

REP-REP-RAF2033-3310016 Removing and installing (replacing) rear axle differential, VIN: XXXXXXXX

ISTA system version	3.55.11.16402	Data version	R3.54	Programming data	-
VIN	XXXXXXXX	Vehicle	2'/F22/Coupe/M235i/N55/AUTO/US/LL/2016/01		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

33 10 016

Removing and installing
(replacing) rear axle differential

Special tools required:

- 33 5 206
- 33 5 200
- 33 5 124
- 2 240 465
- 33 5 121
- 33 5 122
- 33 5 123
- 2 360 787
- 2 240 265
- 2 240 464
- 33 5 125
- 2 360 944



Warning!

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

Important!

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



replaced!

The circlips on both output shafts must be replaced!

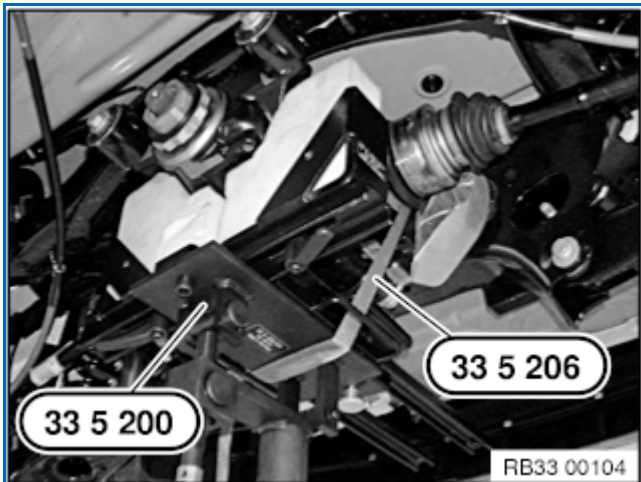


Necessary preliminary tasks:

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

Note:

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



Position special tool 33 5 200 on workshop jack.

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

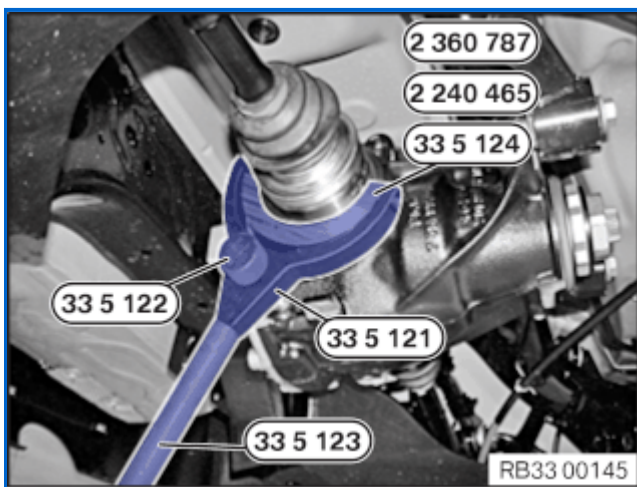
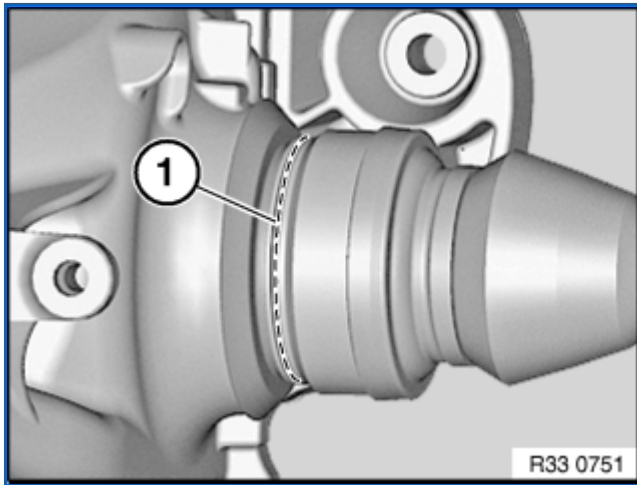
Lash rear axle final drive unit to special tool 33 5 200 with tightening strap 33 5 206.

Important!

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

Important!

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



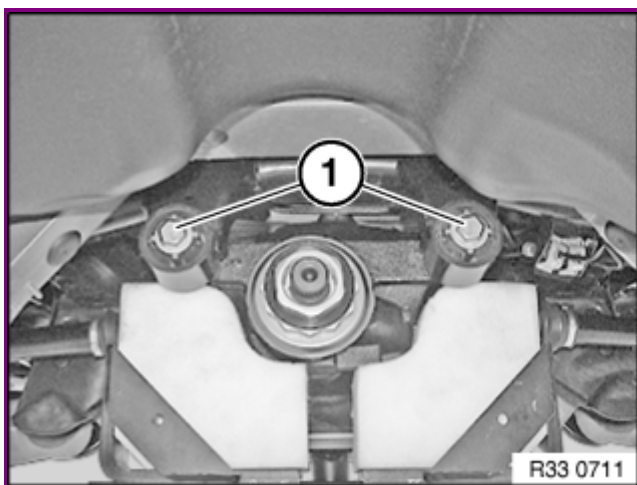
Left output shaft only:

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

Complete special tools depending on the motorisation.

