the world	
BMW Synthetics OSP		33 11 7 695 240	1000 ml
BMW Synthetics OSP		83 22 9 407 768	60-litre barrel
BMW Synthetics OSP	83 22 2 148 570		12x1 litre

As of model year 07/2011:

Hypoid Axle Oil G1 (BOT448) 83 22 2 295 532 3 x 500 ml

(for all rear axle differentials apart from M vehicles)

Specific Hypoid oils released by name

<i>Trade name</i>	<i>Manufacturer/Supplier</i>
AGIP HLX	Agip
Aral transmission oil BS	Aral

Castrol SAF-X0	Castrol
Castrol Syntrex Longlife 75W-90	Castrol
Castrol Syntrex B 75W-85	Castrol
Dearon BHS	DEA
FINA PONTONIC MS	Fina
FINA PONTONIC MX	Fina
Veedol SAF 66	Veedol
Mobil Gearlube VS 600	Mobil
BP Energear SHX	BP
VALVOLINE SynPower Gear Oil GL-5 Society of Automotive Engineers 75W-90	Valvoline
TRANSELF BM 75W--90	Elf
Shell transmission oil OLS-BMW	Shell
Westfalen Fugo BMO	Westfalen AG
MOTUL HYPO SYNT	Motul
Avia Hypoid 75W--90 EP	AVIA
Esso transmission oil NLS 75W--90	Esso
Fuchs TITAN Gear H 75W--90	Fuchs
Wintershall gear fluid BOS	Schmierstoffraffinerie Salzbergen GmbH
TOTAL Transmission ALD Society of Automotive Engineers 75W-90	

Note:

The above oils satisfy the demands required of lifetime oils.

Oil change intervals are given in the vehicle-specific inspection sheets.

Before opening the container, "mix" the transmission oil to distribute the additives evenly through the oil.

General information about final-drive transmission oils

Final-drive and hypoid transmission oil must fulfil the following requirements for handling high loads as arise at the tooth flanks of the hypoid gear:

- good protection against scoring/scuffing
- good protection against wear
- optimum frictional behaviour and temperature stability
- compatibility with sealing materials
- resistance to ageing

A brand-name hypoid transmission oil already possesses these and other characteristics thanks to its high concentration of EP agents (EP = Extreme Pressure).

Oil additives

All final drives are designed in such a way that there is absolutely no need to use oil additives. BMW is totally against the use of such additives. We will also accept no liability for any consequences resulting from the use of additives.

Date: 07/2015

SBS-ANL-SBS1996-330196149_A3 V.17 3.0 Hypoid oils for front axle differential with disc-type limited slip differential (M models and with SA209 self-locking differential), VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

Enclosure 3 of SI 33 01 96 (149), issue 06/2006, update 01/2016

3.0 Hypoid oils for front axle differential with disc-type limited slip differential (M models and with SA209 self-locking differential)

As well as for final drive unit with electro-hydraulic limited-slip differential

Standard version: 1 Series: E82/M Coupé

Standard version: 3-Series: E90/M3, E92/M3, E93/M3

<i>Trade name</i>	<i>BMW part number</i>	<i>BMW part number</i>	<i>Container size</i>
	China	Rest of the world	
BMW differential oil	83 21 2 155 243	83 22 2 282 583	3x500 ml
SAF-XJ + FM Booster			

Standard version: 2-Series:

F87/M2

Standard version: 3-Series:

Z3M, Z3 with SA209, E36 with SA209, E36/M3, E46/M3, E85/M Roadster, E86/M Coupé, F80/M3,

Standard version: 4-Series:

F82/M4 Coupé, F82/M4 GTS, F83/M4 Cabrio

Standard version: 5-Series:

E34/M5, E39/M5, E60/M5, E61/M5, F10/M5

Standard version: 6-Series:

E63/M6, E64/M6, F06/M6, F12/M6, F13/M6

<i>Trade name</i>	<i>BMW part number</i>	<i>Container size</i>
-------------------	------------------------	-----------------------

BMW MSP/A synthetic differential oil	83 22 9 405 462	1000 ml (Trade Unit)
--------------------------------------	-----------------	----------------------

BMW MSP/A synthetic differential oil	83 22 2 365 988	12x1 litre
--------------------------------------	-----------------	------------

BMW MSP/A synthetic differential oil 83 22 9 407 871

208-litre barrel

Specific Hypoid oils released by name

<i>Trade name</i>	<i>Manufacturer/Supplier</i>
Castrol SAF-XJ	Castrol
Castrol Syntrax Limited Slip 75W-140	Castrol
MOTUL HYPO SYNT LS	Motul
Mobil transmission oil VS 500	Mobil
Aral transmission oil BS-LSX	Aral
BP Energear SHX-ZR	BP
Avia Hypoid 75W--140 LSX	AVIA
Agip HLZ	Agip
FINA PONTONIC MLK	Fina
Shell transmission oil ZLS-BMW	Shell
Wintershall gear fluid BMS Plus	Schmierstoffraffinerie Salzbergen GmbH
Westfalen Fugo BMS	Westfalen AG

Note:

The above oils satisfy the demands required of lifetime oils.

Oil change intervals are given in the vehicle-specific inspection sheets.

Before opening the container, "mix" the transmission oil to distribute the additives evenly through the oil.

General information about final-drive transmission oils

Final-drive and hypoid transmission oil must fulfil the following requirements for handling high loads as arise at the tooth flanks of the hypoid gear:

- high load-carrying capacity
- high degree of immunity from seizure
- good protection against wear

- compatibility with sealing materials
- resistance to ageing

A brand-name hypoid transmission oil already possesses these and other characteristics thanks to its high concentration of EP agents (EP = Extreme Pressure).

Oil additives

All final drives are designed in such a way that there is absolutely no need to use oil additives. BMW is totally against the use of such additives. We will also accept no liability for any consequences resulting from the use of additives.

Date: 07/2015

REP-REP-RAF2033-3317004 V.10 Replacing all rubber mounts for rear axle final drive mounting at front, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

33 17 004

Replacing all rubber mounts for rear axle final drive mounting at front

Special tools required:

- 33 5 166
- 33 5 163
- 33 5 162
- 33 5 161
- 33 4 465
- 33 4 466
- 33 5 105
- 33 5 165



Important!

Do not press in and out rubber mount several times.

