

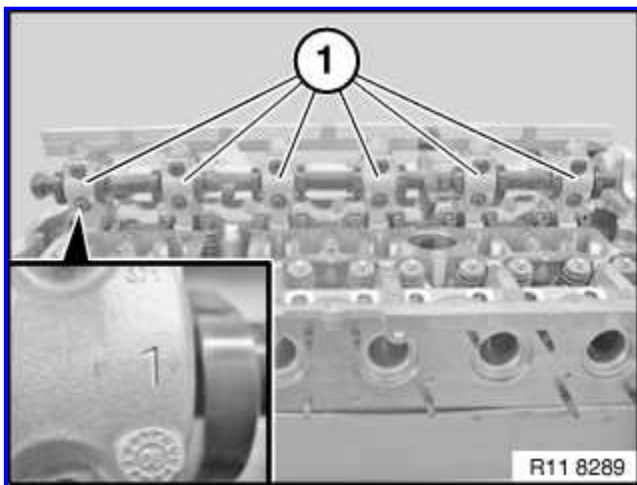
11 37 005**Removing and installing/replacing
eccentric shaft (N55)****Special tools required:**

- [11 4 481](#)

**Necessary preliminary tasks:**

- Remove [cylinder head cover](#).
- Remove [servomotor for eccentric shaft drive](#).
- Remove [intermediate lever](#).

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**Note:**

All bearing caps (1) of eccentric shaft are marked with numbers from 1 to 6 (1 for 1st cylinder to 6 for 6th cylinder).

Release screws on bearing caps 1 to 6 (1).

Set all bearing caps down in special tool [11 4 481](#) in a neat and orderly fashion.

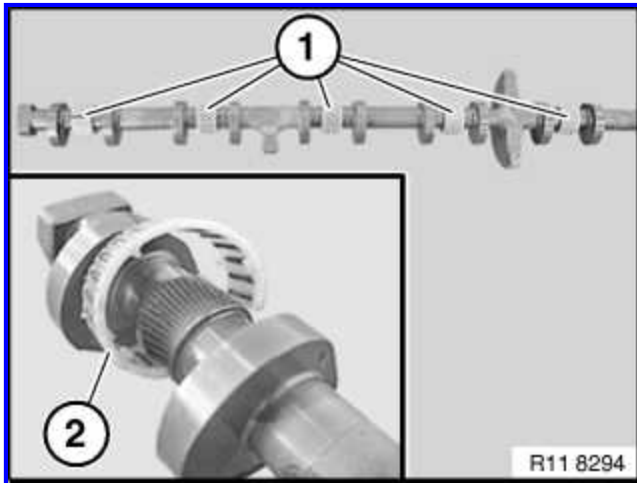
Remove eccentric shaft with gentle tilting and swivel motion.

Place eccentric shaft on special tool [11 4 481](#).

Important!

Needle bearings (1) can break very easily.

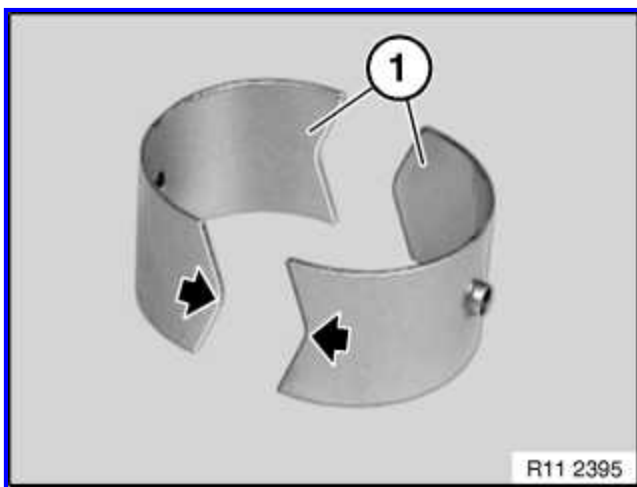
Installation note:



Replace eccentric shaft.

Carefully pull needle bearing (2) apart at point of separation.

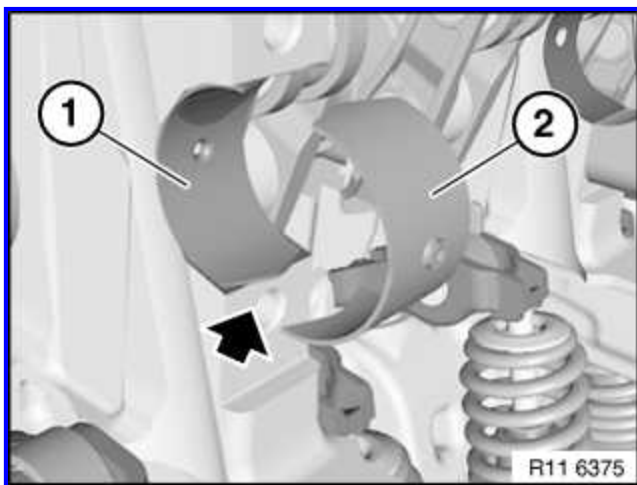
Slide on all needle bearings (1) of eccentric shaft.



Install bearing shells (1) as pictured.

Note:

If bearing shells need to be replaced due to a defect, always replace bearing shells (1) and needle bearings together.



Installation note:

Any installation position may be selected for bearing shells (1 and 2).

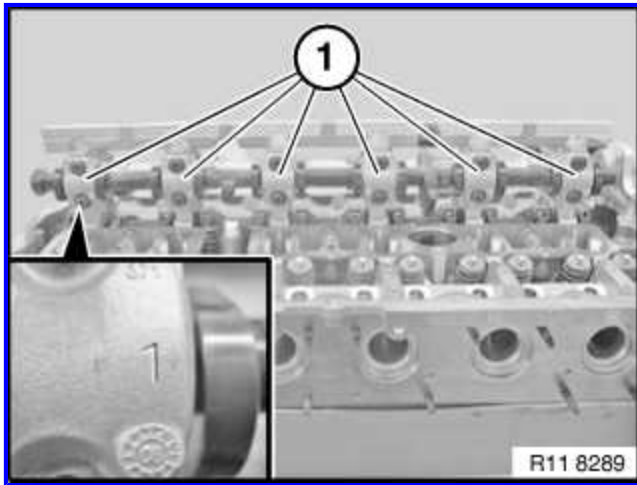
If bearing shells (1) in cylinder head are inserted with tips pointing downward, the bearing shells (2) must be inserted in the opposite direction in the bearing cap (see example in picture).

Installation note:

All bearing caps (1) of eccentric shaft are marked with numbers from 1 to 6 (1 for 1st cylinder to 6 for 6th cylinder).

Insert eccentric shaft.

Coat all bearing positions with engine oil.



Put on all bearing caps (1) according to cylinder assignment.

Insert all screws.

Tightening torque [11 31 2AZ](#).

Installation note:

Gearing of eccentric shaft must be greased with [Longtime PD 1 \(2.4\)](#).



Check intermediate shaft for ease of movement.

Assemble engine.