

37 11 032**Replacing front left or right spring strut
(adaptive M suspension)****Special tools required:**

- [31 3 340](#)
- [31 2 230](#)
- 31 3 341
- [2 240 516](#)
- 2 240 482
- [2 240 523](#)
- 2 240 487
- 2 240 290
- 2 240 490
- 33 0 040

**Important!**

- 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 information 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!

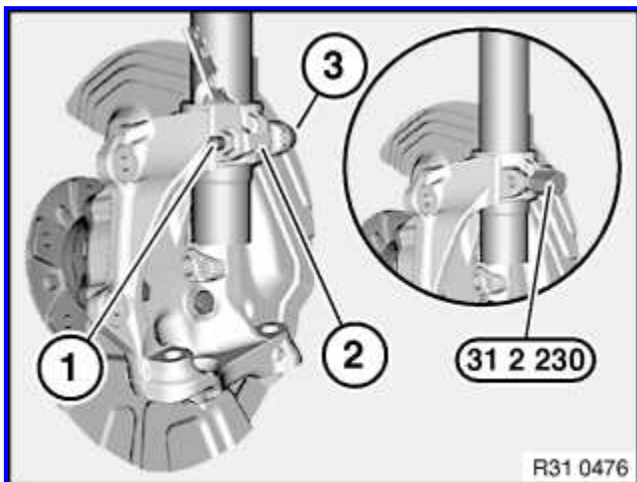


1. Prior to each use, check the special tools for defects, modifications and operational reliability.
 2. Damaged/modified special tools must not be used!
 3. No changes or modifications may be made to the special tools!
 4. These special tools are intended solely for the purpose of tightening and relieving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



Necessary preliminary tasks:

- Remove [front spring strut](#)



Release nut (1), remove holder (2) and remove screw (3).

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

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

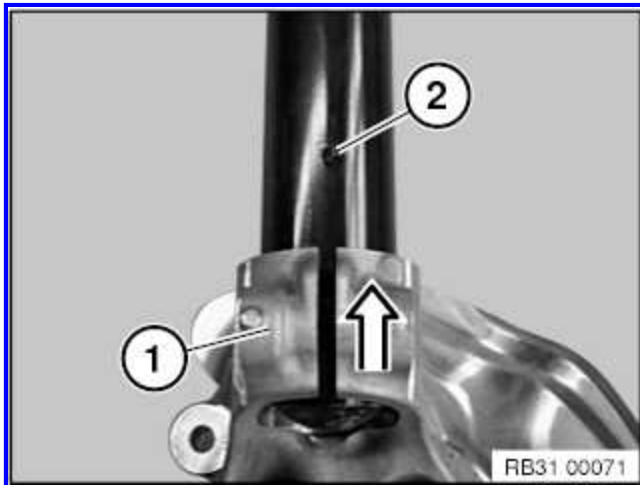
Installation note:

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

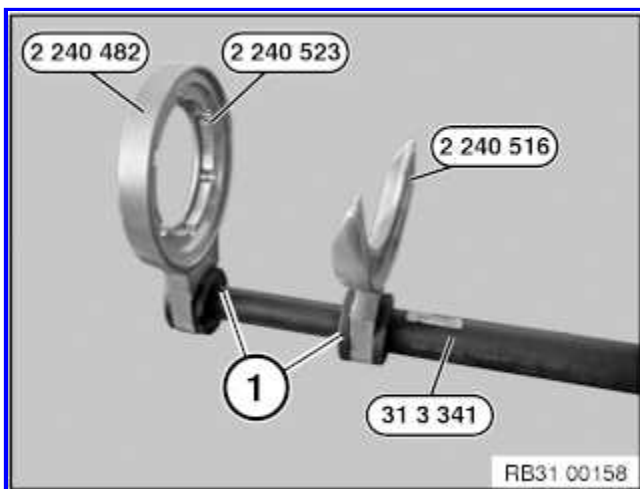
Screw head must point in direction of travel.

Replace self-locking nut.

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.

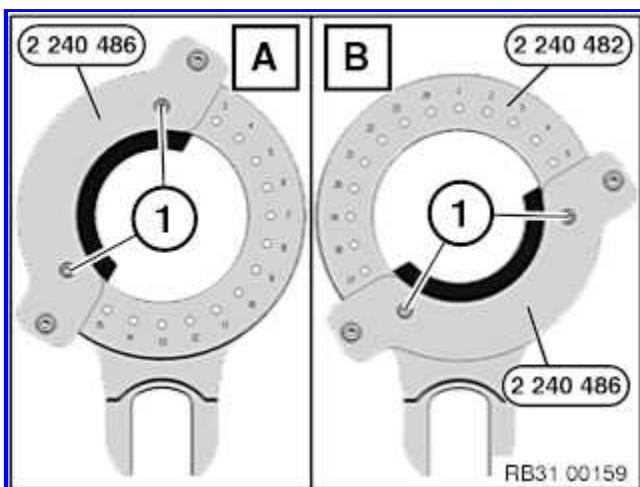


Clamp special tool 31 3 341 in vice.

