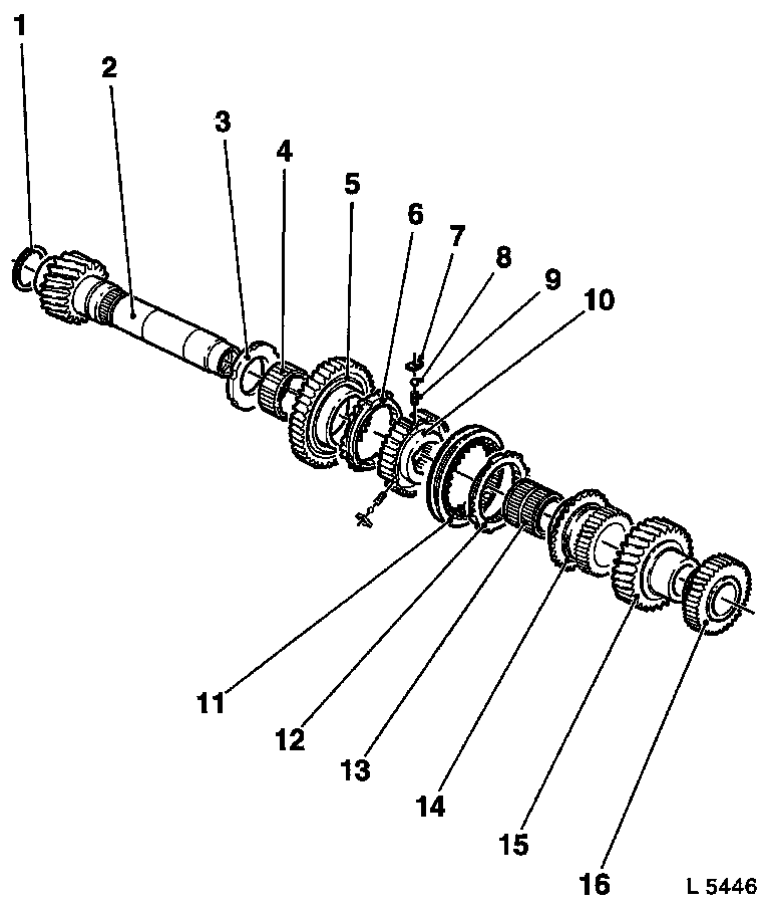


Main Shaft, Disassemble and Reassemble

1. Illustration of main shaft

1. Thrust washer
2. Main shaft
3. Pressure chamber
4. Needle roller bearing
5. Reverse gear (driven)
6. Reverse synchroniser ring
7. Sliding block
8. Ball
9. Spring
10. 5th/reverse synchromesh body
11. Shift sleeve
12. 5th gear synchroniser ring
13. Needle roller bearing
14. 5th gear (driven)
15. 3rd gear (driven)
16. 4th gear (driven)

