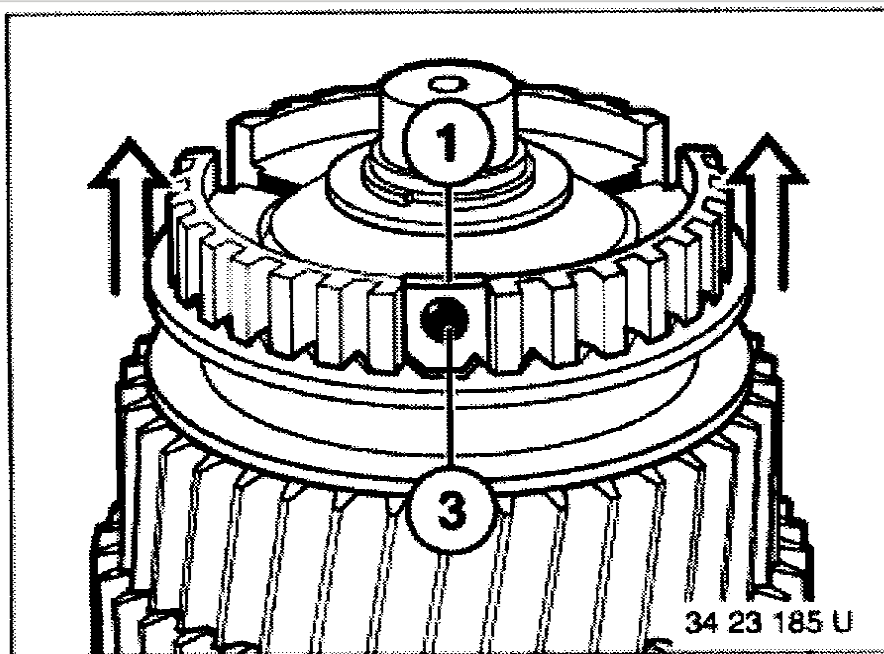
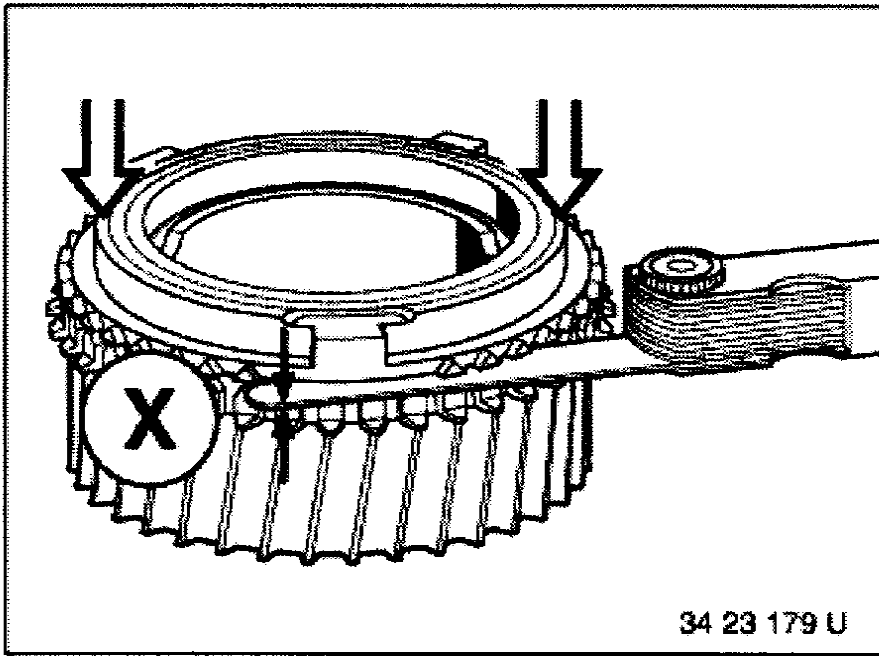


Install the operating sleeve with shouldered end (1) facing the, reverse gear wheel.
The three set-back or opened teeth must point to the springs



Tilt thrust pieces (1) out of the operating sleeve separately far enough that balls (3) can be placed on the springs. Press balls (3) in and simultaneously push the thrust pieces into the operating sleeve. Insert 5th gear synchromesh ring into the operating sleeve. Pull the operating sleeve upwards evenly as far as the lock (neutral position).

