

## FRONT STRUT REMOVAL/INSTALL

34 11 220 Removing and installing/replacing both front brake discs (Brembo)

34 11 220 Removing and installing replacing both front brake discs

31 35 005 Removing and installing anti-roll bar link for left or right anti-roll bar

32 21 151 Replacing left or right track rod end

31 12 050 Removing and installing replacing left or right trailing link

31 31 000 Removing and installing complete left or right spring strut shock absorber

## FRONT STRUT ASSEMBLY

31 33 100 Replacing front left or right coil spring

31 31 031 Replacing front left or right spring strut shock absorber

## FRONT ANTI-ROLL BAR

11 00 670 Secure engine in installation position

51 47 490 Removing and installing replacing underbody protection (front)

51 45 184 Removing and installing replacing trim panel for pedal mechanism

32 31 070 Removing and installing replacing lower section of steering shaft

51 71 039 Removing and installing replacing front left or right wheel arch cover (rear section)

31 11 506 Lowering raising front axle support (universal lifter)

31 35 000 Removing and installing replacing front anti-roll bar

## REAR SUSPENSION REMOVAL/INSTALL

33 32 188 Removing and installing/replacing left or right camber arm cover

33 52 010 Removing and installing rear left or right shock absorber

33 53 000 Removing and installing replacing rear left or right coil spring

33 52 012 Replacing rear left or right side shock absorber

33 52 161 Replacing rear left or right support bearing for spring strut shock absorber

## REAR ANTI-ROLL BAR

33 55 041 Replacing anti-roll bar link for anti-roll bar bar on left or right

33 31 503 Lowering raising rear axle support (universal lifter)

For pre-requisite steps of exhaust system and propeller shaft at final drive removal consult this thread:  
<http://f30.bimmerpost.com/forums/showpost.php?p=21090999&postcount=145>

33 55 021 Replacing both rubber mounts for anti-roll bar mounting

33 55 000 Removing and installing/replacing rear anti-roll bar

33 33 001 Replacing left or right rear axle support compression strut

## HEADLIGHTS

63 10 004 Adjusting headlights

## TORQUE

torque 18 20 Exhaust system suspension

torque 18 31 Exhaust pipe with catalytic converter complete system

torque 22 11 Engine mounting

torque 31 10 Front Axle Suspension

torque 31 12 Trailing arms and struts

torque 33 32 Trailing arms and struts

torque 31 31 Spring Struts.pdf

torque 31 35 Anti-roll bar.pdf

torque 32 21 Drop Arm

torque 33 52 Shock Absorbers

torque 33 55 Anti-roll bar

torque 34 11 Front Brake.pdf

torque 51 11 Front bumper

torque 51 45 Trim, instrument trim panel

torque 51 61 Reinforcement, body

torque 51 75 Underbody panelling

REP-REP-RAF3034-3411220BREMBO V.11 Removing and installing/replacing both front brake discs (Brembo), VIN: XXXXXXXXXX

ISTA system version	4.04.20.19163	Data version	R4.04.20	Programming - data
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

34 11 220

Removing and installing/replacing both front brake discs (Brembo)



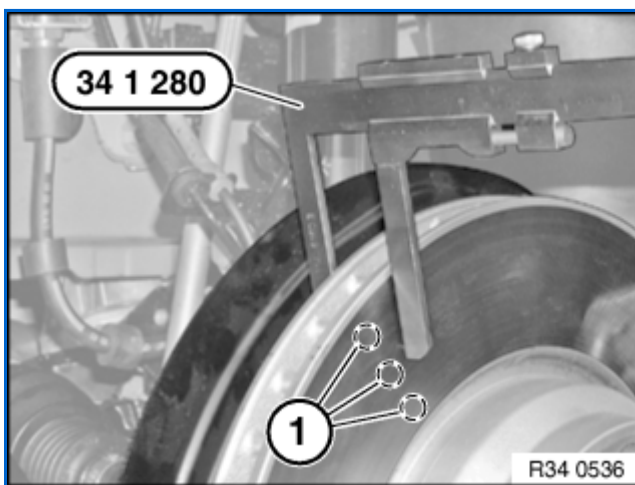
Special tools required:

- [34 1 280](#)



Necessary preliminary tasks:

- [Remove wheels.](#)
- Remove and clean [brake pads.](#)



Check minimum brake disc thickness:

- Position special tool [34 1 280](#) at three measuring points in area (1) and measure.
- Compare measuring result and lowest value with [setpoint value](#).

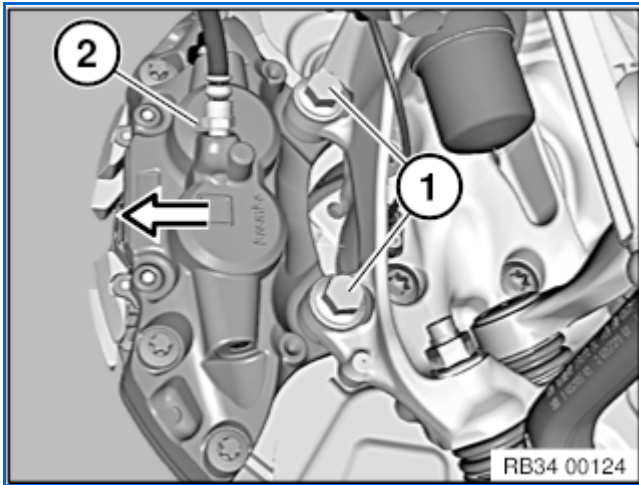
If the brake discs are replaced, you must also fit new brake pads.

Brake discs may only be replaced in pairs (on each axle).



**Important!**

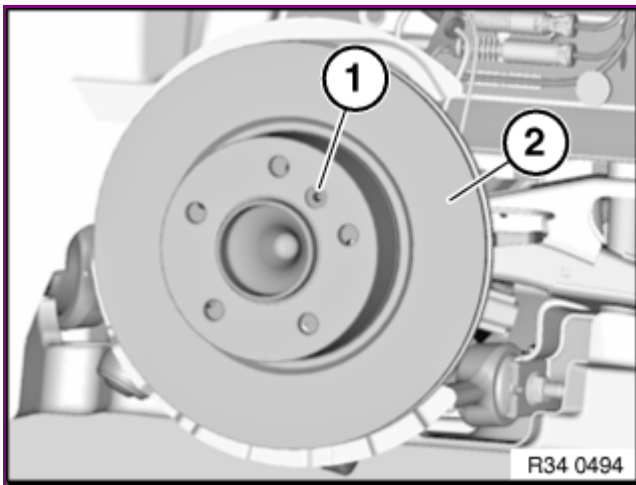
New brake pads may only be installed if the brake disc thickness is greater than the [minimum brake disc thickness](#).



Release screws (1), remove brake calliper (2) towards rear and tie up.

*Installation note:*

Tightening torque [34 11 2AZ](#).



**Important!**

To release brake disc: Do not under any circumstances strike friction ring with a hammer or similar!

If necessary, carefully tap on base of brake disc chamber with a rubber mallet.

Clean contact surface of brake disc at wheel hub thoroughly and remove traces of corrosion.

Unevenness on contact surface may result in distortion of brake disc!

Release screw (1) and remove brake disc (2).

*Installation note:*

Replace screw.

Tightening torque [34 11 1AZ](#).



**After installation:**

- Read and comply with notes on [braking in new brake discs / brake pads](#).

REP-REP-RAF2034-3411220 V.11 Removing and installing/replacing both front brake discs, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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			

34 11 220

Removing and installing/replacing both front brake discs



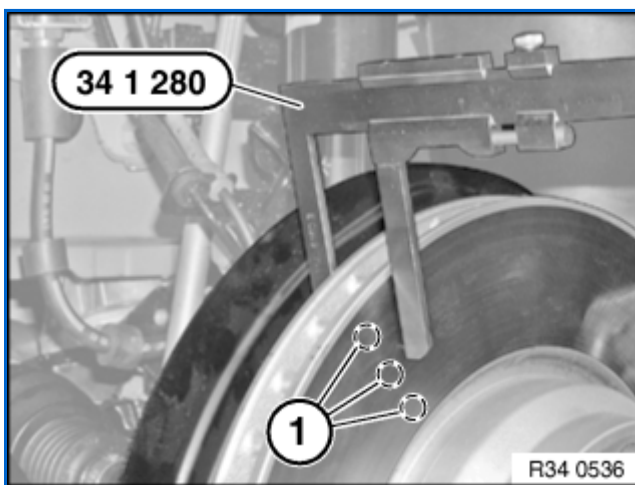
Special tools required:

- [34 1 280](#)



Necessary preliminary tasks:

- [Remove wheels.](#)
- Remove and clean [brake pads.](#)



Check minimum brake disc thickness:

- Position special tool [34 1 280](#) at three measuring points in area (1) and measure.
- Compare measuring result and lowest value with [setpoint value](#).

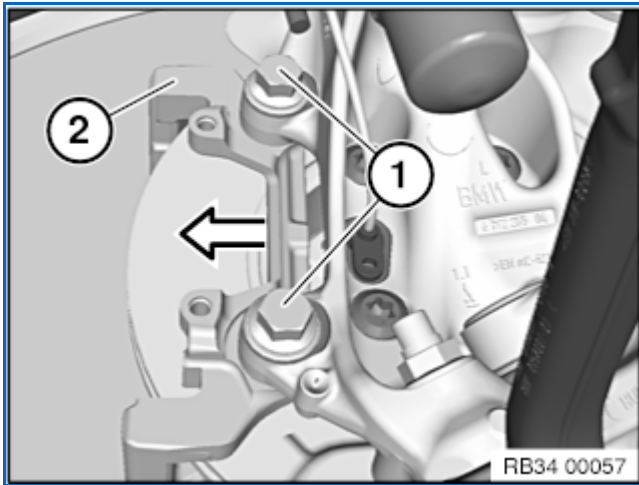
If the brake discs are replaced, you must also fit new brake pads.

Brake discs may only be replaced in pairs (on each axle).



**Important!**

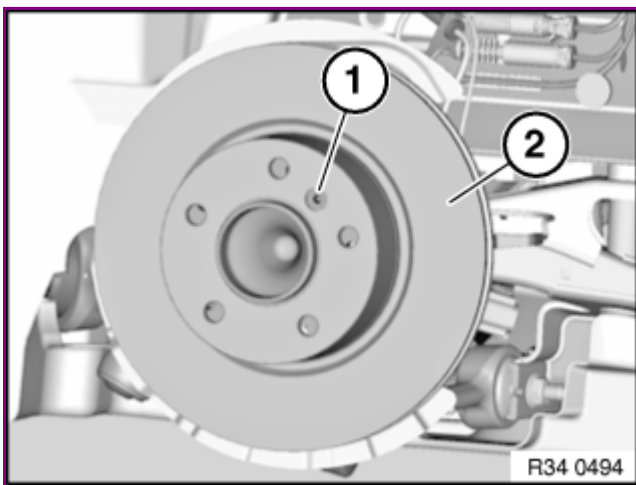
New brake pads may only be fitted if the brake disc thickness is greater than the [minimum brake disc thickness](#) (MIN TH). 5 of 94



Release screws (1) and remove brake anchor plate (2) to the rear.

*Installation note:*

Tightening torque [34 11 2AZ](#).



### Important!

To release brake disc: Do not under any circumstances strike friction ring with a hammer or similar!

If necessary, carefully tap on base of brake disc chamber with a rubber mallet.

Clean contact surface of brake disc at wheel hub thoroughly and remove traces of corrosion.

Unevenness on contact surface may result in distortion of brake disc!

Release screw (1) and remove brake disc (2).

*Installation note:*

Replace screw.

Tightening torque [34 11 1AZ](#).



### After installation:

- Read and comply with notes on [braking in new brake discs / brake pads](#).

REP-REP-RAF2031-3135005 V.10 Removing and installing anti-roll bar link for left or right anti-roll bar, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

31 35 005

Removing and installing anti-roll bar link for left or right anti-roll bar



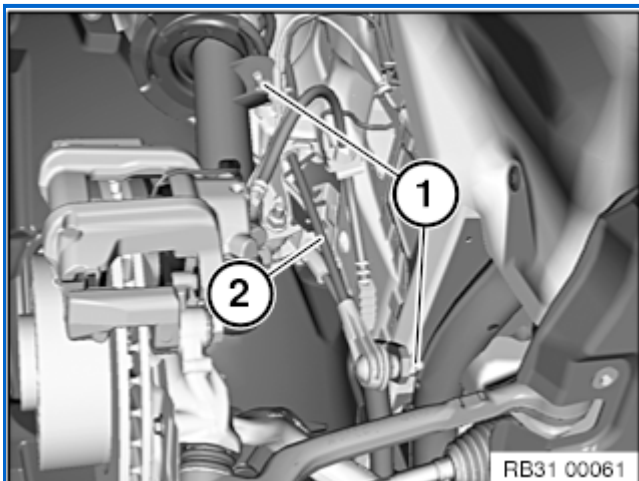
**Risk of damage!**

- Avoid bending the head of the anti-roll bar during assembly!
- An impact screwdriver must not be used!



**Necessary preliminary tasks:**

- Remove [front wheel](#).



**Important!**

It is important to counterhold Torx socket when loosening push rod screw connection (1).

Unscrew nuts (1).

Tightening torque [31 35 2AZ](#).

Remove anti-roll bar link (2).

*Installation note:*

Replace self-locking nuts.

## REP-REP-RAF2032-3221151 V.9 Replacing left or right track rod end, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

32 21 151

## Replacing left or right track rod end

*Note:*

If the track rod end to track rod screw connection is released, it is necessary after reinstallation to carry out a wheel alignment check.

**Necessary preliminary work:**

- Remove [front wheel](#)

**Important!**

Do not release track rod end from swivel bearing with impact tool.

Rubber boot of track rod end must not be damaged!

Release nut (1), if necessary, grip at inner Torx socket.

Remove track rod end (2) from swivel bearing.

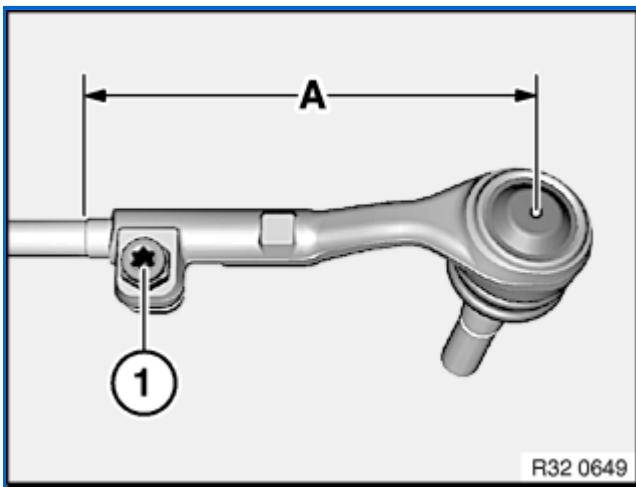
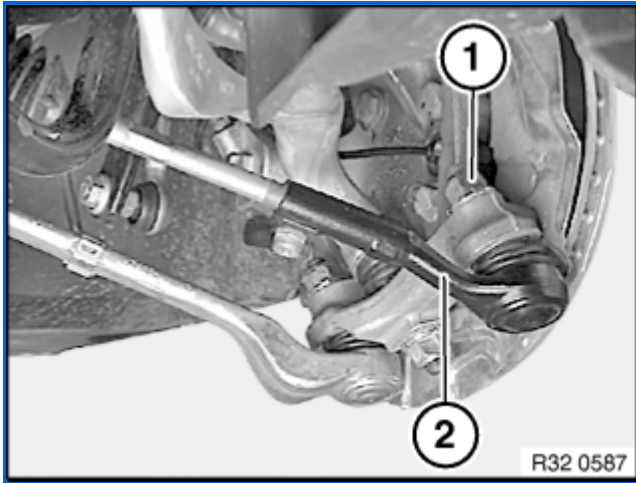
*Installation note:*

Keep track rod end to swivel bearing connection clean and free from oil and grease.

Replace self-locking nut.

Tightening torque [32 21 3AZ](#).





Determine dimension (A) to simplify following adjustment of front axle.

Slacken bolt (1).

Screw off track rod end; if necessary, grip track rod with open-end spanner.

*Installation note:*

Check [gaiter](#) for damage, replace if necessary.

Screw track rod end onto track rod to dimension (A).

Tightening torque [32 21 2AZ](#).



**After installation:**

- Perform [wheel alignment](#)

REP-REP-RAF2031-3112050 V.10 Removing and installing/replacing left or right trailing link, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

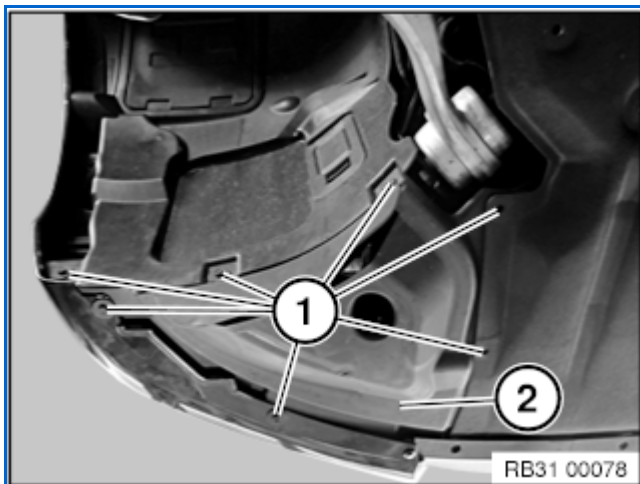
31 12 050

Removing and installing/replacing left or right trailing link



Necessary preliminary tasks:

- Remove [front wheel](#).



Release screws (1).

Remove cover (2).

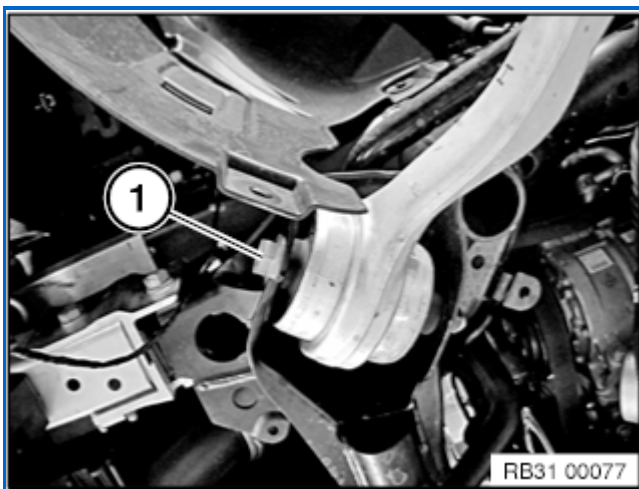
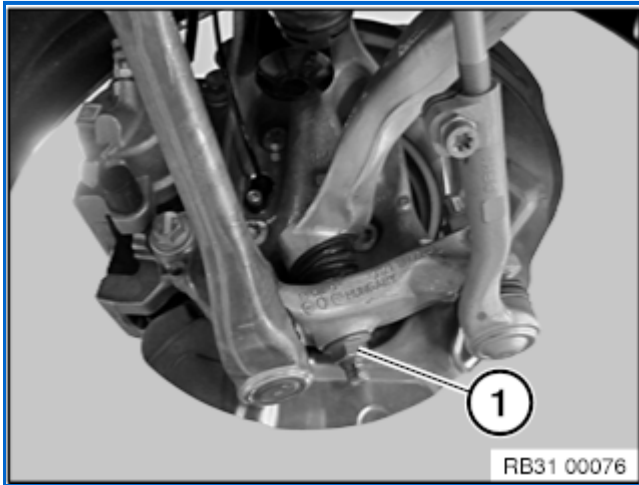
Release nut (1), if necessary, grip at inner Torx socket.

Tightening torque [31 12 2AZ](#).

*Installation note:*

Replace self-locking nut.

Keep trailing link to swivel bearing connection clean and free from oil and grease.



Release screw (1).

Tightening torque [31 12 1AZ](#).

Remove tension strut.

*Installation note:*

Replace screw (1).

Tighten down screw connection in [normal position](#).