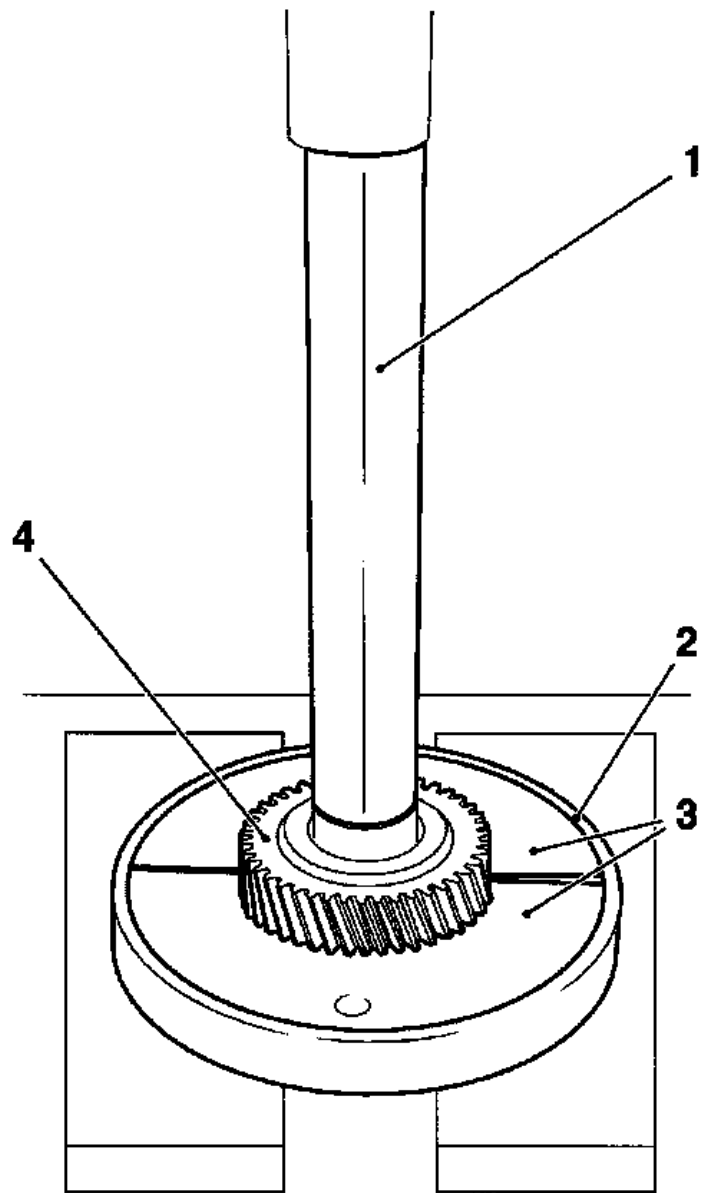


Important: If gears are damaged, always replace entire main shaft assembly. Obtain appropriate repair kits for synchroniser assembly from Aftersales

2. Remove main shaft - see operation "Main Shaft, Remove and Install"

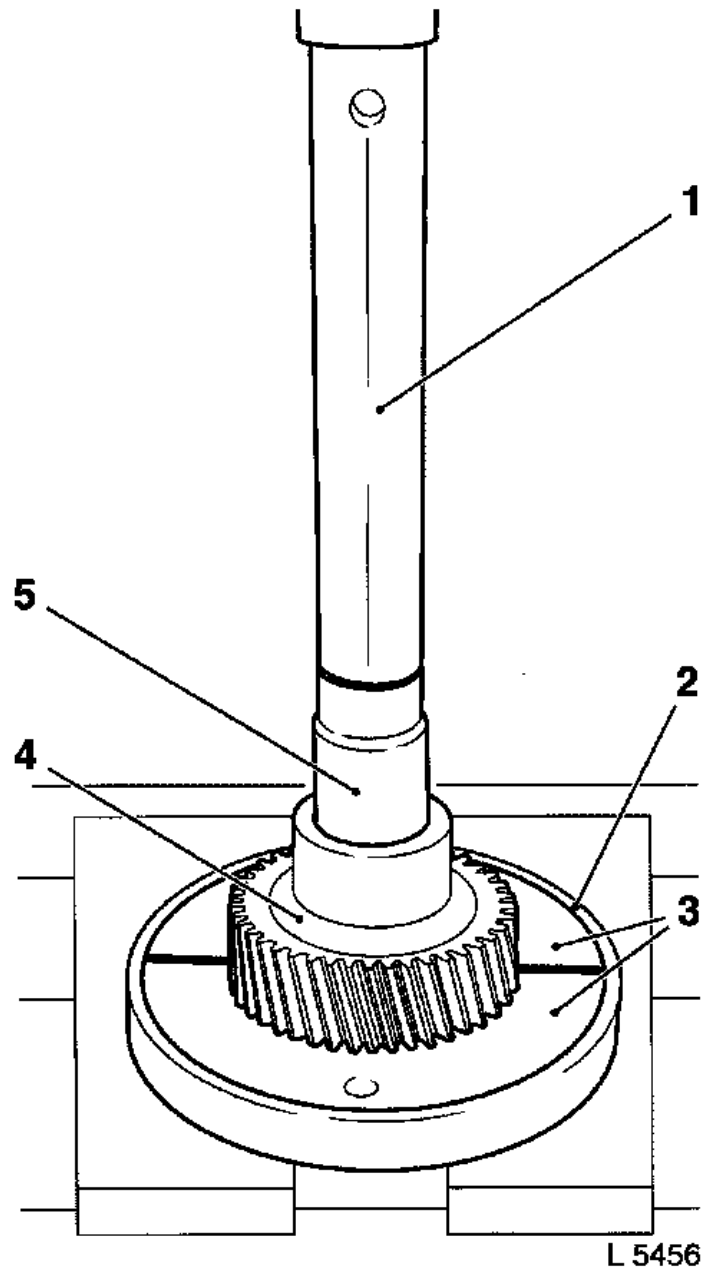
Important: High pressure force is needed. Observe operating instructions for shop press