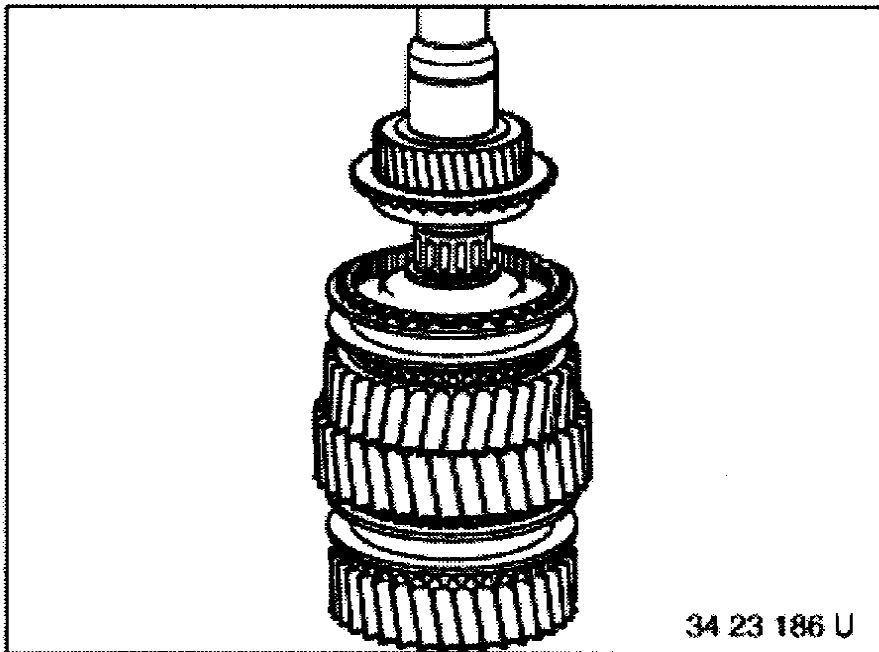


Check the synchronizing device for the 5th gear for wear.

Measure distance X between the gear wheel and synchronismesh ring. In so doing, press down the synchronismesh ring evenly by hand.

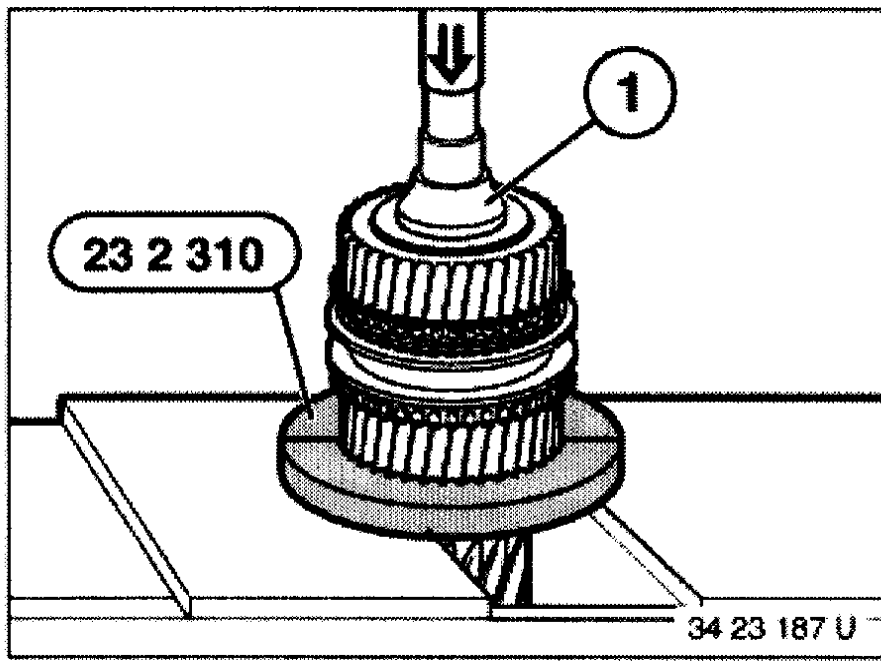
Specification: **at least 0.75 mm.**

Actual new part distance: **0.95 - 1.35 mm.**



Install synchronismesh ring.

