



4-Wheel Drive Rear Axle Replacement Kit

Groundsmaster 3000-D

Part No. 114-2860

Form No. 3358-119 Rev. A

Installation Instructions

1. Park the machine on a level surface, lower the attachment, turn the engine off, set the parking brake and remove the key from ignition switch.
2. Block the front wheels.
3. Jack up the frame (just ahead of the rear wheels) until the rear tires are just off the floor. Support the machine with jack stands to prevent it from falling.
4. Remove the lug nuts securing the rear tires to the axle and remove the tires. Discard lug nuts.
5. Place a drain pan under the rear axle steering cylinder.
6. Disconnect the hydraulic hoses from the steering cylinder. Put caps or plugs on all the fittings and hoses to prevent contamination.

Note: To ease reassembly, tag each of the hoses to show their correct position on the steering cylinder.

7. Remove the bolt and washer from the end of the axle pivot pin (Fig. 1).



Caution



Use caution when removing the axle pivot pin as it secures the axle to the axle pivot and the axle is very heavy.

8. Pull the axle pivot pin out. This will release the rear axle from the axle pivot and allow it to be lowered to the floor (Fig. 1).
9. Separate the drive shafts and move the axle away from the machine.

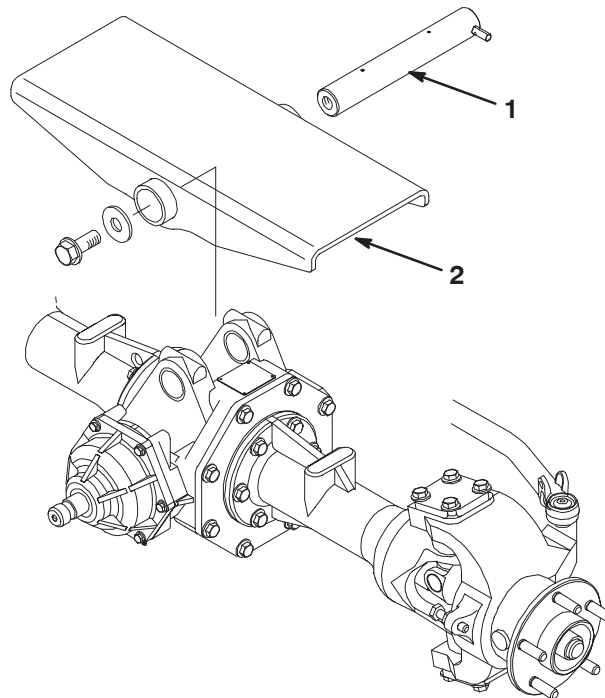


Figure 1

1. Axle pivot pin
2. Axle pivot

10. On the under side of the axle pivot, locate the axle stops (Fig. 2).

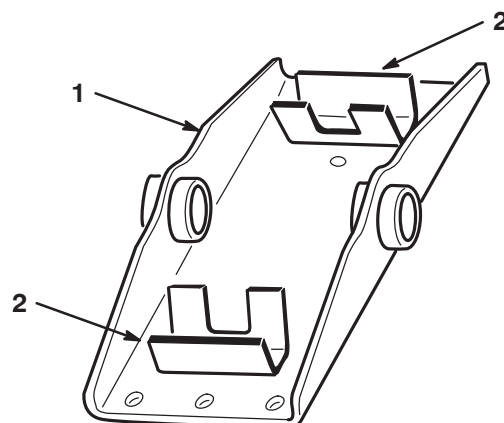


Figure 2

1. Axle pivot
2. Axle stop

11. Cut off the outer flange of each axle stop as shown in figure 3.

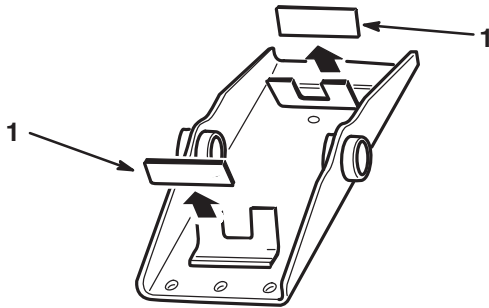


Figure 3

1. Outer flange of axle stop

12. Grind the cut surfaces smooth and touch up with paint.
13. Using the dimensions shown in figure 4, locate, mark and drill (4) .406" dia holes in the inner flanges of the axle stops. Touch up with paint.