3. Press 4th gear (4) from main shaft using **KM-6220** (1), **KM-6223-1** (2), and **KM-6223-2** (3)

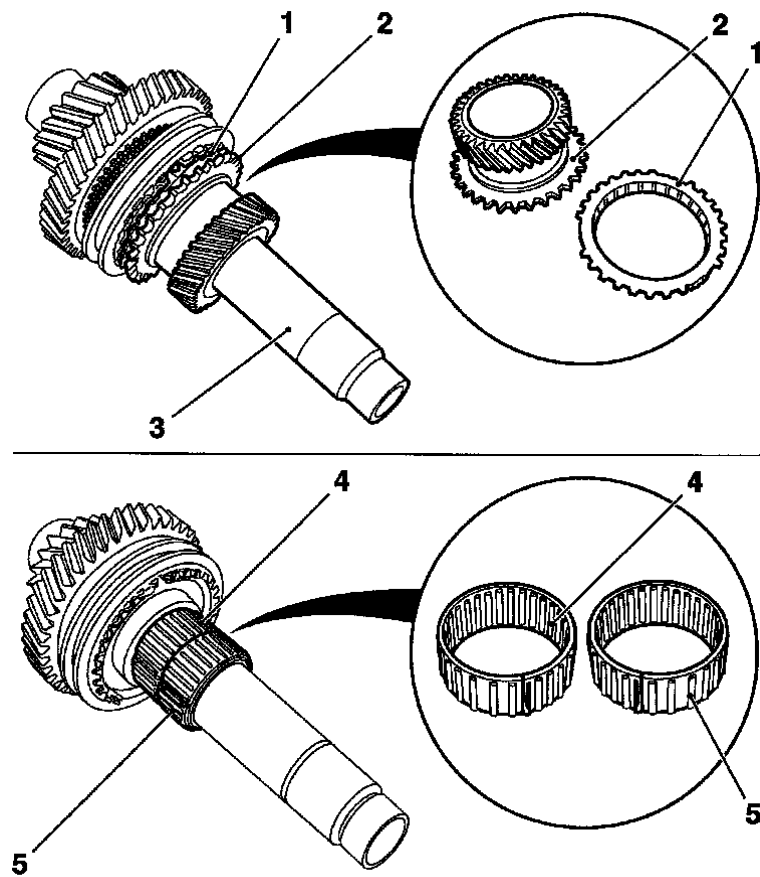


L 5455

4. Press 3rd gear (4) from main shaft (5) using **KM-6220** (1), **KM-6223-1** (2), and **KM-6224** (3)

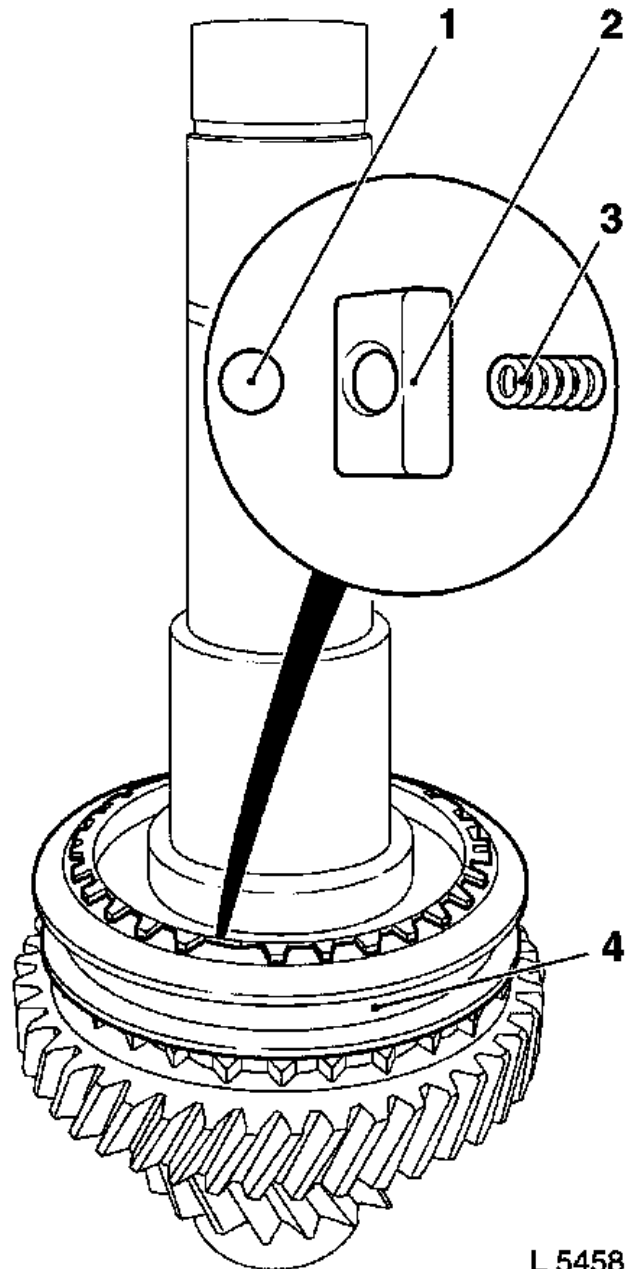


5. Check wearing parts for damage and replace as necessary