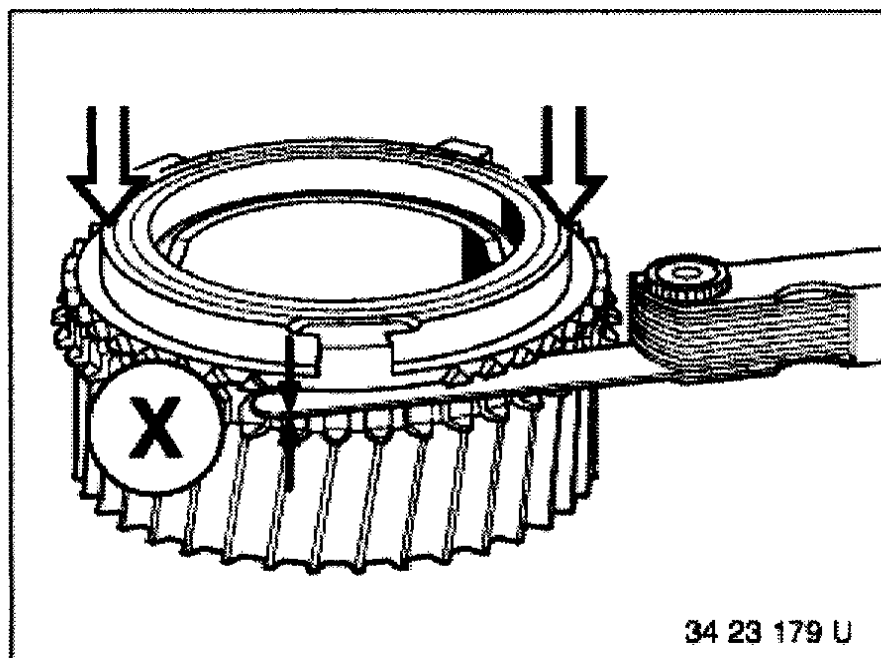
Fit the pin bearing and input shaft with 5th gear wheel.



Layshaft: Replace the synchronizing device for the 3rd/4th gear.

Place Special Tool 23 2 310 at the 3rd gear wheel.

Separate the inner bearing race (1), thrust washer, 4th gear wheel with pin bearing, synchronizing device and 3rd gear wheel with pin bearing from the layshaft.

