

## B . Disassembling and reassembling the 4 WD transmission shafts and the spiders

### Universal joint shaft (Fig. 4)

#### Disassembly

1. Chock the rear wheels and apply the handbrake.
2. Remove the guards (2) (2A).
3. Unscrew the dust seal nut (8).
4. Remove screws (20) and flanges (19) (Fig. 5).
5. Move the universal joint shaft assembly (1A) and the spiders (9) away from the drive pinion carrier. Remove the shaft.

**NOTE:** If there is not enough room to push the universal joint shaft backwards for removal, disassemble the central bearings and long straight shaft (1).

**NOTE:** The spiders are replaceable. They are listed in the spare parts catalogue.

#### Reassembly

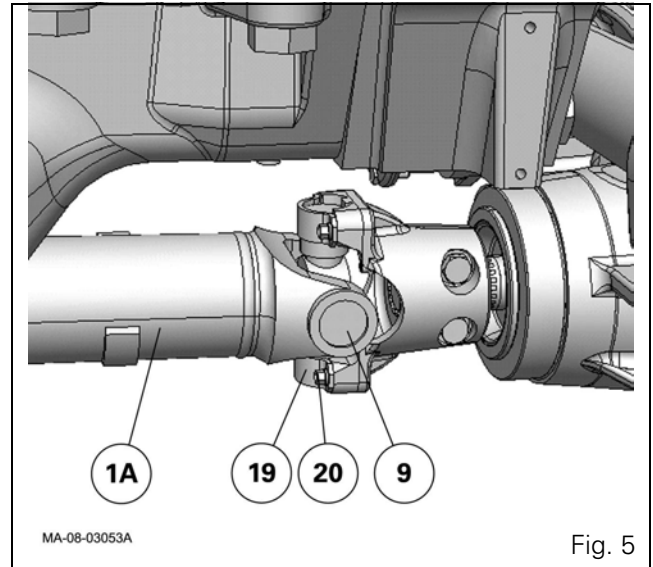
##### Check points

- If the spiders need to be replaced, carefully check the condition of the end clevises at the spider catch location. Remove any traces of impact or sharp edges. Clean the groove of each circlip properly. After assembly, check that the circlips are properly positioned in their respective grooves.

**NOTE:** If necessary, and to facilitate mounting the universal joint shaft on the drive pinion carrier, use a jack with sufficient lifting capacity and position it along the axis of the axle housing to raise the front wheels.

6. Replace the dust seal nut (8) if necessary.

**NOTE:** Use a locally made conical tool to refit the dust seal nut (8) on the shaft (1).



7. Smear the front splines of the long straight shaft with molybdenum sulphide grease or equivalent. Refit the universal joint shaft (1A).
8. Attach the front spider (9) to the plate of the drive pinion carrier using flanges (19) and shoulder screws (20) that have been lightly smeared with Loctite 241 or equivalent and tightened to a torque of 33 Nm.
9. Moderately tighten the dust seal nut (8).
10. With a grease gun, grease the sleeve (11) and refit the guards (2) (2A) (Fig. 4).

# CARRARO 20.48 - GPA30 Transmission shaft and bearing

## Long straight shaft and roller bearing (Fig. 4)

### Disassembly

11. Remove the guards (2) (2A) and the universal joint shaft assembly. Repeat steps 1 to 5.
12. Remove the screw from the sleeve (3). Slide the sleeve (3) and the dust seals towards the front of the long straight shaft.
13. Remove the central bearings (5)(6), roller bearings (7)(7A) and the long straight shaft (1) (Fig. 6 and Fig. 7).
14. Detach bearings (5)(6) from their roller bearings (7)(7A).
15. Unscrew castellated nut (12) (Fig. 4) using a suitable wrench.
16. Remove roller bearings (7)(7A) from the long straight shaft (1).

