



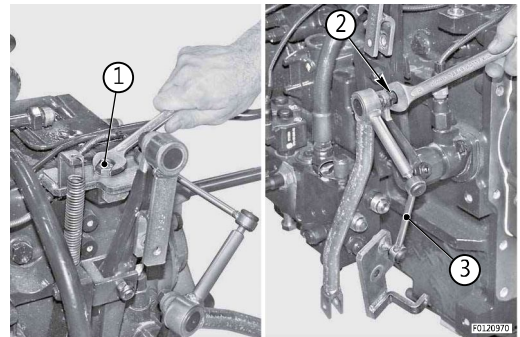
## Gearbox and shuttle assy. - complete unit

### Previous operations:

1. [See para. Changing the coolant and flushing the circuit - C0.01.02](#)
2. [See para. Rear wheels - S0.02.01](#)
3. [See para. Cab access steps - G0.03.03](#)
4. [See para. Fuel tank - C0.03.01](#)
5. [See para.](#)
6. [See para. Exhaust pipe - Tractor with cab - C0.06.02](#)
7. [See para. Silencer - C0.06.01](#)
8. [See para. Cab - G0.03.01](#)
9. [See para. 4WD shaft - F0.04.01](#)
10. [See para. Changing the transmission oil - D0.00.01](#)
11. [See para. Clutch housing - assembly - D0.02.01](#)
12. [See para.](#)

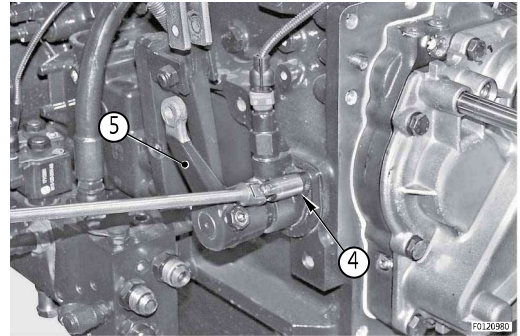
### Removal

Remove screw (1) and nut (2) and remove lever (3).



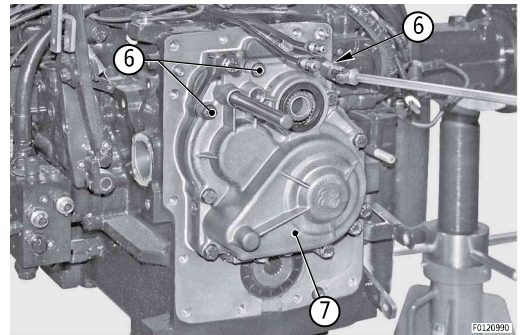
1.

Remove screws (4) and remove gear control lever (5).



2.

Remove screws (6) (n°10) and remove gearbox assembly (7).



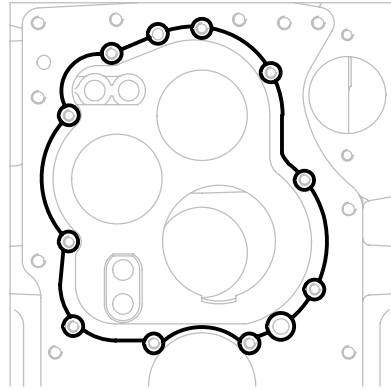
3.

## Installation

Refitting is the reverse of removal. Use caution in relation to the following procedures:

### Procedure 3

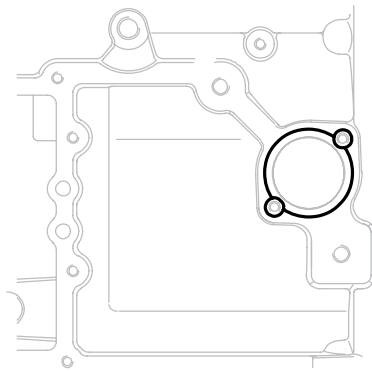
- Mating face: Silastic 738



D0027990

### Procedure 2

- Mating faces: Silastic 738



D002798C

Fill the transmission with the required quantity of oil.

Bleed the air from the clutch control circuit.

Bleed the air from the brake circuit.