REP-REP-RAF2031-3131000 V.13 Removing and installing complete left or right spring strut shock absorber, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

31 31 000

Removing and installing complete left or right spring strut shock absorber



*Installation note:*

1. All screws, nuts, bolts and hose clamps removed during the repair must be replaced.
2. Retaining elements on chassis and suspension and steering parts must be replaced.

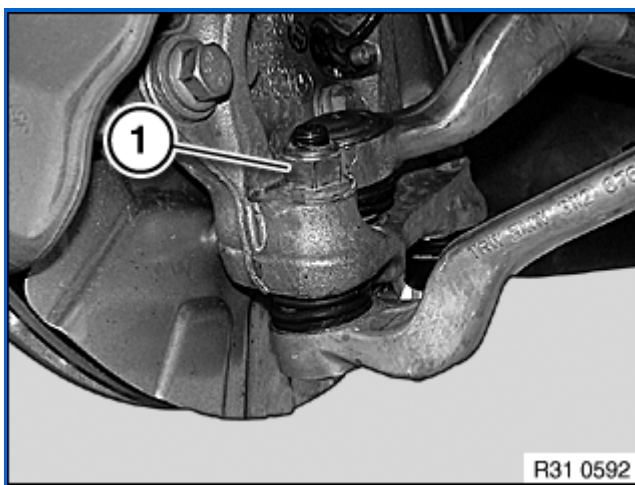
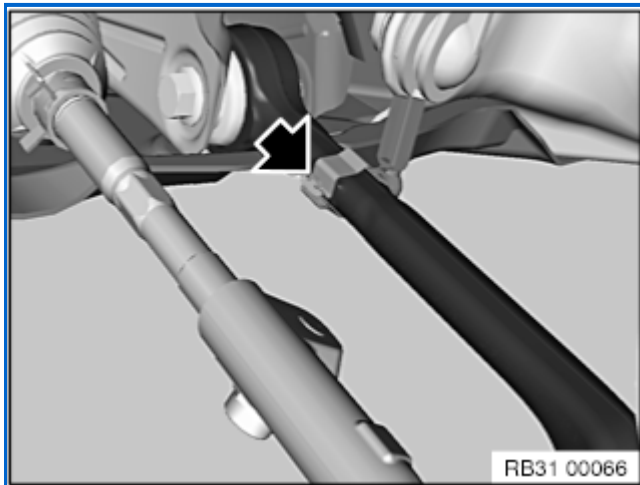


**Necessary preliminary tasks:**

- Remove [front wheel](#).
- [Remove](#) front brake disc.
- Remove [anti-roll bar link from spring strut](#).
- Disconnect plug connection for pulse sensor and expose cable up to holder on spring strut.
- Disconnect plug connection for brake pad wear sensor and expose cable up to brake caliper.

Only on ride-height sensor at left:

Release link at wishbone.



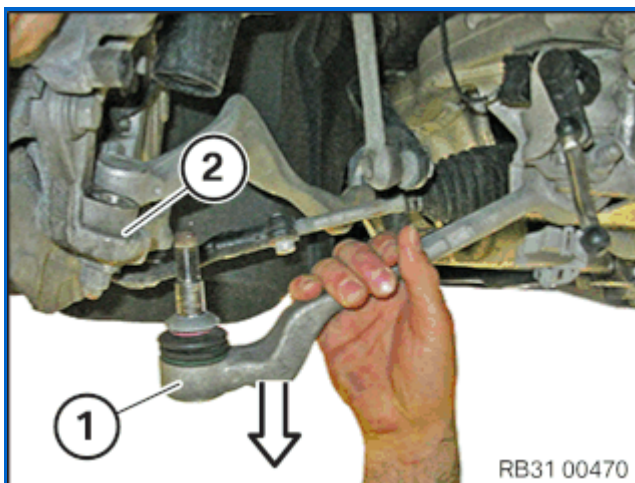
Release nut (1), if necessary, counter-hold at inner Torx (T40).

*Installation note:*

Keep wishbone to swivel bearing connection clean and free from oil and grease.

Replace self-locking nut.

Tightening torque [31 12 4AZ](#).

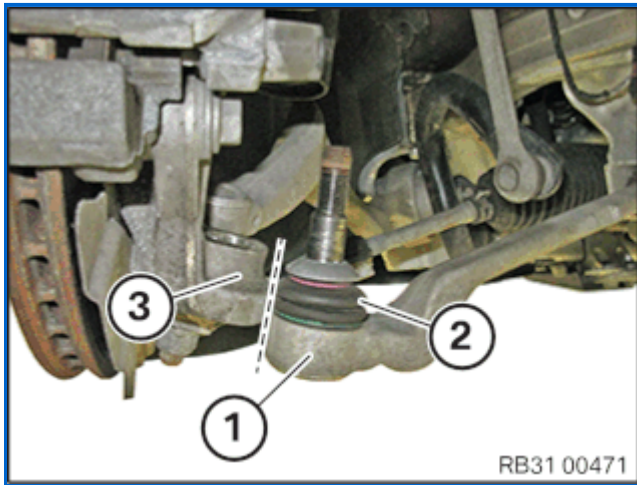


Pull wishbone (1) in direction of arrow and feed out of swivel bearing (2).

#### Attention!

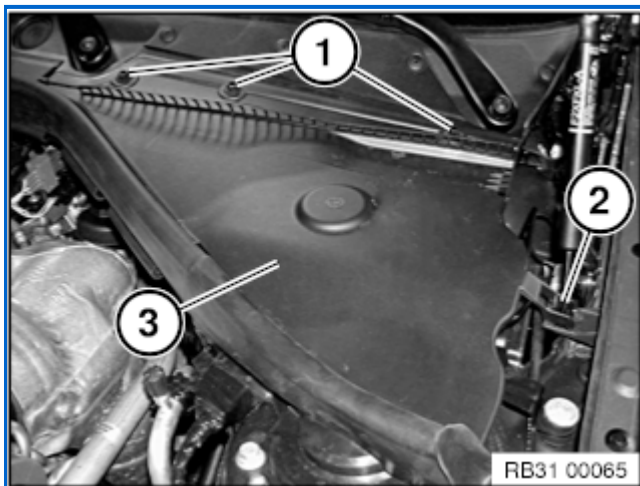
Wishbone (1) can lie on swivel bearing (3).

Risk of damage to the rubber grommet (2) by the swivel bearing (3).



Remove [track rod end from swivel bearing](#).

Remove [tension strut from swivel bearing](#)



Unlock closures (1).

Press clamps (2) together and lift.

Remove cover (3).

*Installation note:*

Make sure closures are correctly locked.



### Warning!

Danger of injury!

Secure spring strut against falling out.

Release screw (1) on suspension cross-brace.

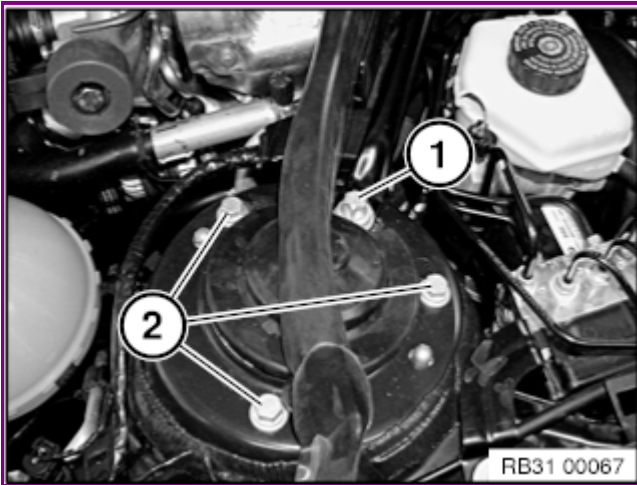
Tightening torque [51 61 1AZ](#).

Release screws (2) and remove spring strut with swivel bearing towards bottom.

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

*Installation note:*

Replace screws (1) and (2).

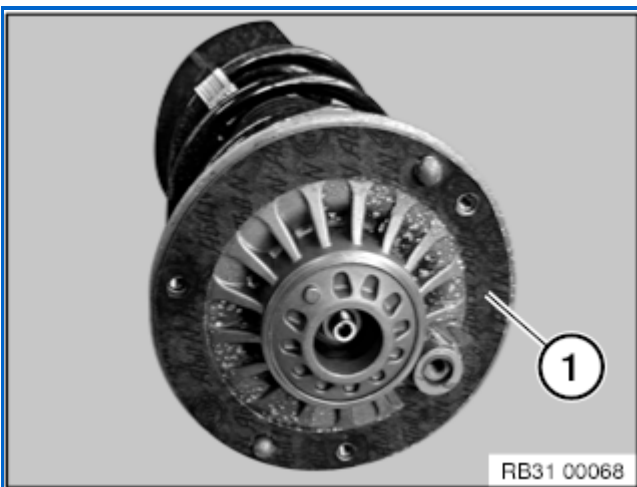


Clean inside contact surface at spring strut dome.

Align spring strut with boreholes on spring strut dome using centring pins and push up.

Attention!

While screwed in, the screws (2) must be sealed with BMW part no. 83 42 0 428 190 cavity preservation/spray sprayed from above onto the spring strut dome in order to prevent moisture penetration between the screw head and spring strut dome and thus prevent corrosion.



*Installation note:*

Check sealing washer (1) for damage, renew if necessary.



Required reworking:

- Install the [anti-roll bar link on the spring strut](#).
- Mount the [wishbone on the swivel bearing](#).
- Mount the [tension strut on the swivel bearing](#).
- Mount the [track rod end on the swivel bearing](#).
- Connect plug connection for pulse sensor.
- Connect plug connection for brake pad wear sensor.
- Install [front wheel](#).



REP-REP-RAF2031-3133100 V.10 Replacing front left or right coil spring, VIN: XXXXXXXXXX

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ISTA system version	4.04.20.19163	Data version	R4.04.20	Programming data	-
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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31 33 100

Replacing front left or right coil spring

**Special tools required:**

- [31 3 340](#)
- [2 240 487](#)
- [2 240 490](#)



**Important!**

Both coil springs on the relevant axle must be replaced only in the event of corrosion breakage!

The coil spring is allocated in the Electronic Parts Catalogue (EPC) under the "Spring table" menu item after the vehicle identification number has been entered and the optional equipment of the particular car has been selected.



**Warning!**

Before using the special tool [31 3 340](#) take care to read through the Owner's Handbook!

All the safety precautions and instructions contained in the Owner's Handbook must be strictly observed!

Failure to observe these safety precautions and instructions increases the risk of serious physical injury, damage to your health and damage to property and equipment!





### Important!

1. Use only the BMW approved special tool!
2. Prior to each use, check the special tools for defects, modifications and operational reliability.
3. Damaged/modified special tools must not be used!
4. No changes or modifications may be made to the special tools!
5. These special tools are intended solely for the purpose of tightening and relieving cylindrical and tapered suspension springs.
6. Keep special tools dry, clean and (down to the spindle) free from grease.
7. Impact screwdrivers are prohibited!
8. Do not compress coil spring to full extent.



### *Installation note:*

1. All screws, nuts, bolts and hose clamps removed during the repair must be replaced.
2. Retaining elements on chassis and suspension and steering parts must be replaced.



### Necessary preliminary tasks:

- Remove [front spring strut](#).

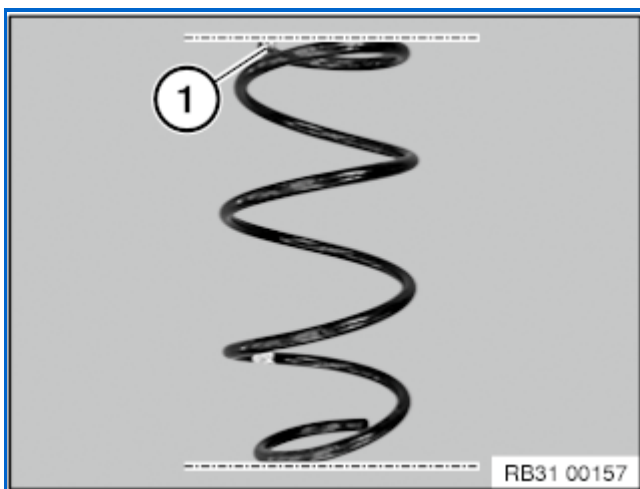
Relieve tension on coil spring.

Release special tool [2 240 487](#).

Take out the coil spring with protective tube and support bearing.

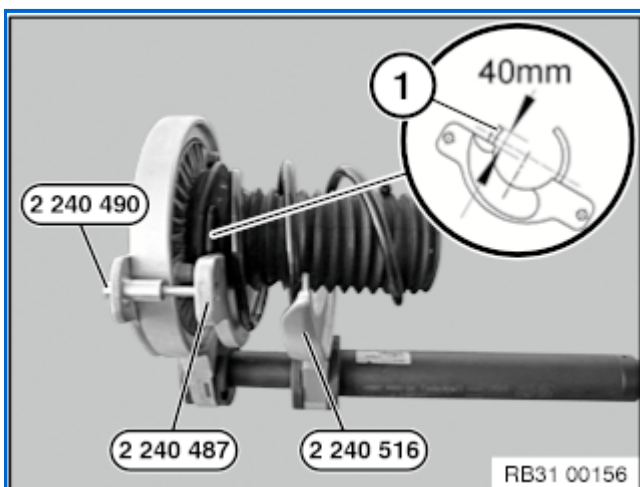
### *Installation note:*

Check support bearing and protective tube for damage, replace if necessary.



*Installation note:*

The flattened end (1) of the spring is placed onto the support bearing.



**Important!**

Do not compress coil spring to full extent.

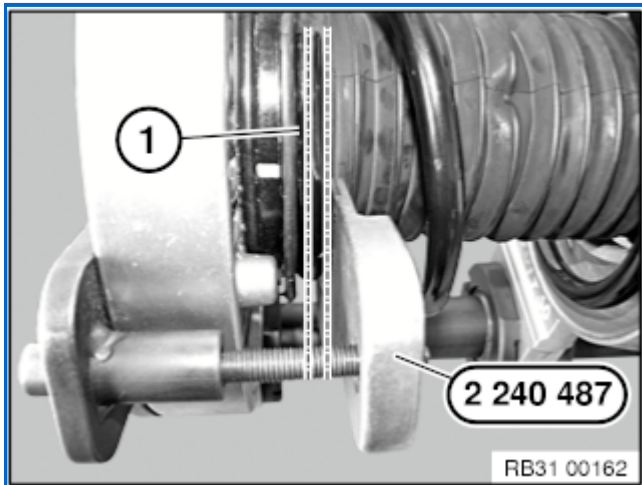
The gummed side of the pressure plate [2 240 487](#) is fitted against the top spring coil!

Position the coil spring:

1. Insert the coil spring with protective tube and support bearing.
2. Assemble the pressure plate [2 240 487](#) with screws [2 240 490](#).
3. Position the spring so that the end of the spring (1) protrudes by 40 mm beyond the pressure plate [2 240 487](#).
4. Tighten the screws [2 240 490](#) evenly at 7 Nm.

**Important!**

The pressure plate [2 240 487](#) must be aligned parallel with the top spring coil (1)!



Tension coil spring.



Further assembly:

See [Replacing the front left or right spring strut](#)



After installation:

- Check [headlight adjustment](#), correct if necessary.

REP-REP-RAF2031-3131031 V.16 Replacing front left or right spring strut shock absorber, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

31 31 031

Replacing front left or right spring strut shock absorber

**Special tools required:**

- [31 3 340](#)
- [31 2 230](#)
- [2 240 516](#)
- [2 364 829](#)
- 31 3 341
- [2 240 482](#)
- [2 240 523](#)
- [2 364 828](#)
- [2 240 486](#)
- [2 240 487](#)
- 2 413 607
- [2 240 490](#)
- [33 0 040](#)



**Attention!**

- When replacing the spring strut, replace the auxiliary damper as well!



**Warning!**

Before using the special tool [31 3 340](#) take care to read through the Owner's Handbook!

All the safety precautions and instructions contained in the Owner's Handbook must be strictly observed!

Failure to observe these safety precautions and instructions increases the risk of serious physical injury, damage to your health and damage to property and equipment!



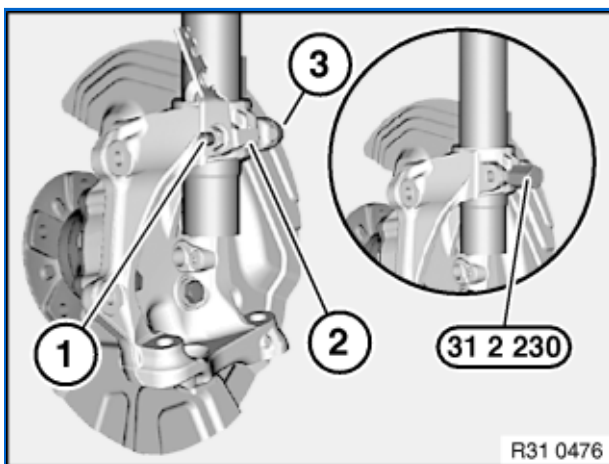
### Attention!

1. Use only the BMW approved special tool!
  2. Prior to each use, check the special tools for defects, modifications and operational reliability.
  3. Damaged/modified special tools must not be used!
  4. No changes or modifications may be made to the special tools!
  5. These special tools are intended solely for the purpose of tightening and relieving cylindrical and tapered suspension springs.
  6. Keep special tools dry, clean and (down to the spindle) free from grease.
  7. Impact screwdrivers are prohibited!
- Risk of damage inside the shock absorber!**
8. Do not compress coil spring to full extent.



### Necessary preliminary tasks:

- Remove [front spring strut](#).



Slacken nut (1).

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

Take off holder (2).

Pull out screw (3).

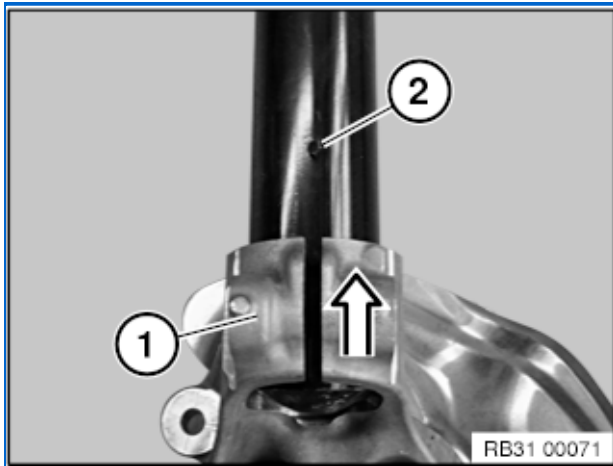
Expand swivel bearing with special tool [31 2 230](#) and pull off spring strut.

#### *Installation note:*

Keep swivel bearing and spring strut in lower area clean and free from oil and grease.

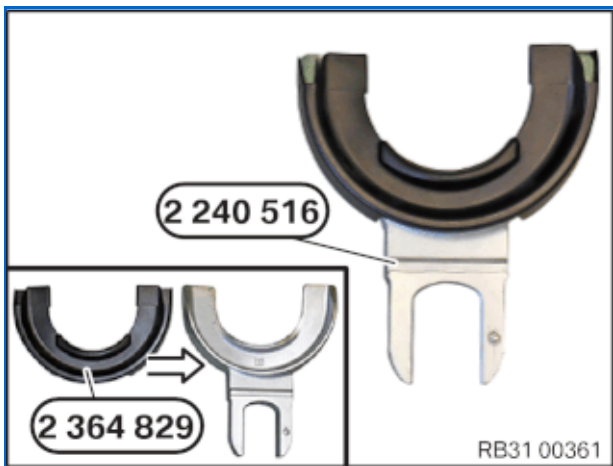
Screw head must point in direction of travel.

Replace screw (3) and self-locking nut (1). 21 of 94

**Installation note:**

Expand swivel bearing (1) with special tool [31 2 230](#).

Align swivel bearing (1) to positioning pin (2) on the rear side of the spring strut along the gap and slide all the way in.