### Reassembly

17. Check the components. Replace those that are defective.
18. Mount the roller bearing (7) on the long straight shaft. Tighten the locknut with a suitable wrench.
19. Fit the 2nd roller bearing (7A) on the long straight shaft. Screw the Allen screw back onto the internal ring of the roller bearing.
20. Assemble the supports (5) (6) on their respective roller bearings (7)(7A). Tighten the screws.
21. Refit bearings (5)(6), roller bearings (7)(7A) and straight shaft (1) (Fig. 4).
22. Smear the rear splines of the straight shaft (1) with molybdenum sulphide grease or equivalent.
23. Slide the sleeve (3) towards the rear of the long straight shaft. Fit the screw and tighten the nut.
24. Refit the universal joint shaft assembly.  
Repeat steps 6 to 10.

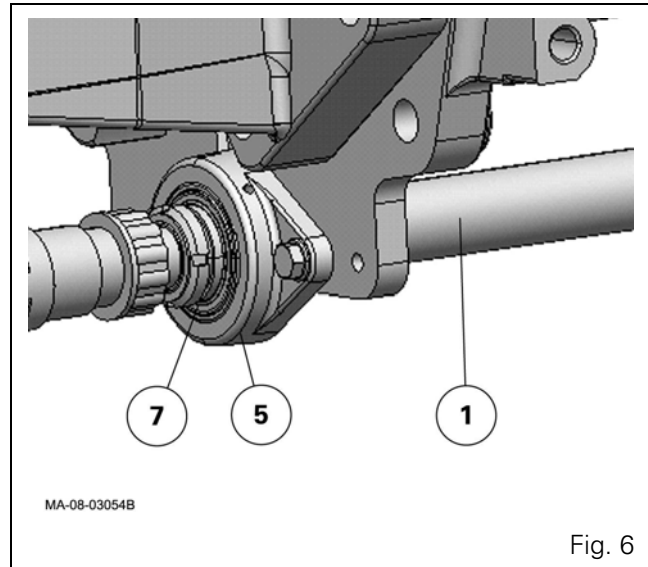


Fig. 6

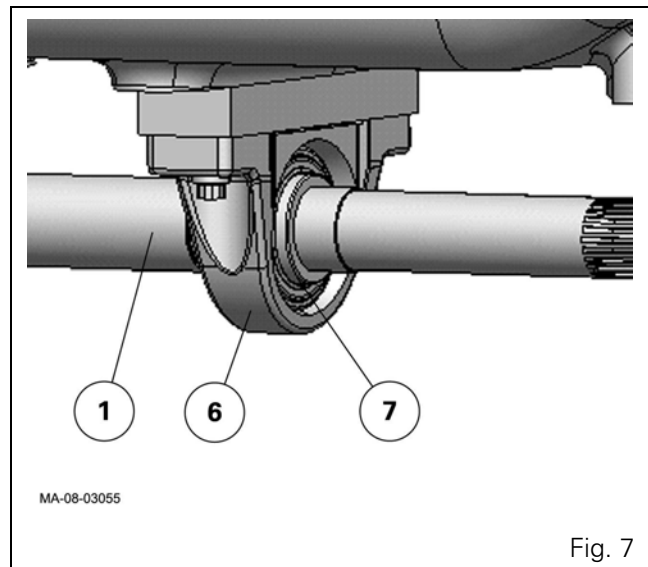


Fig. 7

## C . Removing and refitting the bearing support and front axle

Fixed or suspended front axles

Preliminary step

**25.** Remove the front weights (if fitted). Immobilise the tractor. Apply the handbrake. Place safety chocks on either side of the rear wheels as shown in Fig. 9.

**NOTE:** If fitted, the centre weight (1) (Fig. 8) is attached under the front frame and may hinder removing the bearing support.



**CAUTION:** The centre weight weighs between 180 and 405 kg depending on the option. The removal operation must be carried out carefully with the help of an operator and by using a suitable lifting tool.

**Removing the centre weight:**

- partly remove the internal parts at the bottom of the grille
- support the weight using the suitable lifting tool
- remove the screws (2) (Fig. 8)
- carefully remove the weight from the tractor

**NOTE:** Some tractors may be fitted with a front power take-off. In this case, it will be necessary to remove it before detaching the front axle from the frame.