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

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



Release screws (1).

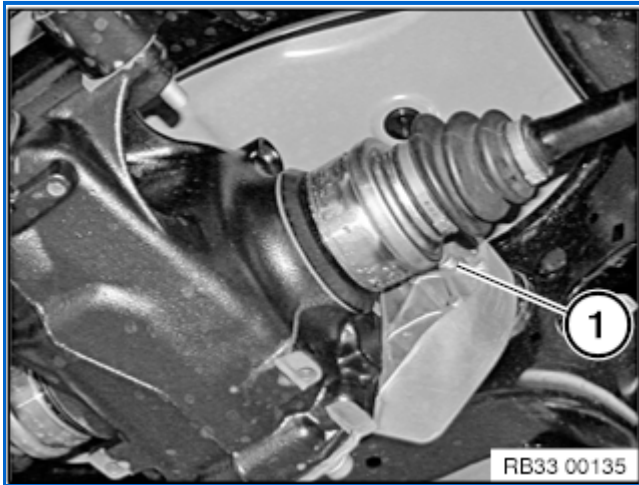
Tightening torque [33 17 1AZ](#)

Installation note:

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

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

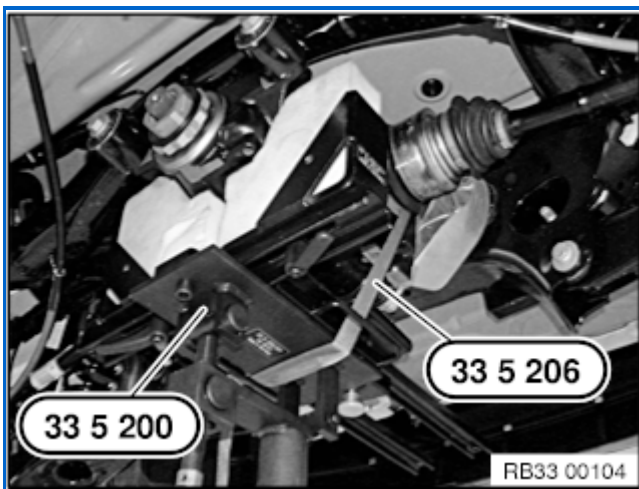
Tightening torque [33 17 2AZ](#).



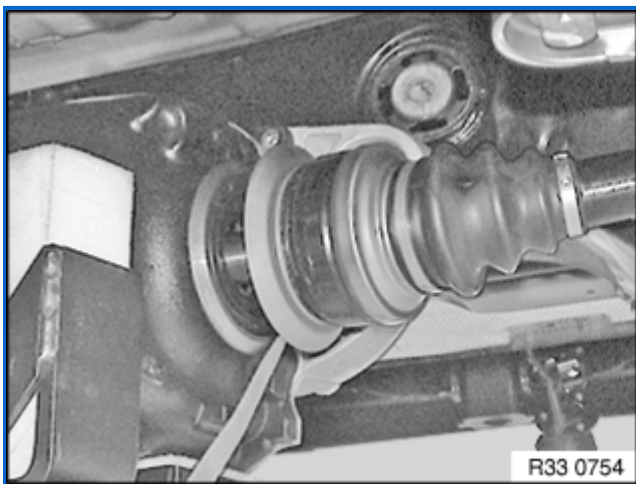
Installation note:

Replace nut.

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



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



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

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

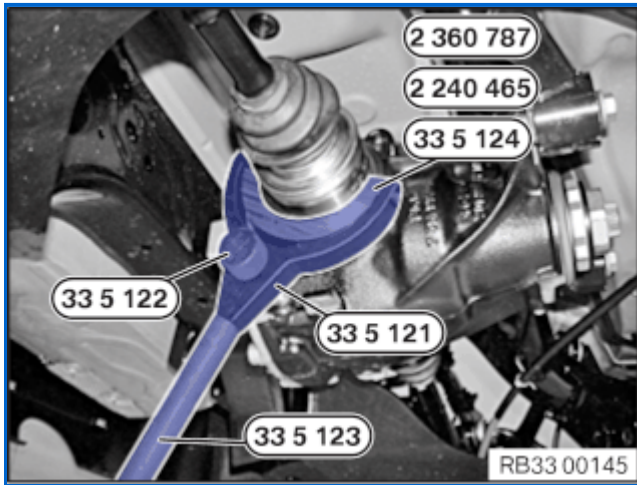
Swing rear axle final drive towards left side.

