

## Grinding noise when cornering

E46 / M3E60 / M5E63 / M6

**Complaint:** Grinding noises from the area of the rear axle when cornering at low speed, especially when turning at road junctions, when manoeuvring, parking or on roundabouts.

**Cause:** Slip-stick-effect between pad and steel disk of the rear axle for differential speed between the rear axle wheels.

**Affected vehicles:** E46/M3  
Manufacturing period: from start of series production until December 2003.

E60/M5, E63/M6  
Manufacturing period: from the start of series production.

**Procedure:** In case of customer complaint, replace the oil in the differential with a special oil.

The special oil is filled into 0.5 litre plastic bottles. The rear-axle final drive can be filled from the plastic bottle without the use of an additional auxiliary pump - please refer to the following illustration.



Tear off and remove the lead seal (1) between the thread on the bottle and the filler neck stopper.

Pull on the stopper flap (2) and pull the filler neck (see arrow) from the bottle.

Unscrew the sealing cap (3) from the filler neck.

Insert the filler neck into the filler opening in the rear-axle final drive and position the bottle below the driven shaft. Squeeze the bottle (4) to fill. Fill the rear differential unit until the special oil escapes from the oil fill opening.

Then, with the engine warm, drive the vehicle in circles with as small a radius as possible (20 full turns in each direction). This causes the special oil to penetrate between the lock pad layers.

Depending on "driving style" and "road characteristics," it may take from 500 to 1000 km for the effect of the special oil to become fully noticeable!

The customers must be informed accordingly.

**Note:**

For vehicles which have been converted to special oil because of a complaint, the special oil must continue to be used for future oil changes performed at the

**Parts:**

<b>Part number</b>	<b>Description of parts</b>	<b>Quantity</b>
83 22 2 282 583	Special oil (filled in 0.5-litre bottle)	3 per vehicle

**Reimbursement:**

Material and labour costs incurred can be claimed through the usual warranty channels subject to current warranty terms.

**Defect code****33 10 92 39 00**

This defect code is not listed in the official Defect Code Catalogue but has been recorded in the system, thus enabling warranty claims to be processed.

Oil change in rear-axle final drive

Job number

00 53 267

Labour

3 FRUs

Warranty type

1

Warranty stage

1 (within vehicle warranty)

2 (outside vehicle warranty)

Reimbursement is limited to **36 months/100,000 km** and only possible until **December 2009**.