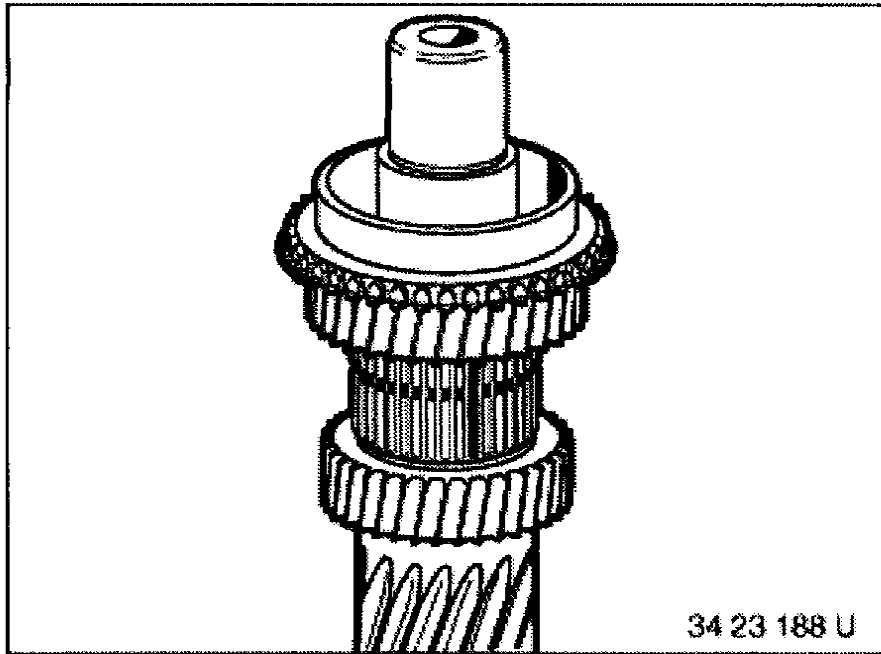


Assembling: Check the synchronizing device for the 3rd/4th gear for wear

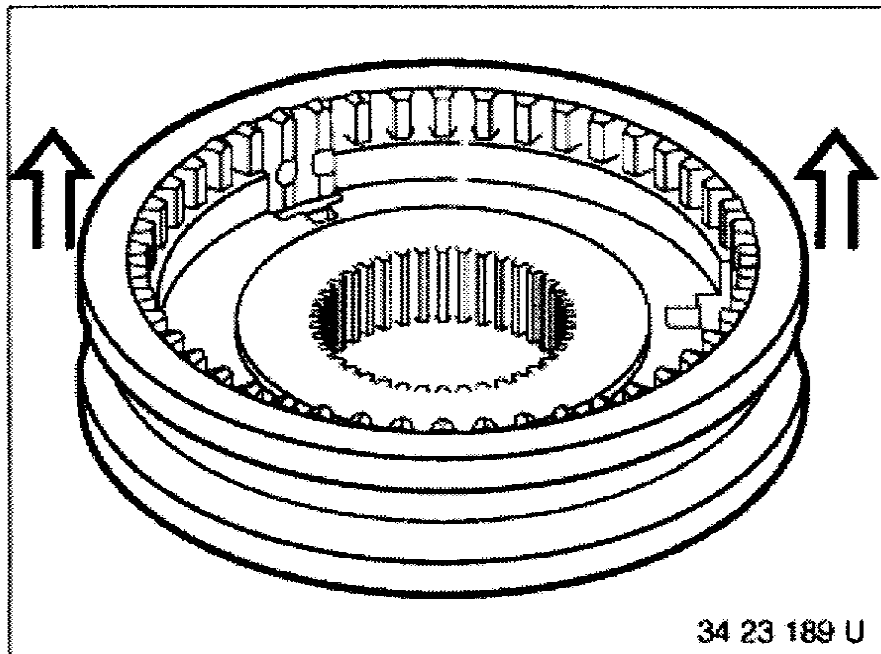
Measure distance X between the gear wheel and synchronismesh ring. In so doing, press down evenly on the synchronismesh ring.

Specification: **at least 0.75 mm.**

Actual new part distance: **0.95 - 1.35 mm.**

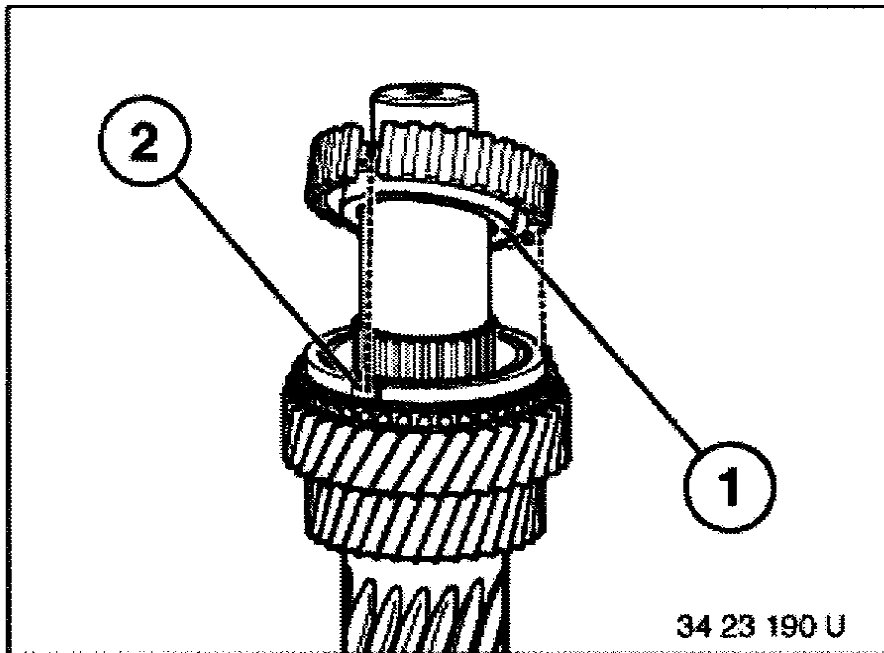


Fit the pin bearing and 4th gear wheel.



Pull the operating sleeve for the 3rd/4th gear from the guide sleeve.