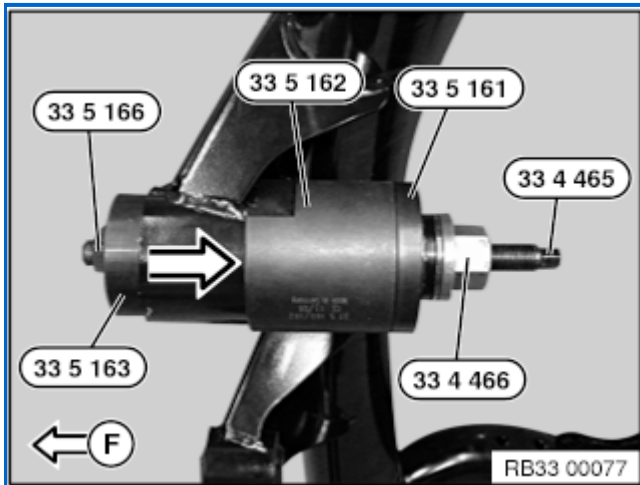


Necessary preliminary tasks:

- Remove [rear axle final drive](#).

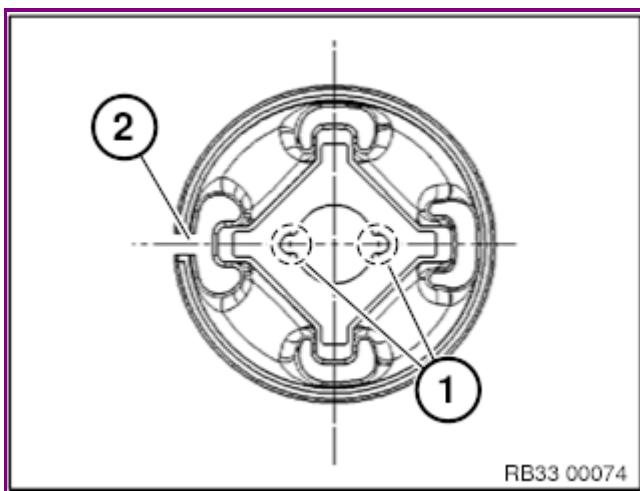
Withdrawing rubber mount:

Pull out rubber mount with special tools 33 5 166, 33 5 163, 33 5 162, 33 5 161, 33 4 465 and 33 4 466.

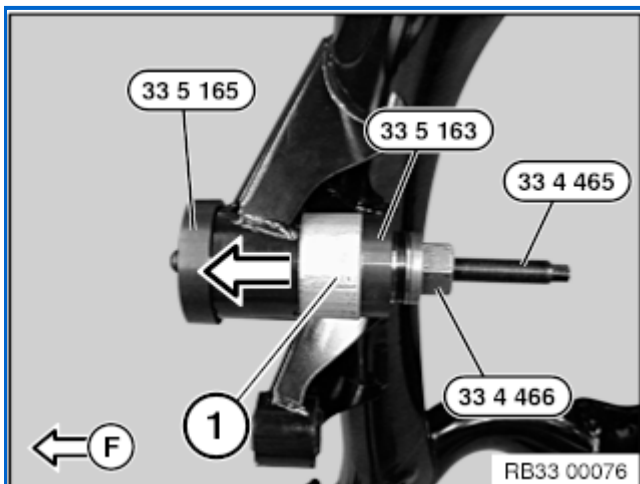
**Note:**

The milled recess of special tool 33 5 162 must point towards rear axle support.

Use ratchet ring spanner 33 5 105.

**Installing rubber mount:****Important!**

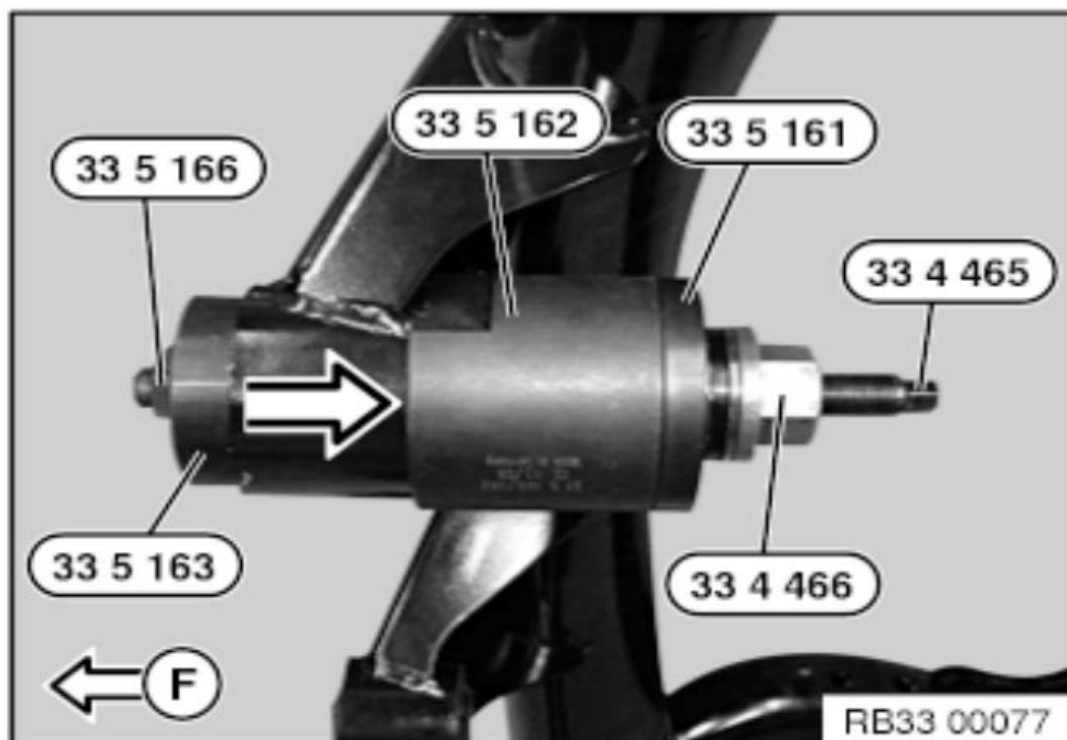
Align rubber mount horizontally by way of notches (1). Slot (2) on rubber mount points towards centre of vehicle.



Pull on rubber mount (1) with special tools 33 5 165, 33 5 163, 33 4 465 and 33 4 466 as far as it will go.

