



Three-Wheel Drive Kit

Greensmaster® 3150

Model No. 04433

Form No. 3350-347

Installation Instructions

Removing Existing Wheel

1. Park traction unit on a level surface, set parking brake, and stop engine. Remove key from ignition.



Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove key from ignition switch before you do any maintenance.

2. Lift rear of traction unit and remove tire assembly from caster fork.
3. Remove and discard wheel hub assembly and axle bolt from tire assembly. Retain lug nuts.

Assembling Rear Wheel

1. Remove grease fitting from motor and hub assembly (Fig. 1).

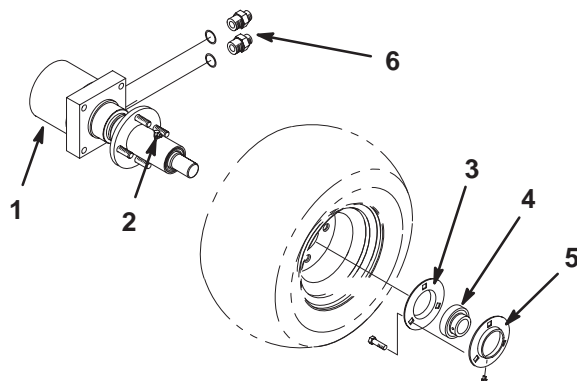


Figure 1

- | | |
|---------------------------|-------------------------|
| 1. Motor and hub assembly | 4. Bearing |
| 2. Grease fitting | 5. Relube flangette |
| 3. Standard flangette | 6. Straight fitting (2) |
2. Mount tire assembly to motor and hub assembly with 4 lug nuts. Torque lug nuts to 70 to 90 ft.-lb (95 to 122 N·m).

3. Re-install grease fitting in hub assembly, pointing it away from tire.
4. Insert flangettes and bearing onto end of motor shaft as shown in Figure 2.

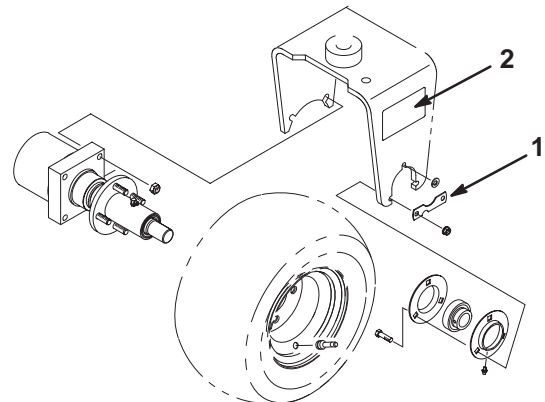


Figure 2

1. Bearing tab

2. Decal

5. Mount 2 straight fittings to side of motor assembly (Fig. 1).
6. Position motor hub, flangettes with bearing, and tire assembly into caster fork. Ensure that ports on motor face rearward (Fig. 2).
7. Loosely secure motor to right, inside of caster fork with 2 socket-head screws and 2 nuts (Fig. 2).
8. Loosely secure flangettes with bearing to left inside of caster fork with 3 screws, 3 locknuts, and a bearing tab. The grease fitting must be in the downward position on the flangette (Fig. 2) Tighten motor screws to 85 ft.-lbs (115 N·m) and flangette screws to 30 ft.-lbs (41 N·m).
9. Apply a thread-locking adhesive (such as Loctite®) to bearing setscrews and torque to 80 to 100 in-lb (9 to 11 N·m).
10. Verify overrunning bearing operation: The tire should roll freely forward, but engage wheel motor when rolled backward.
11. Lower rear of traction unit to ground.
12. Grease all fittings with No. 2 general purpose lithium-based grease.
13. Apply decals to each side of caster fork.

Installing Hydraulic Components

1. Disconnect the negative cable and then positive cable from battery.
2. Drain all hydraulic oil from reservoir by removing the upper hose from pump (Fig. 3). Re-connect hose after installing hydraulic hard line.

Note: The hydraulic system capacity is approximately 8.5 gallons (33 liters).

Important Take care not to contaminate oil if you are going to reuse it. A very small amount of dirt or debris can severely damage hydraulic system.

3. Remove and discard hose secured to 45° fitting on lower pump port and to tee fitting under seat base (Fig. 3 & 4).

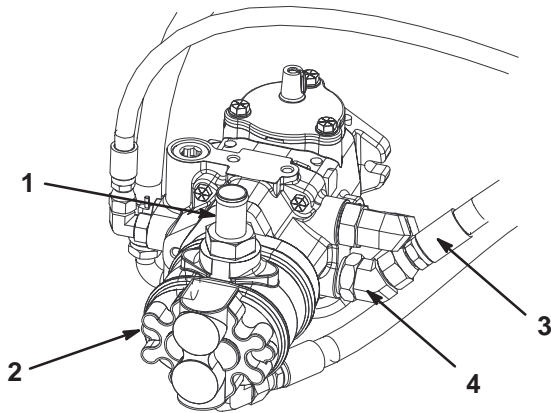


Figure 3

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|---------------|----------------|
| 1. Upper hose | 3. Lower hose |
| 2. Pump | 4. 45° fitting |