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 the centring insert [2 240 523](#) in the round tensioning plate 2 240 482.

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



Installation of "spring brake" onto round tensioning 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**
- **Sport suspension: Screw connection using bore holes 7 and 15**

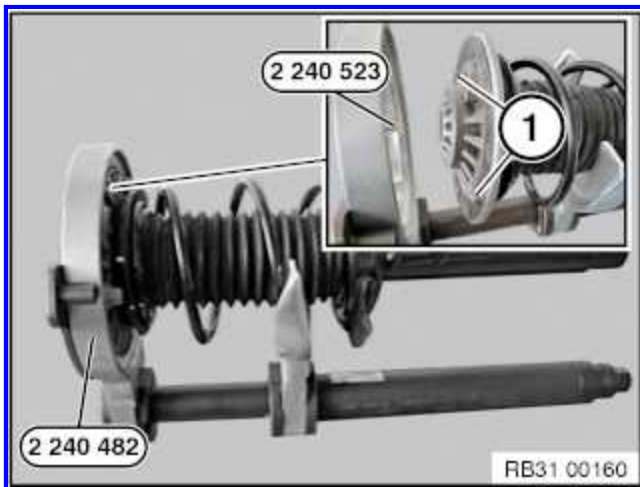
Turn centring insert 2 240 253 until counter support 2 240 486 can be screwed into place at the specified position.

Screw together counter support with round tension plate and centring insert with screws (1) so they are hand-tight.

Clean coil spring to remove contamination.

Spring must be free of grease, clean and dry.

Insert spring strut into spring tensioner.

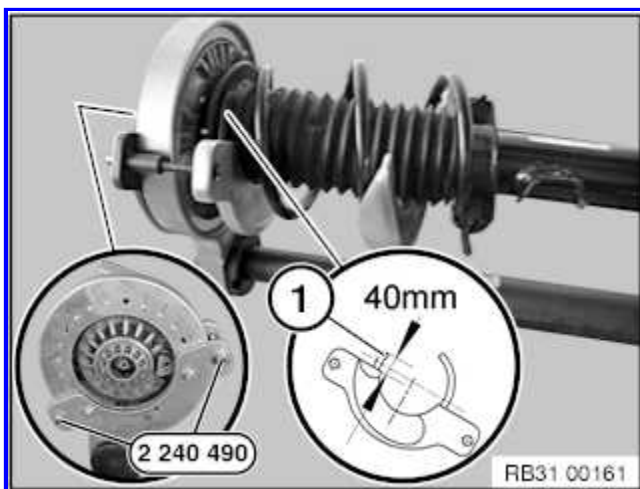


Warning!

Insert the guide pins (1) of the support bearing must fit into the recesses on the centring insert [2 240 523](#).

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

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

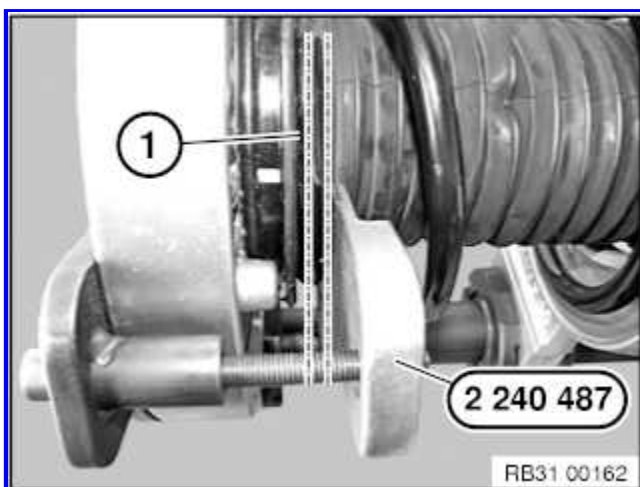


Attach pressure plate 2 240 487 with the screws 2 240 290!

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.



Important!

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

When the end of the spring begins turning relative to the pressure plate, stop tensioning immediately.