Caution: Loose balls, springs and thrust pieces.

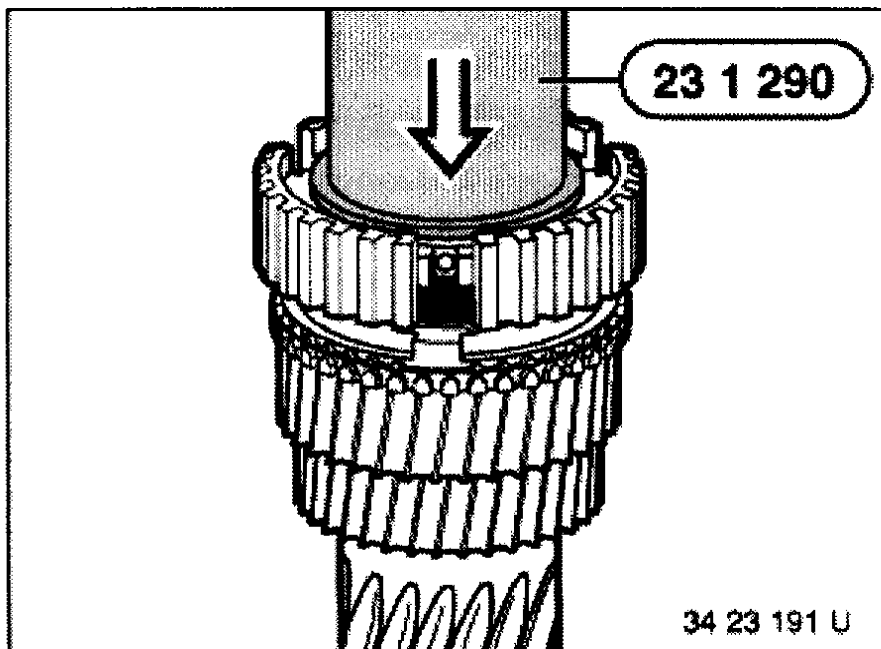


Place the synchromesh ring on the taper for the 3rd gear wheel.

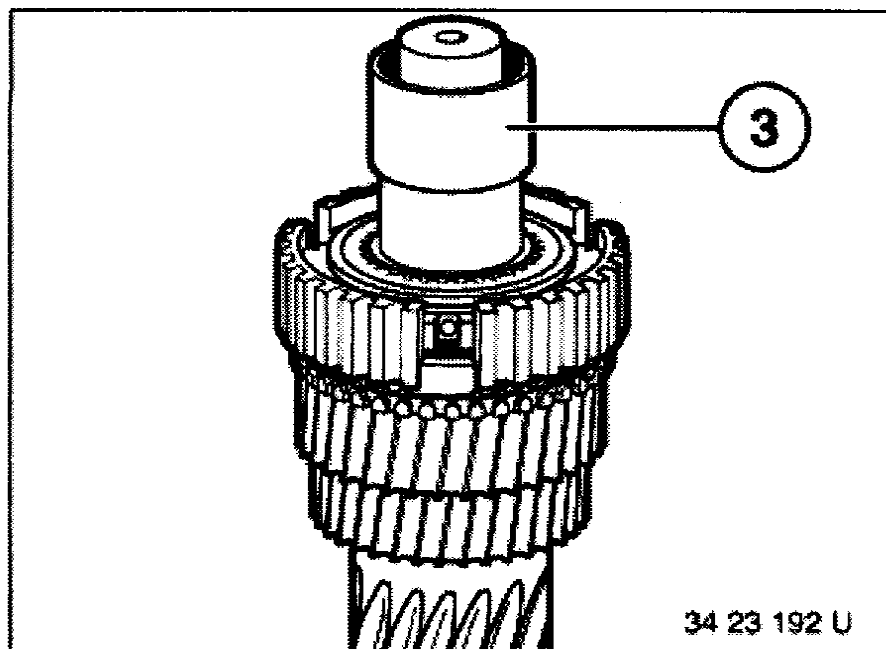
Heat the guide sleeve for the 3rd/4th gear up to **approx. 80°C** (hot air blower).

Install the guide sleeve with long shoulder (1) facing the 3rd gear.