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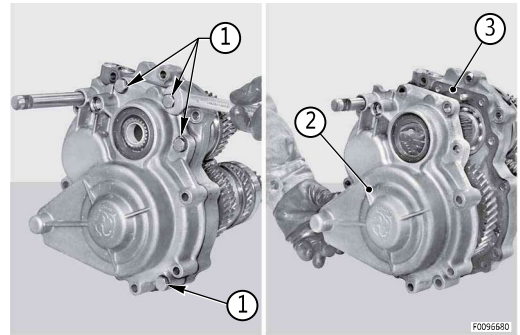


## Disassembly of gearbox and shuttle assy. - complete unit

### Disassembly

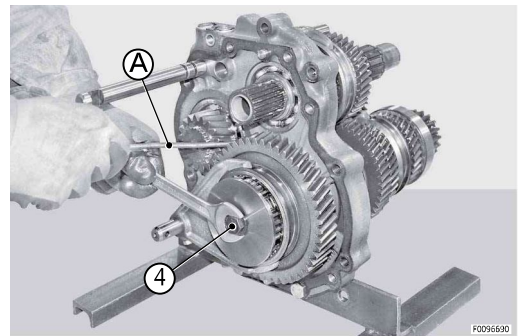
Remove the four screws (1) and remove cover (2).

- o Renew the paper gasket (3) on reassembly.



1.

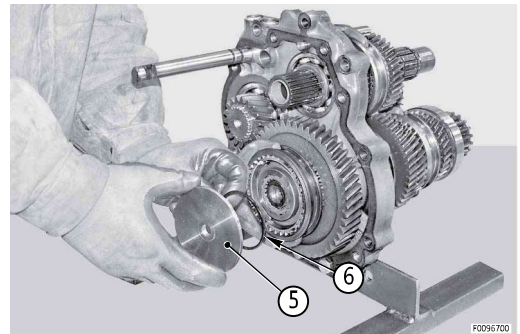
Engage 1st gear, and using a bar "A" made of soft material as a restraint, remove screw (4).



2.

Remove cover (5) and recover O-ring (6).

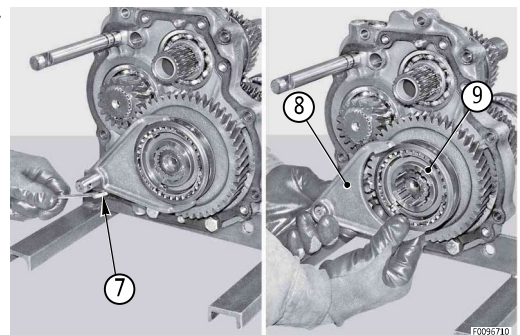
- o Check the condition of O-ring (6) and renew it if necessary.



3.

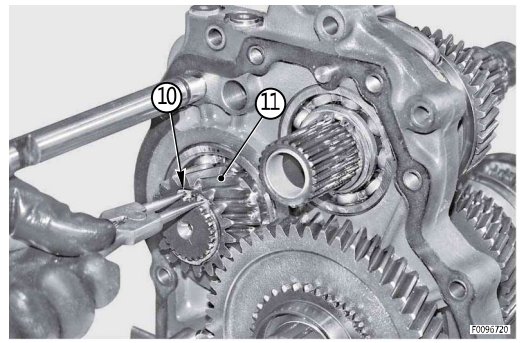
Remove screw (7) and remove 1st speed selector rod (8) and synchronizer assy (9).

- o Renew the screw (7) on reassembly.



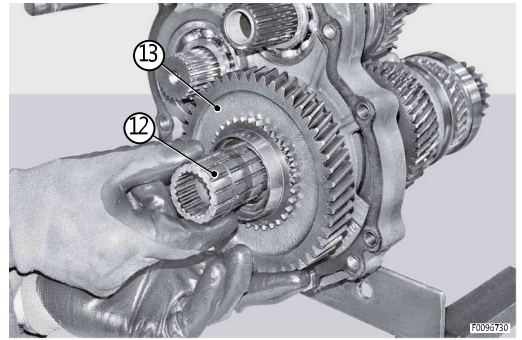
4.

Remove circlip (10) and remove 1st speed driving gear (11).



5.

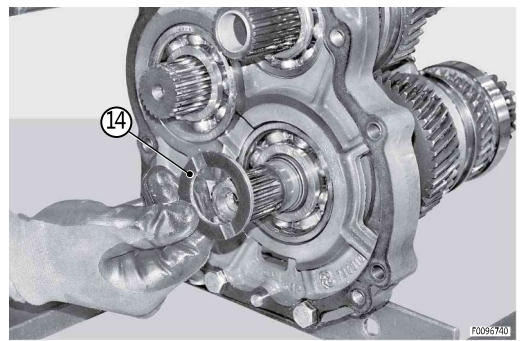
Remove sleeve (12) and 1st speed driven gear (13).