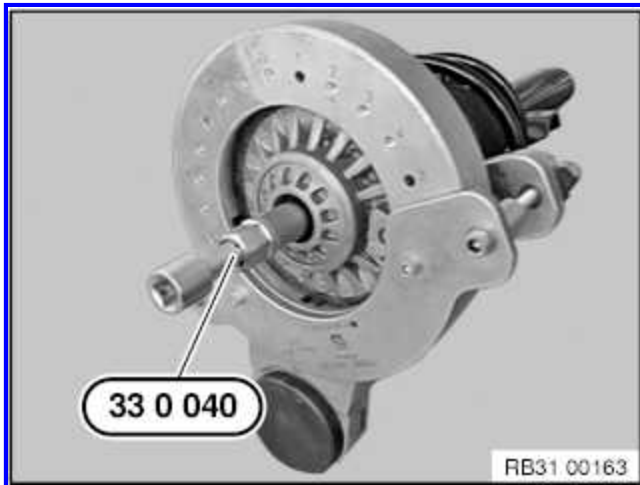
Check that the pressure plate is correctly seated and check the rubber mount and pressure plate for wear.

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

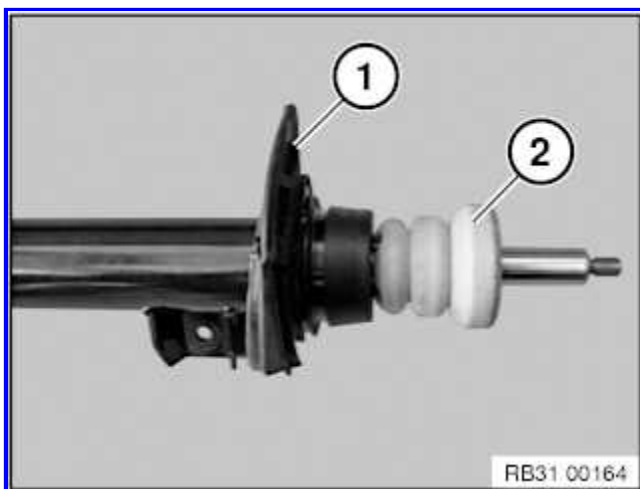
Release nut with special tool 33 0 040.

Remove the spring strut with auxiliary damper.

Impact
screwdrivers
are prohibited!



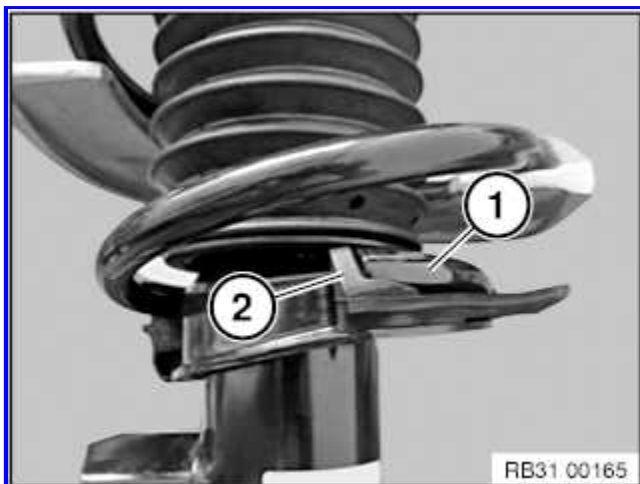
**Risk of
damage inside
the shock
absorber!**



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.

Important!

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

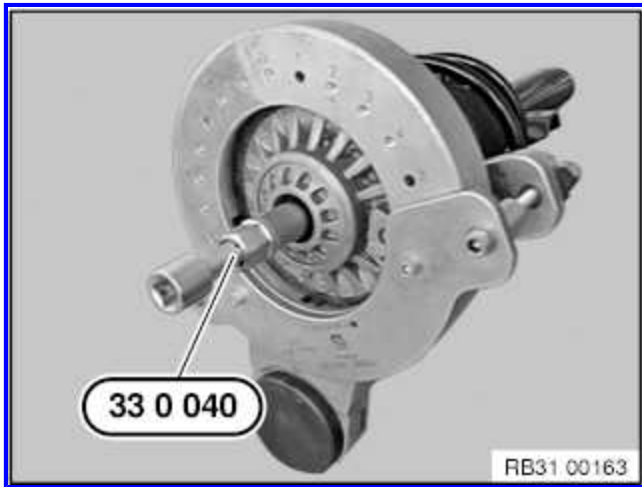
Check installation position of the protective tube and correct fold if necessary.

Replace nut and tighten down with special tool 33 0 040.

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

Relieve tension on coil spring and remove spring strut.

Impact



screwdrivers
are prohibited!

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



After installation:

- Carry out [wheel alignment procedure](#).
 - Use the diagnosis system to perform the wheel speed accelerator sensor adjustment.
- > see service functions/start-up VDM