6. Remove 5th gear (2) and 5th gear synchroniser ring (1) from main shaft (3)
7. Remove 2x needle roller bearing (4, 5) from bushing

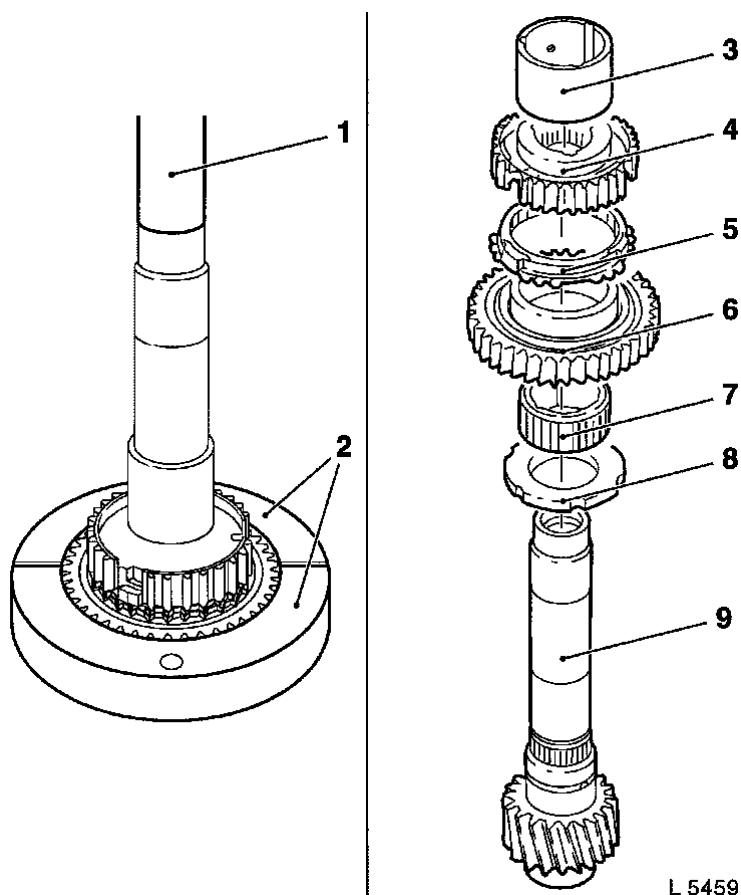


L 5457

8. Check wearing parts for damage and replace as necessary
Note: Ball (1), slider (2) are under spring tension. When removing shift sleeve (4), ensure that ball, slider, and spring (3) are not lost