Note:

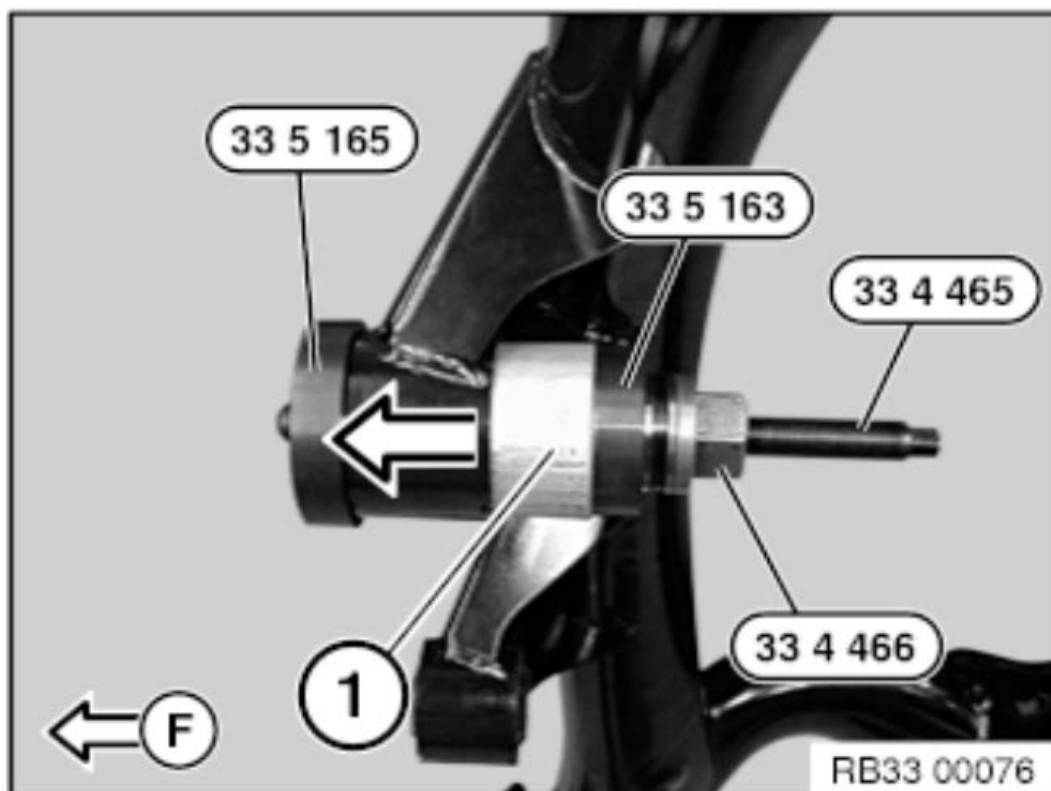
Use ratchet ring spanner 33 5 105.



Zoom in

Zoom out

OK



Zoom in

Zoom out

OK

SWZ-SWZ-0495864 V.13 Device&comma; VIN: [REDACTED]

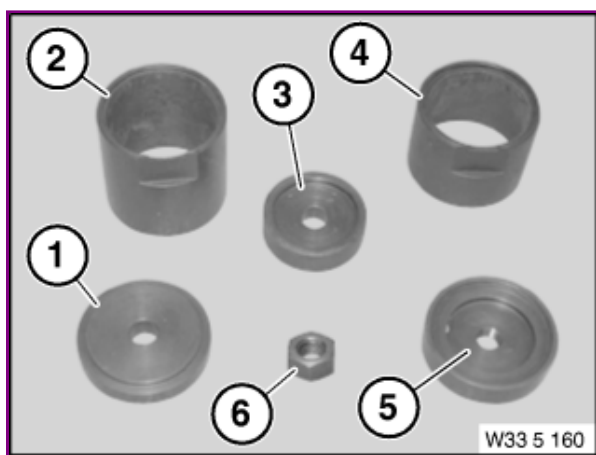
ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	X'/F25/off-road vehicle/X3 xDrive35i/N55/AUTO/US/LL/2015/12		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

0495864 Device

335160

Minimum set: Mechanical tools

AM



Note: For removing and installing rubber mount in rear axle final drive at front.

Storage Location: A22

SI number: 01 22 06 (307)

Consisting of:

1 = [0495873](#)

Washer

Note: Discontinued, can only be ordered using complete tool

2 = [0495874](#)

Holding sleeve

Note: Discontinued, can only be ordered using complete tool

3 = [0495875](#)

Washer

Note: Discontinued, can only be ordered using complete tool

4 = [0495876](#)

Holding sleeve

Note: Discontinued, can only be ordered using complete tool

5 = [0495877](#)

Washer

Note: Discontinued, can only be ordered using complete tool

6 = [0495903](#)

Nut

Note: (Nut M12x1.5) discontinued, can only be ordered using complete tool

SWZ-SWZ-0494929 V.12 Tool, VIN: XXXXXXXXXX

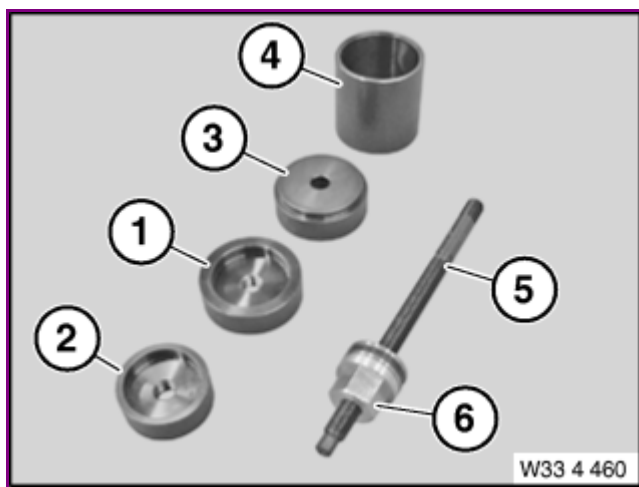
ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	XXXXXXXXXX	Vehicle	X'/F25/off-road vehicle/X3 xDrive35i/N55/AUTO/US/LL/2015/12		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

0494929 Tool

334460

Minimum set: Mechanical tools

AM



Note: For removing and installing camber arm rubber mount on rear axle support.