6.

Remove thrust washer (14).

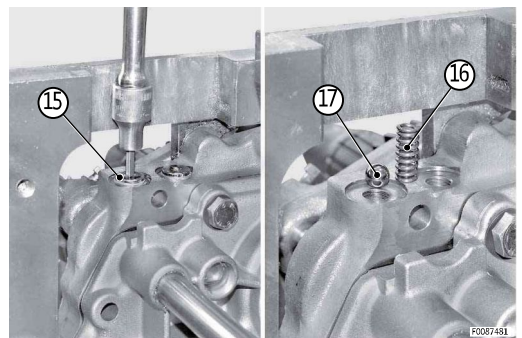
- o Note which way round the thrust washer (14) is installed.



7.

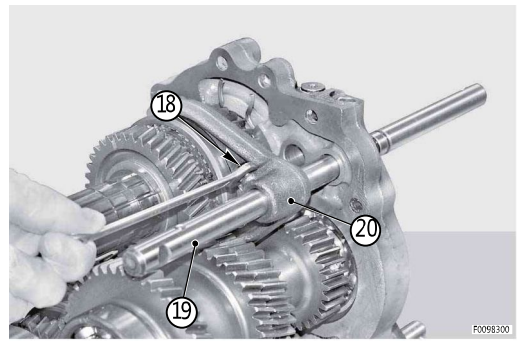
Remove plug (15) and recover spring (16) and ball (17).

- o Renew the copper washers on reassembly.



8.

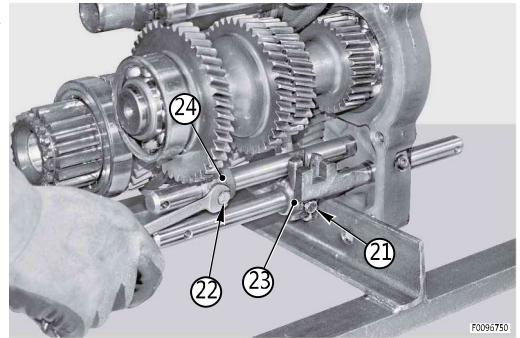
Remove screw (18) and remove reverse shuttle control rod (19) and relative fork (20).



9.

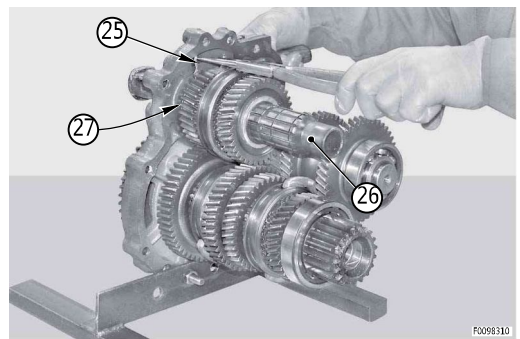
Remove screws (21) and (22) securing 1st, 2nd and 3rd speed selector fork (23) and 4th and 5th speed selector fork (24).

- o Fit new screws on reassembly.



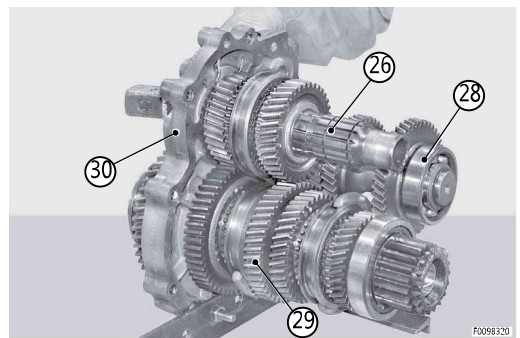
10.

Open circlip (25) and simultaneously strike input shaft (26) with a soft mallet to separate bearing (27) from circlip (25).



11.

Using a soft mallet, strike in sequence input shaft (26), main shaft (28) and secondary shaft (29) to dislodge them from gearbox support (30).



