

Group 40

AXLE

GENERAL INFORMATION

The axles supply power to the wheels from the center reduction gear assembly. The final drive chains drive the axle sprockets.

REMOVAL OF AXLE

NOTE: The basic design of the front and rear axles are alike; therefore, the following instructions will apply to both axles. The main differences are the rear axles do not have an adaptor flange and brake backing plate. This manual will illustrate the removal of the front axle with brakes to cover all aspects of removal and assembly.

1. (Not illustrated) Block up the loader safely on the side to be serviced. Raise loader high enough to allow hydraulic fluid to flow to the opposite side to prevent the fluid from leaking through axle hub when axle is removed.

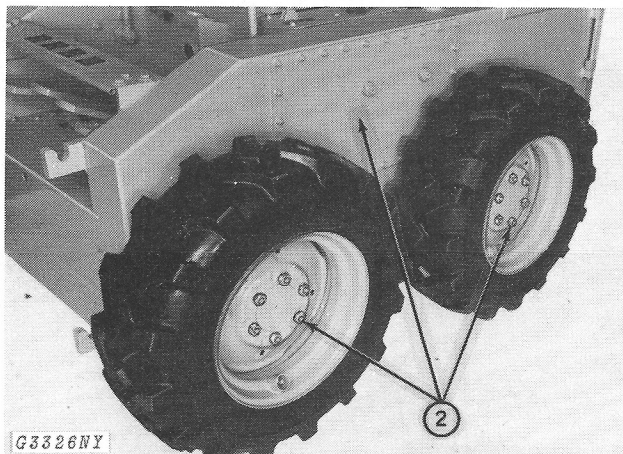


Fig. 1-Removing Wheels and Side Panel

2. Remove both wheels (Fig. 1). Remove the two nuts that support the clutch packs and 28 nuts from the side panel. Remove the side panel.