Storage Location: B49

C49

SI number: 01 15 04 (117)

Consisting of:

- | | | |
|---|---------------------------|--|
| 1 | = 0494977 | Washer |
| | | Note: (draw-in disc) |
| 2 | = 0494978 | Washer |
| | | Note: (pull-out disc) |
| 3 | = 0494979 | Holder |
| | | Note: (Countersupport) 0496208 =119850 |
| 4 | = 0494980 | Holding sleeve |
| | | Note: (support sleeve) |
| 5 | = 0494981 | Spindle |
| | | Note: (spindle 205 mm, M12) |
| 6 | = 0494982 | Nut |
| | | Note: (Thrust nut) |

SWZ-SWZ-0495682 V.17 Spring tensioner&comma; VIN: [REDACTED]

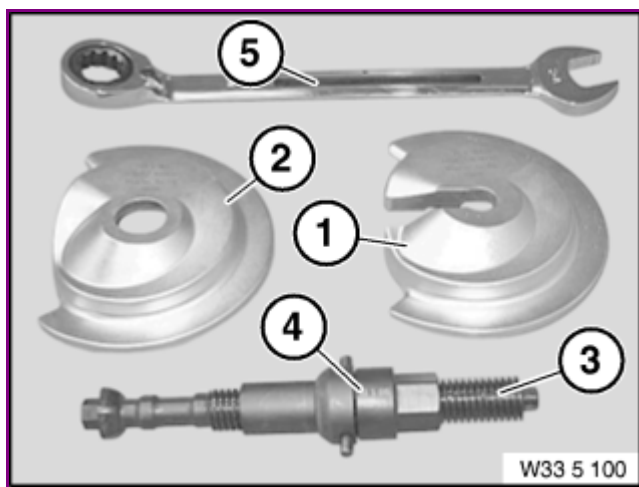
ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	X'/F25/off-road vehicle/X3 xDrive35i/N55/AUTO/US/LL/2015/12		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

0495682 Spring tensioner

335100

Minimum set: Mechanical tools

AM



Note: For tensioning or removing and installing barrel spring on rear axle.

Storage Location: Individual

SI number: 01 01 07 (333)

Consisting of:

- 1 = [0495806](#) Spring cups
Note: Discontinued, can only be ordered using complete tool
- 2 = 0495807 Spring cups
Note: Discontinued, can only be ordered using complete tool
- 3 = 0495811 Spindle
Note: Discontinued, can only be ordered using complete tool
- 4 = 0495812 Nut
Note: (Nut with thrust piece) discontinued, can only be ordered using complete tool
- 5 = 0495813 Ring spanner
Note: (Reversible ratchet ring spanner SW24) discontinued, available as part of set of special tools only

6 = 0495816

Case

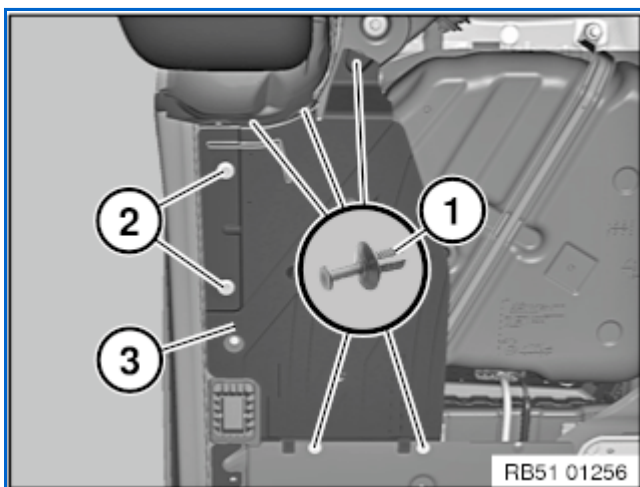
Note: (Case) Case with insert
discontinued, can only be ordered
using complete tool

REP-REP-RAF3051-5175X01 V.9 Removing and installing/replacing left or right tank cover, VIN: XXXXXXXX

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	XXXXXXXX	Vehicle	3'/F30/SEDAN/340i/B58/AUTO/US/LL/2016/11		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

51 75 ...

Removing and installing/replacing left or right tank cover



Release expanding rivets (1).

Unfasten screws (2).

Tightening torque [51 75 1AZ](#).

Remove tank (3).

AZD-AZD-AZDMUC5175 V.19 Underbody panelling; VIN: XXXXXXXX

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	XXXXXXXX	Vehicle	3'/F30/SEDAN/340i/B58/AUTO/US/LL/2016/11		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

51 75 Underbody panelling

	Type	Thread	Tightening specifications	Dimension
1AZ Underbody panelling on body	F-series	Bolt, non-metric thread		3 Nm
		Screw M6		8,8 Nm
		Nut		2.5 Nm
2AZ Wheel arch cover to body	F-series	Screw		3 Nm
		Nut		2,6 Nm
3AZ Underbody protection front	F18 National-market version	M8x33	Replace screw	28 Nm
		M10x35	Replace screw	28 Nm

REP-REP-RAF2033-3331503 V.12 Lowering/raising rear axle support (universal lifter), VIN: XXXXXXXXXX

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	XXXXXXXXXX	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

33 31 503

Lowering/raising rear axle support (universal lifter)

Special tools required:

- [31 5 250](#)
- [00 2 030](#)
- 31 5 256
- 31 5 253
- 33 5 206



Warning!

Failure to comply with the following instructions may result in the vehicle slipping off the lifting platform and critically injuring other persons.

Load the luggage compartment with a minimum of 100 kg before lowering/removing the rear axle support. This prevents the vehicle from tilting or sliding off the vehicle hoist!

When supporting components, make sure that:

- the vehicle can no longer be raised or lowered
- the vehicle does not lift off the locating plates on the vehicle hoist.



Important!

Before lowering/removing rear axle support:

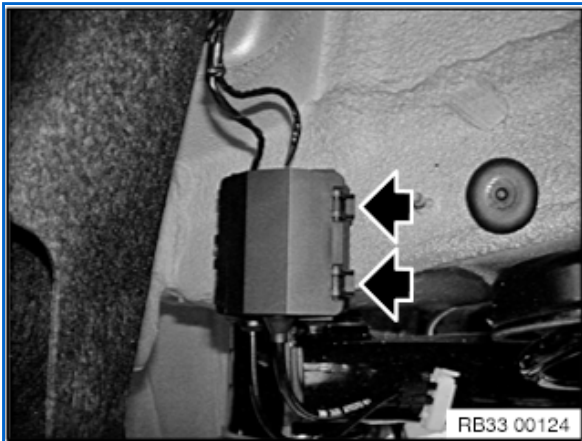
Observe [safety instructions](#) for raising the vehicle

In order to avoid damage to vehicle hoist, perform weight compensation on vehicle.