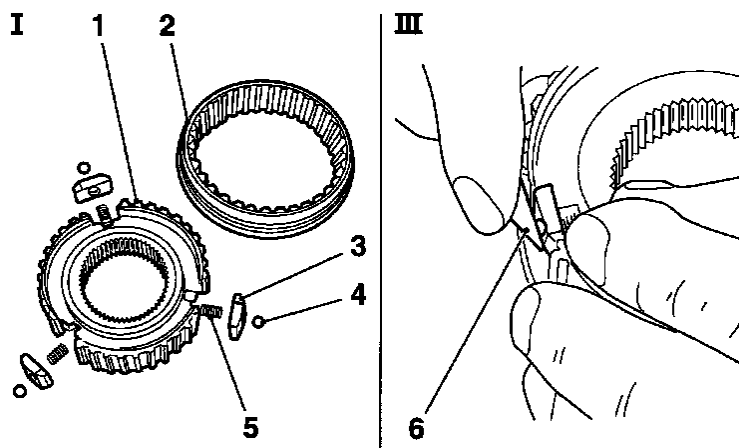
9. Press reverse gear (6) with pressure comb (8), needle roller bearing (7), reverse synchroniser ring (5), synchromesh body for 5th-/reverse gear (4) and bushing (3) from main shaft (9) using **KM-6220** (1) and **KM-6221** (2)



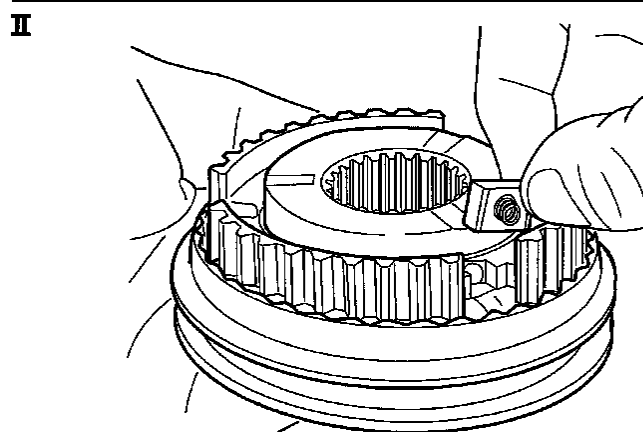
10. Check all parts for damage and replace damaged parts as necessary.

11. Assemble synchronesh

- (I) Identify parts
 1. 5th/reverse synchronesh body
 2. Shift sleeve
 3. Sliding block
 4. Ball
 5. Spring



- (II) Clamp main shaft in vice - use protective jaws. Slide shift sleeve all the way back on synchronesh body. Install slider and spring in synchronesh body



- (III) Push slider slightly upwards. Press ball against spring in slider using screwdriver (6). Slide slider back downward into synchronesh