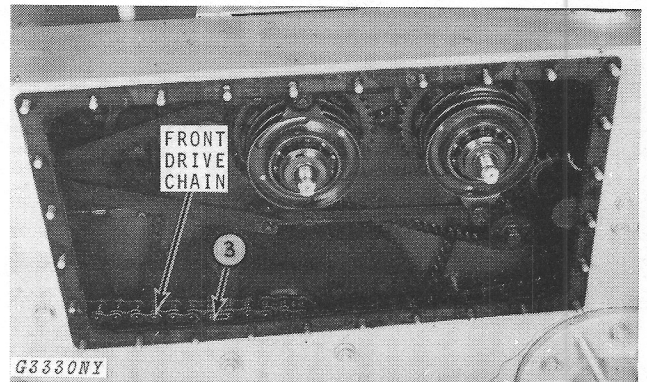


Fig. 2-Removal of Final Drive Chain

3. Remove the final drive chain from the axle to be serviced by removing the master link.

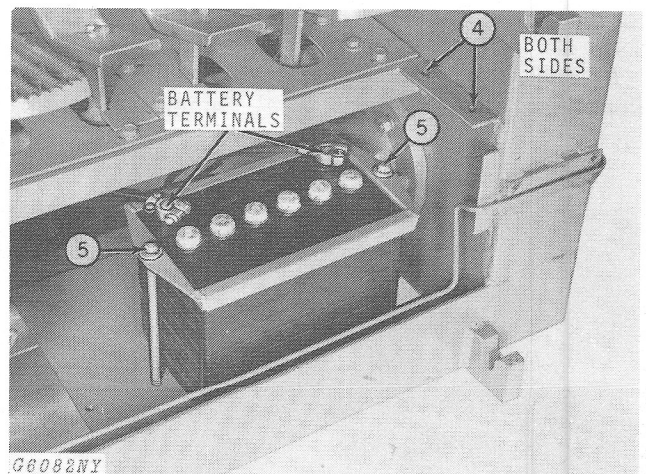


Fig. 3-Removal of Battery

4. Remove the front service panel by removing four cap screws (Fig. 3).

5. Disconnect battery terminals and remove battery holder by removing two bolts.

REMOVAL OF AXLE—Continued

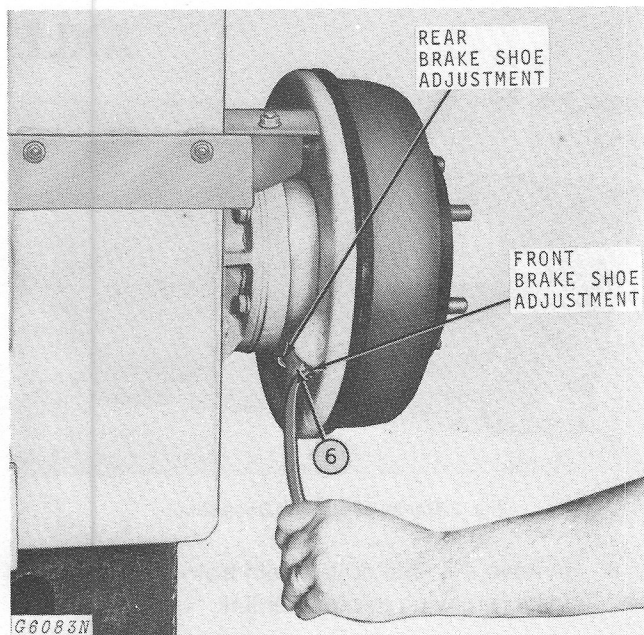


Fig. 4-Removing Brake Drum

6. Back off the adjusting spur for the rear and front shoe of the brake (Fig. 4). Remove the brake drum.

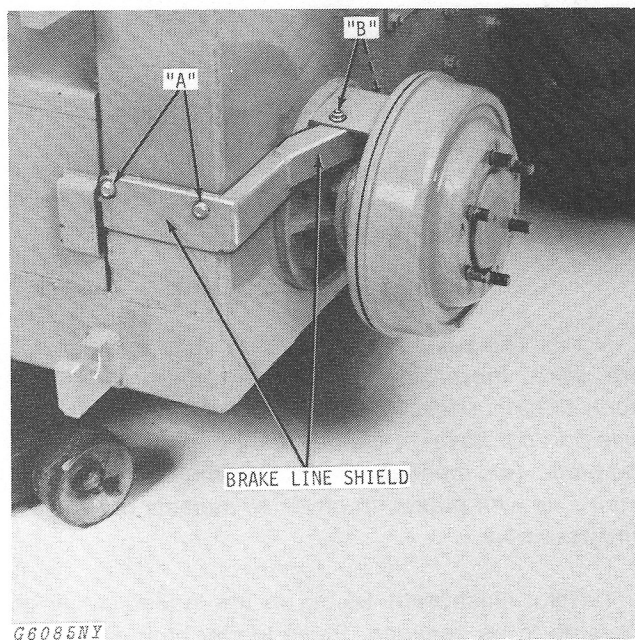


Fig. 6-Removing Brake Line Shield

8. Remove two 5/16 x 3/4-inch cap screws at "A" and two 5/16" x 1/2-inch cap screws and nut at "B" to disassemble brake line shielding.

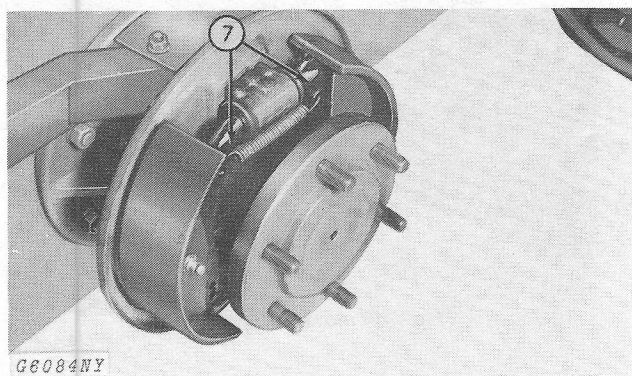


Fig. 5-Removing Brake Assembly

7. Remove brake assembly from the back plate by removing the spring.

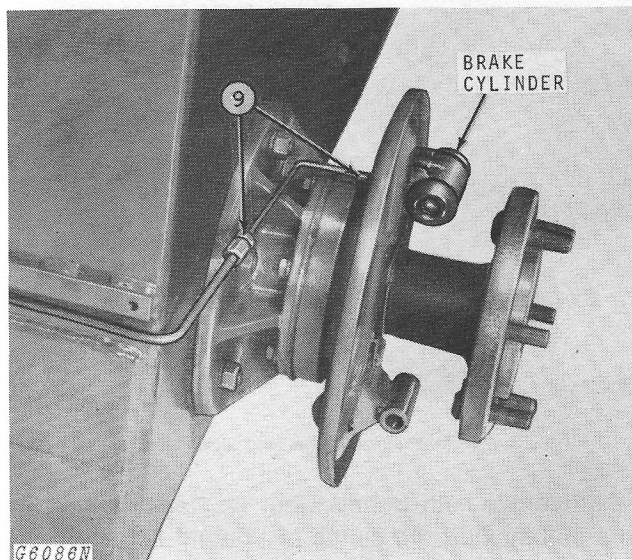


Fig. 7-Removal of Brake Cylinder Line

9. Remove brake line from the rear of the brake cylinder and main brake line. Remove the brake cylinder from the backing plate.