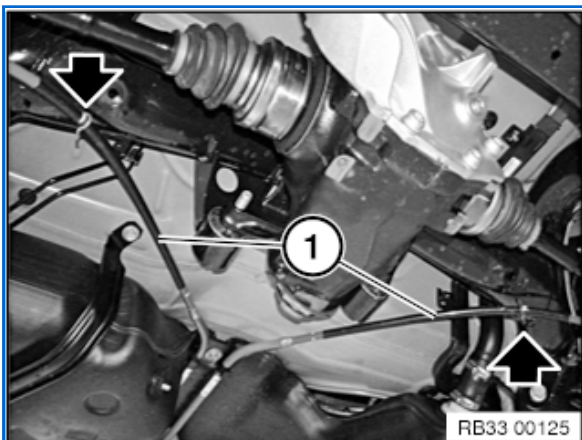
Necessary preliminary tasks:

- Remove [rear wheels](#).
- Remove [exhaust system](#).
- If necessary, remove rear tension struts.
- Remove [propeller shaft at final drive](#).
- Remove [camber arm cover](#).
- Remove [tank cover](#).
- Remove [coil springs](#).
- [Remove both brake-caliper supports](#) and tie up.
- Release [shock absorber from camber arm](#).
- Only on ride-height sensor at left: Disconnect plug connection and lay cable back toward vehicle.



Release wheel arch panel in rear area.

Unlock clamps, open cover and detach connector. (Left side identical.)

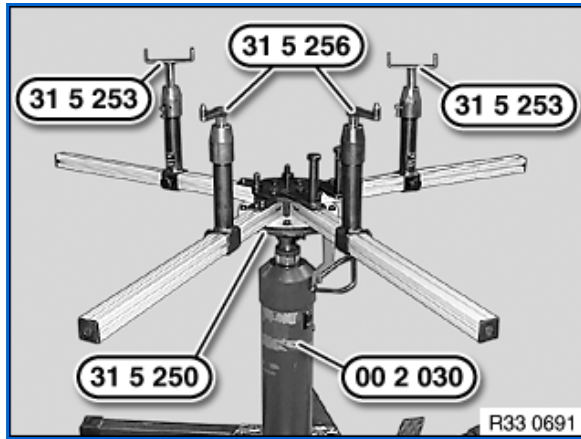


Detach Bowden cable (1) of parking brake from rear axle support.

Engage special tool [31 5 250](#) with a 2nd person helping completely on workshop jack [00 2 030](#).

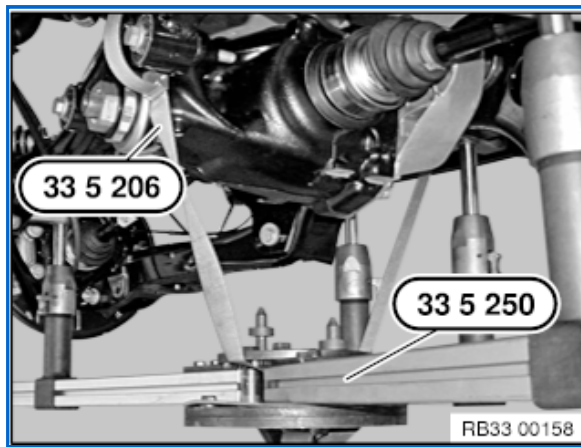
Insert special tools 31 5 256 in telescopic supports of a profile rail pair.

Insert special tools 31 5 253 in telescopic supports of other profile rail pair.

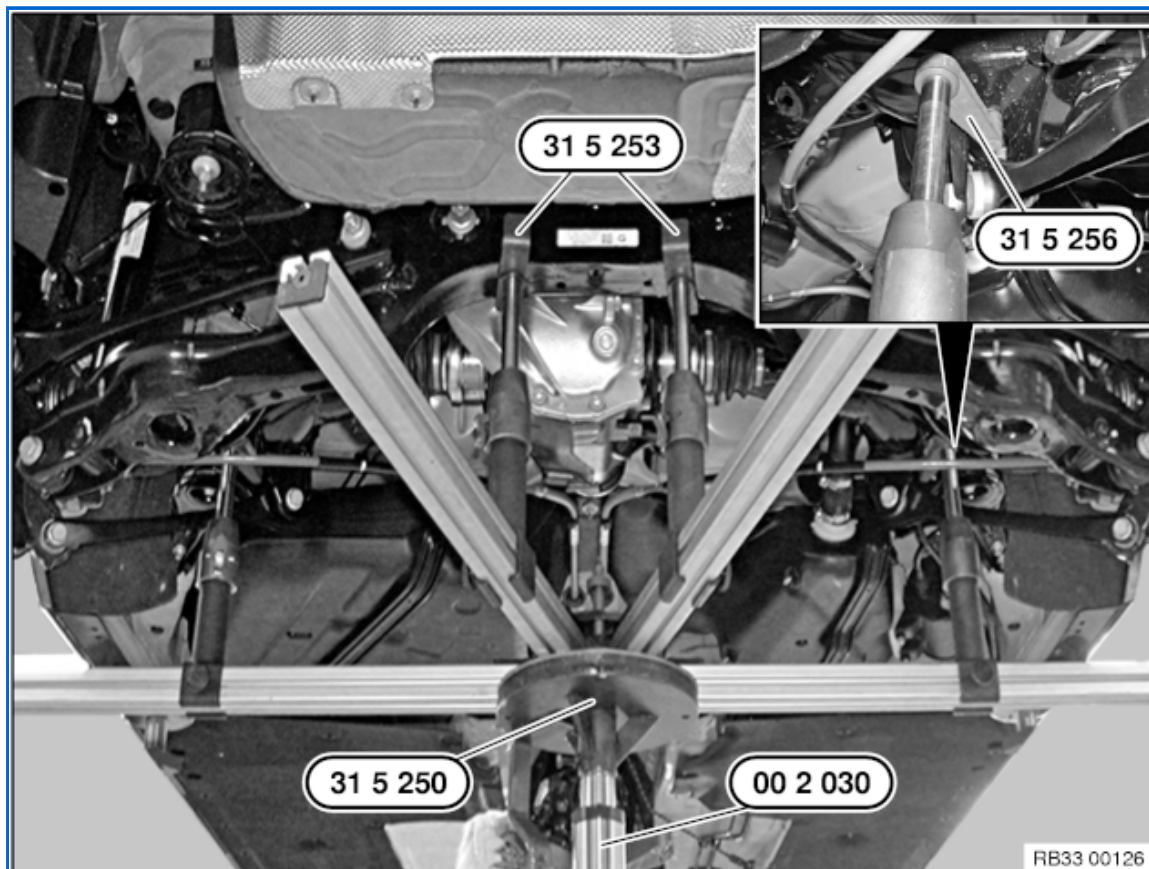


Note:

In a profile rail pair, two profile rails are connected to one another by gearing.



Lash rear axle support with tensioning strap 33 5 206 to special tool [31 5 250](#).