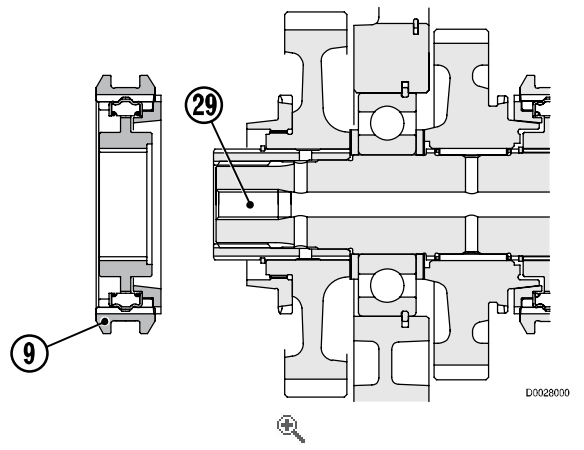
12.

## Assembly

To assemble, follow the disassembly steps in reverse order and use caution in relation to the following procedures:

### Procedure 4

- Take care to install synchronizer (9) the right way round with respect to secondary shaft (29).

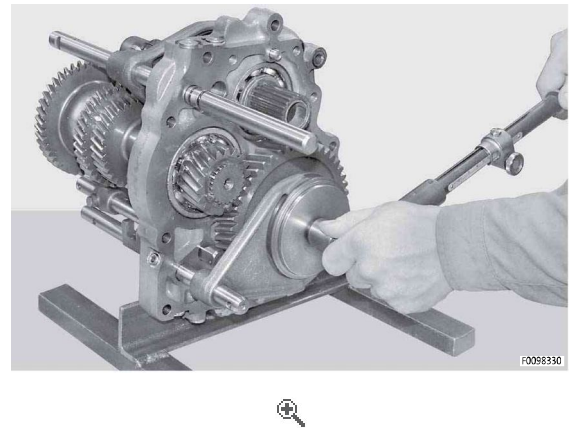


#### Procedures 4-10

- Screws: 25 Nm (18.4 lb.ft.)  
Bolt: Loctite 270

#### Procedure 2

- Bolt:  $73 \pm 1$  Nm ( $53.8 \pm 0.74$  lb.ft.)  
Bolt: Loctite 270





## **Range gearbox and differential assembly - complete assembly**

### **Removal**

After having performed the pre-disassembly operations, the assembly will be already disconnected from the tractor.

### **Refitting**

Refitting is the reverse of removal.

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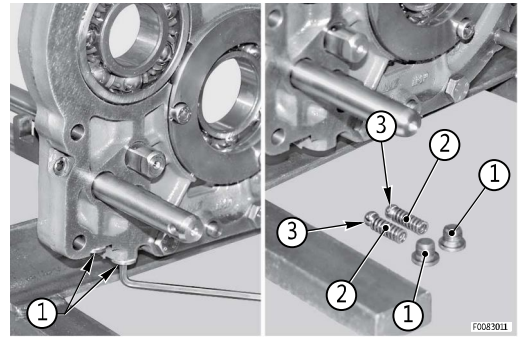


## Gearbox support and gear selector rods

### Disassembly

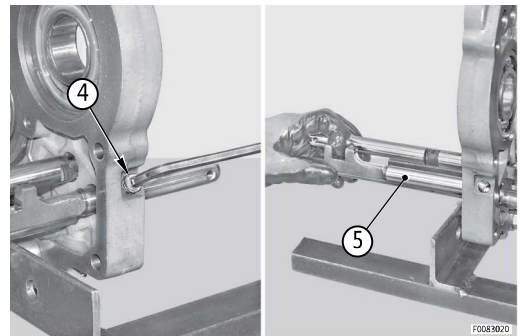
Remove plugs (1) and recover springs (2) and balls (3).

- Renew the copper washers on reassembly.



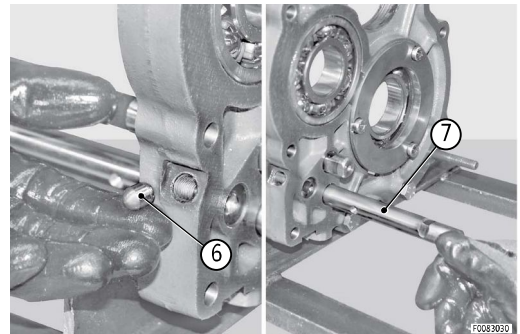
1.

Remove plug (4) and withdraw 1st speed selector rod (5).



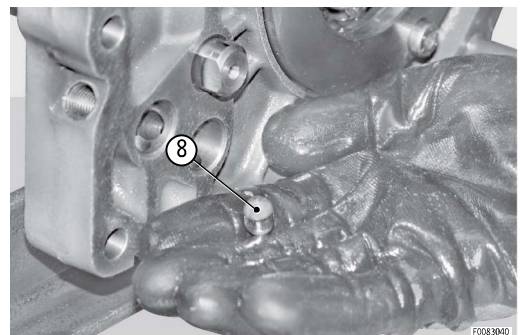
2.