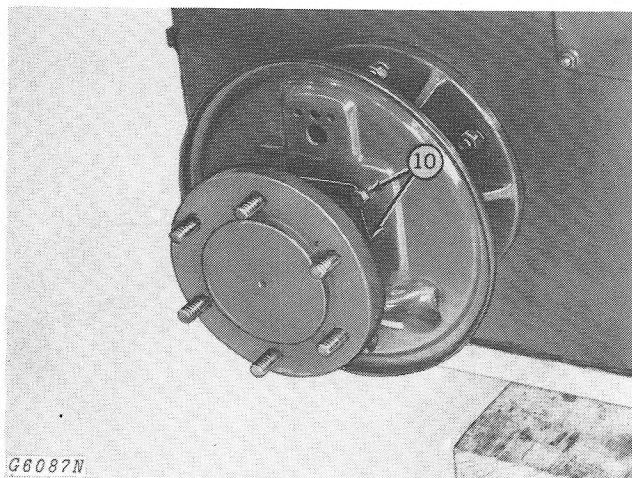


Fig. 8-Removing Backing Plate

10. Cut safety wire and remove four cap screws from the backing plate (Fig. 8). Let backing plate rest on axle.

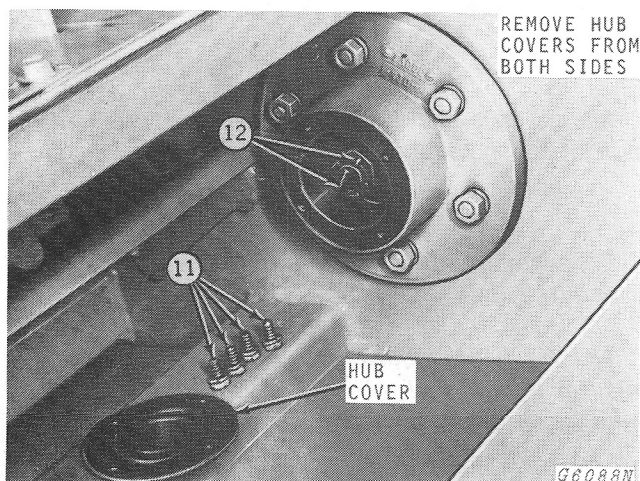


Fig. 9-Removal of Cover from Inside Axle Hubs

11. Remove inside axle hub covers by removing four cap screws (Fig. 9).

12. Remove cotter pin, castellated nuts, and washers from the axles.

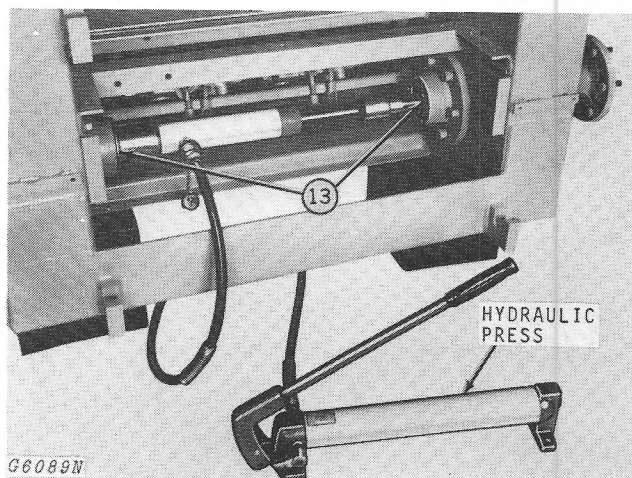


Fig. 10-Pressing Out Axle Shaft

13. Install a portable hydraulic press as shown in Figure 10. Block against the opposite axle hub and the threaded end of the axle to be removed. Use a small wooden block against the threaded end of the axle shaft.

14. (Not illustrated) Rap flanges of axle with a lead hammer to release the bearing after exerting a slight amount of pressure with the hydraulic press.

15. (Not illustrated) Continue pressing axle until clear of inside bearing. Remove axle from outside housing.

NOTE: Spacers and sprocket will remain in hydraulic reservoir after the axle is removed. Remove them from the reservoir. Tag spacers so they can be replaced in the order they were removed.