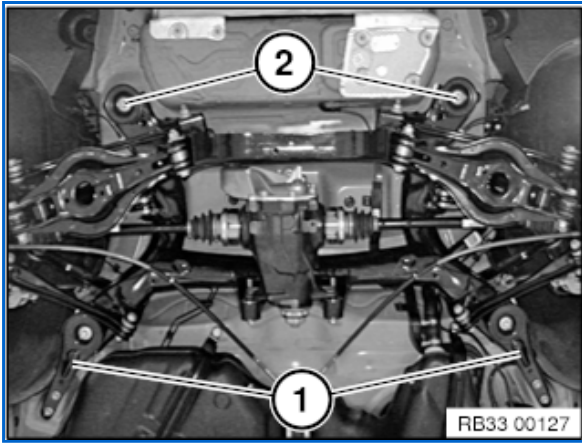
The mounting points on the right side are shown.

Align special tools [31 5 250](#), 31 5 253 and 31 5 256 with rear axle support.

Support rear axle support by operating workshop jack [00 2 030](#).

Important!

The centre of gravity of the rear axle must be positioned centrally over the workshop jack.



Release screws (2) and remove with thrust washer. (F34, F36- see next graphic)

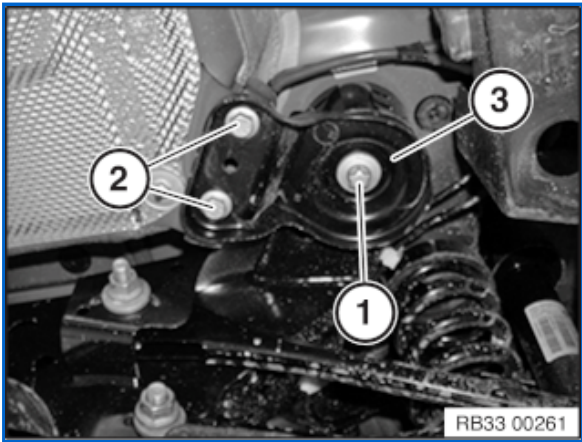
Tightening torque [33 33 1AZ](#).

Lower rear axle support.

Installation note:

Check threads for damage; if necessary, repair with [Helicoil thread inserts](#).

Screw in all screws, first tightening the [compression struts](#) (1) and then screws (2).



F34 and F36 only:

Unfasten screws (2).

Tightening torque [33 33 3AZ](#).

Release screw (1).

Tightening torque [33 33 1AZ](#).

Remove rear compression strut (3).

AZD-AZD-AZDMUC3333-F2X_F3X V.9 Rear Axle Suspension; VIN: XXXXXXXXXX

ISTA system version 4.03.21.18572

Data version R4.03.21

Programming - data

VIN XXXXXXXXXX

Vehicle 3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05

Int.lev.works -

Int.lev.(cur.) -

Int.lev.(tar.) -

Mileage 0 km

33 33 Rear Axle Suspension

	Type	Thread	Tightening specifications	Dimension
1AZ Rear axle support with rubber mounts to body	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12	Follow repair instruction.	108 Nm
2AZ Compression strut, front, to body	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M10	Replace screws. Jointing torque Angle of rotation	47 Nm 45 °
3AZ Rear compression strut to body	F34 / F36	M10		56 Nm

REP-REP-RAF2033-3317005 V.9 Replacing the rubber mounts for the rear axle final drive suspension at rear, VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming - data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

33 17 005

Replacing the rubber mounts for the rear axle final drive suspension at rear

Special tools required:

- 33 0 031
- 33 0 032
- 33 0 035
- 33 0 036
- 33 5 105
- 33 4 275
- 33 5 200



Do not press the rubber mount in and out more than once.



Necessary preliminary tasks:

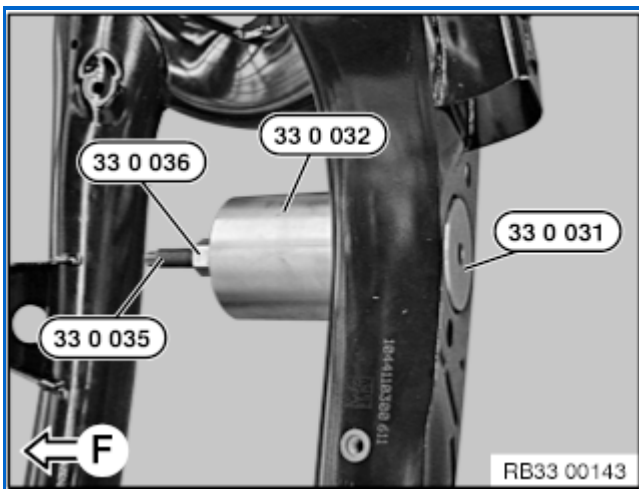
- Remove [rear axle final drive](#).
- Lower [rear axle support](#).

Important!

Determine the installation position of the bearing before pressing it out to ensure a correct installation of the rear axle differential.



For this purpose, attach special tool 33 0 031 from the front. Measure the protrusion (A) and notate.



Withdrawing rubber mount:

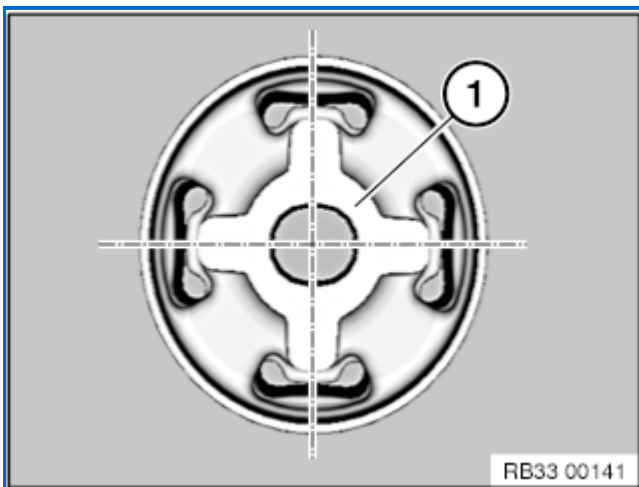
Pull out rubber mount with special tools 33 0 031, 33 0 032, 33 0 035 and 33 0 036.

Note:

Ensure that the 33 0 032 special tool is correctly seated on the rear axle support.

Counter support with spindle 33 0 035.

Use ratchet ring wrench 33 5 105.