4. Install hydraulic hard line to tee fitting under seat base. Position line as shown in figure 4.

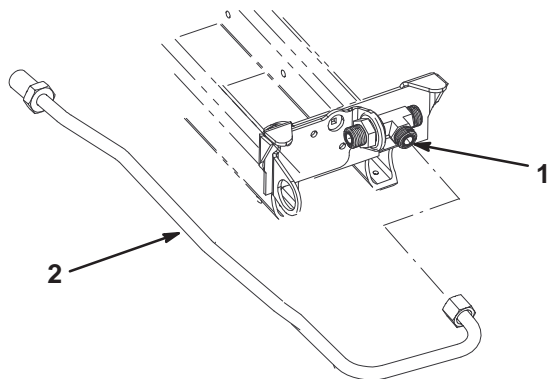


Figure 4

- | | |
|----------------|------------------------|
| 1. Tee fitting | 2. Hydraulic hard line |
|----------------|------------------------|

Note: Make sure all O-rings are lubricated and in position before installing fittings.

5. Install grommets and spacers to bulkhead bracket as shown in Figure 5.
6. Assemble bulkhead bracket to hydraulic hard line with nuts and washers, supplied in kit, as shown in Figure 5.

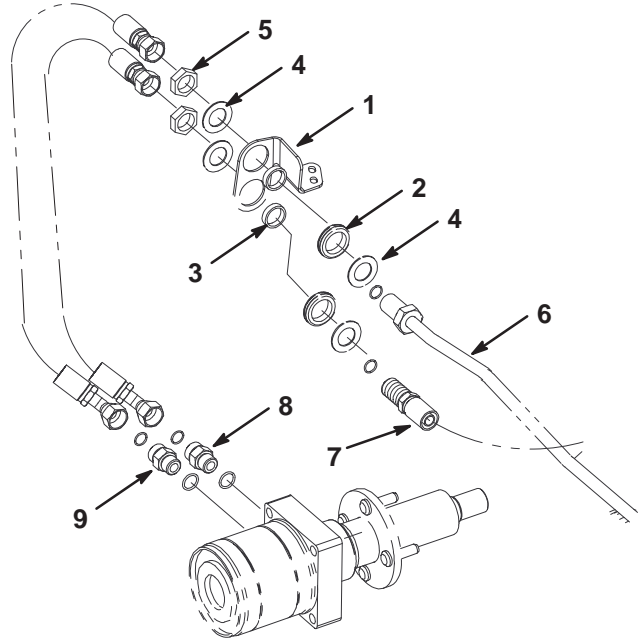


Figure 5

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|---------------------|------------------------|
| 1. Bulkhead bracket | 6. Hydraulic hard line |
| 2. Grommet | 7. Hose |
| 3. Spacer | 8. Upper motor fitting |
| 4. Washer | 9. Lower motor fitting |
| 5. Nut | |

7. Using bulkhead bracket as a template and dimensions shown in figure 6, locate, mark and drill (2) .281 in. diameter holes into frame tube. Dimensions shown in Figure 6 are for location reference of bracket.

8. Also, use remaining dimensions shown in figure 6, to locate, mark and drill a .281 in. diameter hole into frame tube.

Note: Figure 6 is shown as viewed from under machine.

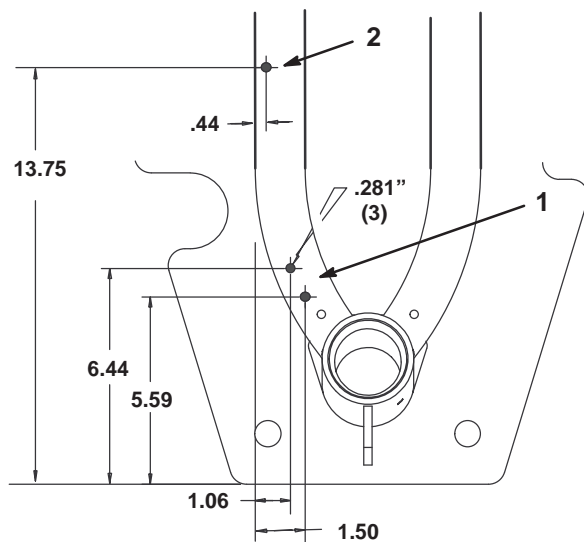


Figure 6

1. Bulkhead bracket holes 1. R-clamp hole

9. Mount bulkhead bracket to frame with (2) hex-head thread-forming screws.

10. Loosely install the pump hose assembly to the 45° fitting on pump and to the lower hole in bulkhead bracket with a washer and a nut (Fig. 5 & 7).

Note: The 45° fitting on pump may have to be rotated slightly to align with hose assembly.