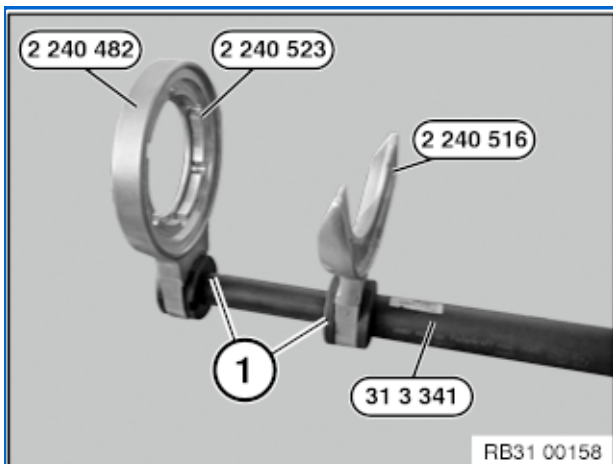
**Attention!**

Risk of damage to the coil spring!

Check protective inserts for wear before application, replace if necessary.

Use of faulty protective inserts leads to coil spring damage. This can lead to coil spring breakage (corrosion).

Always use the pressure plate [2 240 516](#) with protective insert [2 364 829](#).



**With support bearings with 3 screws** (support bearing on body):

Clamp special tool 31 3 341 in vice.

Fit special tool [2 240 516](#) and [2 240 482](#) onto special tool 31 3 341 until retaining bolt (1) can be felt and heard to snap into place.

Insert centering ring [2 240 523](#) into mounting plate [2 240 482](#).

Check seating of special tools [2 240 516](#) and [2 240 482](#) with centering ring [2 240 523](#), correct if necessary.

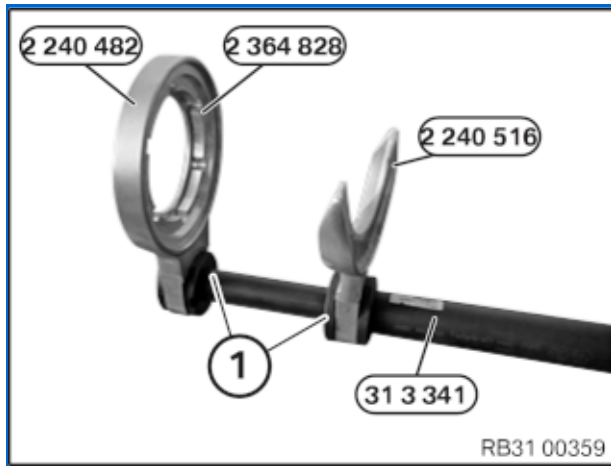
**With support bearings with 5 screws** (support bearing on body):

Clamp special tool 31 3 341 in vice.

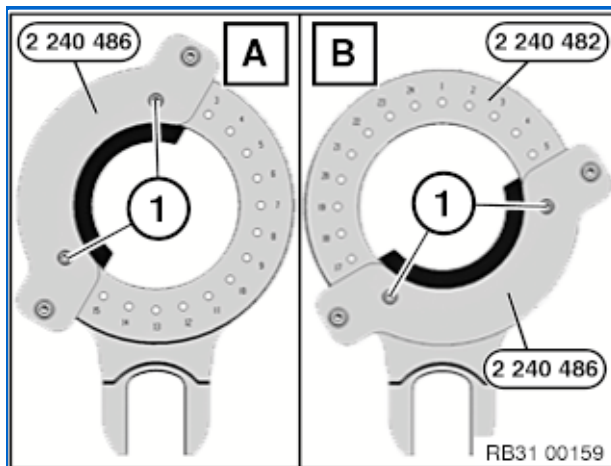
Fit special tool [2 240 516](#) and [2 240 482](#) onto special tool 31 3 341 until retaining bolt (1) can be felt and heard to snap into place.

Insert centering ring [2 364 828](#) into mounting plate [2 240 482](#).

Check seating of special tools [2 240 516](#) and [2 240 482](#) with



centring ring [2 364 828](#), correct if necessary.



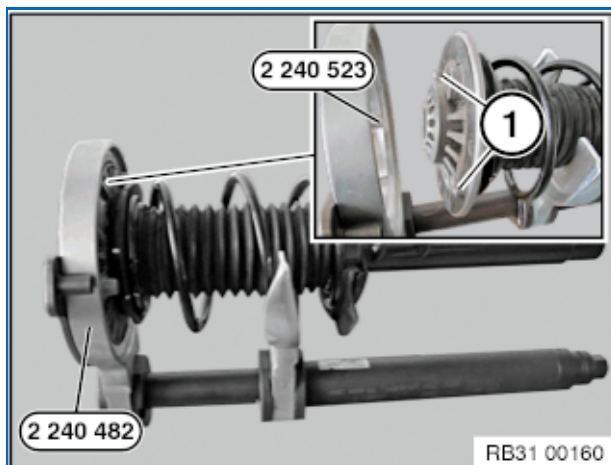
Installation of brake onto mounting plate:

Move counter support [2 240 486](#) into the correct position/bore hole (see Figure A or B)

- **Standard suspension: Screw connection using bore holes 1 and 17**
- **Sports suspension settings: Screw connection using bore holes 7 and 15**

Turn centering ring [2 240 523](#) until counter support [2 240 486](#) can be screwed into place at the specified position.

Screw together counter support with mounting plate and the centering ring with screws (1) so they are hand-tight.



**With support bearings with 3 screws (support bearing on body):**

**Clean coil spring to remove contamination.**

**Spring must be free of grease, clean and dry.**

Insert spring strut into the spring tensioner.

**Warning!**

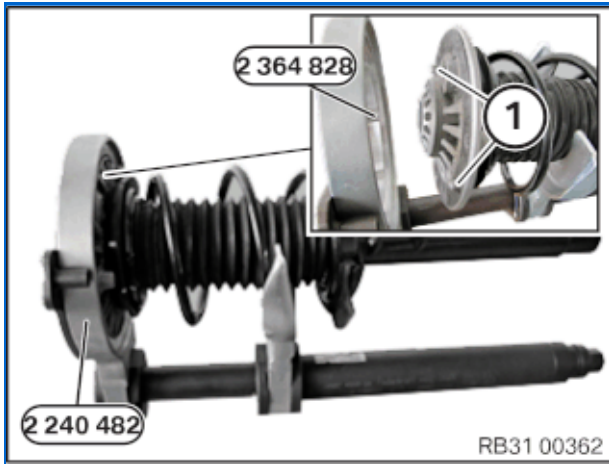
The guide pins (1) of the support bearing must fit into the recesses on the centering ring [2 240 523](#).

The support bearing must be completely fitted against the centering ring [2 240 523](#).

The lower spring coil must be placed completely into the recess of special tool [2 240 516](#)!

**With support bearings with 5 screws (support bearing on**





body):

**Clean coil spring to remove contamination.  
Spring must be free of grease, clean and dry.**

Insert spring strut into spring tensioner.

**Warning!**

The guide pins (1) of the support bearing must fit into the recesses on the centering ring [2 364 828](#).

The support bearing must be completely fitted against the centering ring [2 364 828](#).

The lower spring coil must be placed completely into the recess of special tool [2 240 516](#)!



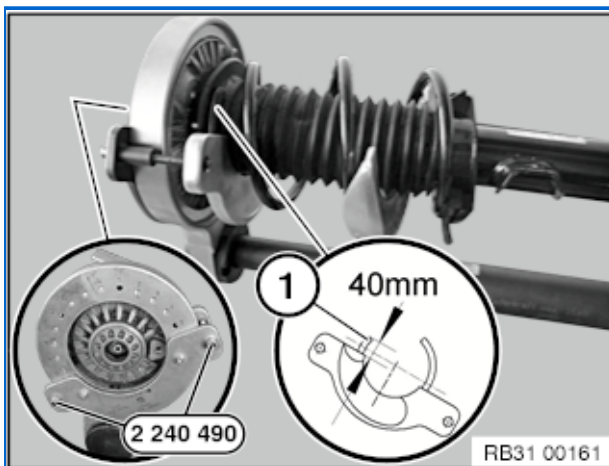
**Attention!**

Risk of damage to the coil spring!

Before application: Check protective insert for wear, replace if necessary.

Use of faulty protective inserts leads to coil spring damage. This can lead to coil spring breakage (corrosion).

Always use the pressure plate [2 240 487](#) with protective insert 2 413 607.



Attach pressure plate [2 240 487](#) with the screws [2 240 490](#)!

The gummed side of the pressure plate [2 240 487](#) must be fitted against the top spring coil.

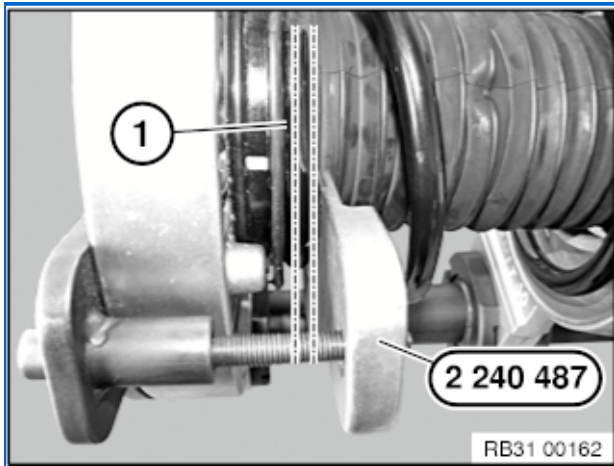
Position the spring strut so that the end of the spring (1) protrudes by 40 mm beyond the pressure plate [2 240 487](#).

Tighten the screws [2 240 490](#) evenly at 7 Nm.

**Attention!**

The pressure plate [2 240 487](#) must be aligned parallel with the top spring coil (1)!

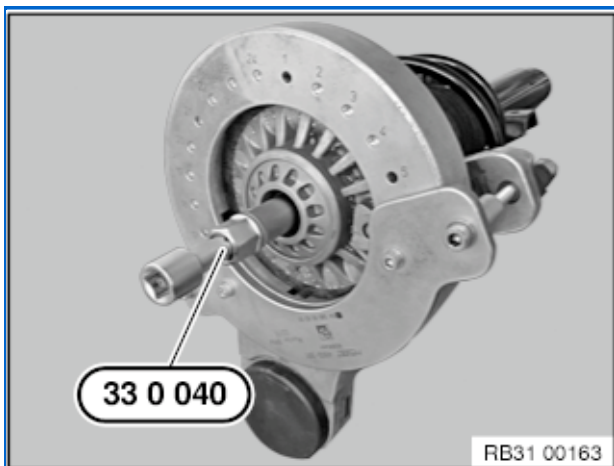




When the end of the spring begins to twist relative to the pressure plate, tensioning must be stopped immediately.

Correct seating of the pressure plate must be checked, and the rubberised mount and pressure plate must be checked for wear!

Tension coil spring with spring tensioner 31 3 341 until stress on piston rod is relieved.



Release nut with special tool [33 0 040](#).

Remove the spring strut with auxiliary damper.

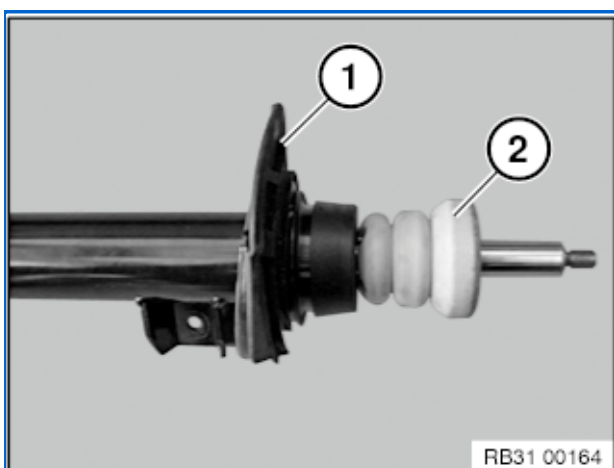
*Installation note:*

Renew nut.



Impact screwdrivers are prohibited!

**Risk of damage inside the shock absorber!**



*Installation note:*

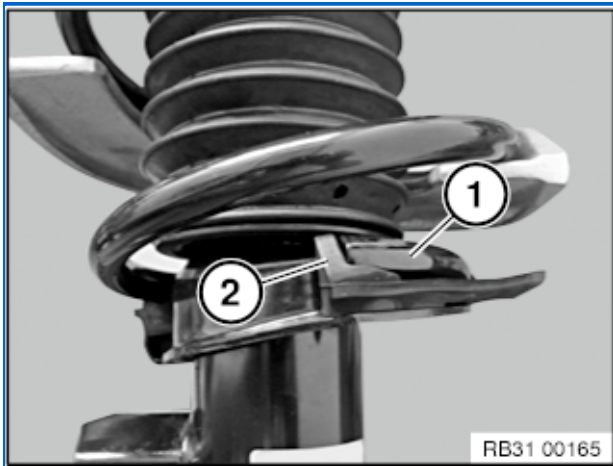
Remove the spring pad (1) and mount onto the new spring strut, replace if necessary.

Replace the auxiliary damper (2).

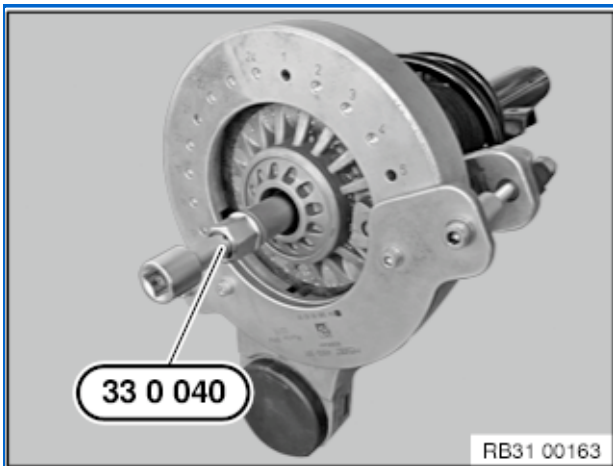
Insert spring strut into tensioned coil spring.

**Attention!**

Align the lower end of the spring (1) flush with the spring pad (2).



Check the installation position of the protective tube, correct the fold if necessary.



**Parts:** Nut

Tighten new nut with the special tool [33 0 040](#).

Tightening torque [31 31 2AZ](#).

Relieve tension on coil spring.



Impact screwdrivers are prohibited!

**Risk of damage inside the shock absorber!**

REP-REP-RAF3011N55-1100670 V.11 Secure engine in installation position, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

11 00 670

Secure engine in installation position

**Special tools required:**

- [00 6 100](#)
- [00 6 130](#)
- [00 6 050](#)
- 00 6 070-072
- 00 6 070-071
- 00 6 050-053



**Warning!**

Danger of injury!

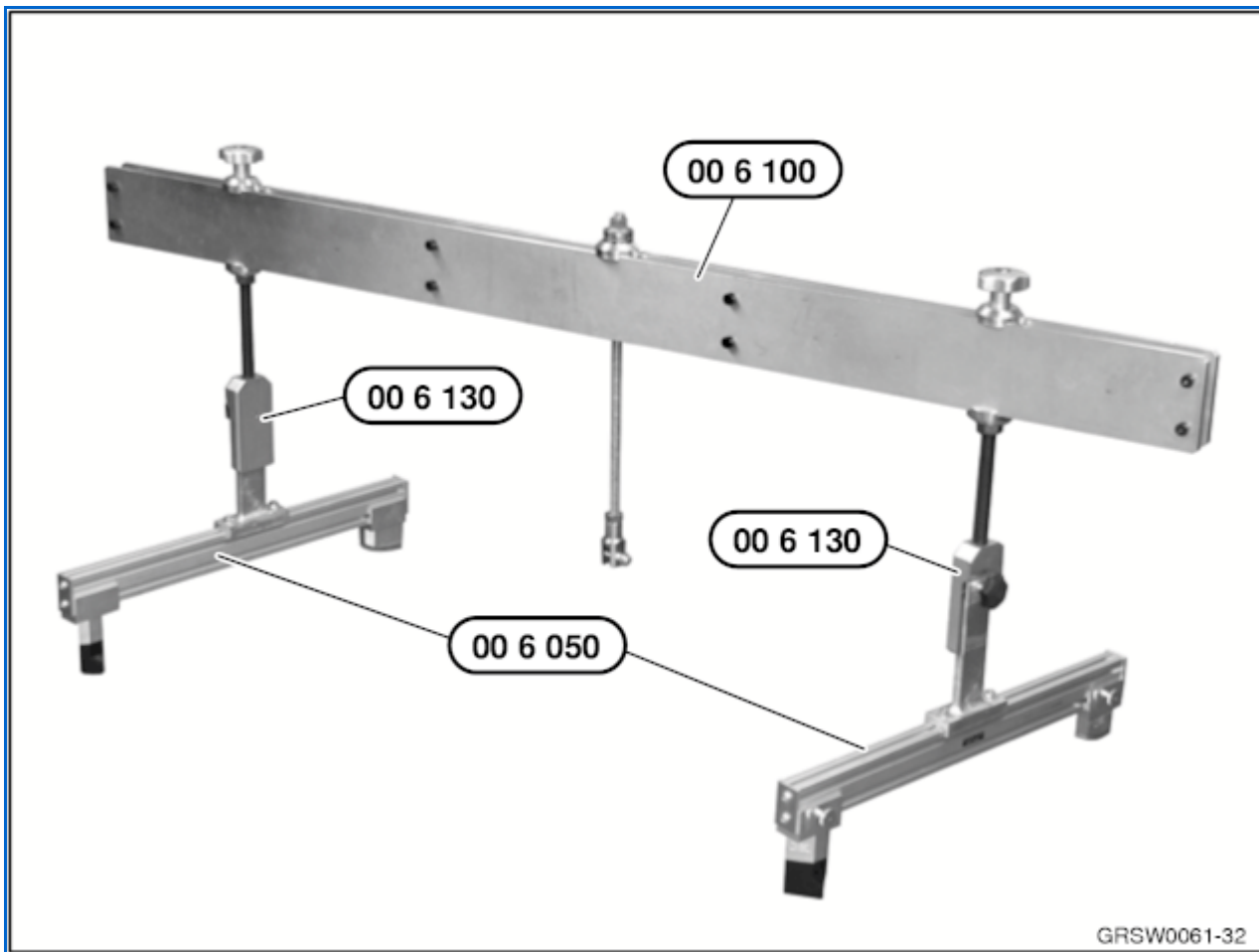
Observe following instructions relating to special tool:

1. Prior to each use, check the special tools for defects, modifications and operational reliability.
2. Damaged/modified special tools must not be used!
3. No changes or modifications may be made to the special tools!
4. Keep special tools dry, clean and free of grease.

*Note:*



- [Numbering system for special tools](#) has been re-encoded.