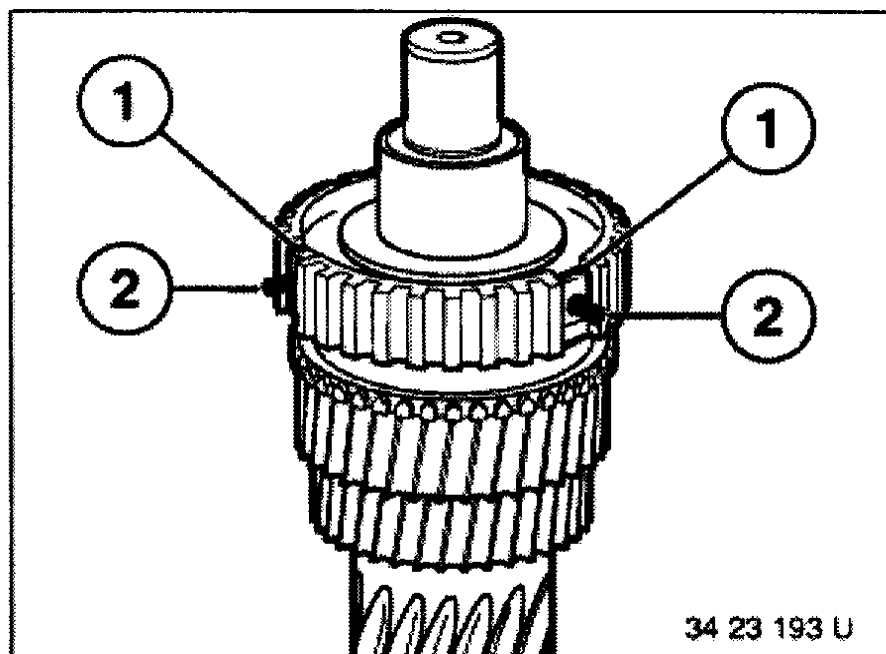
When fitting, make sure that the drive lugs (2) are aligned with the openings in the guide sleeve.



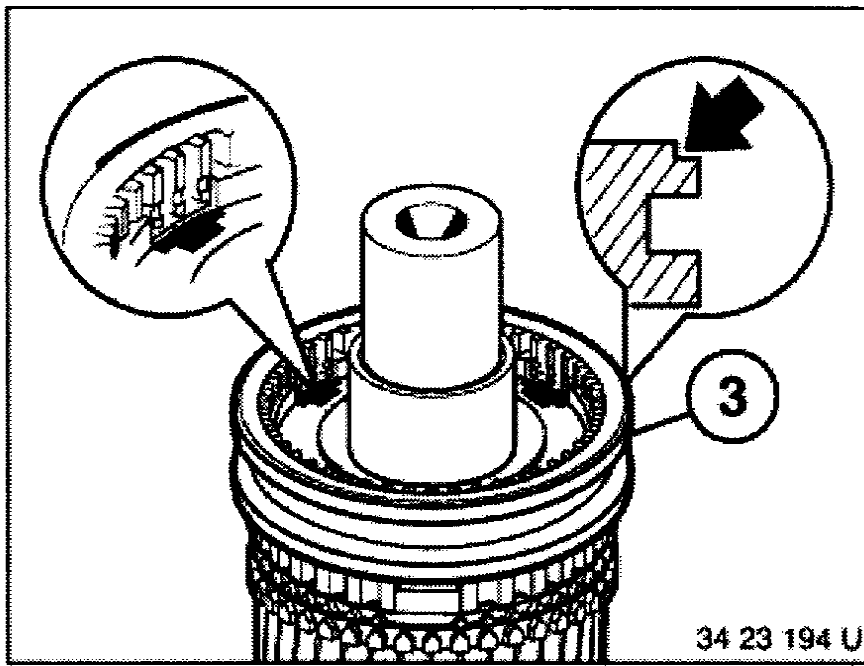
If necessary, press the guide sleeve on to fit tight with help of Special Tool 23 1 290.