Right output shaft:

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

Complete special tools depending on the motorisation.

- N13, B38,



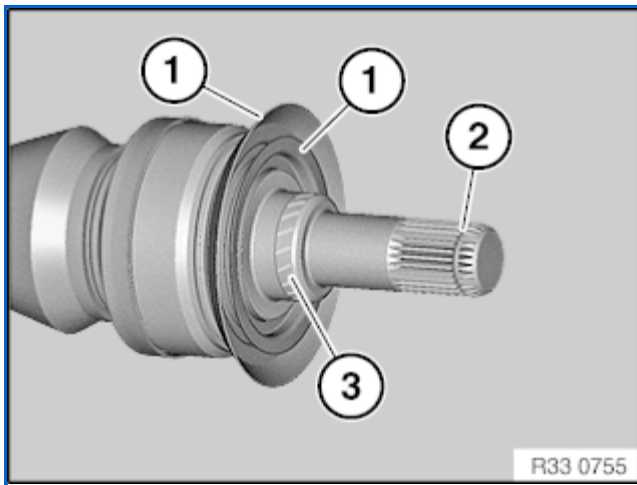
N20B20: 33 5 121, 33 5 122, 33 5 123, 2 240 265

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

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

Feed out output shaft and tie up.

Remove rear axle final drive.



Important!

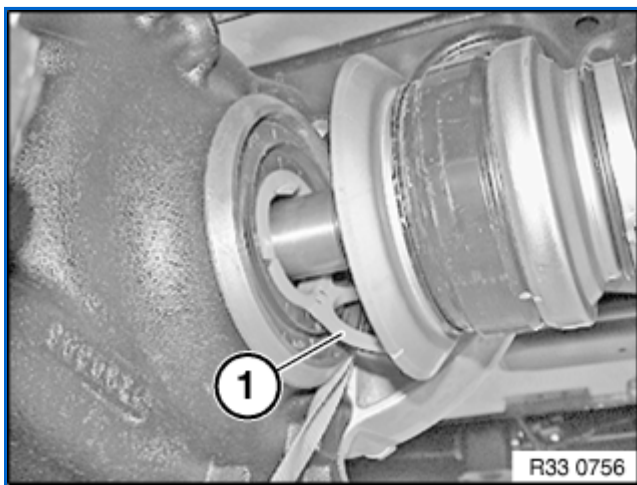
High installation forces indicate that the output shaft spline teeth are damaged or deformed!

Check gearing and replace components if damaged.

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

Circlip (2) must be renewed!

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

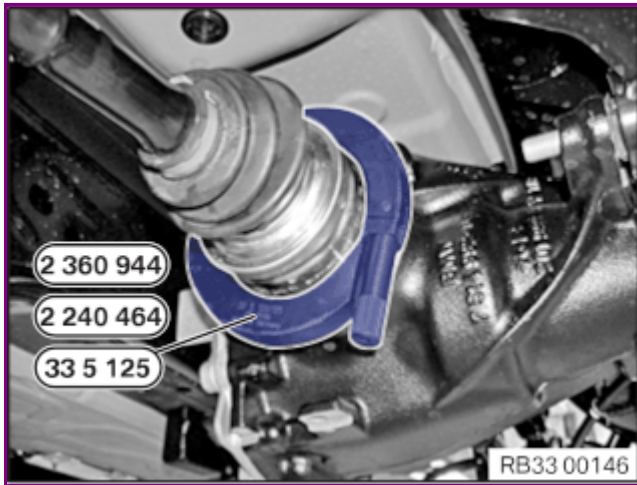


Installation note:

Insert output shaft into rear axle final drive.

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

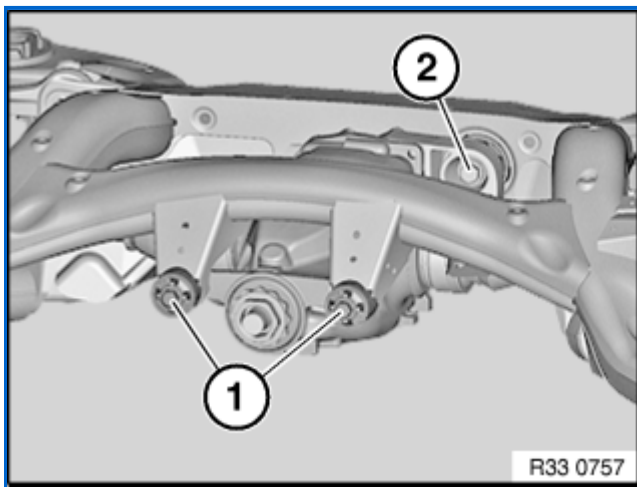
Press the output shaft into the rear axle differential using the following special tools (depending on motorisation) and a rubber mallet.



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

Installation note:

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



Assembly sequence:

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



After installation:

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