Special tools

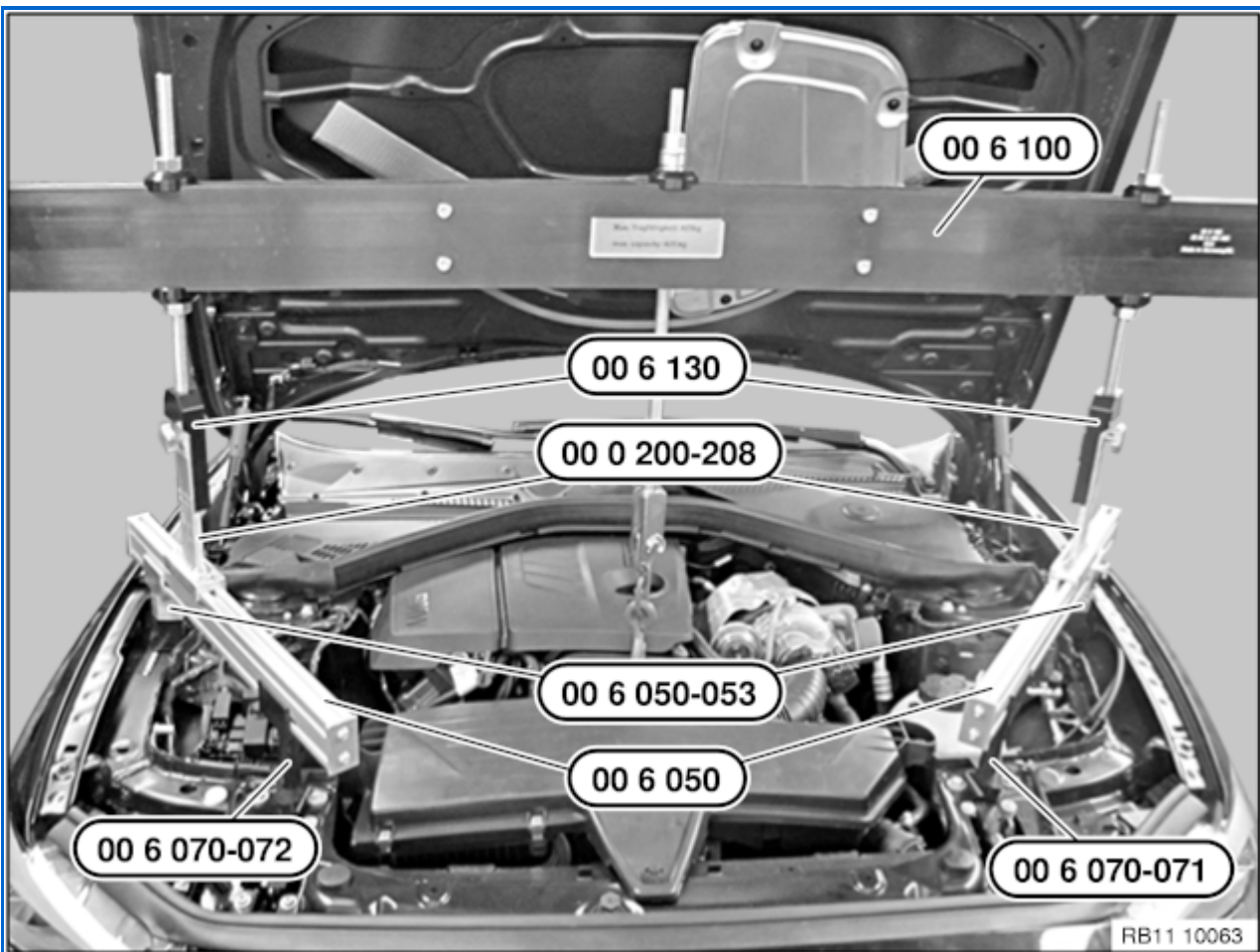
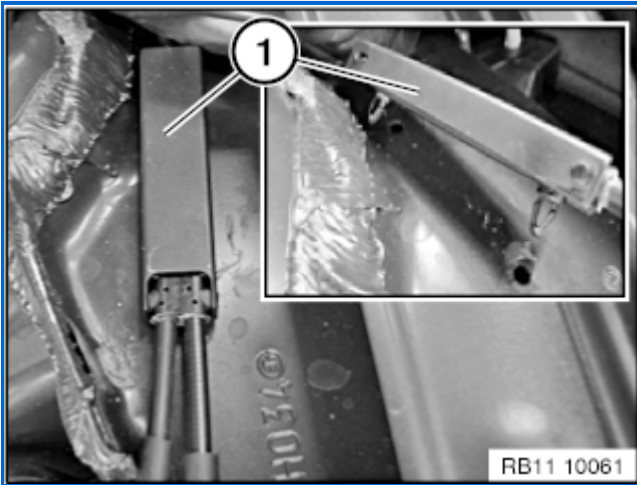


*Necessary preliminary tasks:*

- Secure the engine compartment lid in the service position.
- Remove front [underbody protection](#).
- F33 convertible only, remove front-end struts.

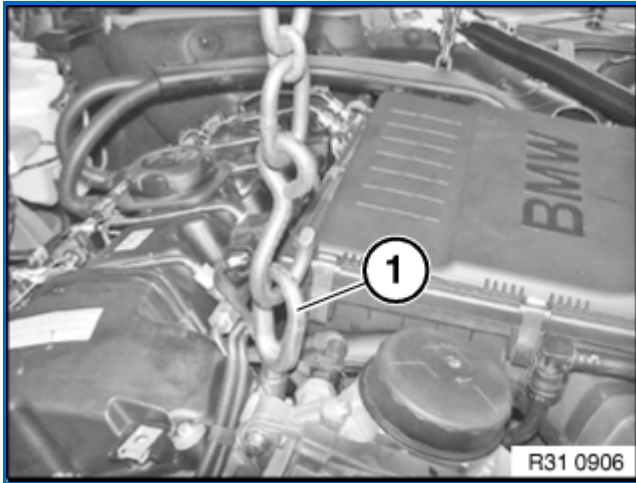
Assemble cross-member [00 6 100](#) with the special tools, [00 6 130](#), [00 6 050](#), 00 6 070-072, 00 6 070-071, 00 6 050-053.

Unclip Bowden cable (1) for hood opening.



Fit cross-member [00 6 100](#) with a 2nd person helping.

Screw towing hook (1) into engine block.  
Attach chain to towing eye.



### Warning!

Danger of injury!

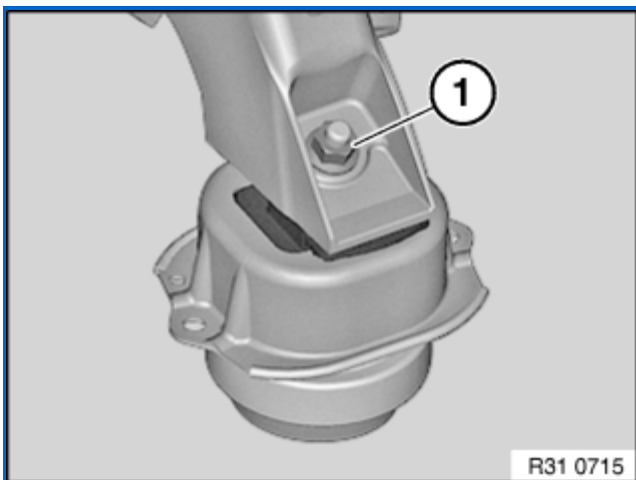
Tighten down all screws and nuts on transverse member [00 6 100](#).

### Important!

Before lifting the engine, check the lifting lugs for damage (cracks) and to ensure they are seated securely.

Avoid a change of engine position in the transverse or longitudinal direction.

Always make sure there is sufficient clearance between the engine (or its add-on parts) and the body.

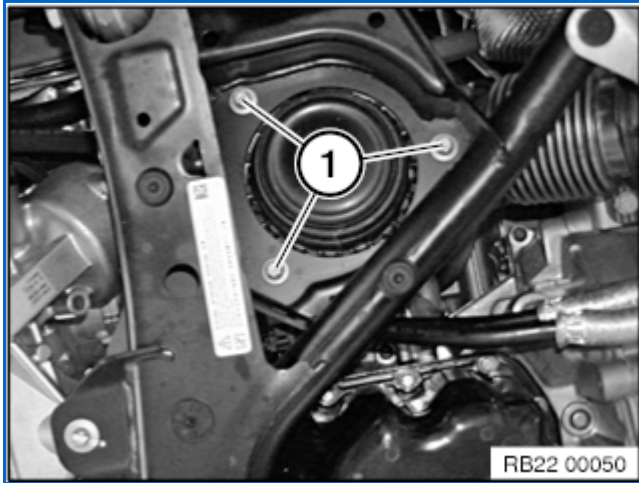


*Note:*  
4WD

Release bolts (1) on engine mount.

Tightening torque [22 11 2AZ](#).

*Note:*  
Rear-wheel drive



Release screws (1) from both engine mounts.

Raise engine approx. 10 mm with cross member.

Tightening torque [22 11 1AZ](#).

**Important!**

Observe installation note!

To ensure play between engine mount and front axle support, lower the engine completely before tightening the screw connection (engine mount/front axle support).

Tightening torque [22 11 1AZ](#).



REP-REP-RAF2051-5147490 V.11 Removing and installing/replacing underbody protection (front), VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

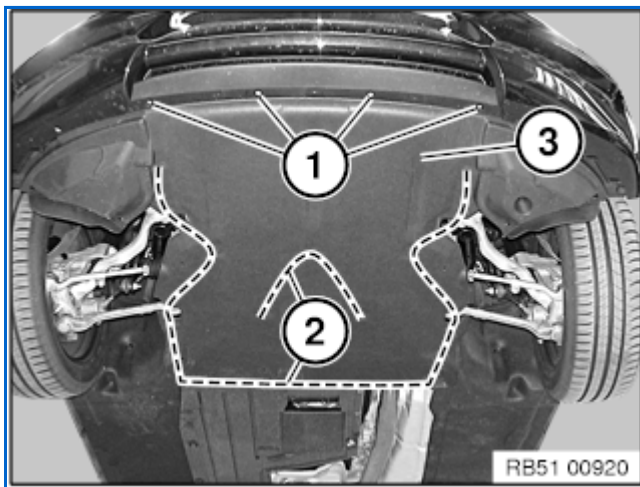
51 47 490

Removing and installing/replacing underbody protection (front)



*Note:*

Illustration only an example. Detail deviations (depending on engine version) are possible.



Release screws (1).

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

Release all screws along line (2).

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

Remove underbody protection (3).

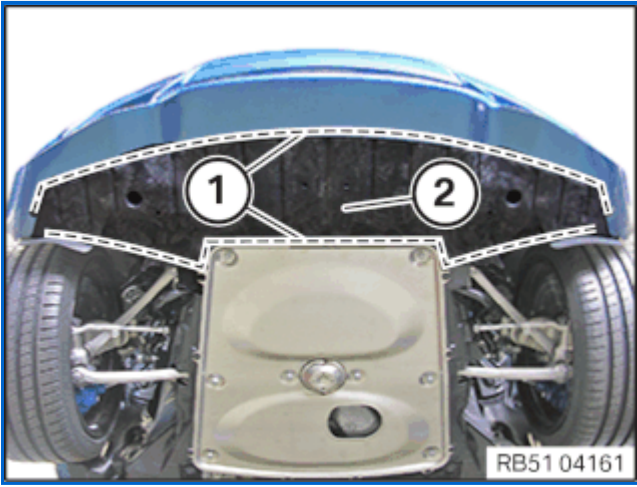
Only F87:

Release screws (1).

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

Remove underbody protection (2).



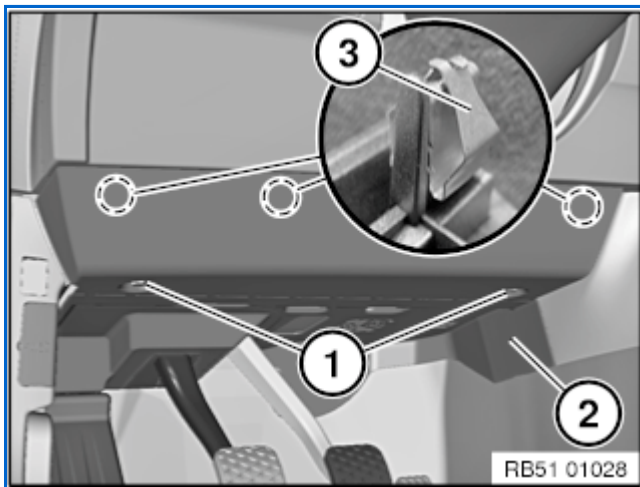


REP-REP-RAF2051-5145184 V.14 Removing and installing/replacing trim panel for pedal mechanism, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

51 45 184

Removing and installing/replacing trim panel for pedal mechanism



Release screw connection (1).

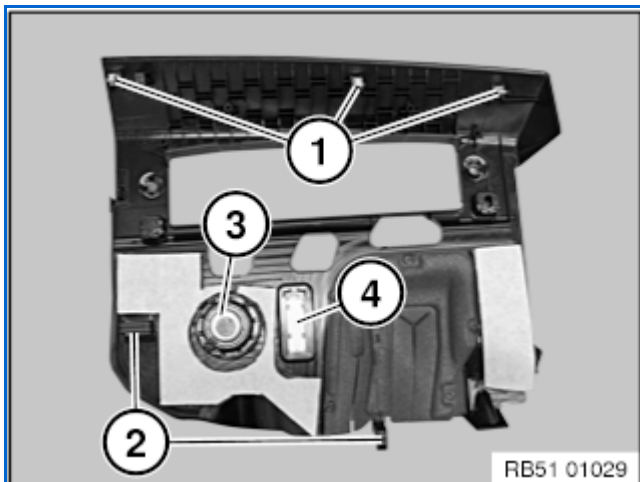
*Note:*

Version with knee airbag: Unscrew nuts (1).

Tightening torque [51 45 8AZ](#).

Release trim panel (2) at clamps (3).

Lower trim panel (2) slightly and disconnect plug connections behind.



*Installation note:*

Clamps (1) and guides (2) must not be damaged.

Feed guides (2) correctly into the corresponding holder in the vehicle.

Replacement (depending on version):

- Remount [speaker for hands-free system \(3\)](#)
- Remount [footwell light \(4\)](#)

REP-REP-RAF2032-3231070\_N47 V.18 Removing and installing / replacing lower section of steering shaft, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

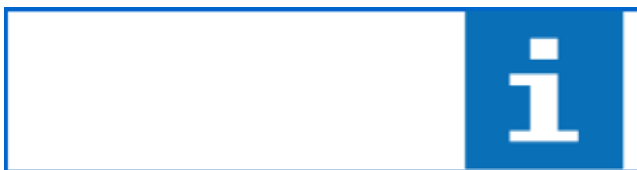
32 31 070

Removing and installing /  
replacing lower section of  
steering shaft



**Important!**

Do not turn the steering wheel once the steering shaft has been detached from the steering box/steering column! If the lower section of the steering shaft is separated from the steering gear/steering column, the steering column switch cluster may be damaged when the steering wheel is turned!



**Necessary preliminary tasks:**

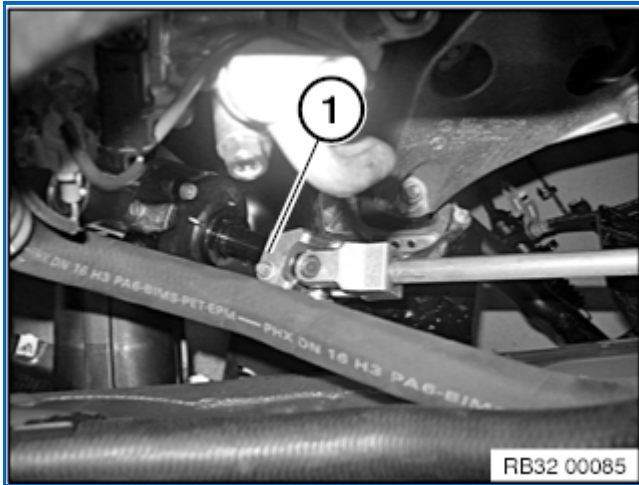
- Remove electronics box (only N47/B47/B37/B38)
- [Remove](#) trim panel for pedal mechanism
- Move steering column in "top" and "retracted" position.

Release and detach clamping bolts (1) of steering shaft on steering gear (in engine compartment).

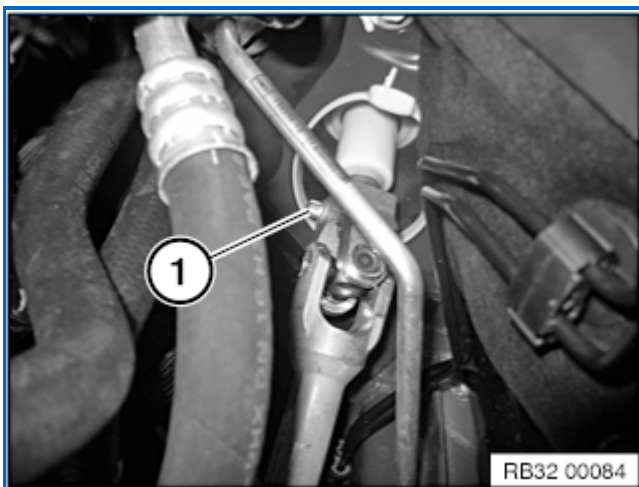
*Installation note:*

Clean screw threads to remove all remnants of screw locking adhesive.

Replace clamping bolts.



Tightening torque [32 31 2AZ](#).



Pull down steering shaft until clamping bolt (1) is accessible with tool (2).

Release clamping bolt (1) and remove steering shaft.

*Installation note:*

Clean screw threads to remove all remnants of screw locking adhesive.

Replace clamping bolts.

Counter-hold the steering shaft in the passenger compartment on the steering column when sliding the universal joint onto the steering column!

Connect steering spindle first to steering column and then to steering gear.

Clamping bolt must rest in groove of steering box or steering column.

No retorquing permitted!

Tightening torque [32 31 3AZ](#).



**After installation:**

- Turn steering wheel in both directions to the limit position. The airbag indicator light must not light up in the process.

REP-REP-RAF2051-5171039 V.12 Removing and installing/replacing front left or right wheel arch cover (rear section), VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

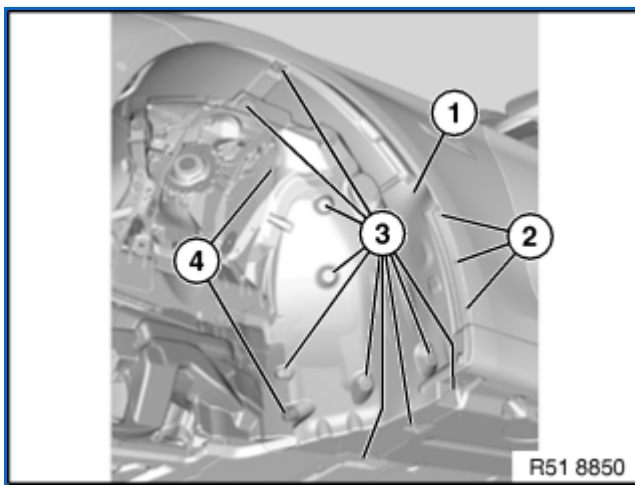
51 71 039

Removing and installing/replacing front left or right wheel arch cover (rear section)



**Necessary preliminary work:**

- Remove [front wheel](#)



*Note:*

For a better view surrounding components have been omitted.

Release all screws (3).

Release expanding rivets (2) and (4).

*Installation note:*

Replaced expanding rivets (2).

Remove front wheel arch cover (1).

*Installation note:*

Make sure front wheel arch cover (1) is correctly seated.

REP-REP-RAF2031-3111506 V.11 Lowering/raising front axle support (universal lifter), VIN: XXXXXXXXXX

---

ISTA system version	4.04.20.19163	Data version	R4.04.20	Programming data	-
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

---

31 11 506

Lowering/raising front axle support  
(universal lifter)

**Special tools required:**

- [31 5 251](#)
- [00 2 030](#)
- [31 5 255](#)
- [31 5 253](#)



**Warning!**

Danger of injury!

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

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 front axle support:

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

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

- Load spring strut domes with sand bags.



### Warning!

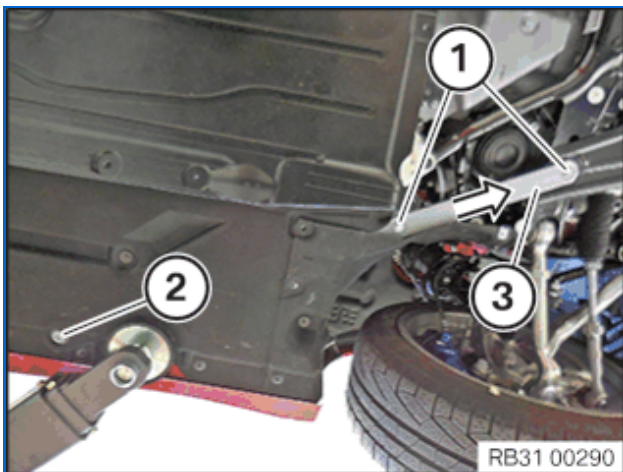
Danger to life!

[Secure engine in installation position with special tool](#) to prevent it from falling down.



### Necessary preliminary tasks:

- Secure [engine in installation position](#).
- [Disconnect battery](#).
- [Remove](#) underbody protection at front and rear.
- F33Remove : stiffening plate.
- Remove [steering shaft from steering gear](#).
- Release [wheel arch panel](#) in rear area.
- Remove [steering assembly cover](#). (N47)



### F33:

Release screws (1).