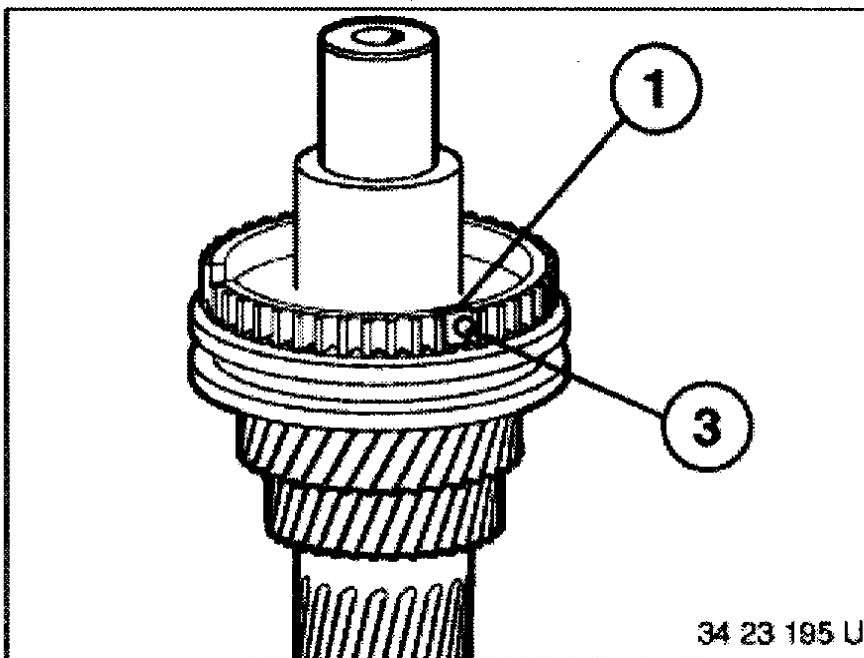
Heat bearing inner race (3) to **about 80°C** with a hot air blower and install it on the layshaft. If necessary, press it on to fit tight with help of Special Tool 331 342.



Install 3 pressure pieces (1) and 3 compression springs (2) in the recess of the guide sleeve.

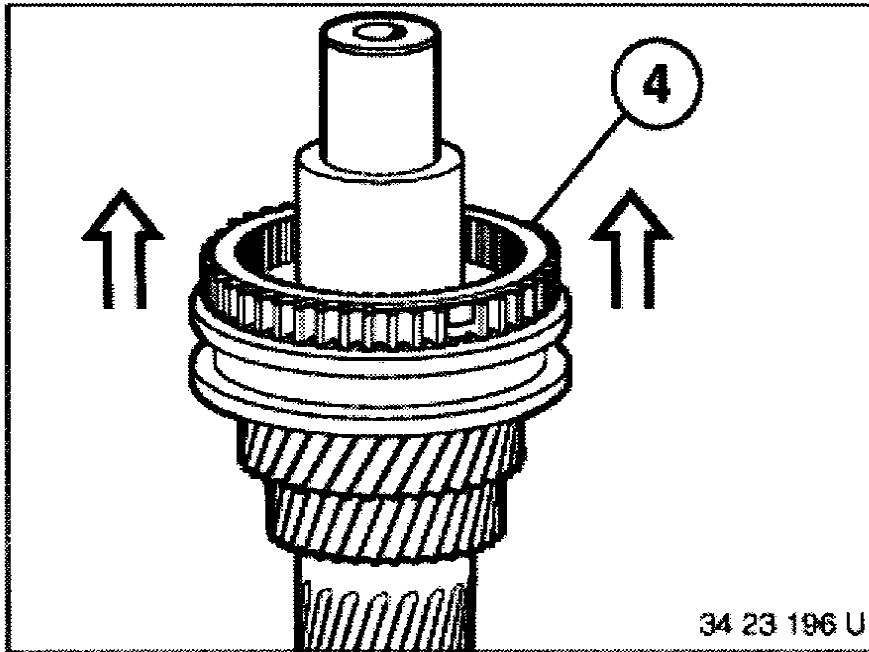


Fit the operating sleeve for the 3rd/4th gear with the offset side (3) facing upwards. The three set-back or opened teeth must point to the springs