L 2494

body

12. Install pressure comb (11), reverse gear (9) and needle roller bearing (10) to main shaft (3)

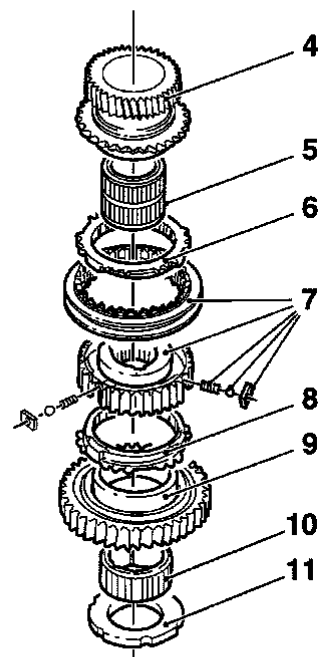
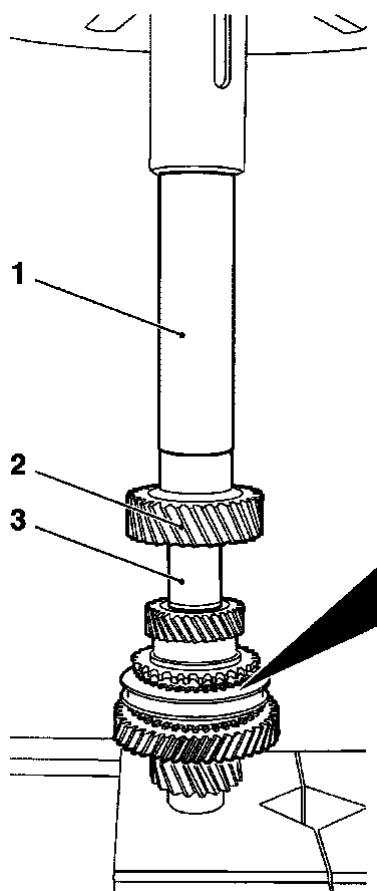
- Ensure that needle roller bearing is not damaged

13. Install reverse gear synchroniser ring (8), 5th /reverse gear synchromesh body (7) and 5th gear synchroniser ring (6) on main shaft

14. Install 5th gear (4) and needle roller bearing (5) to main shaft

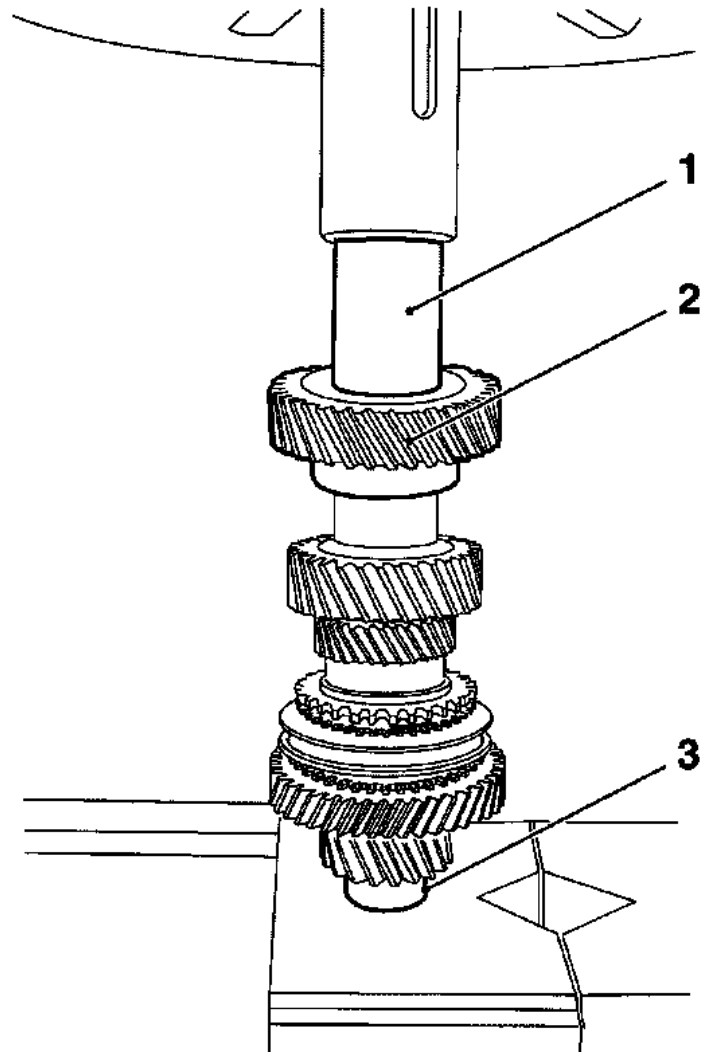
- Ensure that needle roller bearing is not damaged

15. Press 3rd gear onto main shaft using **KM-514**



L 5468

16. Press 4th gear (2) onto main shaft (3) using **KM-6219** (1)



L 5469

17. Install main shaft - see operation "Main Shaft, Remove and Install"