Tightening torque [31 10 8AZ](#).

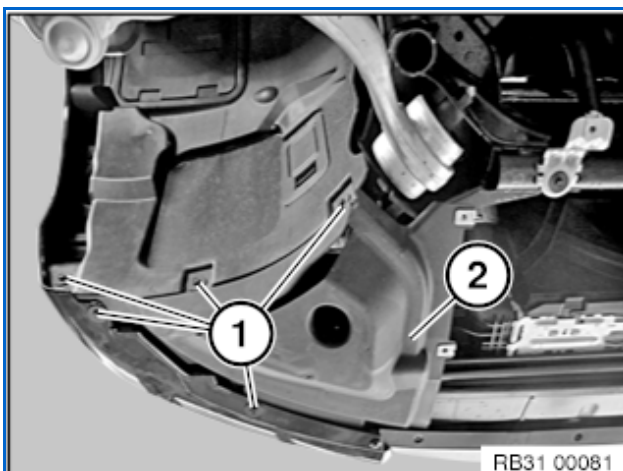
Release screw (2).

Tightening torque [31 10 9AZ](#).

Remove left and right torsion strut.

*Installation note:*

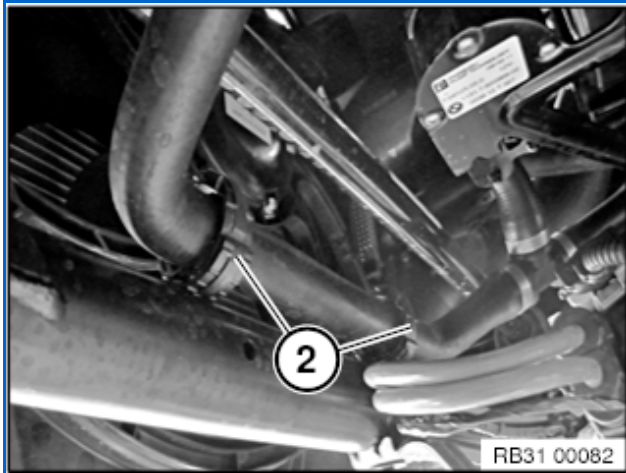
Replace screws (1) and (2).



Release screws (1).

Remove cover (2). (Right-hand side is identical).



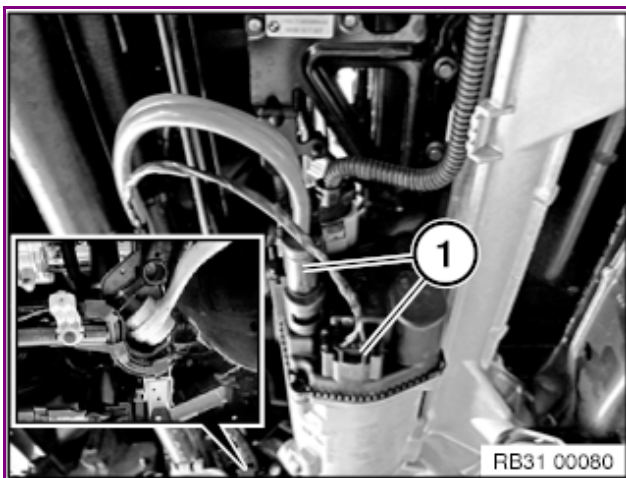


Unlock holder (1).

Take out coolant hose.

*Installation note:*

Replace faulty holders.

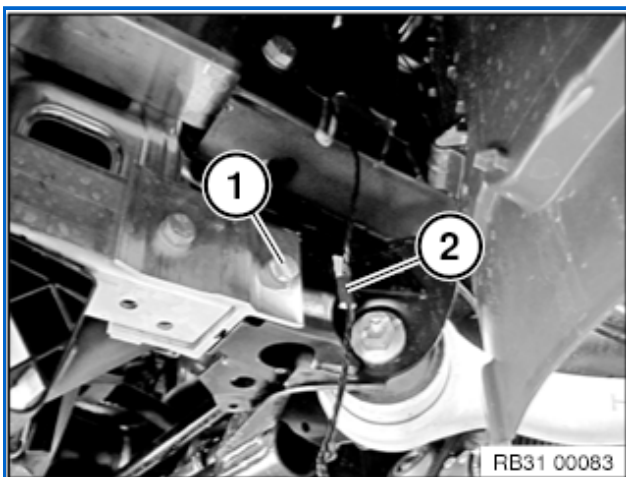


Unlock and disconnect plug connection (1) on steering gear.

Unclip cable routing from front axle support and fold back cable toward engine support.

*Installation note:*

Replace faulty cable clips.



Release screws (1) on left and right.

Tightening torque [51 11 6AZ](#).

Unclip cable tie (2).

*Installation note:*

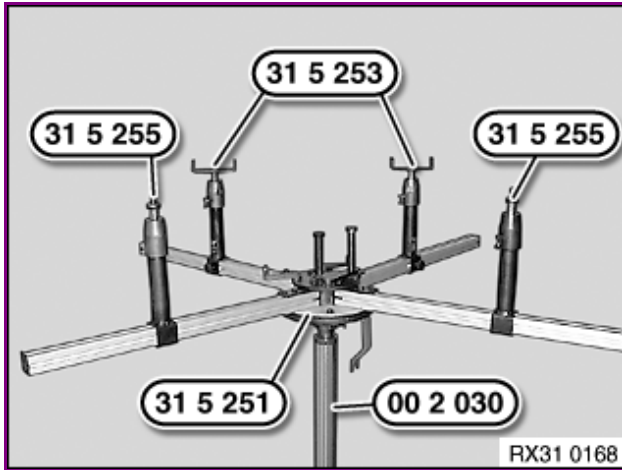
Replace faulty cable clips.

Engage special tool [31 5 251](#) with a 2nd person helping completely on workshop jack [00 2 030](#).

Insert special tools [31 5 255](#) in telescopic supports of a profile rail pair.

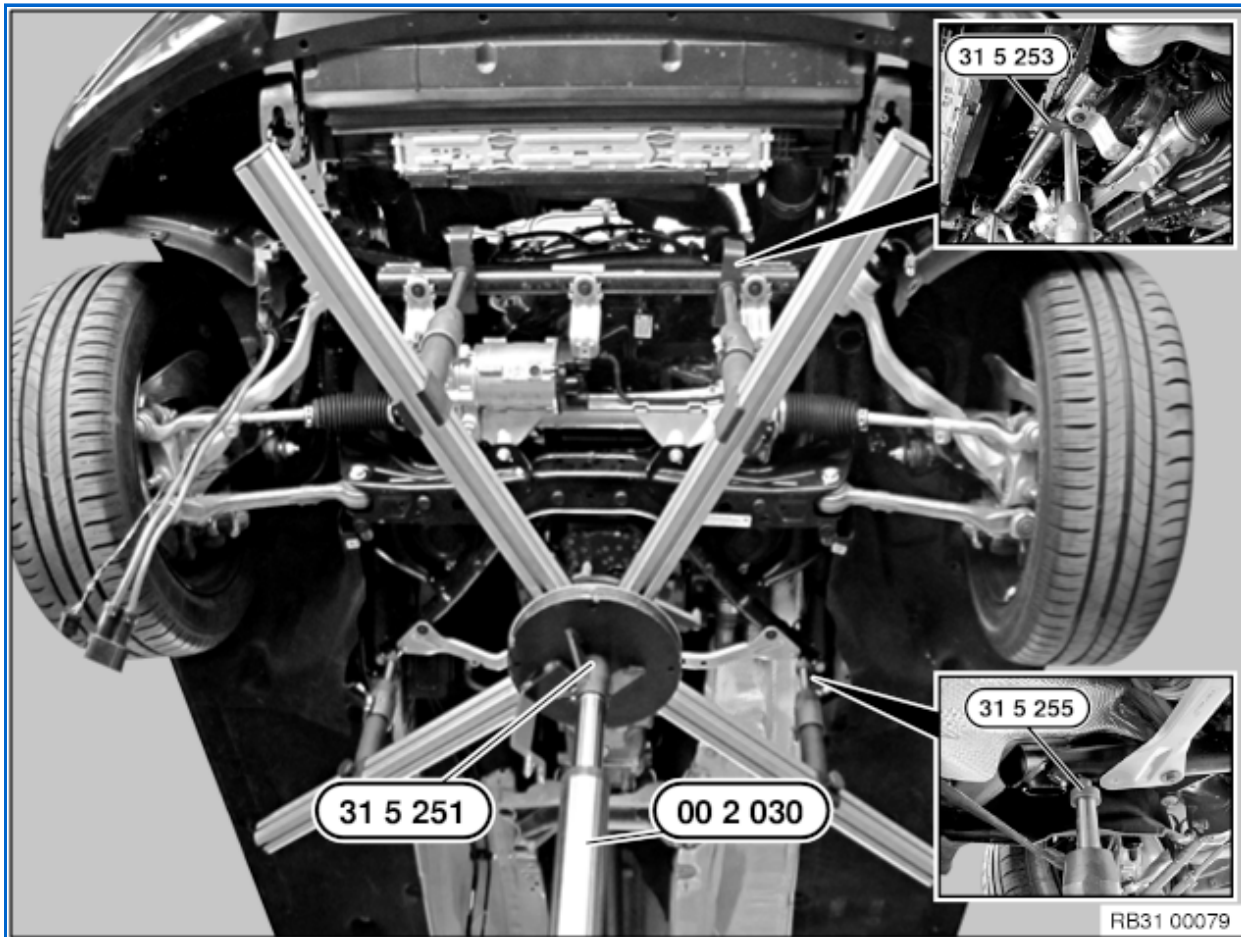
Insert special tools [31 5 253](#) in telescopic supports of other profile rail pair.





*Note:*

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



*Note:*

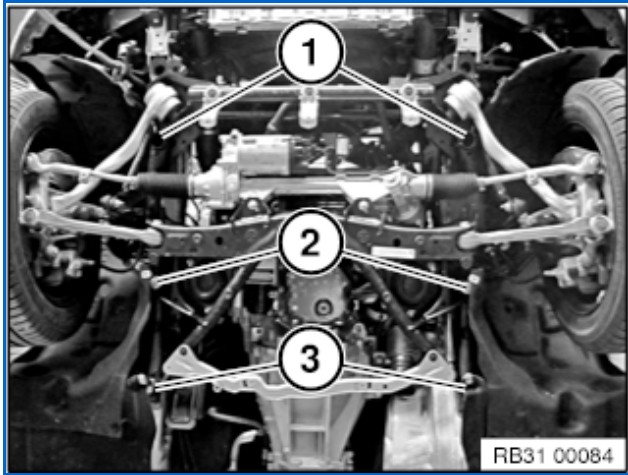
The mounting points on the left side are shown.

Align special tools [31 5 251](#), [31 5 253](#) and [31 5 255](#) to front axle support.

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

**Important!**

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



Release bolts (1-3).

Tightening torque [31 10 1AZ](#).

Lower front axle support by no more than 10 cm.

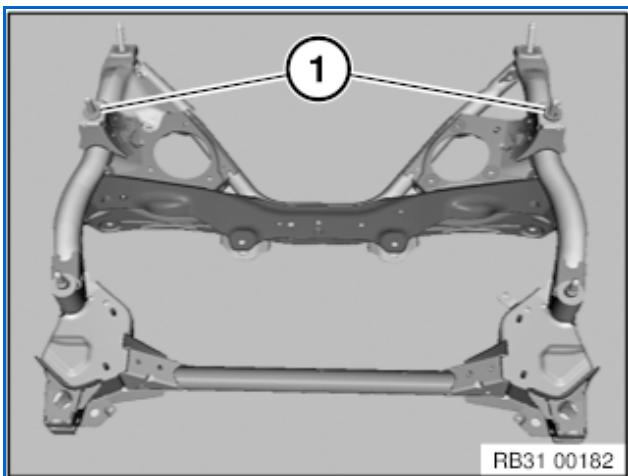
*Installation note:*

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

Note installation locations of screws.

- Bolt (1) M12x45
- Screw (2) M12x165 (foam seal between front axle support and body!)
- Screw (3) M14x60

Tighten down first screws (1) and then screws (2,3).



*Installation note:*

Renew foam seal (1).

REP-REP-RAF2031-3135000 V.10 Removing and installing/replacing front anti-roll bar, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

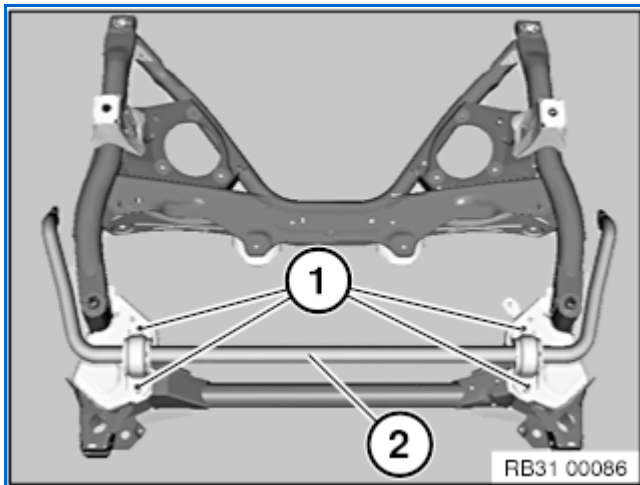
31 35 000

Removing and installing/replacing front anti-roll bar



Necessary preliminary tasks:

- Remove [anti-roll bar links from anti-roll bar](#).
- Lower [front axle support](#).



Unscrew nuts (1).

Tightening torque [31 35 1AZ](#).

Remove retaining brackets.

Remove anti-roll bar (2) forward.

*Installation note:*

Replace nuts (1).

Check both rubber mounts for damage.

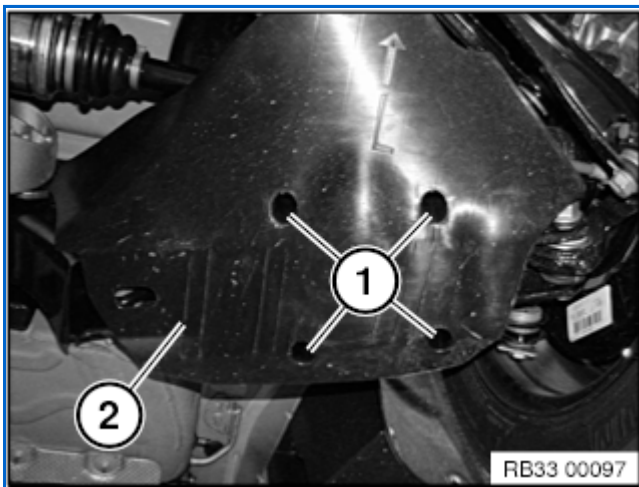
- In the event of rubber mount damage, the anti-roll bar must be renewed.

REP-REP-RAF2033-3332188 V.9 Removing and installing/replacing left or right camber arm cover, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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 32 188

Removing and installing/replacing left or right camber arm cover



Unscrew nuts (1).

Tightening torque [33 32 11AZ](#).

Remove cover (2).

*Installation note:*

Replace nuts.

Observe positions of marks for L (left) and R (right).

The arrow on the cover points toward the front of the vehicle.

REP-REP-RAF2033-3352010 V.10 Removing and installing rear left or right shock absorber, VIN: [REDACTED]

---

ISTA system version	4.04.20.19163	Data version	R4.04.20	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 52 010

**Removing and installing rear left or right shock absorber**



**Warning!**

Vehicle may tilt off vehicle hoist if the workshop jack is incorrectly handled.

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!**

- [Read and comply with Information on replacing shock absorbers.](#)



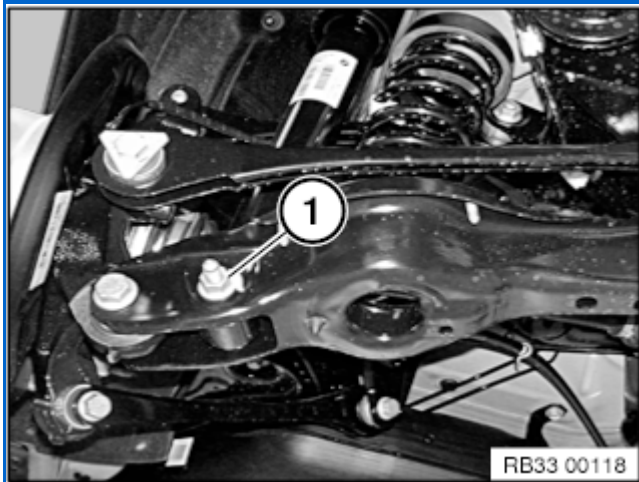
*Installation note:*

1. All screws, nuts, bolts and hose clamps removed during the repair must be replaced.
2. Retaining elements on chassis and suspension and steering parts must be replaced.

**Necessary preliminary tasks:**



- Remove [rear wheel](#).
- Remove [camber arm cover](#).



Support wheel carrier with workshop jack.

Slacken nut (1).

Tightening torque [33 52 3AZ](#)

Lift wheel carrier with workshop jack to the point where the screw can be removed.

Slowly lower workshop jack until wheel carrier is suspended.

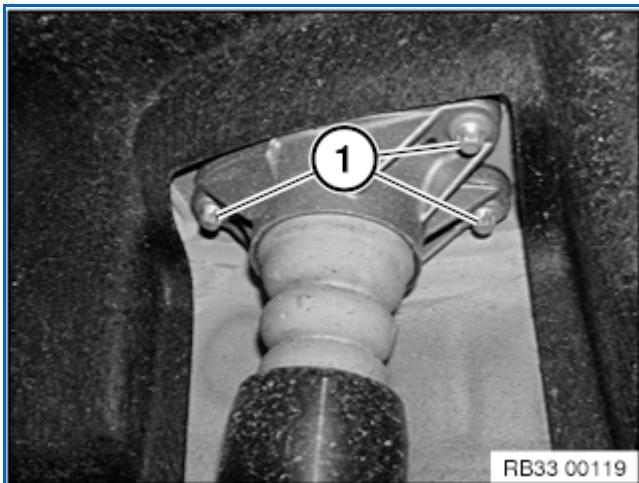
Remove workshop jack from under vehicle.

*Installation note:*

Replace screw and nut.

Note direction of insertion of screw.

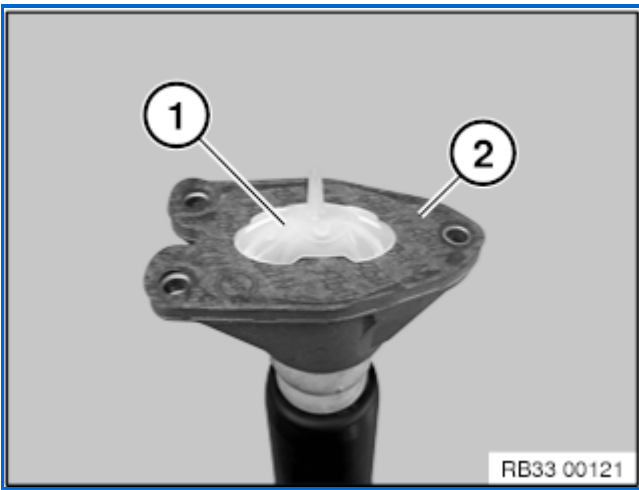
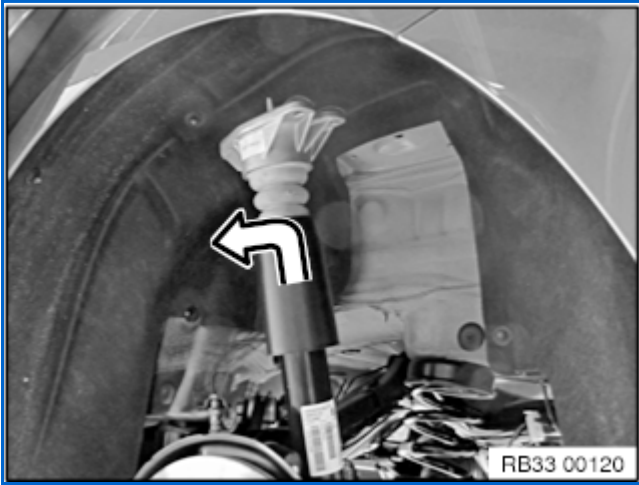
Tighten down screw connection in [normal position](#).