Recover interlock pin (6) and withdraw 2nd/3rd speed selector rod (7).



3.

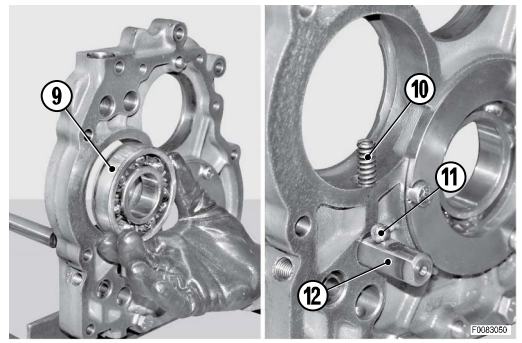
Recover interlock pin (8).



4.

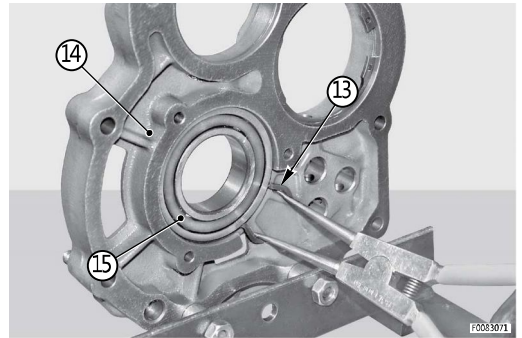
Remove bearing (9), recover spring (10) and ball (11) and withdraw 4th/5th speed selector rod (12).





5.

Open circlip (13) and remove bearing (15) from gearbox support (14).



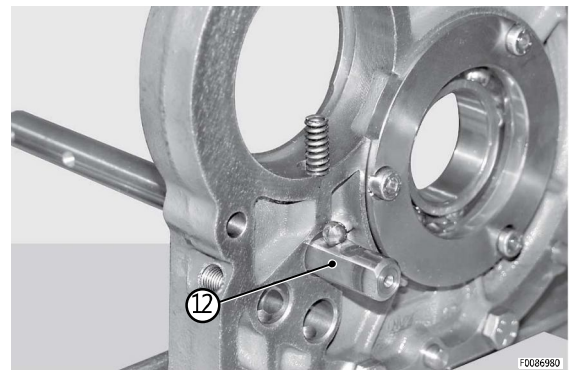
6.

## Assembly

To assemble, follow the disassembly steps in reverse order and use caution in relation to the following procedures:

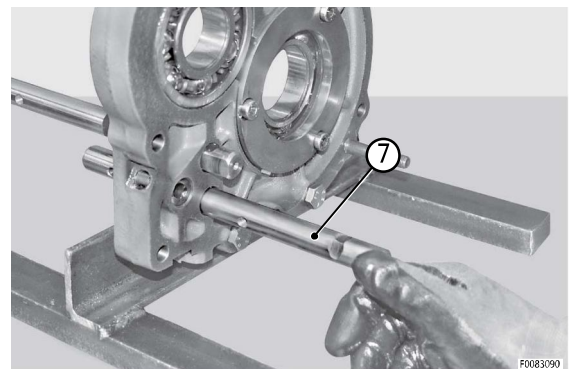
### Procedure 5

- Take care to install 4th/5th speed selector rod (12) the right way round.



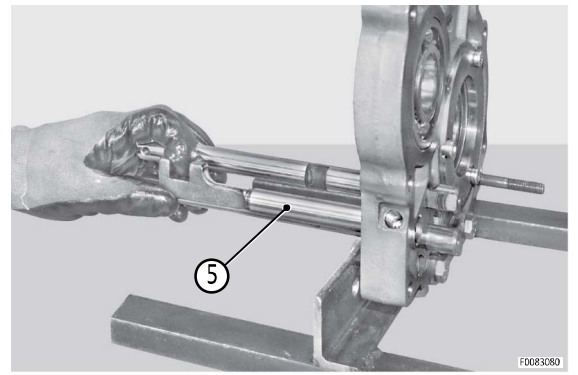
### Procedure 3

- Take care to install 2nd/3rd speed selector rod (7) the right way round.



### Procedure 2

- Take care to install 1st speed selector rod (5) the right way round.



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