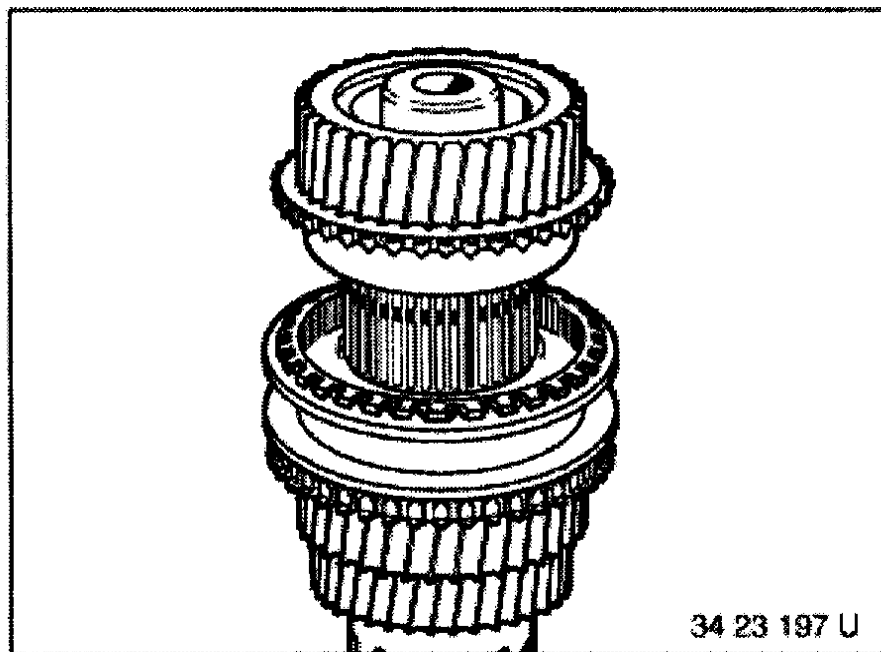


Tilt thrust pieces (1) out of the operating sleeve separately far enough that balls (3) can be placed on the compression springs.

Push in balls (3) and simultaneously press the thrust pieces into the operating sleeve.



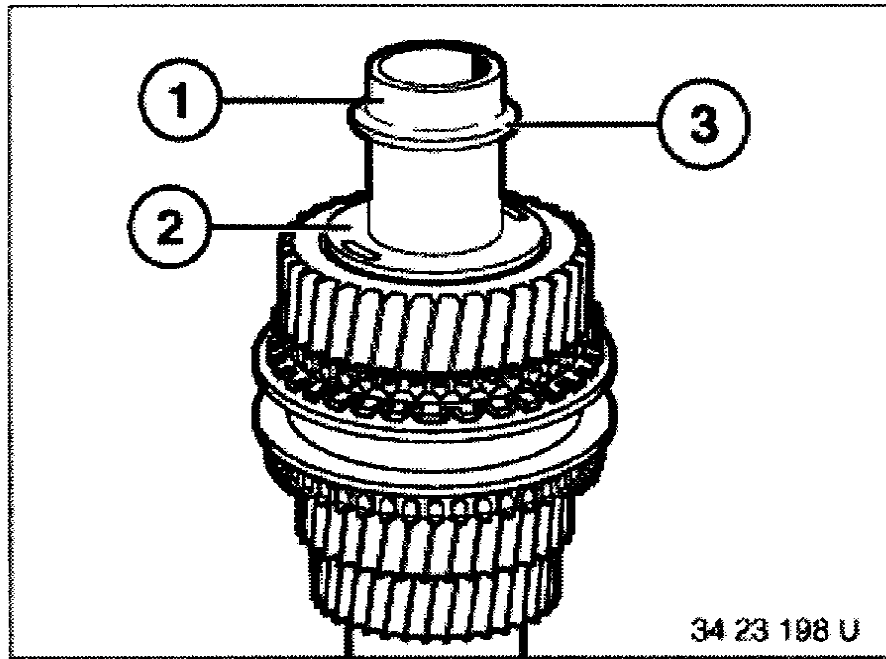
Insert 4th gear synchronesh ring (4) into the guide sleeve openings.
Pull the operating sleeve upwards uniformly as far as the lock (neutral position).



Fit the pin bearing and 4th gear wheel.

Caution: Needle bearings are selected by the manufacturers according to certain tolerances and have a green colour code.

Do not mix up with other needle bearings.



Heat thrust washer (2) and bearing inner race (1) to about 80°C with a hot air blower and install on the layshaft with shoulder (3) facing down.

If necessary, press them on to fit tight with help of Special Tool 23 1 160.