Release screws (1) on support bearing.

Tightening torque [33 52 1AZ](#).

Press shock absorber together and remove upward from wheel arch.



*Installation note:*

Check protective cap (1) and sealing washer (2) for damage and renew if necessary.



REP-REP-RAF2033-3353000 V.12 Removing and installing / replacing rear left or right coil spring, VIN: [REDACTED]

---

ISTA system version	4.04.20.19163	Data version	R4.04.20	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 53 000

Removing and installing /  
replacing rear left or right coil  
spring

**Special tools required:**

- [33 5 010](#)
- [33 5 013](#)
- [33 5 014](#)
- [33 5 015](#)
- [33 5 016](#)
- [33 5 017](#)
- [33 5 020](#)
- [2 241 786](#)
- [2 241 788](#)

**Important!**

Both coil springs on the relevant axle must be replaced in the event of corrosion breakage.

The spring pads at the top and bottom must also be renewed when replacing the coil springs.

Avoid damaging the coil spring coating.

*Note:*

The coil spring is allocated in the Electronic Parts Catalogue (EPC) under the item "Spring table" after the vehicle identification number has been entered and the optional equipments of the car have been selected.



### Warning!

Before using the special tool [33 5 010](#) take care to read through the Owner's Handbook!

All the safety precautions and instructions contained in the Owner's Handbook must be strictly observed!

Failure to observe these safety precautions and instructions increases the risk of serious physical injury, damage to your health and damage to property and equipment!



### Important!

1. Use special tool approved by BMW only!
2. Prior to each use, check the special tools for defects, modifications and operational reliability.
3. Damaged/modified special tools must not be used!
4. No changes or modifications may be made to the special tools!
5. These special tools are intended solely for the purpose of tightening and relieving cylindrical and tapered suspension springs.
6. Keep special tools dry, clean and (down to the spindle) free from grease.
7. Impact screwdrivers are prohibited!
8. Do not compress coil spring to full extent.



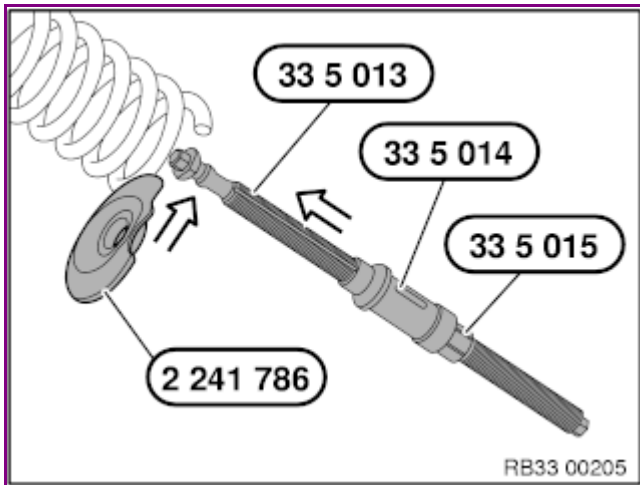
### *Installation note:*

1. All screws, nuts, bolts and hose clamps removed during the repair must be replaced.
2. Retaining elements on chassis and suspension and steering parts must be replaced.



### Necessary preliminary tasks:

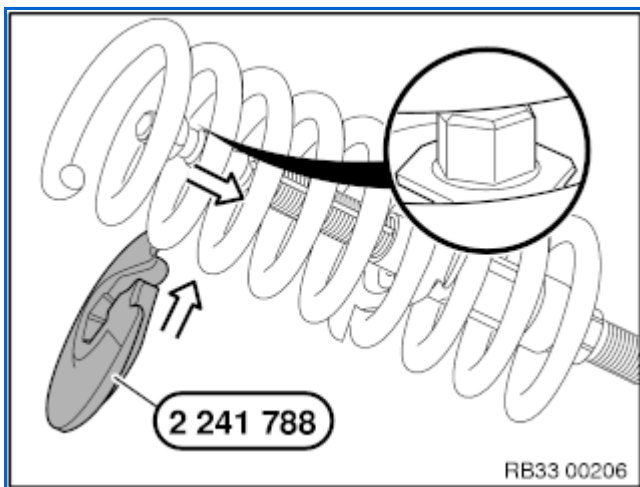
- Remove [rear wheel](#).
- Remove [camber arm cover](#).



### Removal:

Insert lower spring cup [2 241 786](#) centrally into coil spring and turn to lowest winding.

Guide spindle [33 5 013](#), [33 5 014](#), [33 5 015](#) from below through the camber link and the lower spring cup [2 241 786](#).

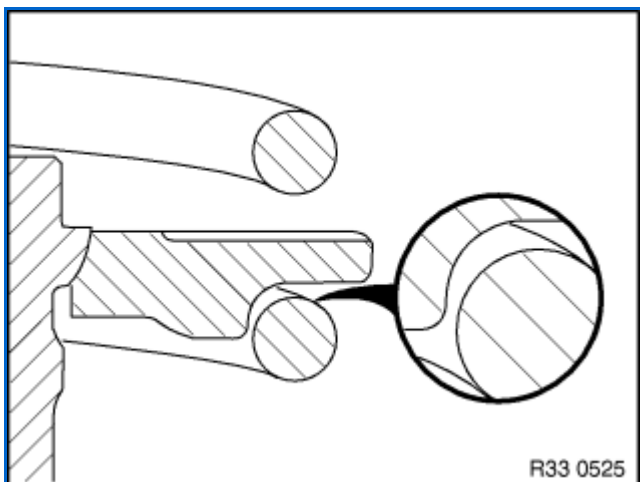


Insert top spring cup [2 241 788](#) sideways into coil spring and turn to the uppermost winding.

### Important!

Make sure spindle (hexagonal) is correctly seated in upper spring cup [2 241 788](#)!

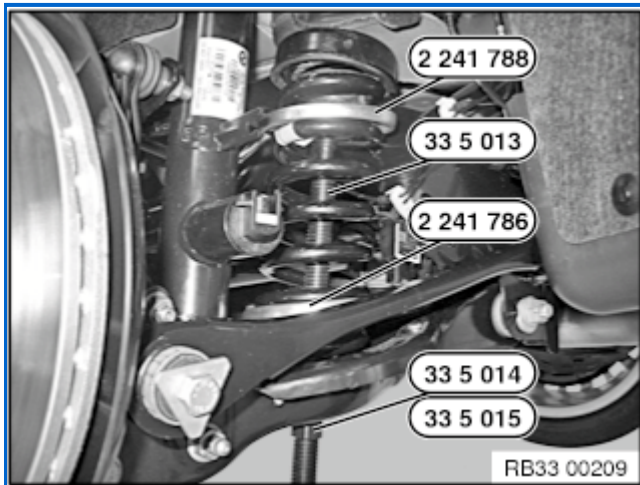
Pull spindle [33 5 013](#) down.



### Warning!

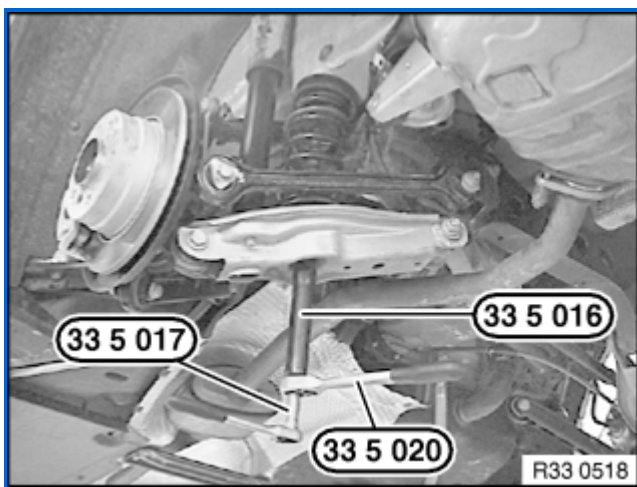
Danger of injury!

Make sure coil spring is correctly positioned in spring cups.



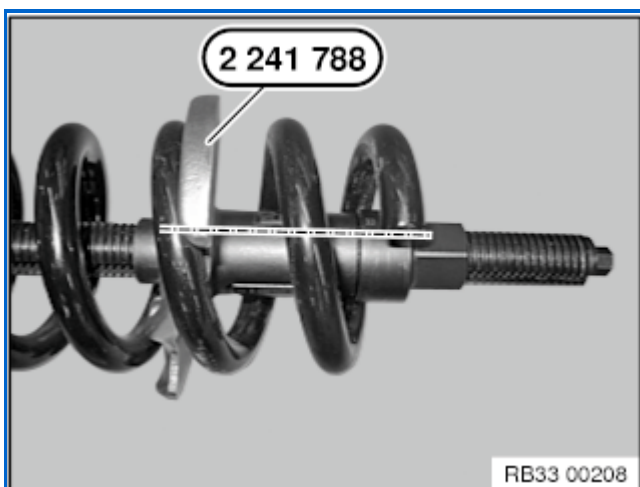
Centre special tools [2 241 786](#), [2 241 788](#), [33 5 013](#), [33 5 014](#), [33 5 015](#) to achieve the greatest possible contact surface with the coil spring.

Check installation position of special tools [2 241 786](#), [2 241 788](#), and [33 5 013](#), [33 5 014](#), [33 5 015](#), correct if necessary.



Tighten coil spring using special tools [33 5 016](#) and [33 5 020](#), gripping the spindle of the spring tensioner with special tool [33 5 017](#).

Remove coil spring upwards.



### Important!

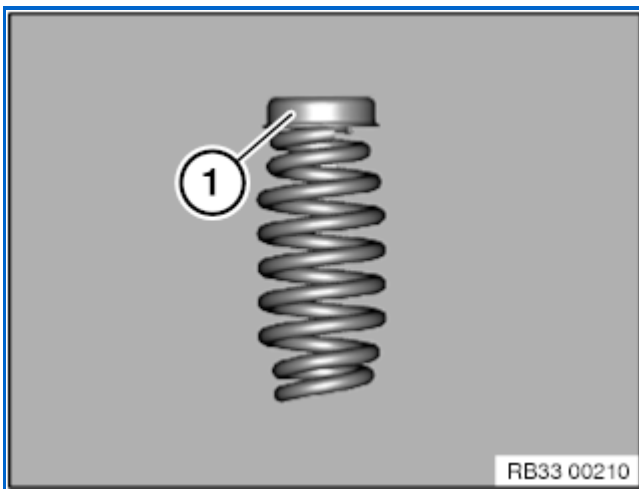
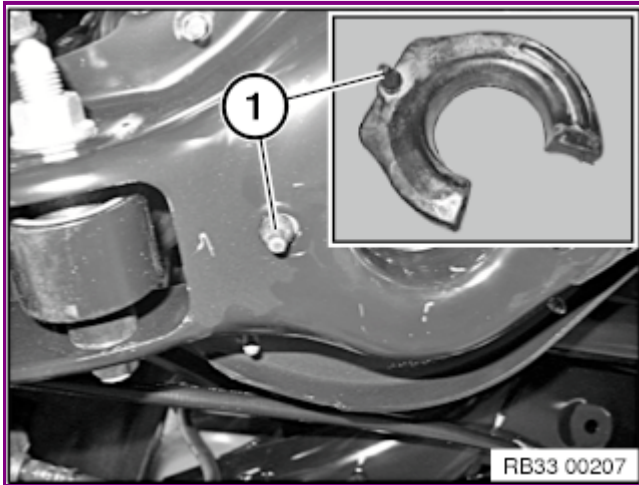
#### Replacement:

Relieve tension on coil spring.

Insert spring tensioner in the new spring and position spring tensioner in the new spring so that the bottom end of coil spring (1) is flush with the opening of spring cup [2 241 786](#) (see drawn line)!

Check spring pad for damage, renew if necessary.

Insert spring pad in camber control arm so that plastic tab (1) is positioned in outer bore hole of camber control arm.

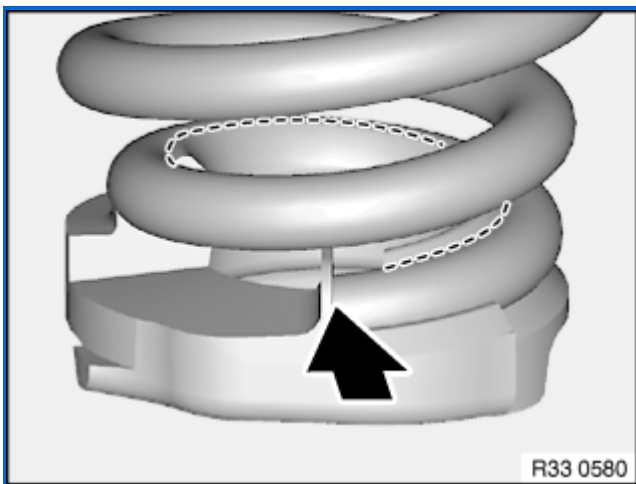


### Installation:

Place top spring pad (1) on coil spring.

#### *Note:*

Upper spring pad (1) must come into contact with end of coil spring.



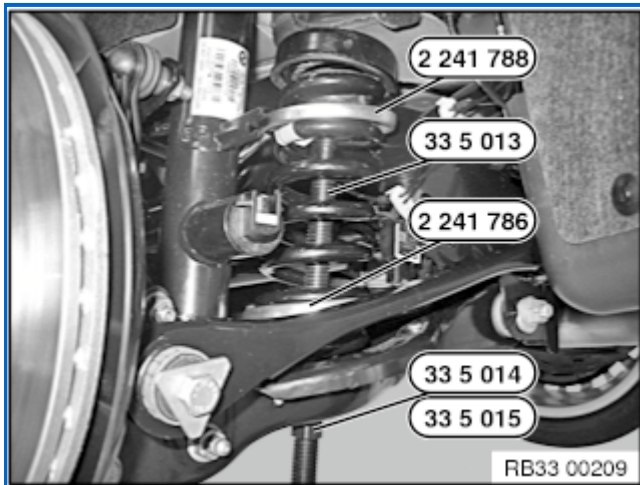
### Important!

Observe the following when installing and relieving tension on coil spring:

- Lower spring pad must be positively seated in the designated receptacle in the camber arm
- Note: Otherwise there is a risk of the coil spring jumping out sideways.
- Lower spring pad must come into contact with end of coil spring (see arrow)
  - Lower spring pad must rest flush on last coil (see broken line)

Firstly insert coil spring in camber link.

Press wheel carrier slightly towards bottom by hand with second person and install coil spring with fitted spring



pad at top in spring cup.

Check fitting of coil springs in spring pads (top and bottom), if necessary again align and relieve tension.

Remove special tools [2 241 788](#), [2 241 786](#) and [33 5 013](#), [33 5 014](#), [33 5 015](#).



**After installation:**

- Check [headlight adjustment](#), correct if necessary.

REP-REP-RAF2033-3352012 V.9 Replacing rear left or right side shock absorber, VIN: XXXXXXXXXX

ISTA system version 4.04.20.19163

Data version R4.04.20

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 52 012

Replacing rear left or right side shock absorber

**Special tools required:**

- [2 355 965](#)
- [2 355 966](#)

**Important!**

- When replacing the shock absorber, renew the auxiliary damper as well.
- [Read and comply with Information on replacing shock absorbers.](#)

**Installation note:**

1. All screws, nuts, bolts and hose clamps removed during the repair must be replaced.
2. Retaining elements on chassis and suspension and steering parts must be replaced.

**Necessary preliminary tasks:**

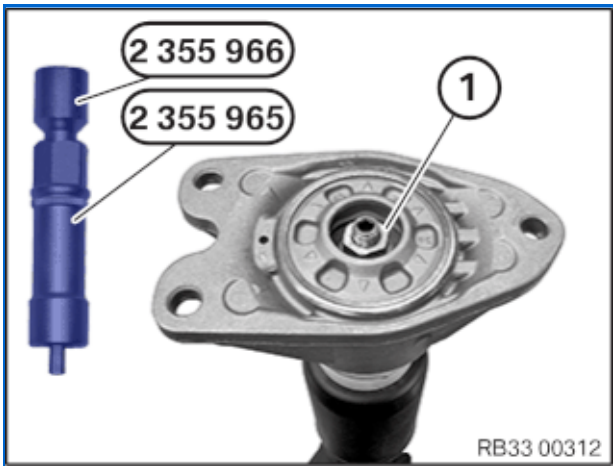
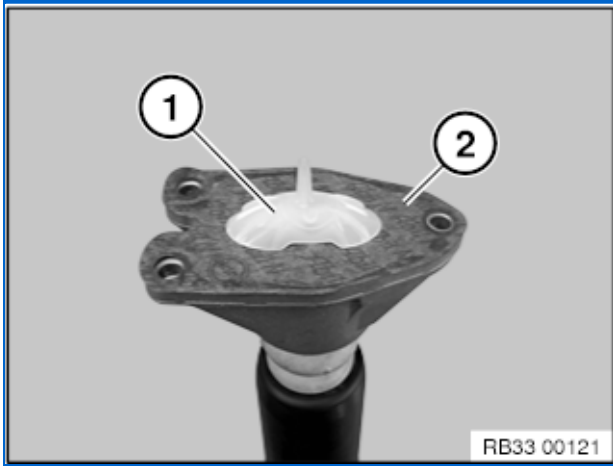
- Remove the [shock absorber](#).

Remove protective cap (1) and sealing washer (2).

**Installation note:**

Replace the faulty components.





Release nut (1) with special tool [2 355 965](#) and [2 355 966](#).

Tightening torque [33 52 2AZ](#).

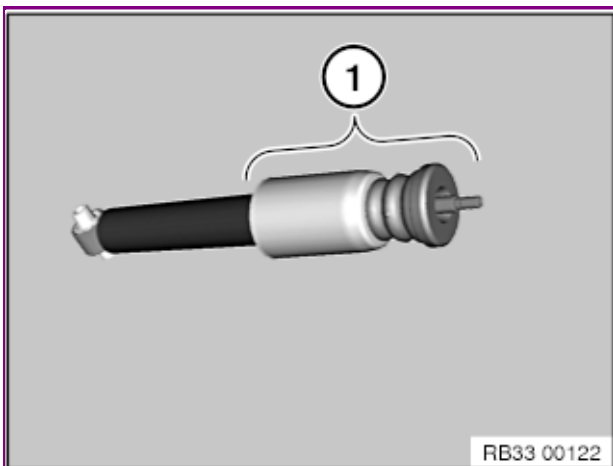
*Installation note:*

Renew nut.



Impact screwdrivers are prohibited!

**Risk of damage inside the shock absorber!**



Replace auxiliary damper with protective tube (1).

REP-REP-RAF2033-3352161 V.10 Replacing rear left or right support bearing for spring strut/shock absorber, VIN: [REDACTED]

ISTA system version 4.04.20.19163

Data version R4.04.20

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 52 161

Replacing rear left or right support bearing for spring strut/shock absorber

**Special tools required:**

- [2 355 965](#)
- [2 355 966](#)



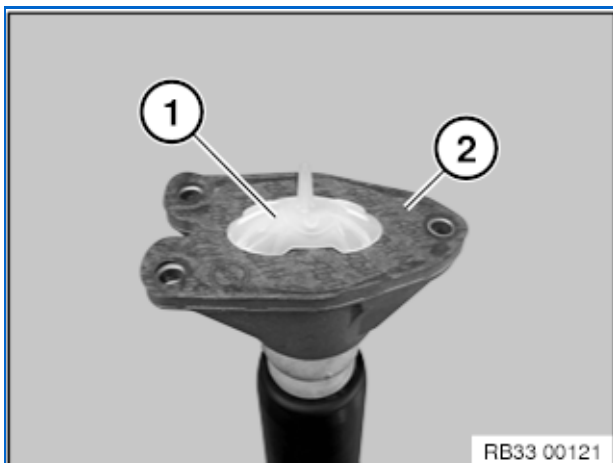
*Installation note:*

1. All screws, nuts, bolts and hose clamps removed during the repair must be replaced.
2. Retaining elements on chassis and suspension and steering parts must be replaced.