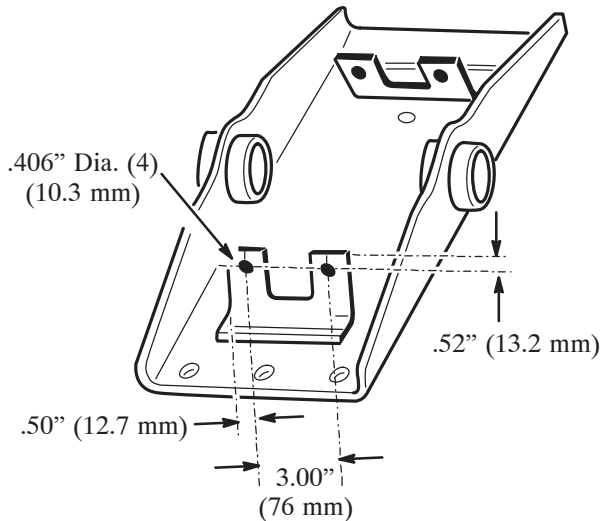


Figure 4

14. Mount an axle bracket stop to each of the remaining axle stop flanges with (2) 3/8 x 1-1/4 inch screws and 3/8 inch locknuts (Fig. 5).

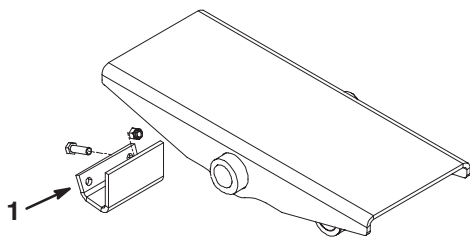


Figure 5

1. Axle stop bracket

15. Install (2) 90 degree fittings w/O-rings to the steering cylinder on the new axle. Make sure the O-rings are lubricated and positioned correctly.

16. Using the pivot pin, washer and bolt previously removed, mount the new axle to the axle pivot. Torque the bolt to 150 ft.-lb (21 Kgm). Make sure the axle tie rod is positioned to the rear when installing.

17. Connect the hydraulic hoses to the 90 degree fittings on the steering cylinder. Adjust fittings to the best angle for the connections. When the steering wheel is turned counter-clockwise the wheels should turn for a left turn. Reverse hose connections if required.

18. Insert the new drive shaft half onto the existing shaft.

19. Secure the flange yoke of the new drive shaft half to the axle clutch with (6) 1/4 x 3/4 inch socket head screws and 1/4 inch lockwashers.

20. Mount the tires to the axle with the lug nuts included. Torque the nuts to 70-80 ft.-lb (10-11 Kgm).

21. Remove the jack stands and lower the machine to the shop floor.

22. Check the rear axle differential oil level. Add 90 wt. lube if required.

23. Check and replenish the traction unit hydraulic fluid level as required. See Operator's Manual for hydraulic fluid specification.

24. Lubricate the following grease fittings with No. 2 General Purpose Lithium Base Grease:

- Drive shaft (1)
- Tie rod ball joints (2)
- Axle pivot pin (1)
- Steering cylinder ball joints (2)

25. Check the rear wheel toe-in as follows:

Measure the center-to-center distance (at axle height) at front and rear of tires. The front measurement must be 1/8 in. less than rear measurement.

To adjust toe-in:

- Remove cotter pins and nuts securing ball joints to steering arms. Separate ball joint from arm.
- Loosen clamps at both ends of tie rod.
- Rotate ball joints to move front of tire inward or outward.
- Tighten tie rod clamps when adjustment is correct.