Installing rubber mount:

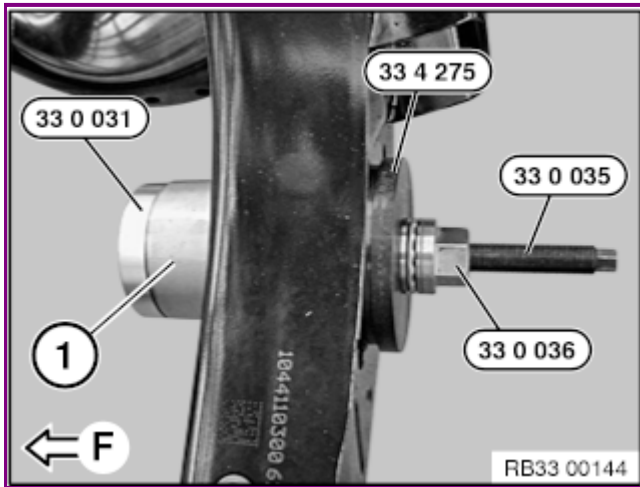
Important!

Align rubber mount horizontally by way of elongated hole (1).

Draw in the rubber mounts (1) with special tools 33 0 031, 33 0 035, 33 0 036 and 33 4 275 to previously determined protrusion (A).

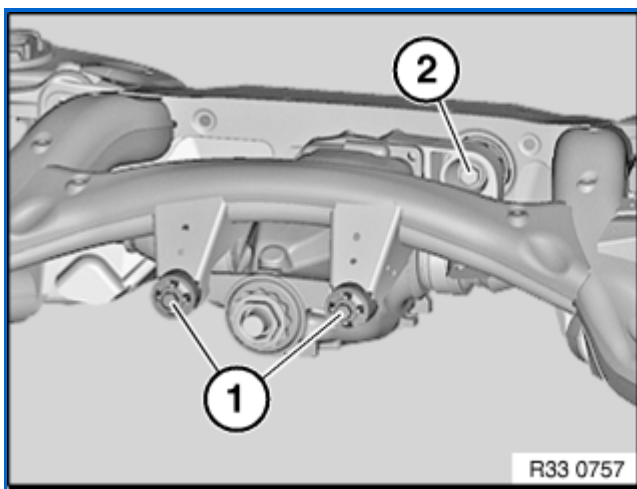
Note:

Make sure that the special tools 33 0 031 and 33 4 275 are set up correctly.



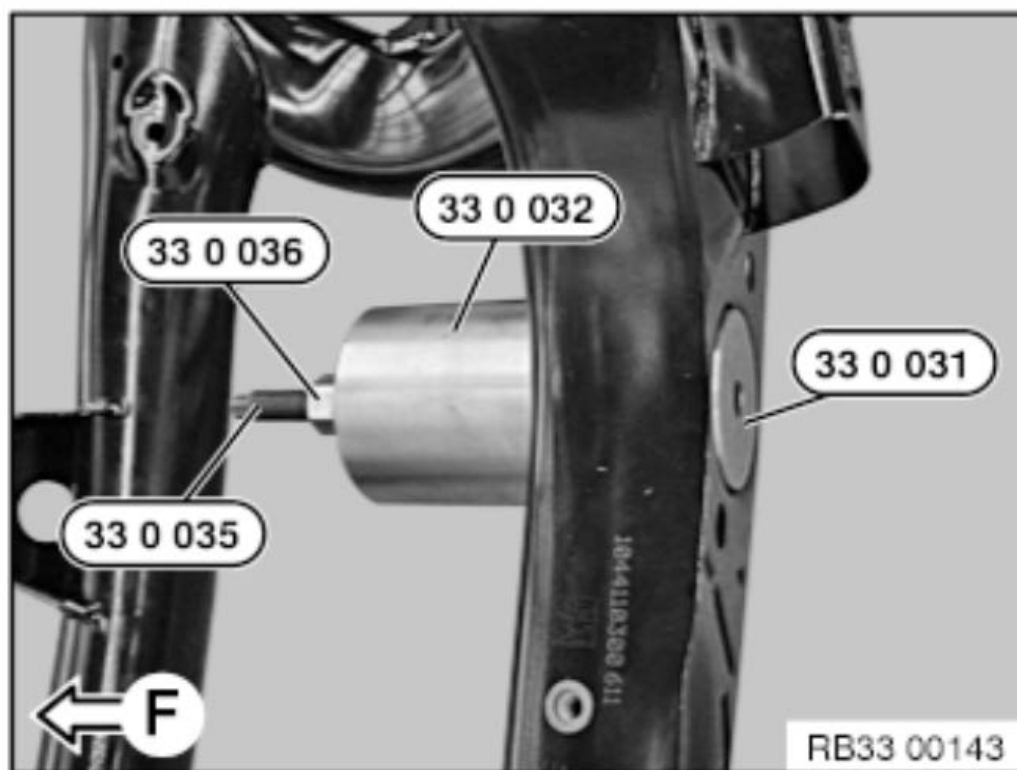
Counter support with spindle 33 0 035.

Use ratchet ring spanner 33 5 105.



Assembly sequence:

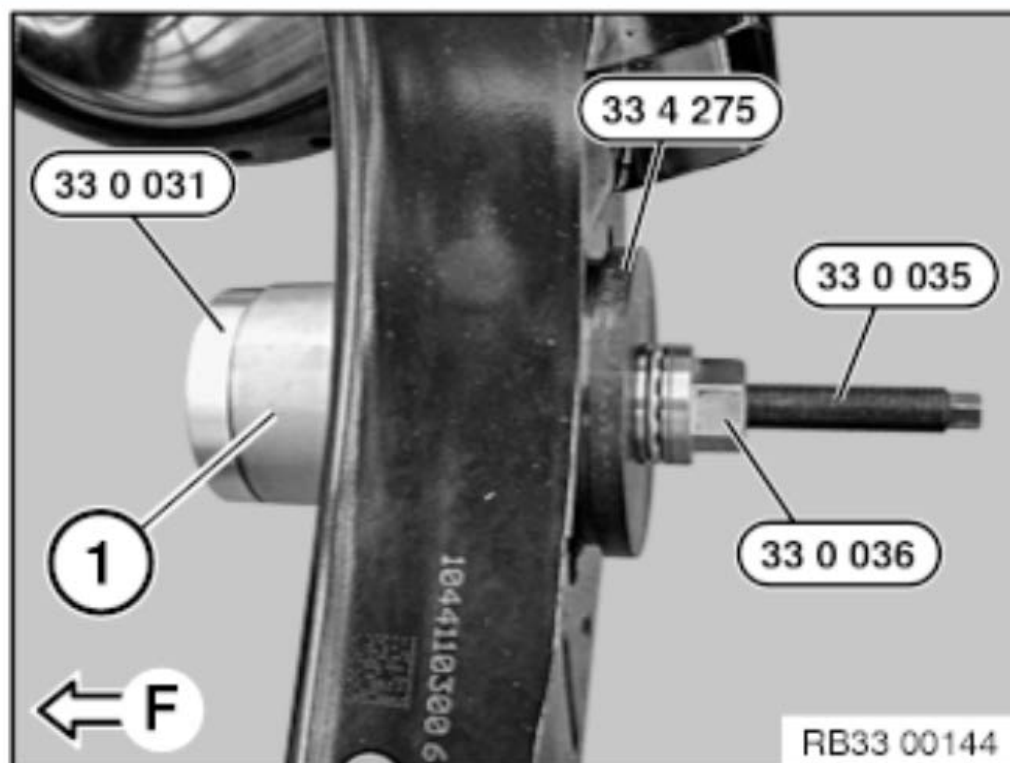
1. Insert the rear axle final drive into the rear axle support using the workshop jack and special tool 33 5 200.
2. Insert screws (1) (do not tighten).
3. Insert bolt from rear and replace nut (2) (do not tighten down).
4. Release tensioning strap and lower special tool 33 5 200 and move away.
5. Tighten down screws (1).
Tightening torque [33 17 1AZ](#).
6. Tighten nut (2).
Tightening torque [33 17 2AZ](#).