**Necessary preliminary tasks:**

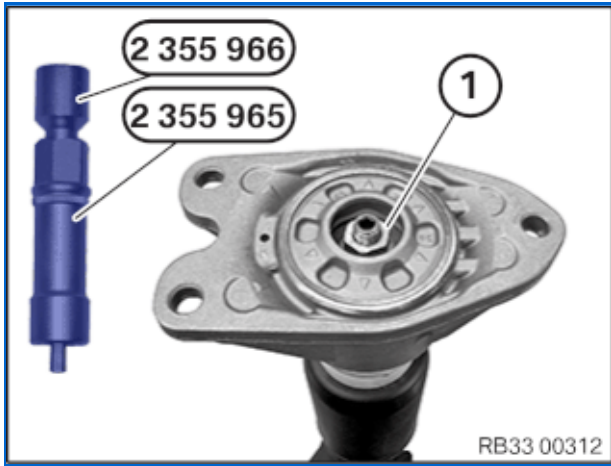
- Remove the [shock absorber](#).



Remove protective cap (1) and sealing washer (2).

*Installation note:*

Replace the faulty components.



Use special tools [2 355 965](#) and [2 355 966](#) to undo the nut (1).

Tightening torque [33 52 2AZ](#).

*Installation note:*

Renew nut.



Impact screwdrivers are prohibited!

**Risk of damage inside the shock absorber!**

REP-REP-RAF2033-3355041 V.9 Replacing anti-roll bar link for anti-roll bar bar on left or right, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

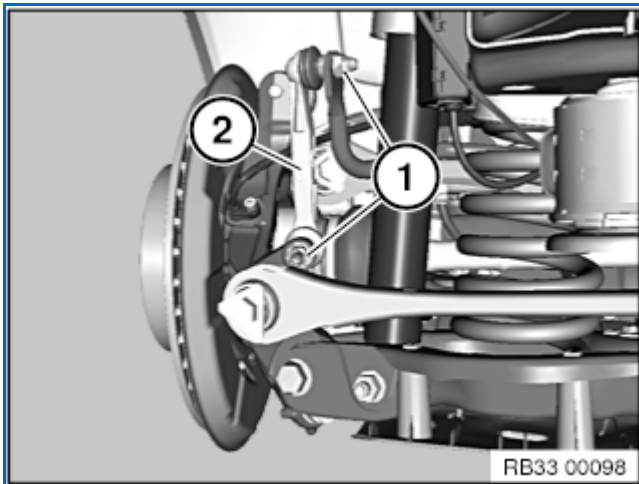
33 55 041

Replacing anti-roll bar link for anti-roll bar bar on left or right



Necessary preliminary tasks:

- Remove [rear wheel](#).



Release nuts (1); if necessary, grip at inner Torx socket.

Tightening torque [33 55 2AZ](#).

Remove anti-roll bar link (2).

*Installation note:*

Replace self-locking nuts.

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

ISTA system version	4.04.20.19163	Data version	R4.04.20	Programming	- data
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	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:

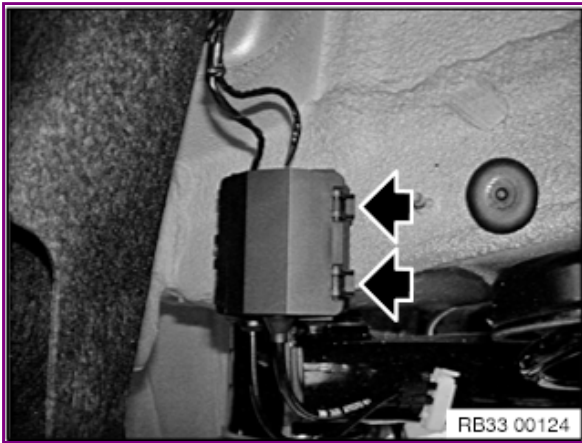
Observe [safety instructions](#) for raising the vehicle

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



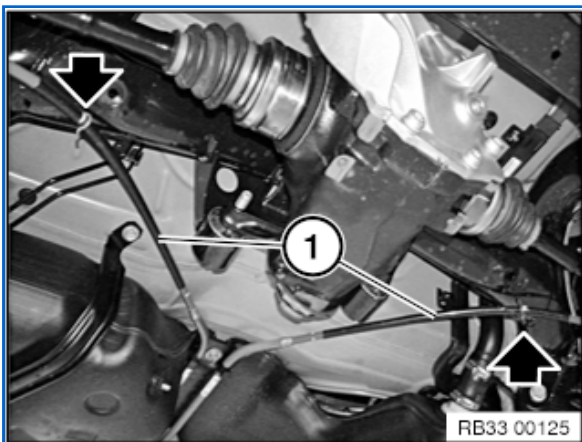
### Necessary preliminary tasks:

- 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.)

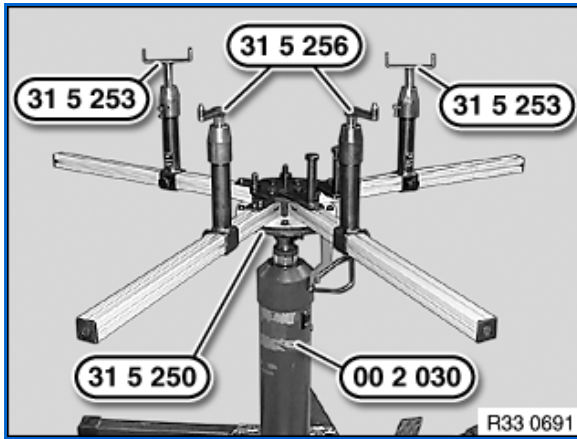


Detach Bowden cable (1) of parking brake from rear axle support.

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

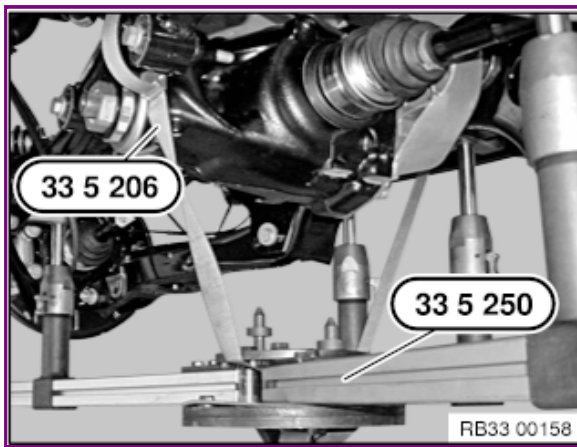
Insert special tools [31 5 256](#) in telescopic supports of a profile rail pair.

Insert special tools [31 5 253](#) in telescopic supports of other profile rail pair.

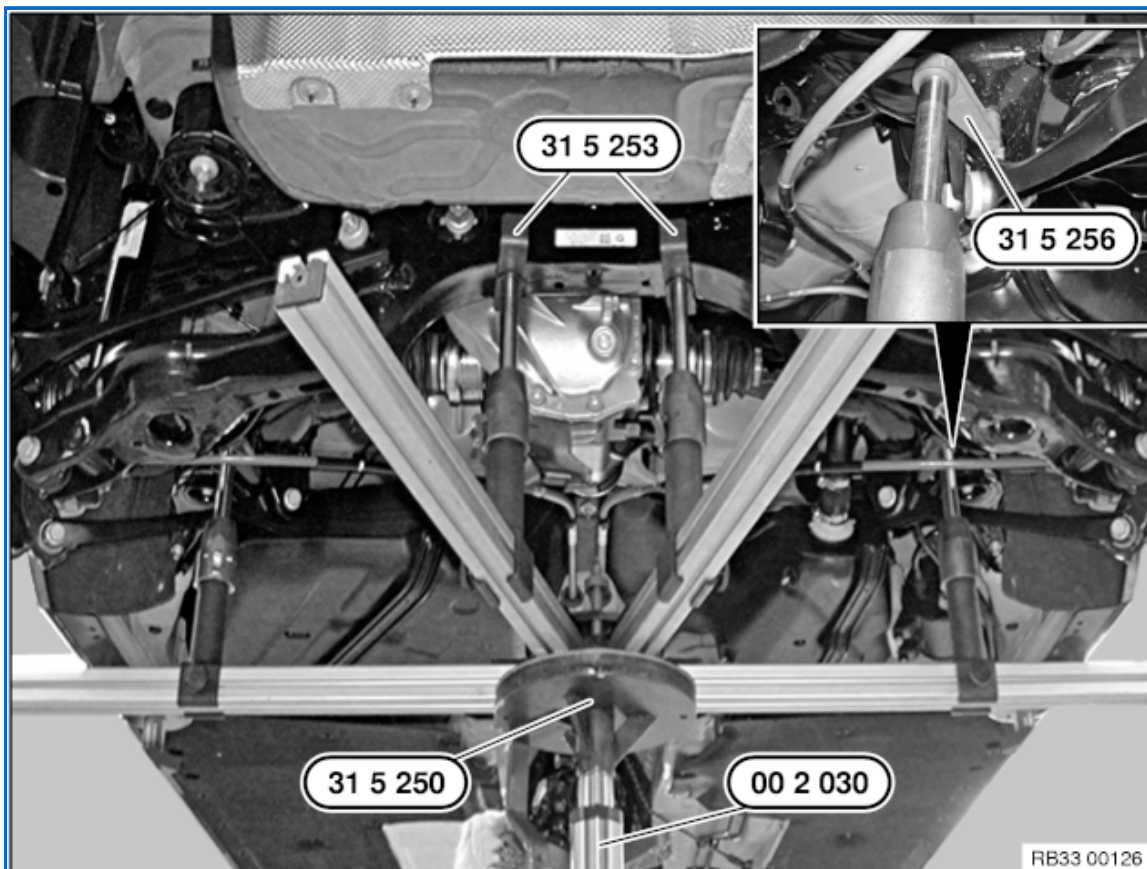


*Note:*

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.

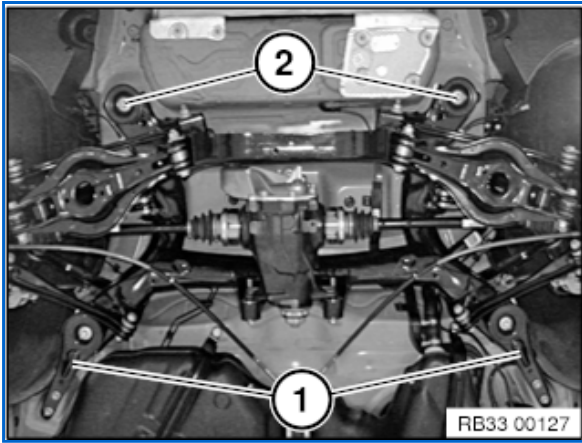
Support rear axle support by operating workshop jack [00 2 030](#).

**Important!**

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

Remove [compression struts](#) (1).





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

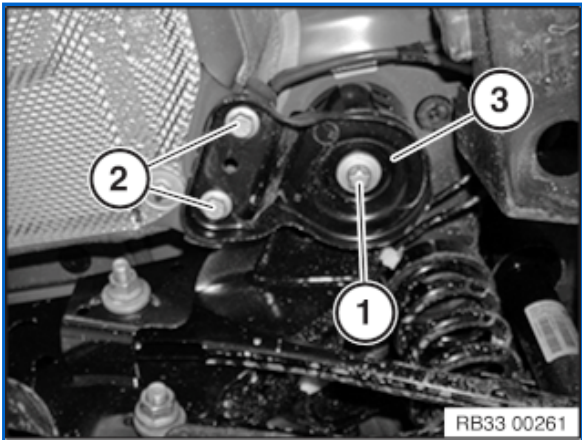
Tightening torque [33 33 1AZ](#).

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).

REP-REP-RAF2033-3355021 V.9 Replacing both rubber mounts for anti-roll bar mounting, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

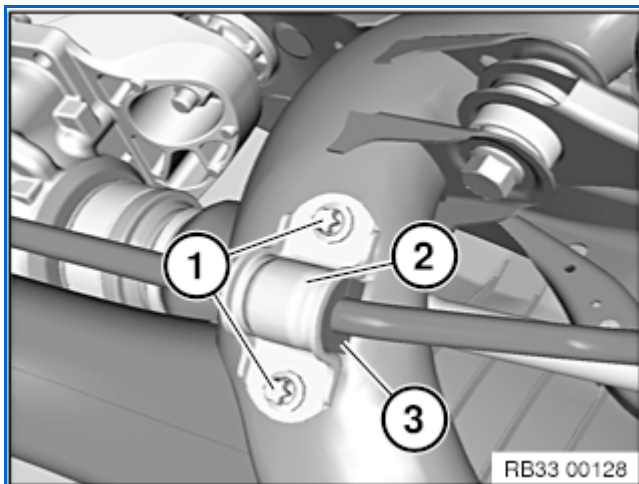
33 55 021

Replacing both rubber mounts for anti-roll bar mounting



Necessary preliminary tasks:

- Lower [rear axle support](#).



Release screws (1).

Tightening torque, [33 55 1AZ](#).

Remove retaining brackets (2).

Slide rubber mount (3) towards vehicle exterior and remove.

*Installation note:*

Keep retaining bracket (2), rubber mount (3) and anti-roll bar clean and free from oil and grease.

Clean anti-roll bar on both sides.

Slide rubber mount with retaining bracket on anti-roll bar to installation position.

## REP-REP-RAF2033-3355000 V.9 Removing and installing/replacing rear anti-roll bar, VIN: [REDACTED]

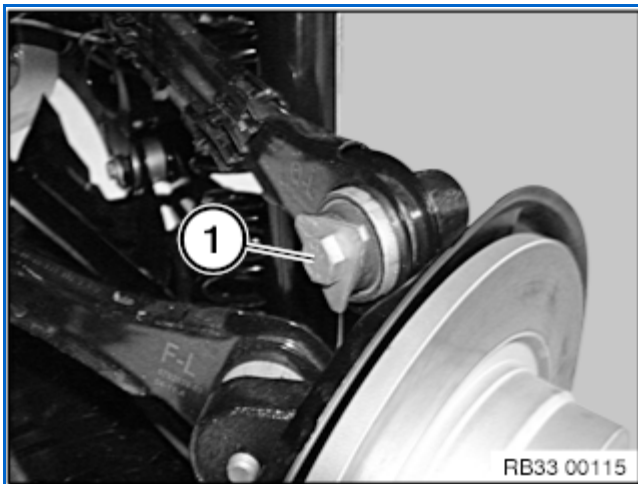
ISTA system version	4.04.20.19163	Data version	R4.04.20	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

33 55 000

Removing and installing/replacing rear anti-roll bar

**Necessary preliminary work:**

- Undo [anti-roll bar links at the anti-roll bar](#).
- Lower [rear axle support](#).



Release screw (1). (Left side only.)

Tightening torque [33 32 6AZ](#).*Installation note:*

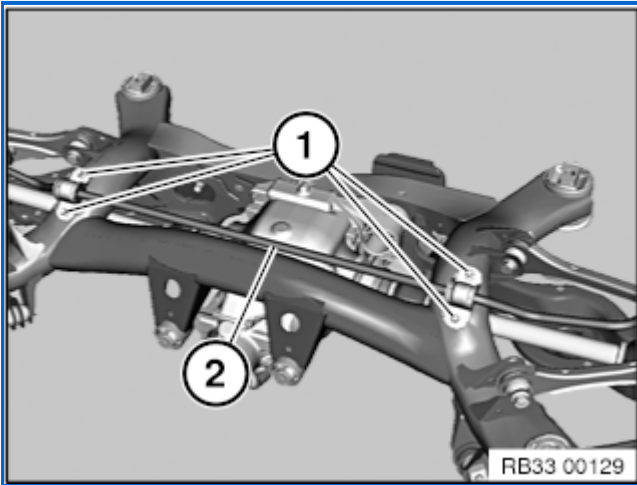
Replace screw.

Tighten down screw connection in [normal position](#).*Note:*

To simplify the graphic, anti-roll bar removal is shown on the removed rear axle.

Release screws (1).

Tightening torque [33 55 1AZ](#).Remove both [rubber mounts from anti-roll bar](#).



Turn anti-roll bar (2) and remove toward the left side.

*Installation note:*

Check both rubber mounts for damage and replace if necessary.

REP-REP-RAF2033-3333001 V.9 Replacing left or right rear axle support compression strut, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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 33 001

Replacing left or right rear axle support compression strut



**Important!**

Observe [safety instructions](#) for raising the vehicle  
Driving without compression struts is not permitted!

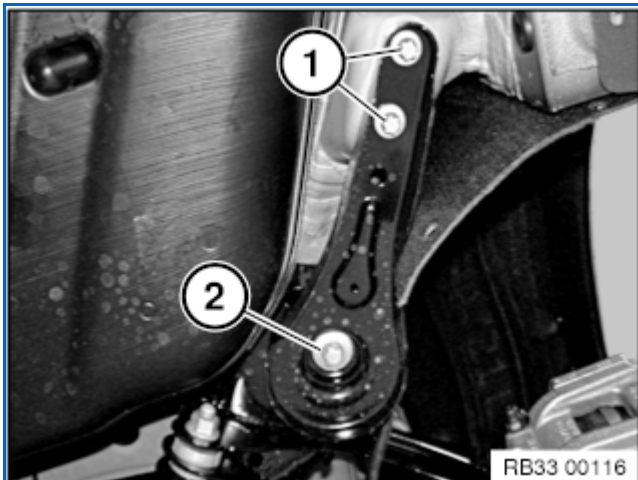
Risk of damage!

The rear axle support must be supported at the front if both compression struts need to be replaced.



**Necessary preliminary work:**

- Remove [tank cover](#).



Release screws (1).

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

*Installation note:*

Replace screws.

Release screw (2) and remove compression strut.

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

*Installation note:*

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

## REP-REP-RAF3063-6310004 V.8 Adjusting headlights, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

63 10 004

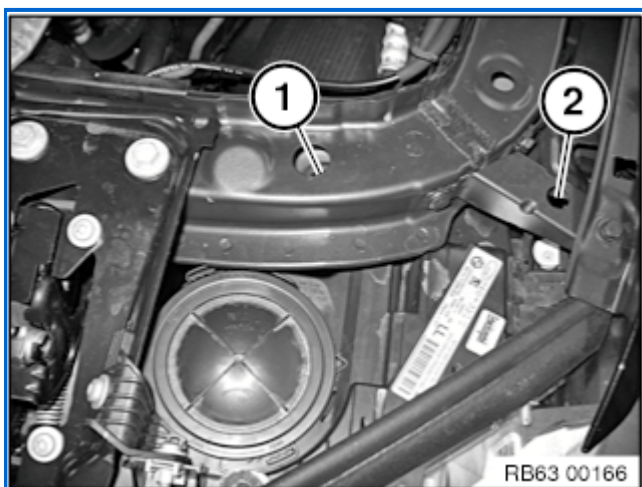
## Adjusting headlights



[Comply](#) with test prerequisites for headlight adjustment.

**Important!**

Do not damage adjusting screws when adjusting headlights.

**F30,F31,F35,F80 only:**

Carry out headlight adjustment at adjusting screws (1) and (2).

1. Adjusting screw primarily for vertical adjustment
2. Adjusting screw primarily for lateral adjustment

**After headlight adjustment:**

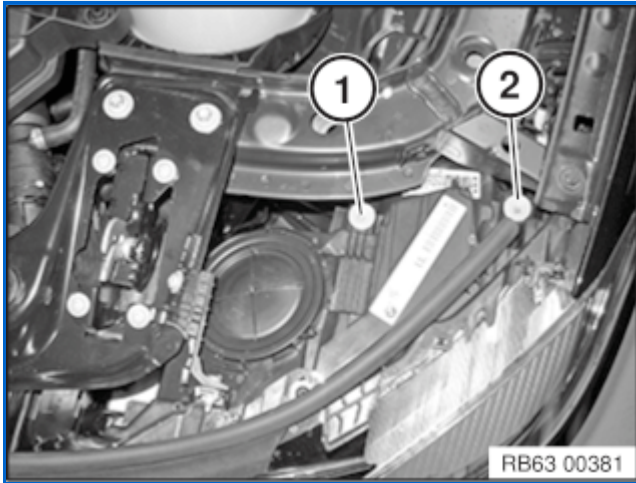
Perform reference run. For this purpose, switch off and on the headlights. Check again headlight adjustment.