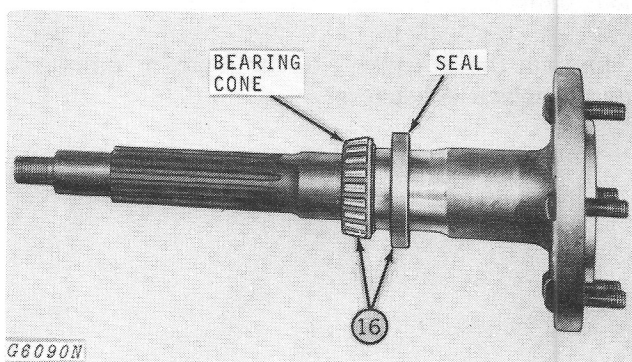


Fig. 11-Axle Seal Removal

16. To replace seal, the outside bearing cone will have to be removed. Care should be taken not to damage the bearing cone during removal.

INSPECTION

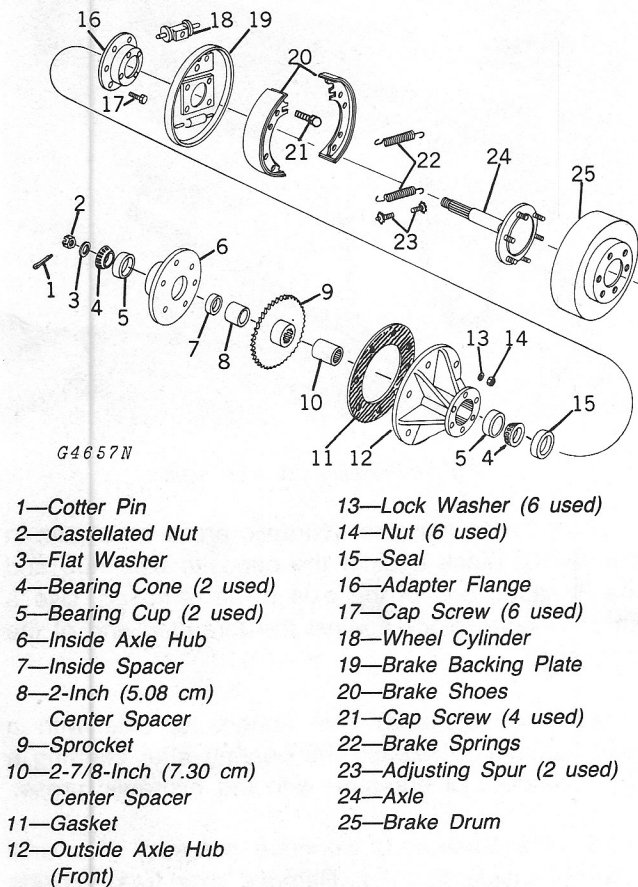
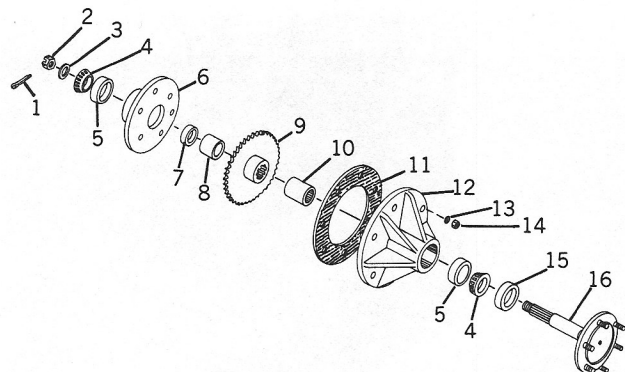


Fig. 12-Exploded View of Front Axle

Refer to Figures 12 and 13 for parts.

Inspect bearings (4) and bearing cups (5) in the outside axle hub (12) for wear and damage. If bearing cups or bearings have been damaged replace both parts.

Inspect the sprocket (9) for worn or damaged teeth, replace if necessary.



- | | |
|----------------------------------|---------------------------------------|
| 1—Cotter Pin | 9—Sprocket |
| 2—Castellated Nut | 10—2-7/8-Inch (7.30 cm) Center Spacer |
| 3—Flat Washer | 11—Gasket |
| 4—Bearing Cone (2 used) | 12—Outside Axle Hub (Rear) |
| 5—Bearing Cup (2 used) | 13—Lock Washer (6 used) |
| 6—Inside Axle Hub | 14—Nut (6 used) |
| 7—Inside Spacer | 15—Seal |
| 8—2-Inch (5.08 cm) Center Spacer | 16—Axle |

Fig. 13-Exploded View of Rear Axle

Inspect axle seal (15), if there is evidence of leakage at the outside hub, replace the seal.

ASSEMBLY

To assemble axle on loader, reverse the removal procedure (see page 50-40-1).

NOTE: Tighten castellated axle nut to zero end play at hub, then tighten 1/2-turn more and secure with cotter pin. (See page 50-40-3.)