Zoom in

Zoom out

OK



Zoom in

Zoom out

OK

FR Description

VIN: XXXXXXXXXX
Type No.: 3A03
E series: F30
Lead type: 3A03
Model: 335i N55

3310516 Removing and installing rear axle differential

[--]3310516 Removing and installing rear axle differential

[--]3310016 Removing and installing rear axle differential

[--]3332188 Removing and installing or replacing cover on left or right camber link

=>Camber link cover

[--]1800020 Remove & install complete exhaust system

=>Exhaust system at catalytic converter

=>Jack under exhaust system

=>Exhaust system on gearbox bracket

=>Reinforcement carrier

=>Connector for exhaust flap

=>Rear silencer at body

=>Lifting complete exhaust system out and in

=>Rear heat shield

=>Propeller shaft at rear axle differential

=>Tying back propeller shaft

=>Jack

=>Rear axle final drive at support, front

=>Vibration absorber

=>Rear axle final drive at support, rear

=>Output shaft at rear axle differential with special tool

=>Tying back output shaft

=>Removing/installing rear axle differential

=>Seal

=>Oil in rear axle differential

VIN: XXXXXXXXXX
 Type No.: 3A03
 E series: F30
 Lead type: 3A03
 Model: 335i N55

33 Rear Axle
 33 10 Removing and installing rear axle differential

335i N55

33 10 016 Removing and installing rear axle differential	23	
+ 33 10 516 Removing and installing rear axle differential	21	
33 10 510 Removing and installing or replacing final drive (complete rear axle carrier removed)	12	
33 10 017 Replacing rear axle differential	25	
+ 33 10 517 Replacing rear axle differential	23	
33 10 515 Sealing complete final drive (final drive removed)	8	
33 10 023 Replacing radial shaft seal for output shaft at rear axle final drive, left or right	21	

VIN: XXXXXXXXXX
 Type No.: 3A03
 E series: F30
 Lead type: 3A03
 Model: 335i N55

33 Rear Axle
 33 17 Rubber mount for rear axle differential
 mounting, front

335i N55

33 17 002 Replacing rubber mounts of front final drive suspension	26	
+ 33 17 552 Replacing rubber mounts of front final drive suspension	24	
33 17 500 Replacing rubber mounts of front final drive suspension (final drive removed)	3	
33 17 004 Replacing all rubber mounts of front final drive suspension	29	
+ 33 17 504 Replacing all rubber mounts of front final drive suspension	27	
33 17 554 Replacing all rubber mounts of front final drive suspension (final drive removed)	6	
33 17 005 Replacing rubber mounts of rear final drive suspension	45	

VIN: XXXXXXXXXX
 Type No.: 3A03
 E series: F30
 Lead type: 3A03
 Model: 335i N55

33 Rear Axle
 33 17 All rubber mounts for rear axle differential
 mountings, front

335i N55

33 17 004 Replacing all rubber mounts of front final drive suspension	29	
+ 33 17 504 Replacing all rubber mounts of front final drive suspension	27	
33 17 554 Replacing all rubber mounts of front final drive suspension (final drive removed)	6	
33 17 005 Replacing rubber mounts of rear final drive suspension	45	
+ 33 17 505 Replacing rubber mounts of rear final drive suspension	44	
33 17 555 Replacing rubber mounts of rear final drive suspension (final drive removed)	4	
33 17 006 Replacing all rubber mounts of final drive suspension	51	

VIN: [REDACTED]
 Type No.: 3A03
 E series: F30
 Lead type: 3A03
 Model: 335i N55

33 Rear Axle
 33 10 Output shaft radial shaft seals

335i N55

33 10 024 Replacing both radial shaft seals for output shafts at rear axle final drive	23	
+ 33 10 524 Replacing both radial shaft seals for output shafts at rear axle final drive	21	
33 11 021 Replacing shaft seal for input flange of final drive	16	
+ 33 11 502 Replacing shaft seal for input flange of final drive	14	
33 11 512 Replacing shaft seal for input flange (final drive removed)	5	
33 11 516 Replacing shaft seal for input flange (propeller shaft removed)	5	
33 11 271 Replacing rear cover gasket on final drive	25	

VIN: XXXXXXXXXX
 Type No.: 3A03
 E series: F30
 Lead type: 3A03
 Model: 335i N55

26 Propeller Shaft
26 11 Complete propeller shaft

335i N55

26 11 051 Replacing joint disc for propeller shaft	14	
+ 26 11 520 Replacing joint disc for propeller shaft	13	
26 11 541 Replacing joint disc for propeller shaft (propeller shaft removed)	1	
26 11 561 Replacing joint disc for propeller shaft (propeller shaft unbolted on transmission)	1	
26 11 090 Replacing centre mount for propeller shaft	18	
+ 26 11 500 Replacing centre mount for propeller shaft	16	
26 11 501 Replacing center for propeller shaft (propeller shaft removed)	3	

VIN: [REDACTED]
 Type No.: 3A03
 E series: F30
 Lead type: 3A03
 Model: 335i N55

26 Propeller Shaft
 26 11 Complete propeller shaft

335i N55

26 11 000 Removing and installing complete propeller shaft	15	
+ 26 11 507 Removing and installing complete propeller shaft	13	
26 11 511 Removing and installing or replacing complete propeller shaft (propeller shaft unbolted on transmission)	2	
26 11 001 Replacing complete propeller shaft	15	
+ 26 11 508 Replacing complete propeller shaft	13	
26 11 020 Replacing gaiter for centre mount	16	
+ 26 11 530 Replacing gaiter for centre mount	15	