**F34 only:**

Carry out headlight adjustment at adjusting screws (1) and (2).

1. Adjusting screw primarily for vertical adjustment

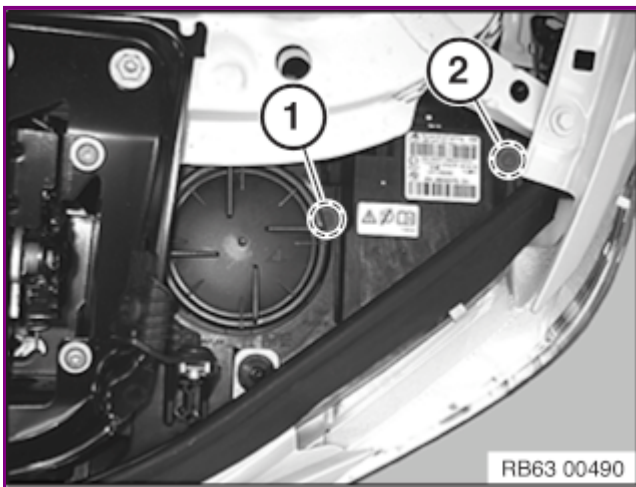




2. Adjusting screw primarily for lateral adjustment

After headlight adjustment:

Perform reference run. For this purpose, switch off and on the headlights. Check again headlight adjustment.



**Only for F32, F33, F36, F82, F83:**

Carry out headlight adjustment at adjusting screws (1) and (2).

1. Adjusting screw primarily for vertical adjustment
2. Adjusting screw primarily for lateral adjustment

After headlight adjustment:

Perform reference run. For this purpose, switch off and on the headlights. Check again headlight adjustment.

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

ISTA system version	4.04.20.19163	Data version	R4.04.20	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 °

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

ISTA system version	<b>4.04.20.19163</b>	Data version	<b>R4.04.20</b>	Programming	- data
VIN	[REDACTED]	Vehicle	<b>3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05</b>		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	<b>0 km</b>				

**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-AZDMUC2211-02 V.33 Engine mounting, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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 11 Engine mounting

	Type	Thread	Tightening specifications	Dimension
1AZ Engine mount to front axle support	F01 / F02 / F03 / F04 / F06 / F07 / F10 / F10 HY / F11 / F12 / F13 / F18 / F20 / F21 / F22 / F23 / F25 N57 / F30 / F30 HY / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87 / F18 PHEV / F30 PHEV	M8 8.8		19 Nm
	F25 / F26	M8X45		28 Nm
	F15 / F16 / F26 / F25 / F85 / F86 / F15 PHEV	M10X30		38 Nm
2AZ Engine mount to engine support arm	F01 / F02 / F03 / F04 / F06 / F07 / F10 / F10 HY / F11 / F12 / F13 / F18 / F80 / F82 / F83 / F18 PHEV	M12 10.9		100 Nm
	F15 F16 N57 (right engine mount) / F25 / F30 N57 (right engine mount)	M12 10.9		100 Nm
	F20 / F21 / F22 / F23 / F25 / F30(without N57) / F32 / F33 / F34 / F36 / F80 / F82 / F83 / F87	M10		56 Nm
	F25, F30 N57 (left engine mount)	M10		56 Nm
	F25 / F26	M12		66 Nm
	F30, F31 N47T / F30 HY	M10		55 Nm
	F35	M10		55 Nm
	F15,F16 N57 (left engine mount) / F15,F16 N63 / F15,F16 N55 / F15 PHEV / F85 / F86	M12		68 Nm

3AZ Engine support arm to engine	F01 / F02 / F03 / F04 / F06 / F07 / F10 / F10 HY / F11 / F12 / F13 / F15,F16 N63 / F18 / F20 / F21 / F22 / F23 / F25 / F26 / F30 / F31 / F32 / F33 N47 / F34 / F35 / F36 / F80 / F82 / F83 / F85 / F86 / F18 PHEV / F30 PHEV	M10 8.8		38 Nm
	F01 N54 / F02 N54 / F07 N55 / F10 N55 / F11 N55 / F15,F16 N55 / F20 N55 / F21 N55 / F22 N55 / F23 N55 / F25 N55 / F26 N55 / F30 N55 / F30 HY / F34 N55 / F33 N55 / F80 / F82 / F83 / F87	M12 8.8		66 Nm
	F01 / F02 / F10,F11 N52T, F10 / F11, N53 / F25 N52T	M12x46	Renew screws, jointing torque and angle of rotation must be observed without fail. 1. Jointing torque 2. Angle of rotation	34 Nm 90 °
	F20 N13 / F30 N13 / F31 N13	M10x70, M10x35		56 Nm
	F15 B47 / F15,F16 N57 / F15 PHEV / (right engine support arm)	M10 10.9		56 Nm
	F15 B47 / F15,F16 N57 / F15 PHEV / (left engine support arm)	M10 8.8		38 Nm
	F80 / F82	M10 10.9		56 Nm
	4AZ Additional mass to engine support arm, left	F01 / F02 / F06 / F07 / F10 / F10 HY / F11/ F18 / F15 / F16 / F25 / F26 / F30 / F31 / F80 / F82 / F83	M8 8.8	Renew screw
5AZ Engine support arm to front axle differential (reinforcing plate)	F01, F02, F07 / F25, (all-wheel drive vehicle)	M8		19 Nm
6AZ Tank ventilation line to engine	F20 / F21 / F30 / F31 / F33 / F34 / F35	M6		13 Nm

support arm				
7AZ Holder, electric vacuum pump to engine support arm	F30Hyb.			9 Nm

## AZD-AZD-AZDMUC3110-F2X\_F3X V.13 Front Axle Suspension, VIN: [REDACTED]

ISTA system 4.04.20.19163  
version

Data version R4.04.20

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

## 31 10 Front Axle Suspension

	Type	Thread	Tightening specifications	Dimension
1AZ Front axle support to body	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12x45 front		120 Nm
	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12x165 centre		120 Nm
	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M14x60, rear		120 Nm
2AZ Underride protection to front axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M5	Replace expansion nuts.	3 Nm
3AZ Heat shield to front axle carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M6		8 Nm
4AZ Reinforcement plate to front axle carrier	F20ALL / F21ALL / F22ALL / F23ALL / F30ALL / F31ALL / F32ALL / F33ALL / F34ALL / F35ALL / F36ALL	M10	Renew screws.	
			Jointing torque Angle of rotation	56 Nm 60 °
5AZ Vibration absorber to front axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36			28 Nm
6AZ Stiffening plate to front axle support	F23 (2WD) / F33 (2WD)	M10x22	Renew screws.	
			Jointing torque Angle of rotation	56 Nm 45 °
7AZ Stiffening plate on	F23 (2WD) / F33 (2WD)	M10x16	Renew screws.	75 of 94



adapter plate			Jointing torque Angle of rotation	56 Nm 90 °
8AZ Torsion strut to front axle support	F23 (2WD) / F33 (2WD)	M10x22	Renew screws.  Jointing torque Angle of rotation	  56 Nm 45 °
9AZ Torsion strut to side member	F23 (2WD) / F33 (2WD)	M12x35	Renew screw.  Jointing torque Angle of rotation	  100 Nm 90 °
10AZ Set protection to body	F30 PHEV	M12		56 Nm

AZD-AZD-AZDMUC3112-F2X\_F3X V.9 Trailing arms and struts, VIN: XXXXXXXXXX

ISTA system version	4.04.20.19163	Data version	R4.04.20	Programming	- data
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

## 31 12 Trailing arms and struts

	Type	Thread	Tightening specifications	Dimension
1AZ Tension strut to front axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12	Replace screw. <a href="#">Tighten down in normal position.</a> Jointing torque Angle of rotation	100 Nm 90 °
2AZ Tension strut to swivel bearing	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M14	Replace nut.	175 Nm
3AZ Wishbone to front axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12	Replace screw and nut. <a href="#">Tighten down in normal position.</a> Jointing torque Angle of rotation	100 Nm 90 °
4AZ Wishbone to swivel bearing	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M14	Replace nut.	175 Nm

AZD-AZD-AZDMUC3131-F2X\_F3X V.12 Spring Struts, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	Programming	- data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	Int.lev.(cur.)	-
Int.lev.works	-	Int.lev.(tar.)	-	Int.lev.(tar.)	-
Mileage	0 km				

## 31 31 Spring Struts

	Type	Thread	Tightening specifications	Dimension
1AZ Nut and locknut/self-locking nut	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8	Renew screws.  Jointing torque Angle of rotation	30 Nm 90 °
		M10	Renew screws.  Jointing torque Angle of rotation	56 Nm 90 °
2AZ Spring strut shock absorber to support bearing	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12	Renew nut.	64 Nm
3AZ Spring strut shock absorber to swivel bearing	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M10	Renew screw and nut.  Jointing torque Angle of rotation	44 Nm 90 °

AZD-AZD-AZDMUC3135-F2X\_F3X V.9 Anti-roll bar, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

**31 35 Anti-roll bar**

	Type	Thread	Tightening specifications	Dimension
1AZ Anti-roll bar bracket to front axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8	Replace nuts.	28 Nm
2AZ Anti-roll bar link to anti-roll bar/spring strut	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M10	Replace nut.	56 Nm

AZD-AZD-AZDMUC3221-F2X\_3X V.11 Drop Arm, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

**32 21 Drop Arm**

	Type	Thread	Tightening specifications	Dimension
1AZ Track rod to rack	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36			105 Nm
2AZ Track rod end to track rod	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36			32 Nm
3AZ Track rod end to swivel bearing	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M14	Replace nut	175 Nm

## AZD-AZD-AZDMUC3332-F2X\_F3X V.11 Trailing arms and struts, VIN: [REDACTED]

ISTA system 4.04.20.19163  
version

Data version R4.04.20

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 32 Trailing arms and struts

	Type	Thread	Tightening specifications	Dimension
1AZ	Trailing arm to rear axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12 Replace nut. <a href="#">Tighten down in normal position.</a>	100 Nm
2AZ	Trailing arm to wheel carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12 Replace nut. <a href="#">Tighten down in normal position.</a>	100 Nm
3AZ	Control arm to rear axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12 Replace nut. <a href="#">Tighten down in normal position.</a>	100 Nm
4AZ	Guide arm to wheel carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12 Replace screw. <a href="#">Tighten down in normal position.</a> Jointing torque Angle of rotation	100 Nm 90 °
5AZ	Wishbone to rear axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12 Replace nut. <a href="#">Tighten down in normal position.</a>	100 Nm
6AZ	Wishbone to wheel carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12 Replace screw. <a href="#">Tighten down in normal position.</a> Jointing torque Angle of rotation	100 Nm 90 °
7AZ	Toe arm to rear axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F35	M12 Replace nut. <a href="#">Tighten down in normal position.</a>	100 Nm
		F34 / F36	M12 Replace nut. <a href="#">Tighten down in normal position.</a>	108 Nm
		F20 / F21 / F22 / F23 /	M12 Replace screw.	

8AZ	Toe arm to wheel carrier	F30 / F31 / F32 / F33 / F34 / F35 / F36		<a href="#">Tighten down in normal position.</a>	Jointing torque Angle of rotation	100 Nm 90 °
9AZ	Camber arm to rear axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F35	M14	Replace nut. <a href="#">Tighten down in normal position.</a>		165 Nm
		F34 / F36	M14	Replace nut. <a href="#">Tighten down in normal position.</a>		175 Nm
10AZ	Camber arm to wheel carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M14	Replace nut.		165 Nm
11AZ	Aerodynamic cover on camber arm	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M6	Replace nuts.		4 Nm
12AZ	Tension strut to body	F20 / F21 / F22 / F23 / F31 / F32 / F33 / F34 / F36	M8			24 Nm
13AZ	Tension strut to compression strut	F20 / F21 / F22 / F23 / F31 / F32 / F33 / F34 / F36		Replace screws.	Jointing torque Angle of rotation	100 Nm 90 °



## AZD-AZD-AZDMUC3333-F2X\_F3X V.9 Rear Axle Suspension, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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 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	<a href="#">Follow repair instruction.</a>	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

AZD-AZD-AZDMUC3352-F2X\_F3X V.11 Shock Absorbers, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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 52 Shock Absorbers**

	Type	Thread	Tightening specifications	Dimension
1AZ Nut and locknut/self-locking nut	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8		28 Nm
2AZ Support bearing on shock absorber	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M10	Replace nut.	38 Nm
3AZ Shock absorber to camber arm	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12	Replace screw and nut. <a href="#">Tighten down in normal position.</a> Jointing torque Angle of rotation	100 Nm 90 °

AZD-AZD-AZDMUC3355-F2X\_F3X V.9 Anti-roll bar, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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 55 Anti-roll bar**

	Type	Thread	Tightening specifications	Dimension
1AZ Anti-roll bar bracket on rear axle support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8		28 Nm
2AZ Anti-roll bar link on anti-roll bar/wheel carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M10	Replace nut.	56 Nm

AZD-AZD-AZDMUC3411-F2X V.10 Front Brake, VIN: XXXXXXXXXX

ISTA system version	4.04.20.19163	Data version	R4.04.20	Programming	- data
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

**34 11 Front Brake**

	Type	Thread	Tightening specifications	Value
1AZ Brake disc to wheel hub	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36		Replace screws	16 Nm
2AZ Brake anchor plate to swivel bearing	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12x1.5	Replace screws	110 Nm
3AZ Guard plate to swivel bearing	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M6	Replace screws	12 Nm
4AZ Guide screw (socket head cap screw)	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36			28 Nm

AZD-AZD-AZDMUC5111-05 V.22 Front bumper, VIN: XXXXXXXXXXISTA system 4.04.20.19163  
version

Data version R4.04.20

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

## 51 11 Front bumper

	Type	Thread	Tightening specifications	Dimension
1AZ Bumper panel on air duct, top	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F48 / F49 / F80 / F82 / F83 / F87 / F45 / F46 / F48 / F49 / F52			4,6 Nm
2AZ Lock support to deformation element, top	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87 / F45 / F46 / F48 / F49 / F52			11,8 Nm
3AZ Deformation element, top, to engine carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87 / F45 / F46 / F48 / F49 / F52	M12	Replace screws  Jointing torque Angle of rotation	100 Nm 180 °
4AZ Support, top, to deformation element, top	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87 / F45 / F46 / F48 / F49 / F52	M8	Replace screws	28 Nm
5AZ Deformation element, bottom, to deformation element, top	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87	M6	Replace screws	11,8 Nm
6AZ Deformation element, bottom, to adapter plate, front axle carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 /			19 Nm

	F82 / F83 / F87			
	F45 / F46 / F48 / F49 / F52			11,8 Nm
7AZ V-support on deformation element/connection, top	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87		Renew screw	19 Nm
	F48 / F49 / F52			11,8 Nm
8AZ Support for number plate on bumper	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87			1 Nm
	F45 / F46 / F48 / F49			0,8 Nm
	F52			1,8 Nm
9AZ Number plate on bumper panel (thread repair)	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87	M5		4,5 Nm
10AZ Carrier, bottom, to deformation element, bottom	F20 / F21 / F22 / F23 / F32 / F33 / F34 / F36 / F80 / F82 / F83 / F87	M6	Replace screws	11,8 Nm
	F45 / F46 / F48 / F49 / F52	M6x30	Replace screws	8 Nm
(without M Aerodynamic package)	F30 / F31 / F35	M6x45	Replace screws	11,8 Nm
(with M Aerodynamics package)	F30 / F31 / F35	M6x50	Replace screws	8 Nm
11AZ Bumper panel on side wall	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F48 / F49 / F80 / F82 / F83 / F87			3 Nm
12AZ Cross member on top air duct	F20 / F21 / F22 / F23			4,6 Nm
13AZ Air duct on top cross connection	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87			5 Nm
	F48 / F49			6 Nm
14AZ Cross connection on support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 /			11,8 Nm

		F82 / F83 / F87			
15AZ	Air duct to deformation element top/bottom	F45 / F46 / F48 / F49 / F52			6 Nm
16AZ	Bumper panel on side wall	F48 / F49			3 Nm
17AZ	Bumper trim, lower	F48 / F49			2,5 Nm
18AZ	Support to U-strut	F52			11,8 Nm



AZD-AZD-AZDMUC5145-03 V.12 Trim, instrument trim panel, VIN: XXXXXXXXXX

ISTA system version 4.04.20.19163

Data version R4.04.20

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

## 51 45 Trim, instrument trim panel

	Type	Thread	Tightening specifications	Dimension
1AZ Support for instrument panel to bulkhead cross member	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87	M8		21 Nm
2AZ Support for dashboard to A-pillar	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87	M8		21 Nm
3AZ Holder for tunnel support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87	M8		21 Nm
4AZ Support for dashboard on bulkhead (in engine compartment)	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87	M8		21 Nm
5AZ Heating and air-conditioning unit on support for dashboard	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87	M6		8 Nm
6AZ Retaining bracket on support for dashboard	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87	M6		8 Nm
7AZ Dashboard to support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87			2,4 Nm
8AZ Trim panel, pedal mechanism on support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 /			4.6 Nm

	F82 / F83 / F87			
9AZ Dashboard trim panel at bottom on support	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F80 / F82 / F83 / F87			4.6 Nm

AZD-AZD-AZDMUC5161-F20 V.13 Reinforcement, body, VIN: [REDACTED]

ISTA system 4.04.20.19163  
version

Data version R4.04.20

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

## 51 61 Reinforcement, body

	Type	Thread	Tightening specifications	Dimension
1AZ Suspension cross brace to body	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F87	M10x25	Replace screws  Jointing torque Angle of rotation	56 Nm 90 °
2AZ Rear trailing link	F31 / F34 / F36	M10	Renew screw	56 Nm
		M12	Renew screw Jointing torque Angle of rotation	100 Nm 90 °
3AZ Strut, front partition wall	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36 / F87			19 Nm
4AZ Front end strut to body	F23 / F33 / F87			28 Nm
5AZ Diagonal strut to adapter plate	F33		Jointing torque Angle of rotation	56 Nm 90 °
6AZ Torsion strut to front axle support	F23 / F33	M10	Replace screws  Jointing torque Angle of rotation	56 Nm 45 °
7AZ Torsion strut to side member	F23 / F33	M12	Replace screws  Jointing torque Angle of rotation	100 Nm 90 °
8AZ Rear tension strut to cross member of luggage compartment floor	F33 / F23		Renew screw	56 Nm

9AZ	Rear tension strut to support	F33 / F23		Renew screw	
				Jointing torque	100 Nm
				Angle of rotation	90 °
10AZ	Rear tension strut to side member	F33 / F23		Renew screw	
				Jointing torque	100 Nm
				Angle of rotation	90 °
11AZ	Carbon brace on lock support	F80 / F82 / 83		Renew screw	28 Nm
12AZ	Carbon brace on strut brace	F80 / F82 / F83		Renew screw	28 Nm
13AZ	Cross-brace to spring strut dome	F80 / F82 / F83	M8		28 Nm
14AZ	Cross-brace to side panel	F80 / F82 / F83	M10		34 Nm
15AZ	Cross-brace to bulkhead	F80 / F82 / F83	M10x25	Renew screw	
				Jointing torque	56 Nm
				Angle of rotation	90 °
16AZ	Cross-brace extension/additional strut to cross-brace	F80 / F82 / F83	M8		28 Nm
17AZ	Cross-brace extension to body	F80 / F82 / F83	M10		56 Nm
18AZ	Additional strut to cross-brace extension	F80 / F82 / F83	M8		28 Nm
19AZ	Torsion strut to front adapter plate	F23 / F33	M10	Renew screw	
				Jointing torque	56 Nm
				Angle of rotation	90 °
20AZ	Torsion strut to body	F23 / F33	M8		19 Nm
21AZ	Engine bulkhead, bottom to body	F20/F21	M8x18		19 Nm

## AZD-AZD-AZDMUC5175 V.19 Underbody panelling, VIN: [REDACTED]

ISTA system version	4.04.20.19163	Data version	R4.04.20	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				

## 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