11. Insert R-clamp onto pump hose assembly. Secure R-clamp to frame tube with a hex-head thread-forming screw (Fig. 7)

12. Loosely install a hydraulic hose to the pump hose assembly (lower bulkhead) and to upper wheel motor fitting (Fig. 5).

13. Loosely install a hydraulic hose to hydraulic hard line (upper bulkhead) and to bottom wheel motor fitting.

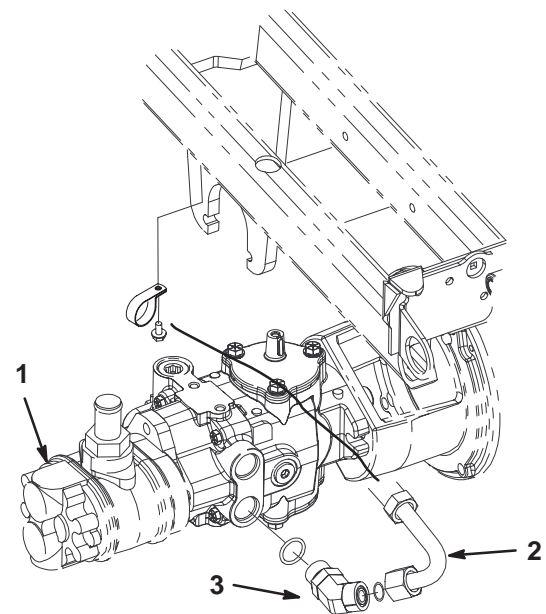


Figure 7

1. Pump 3. 45° fitting
2. Pump hose assembly

Note: The hoses must not contact tire or rim.

14. Tighten fittings.

15. Turn steering fork fully side to side to check for proper hose flex and position. With steering wheel in full right turn, it may be necessary to rotate rear hydrostat hose fitting slightly downward to gain clearance with rear wheel motor.

Note: The hoses should not rub on tire, rim, tanks, steering fork, or steering hoses. It may be necessary to rotate fuel shut off fitting (under fuel tank) slightly to avoid fuel filter touching three wheel drive hoses.

Note: The hydraulic lines must not be twisted, kinked, have sharp bends, or touch sharp edges, moving parts, or engine exhaust parts.

16. Tighten all fittings and clamps.

17. Fill and check hydraulic oil reservoir level.

18. Connect positive then negative battery cables to battery.

Note: Connect negative cable last.

19. Start engine and cycle the traction and lift cylinders to purge the air.

20. Re-check hydraulic oil level.

Installing Seat Belts

Install each end of seat belt (Fig. 8) to holes in back of seat with screws (7/16–20 x 1 in.) and lock washers (7/16 in.). Tighten securely.

Note: Mount retractable side of belt to left side of seat.

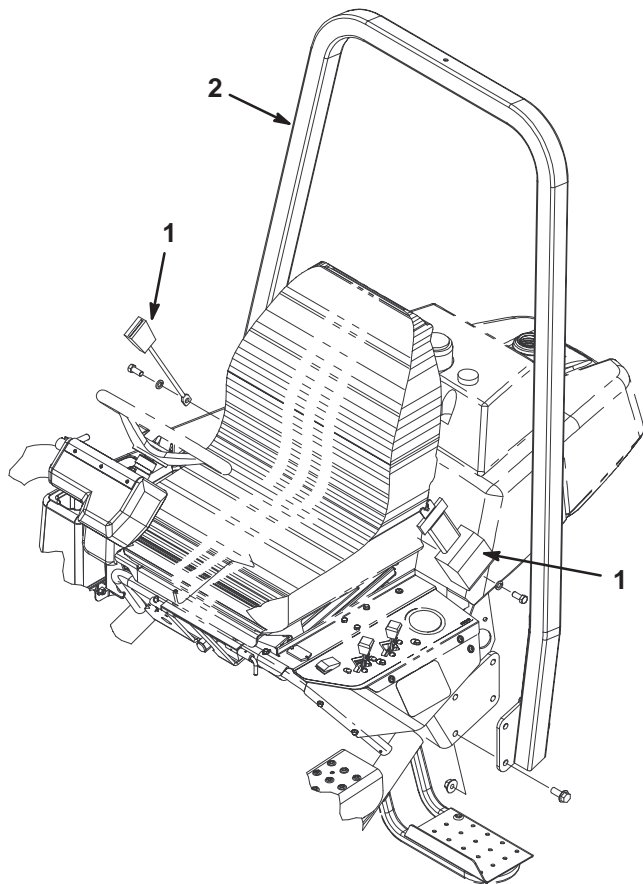


Figure 8

1. Seat belt

2. ROPS

Note: When operating machine, always use seat belt and ROPS together.

Installing the Roll Over Protection System (ROPS)

1. Lower ROPS frame (Fig. 8) onto mounting brackets, aligning mounting holes.
2. Secure each side of roll bar to mounting brackets with 8 screws (1/2–13 x 1.75) and locknuts. Torque fasteners to 67 to 85 ft.-lb (91 to 115 N·m).

Note: When operating the machine with the ROPS installed, always use seat belt. Do not wear the seat belt if the ROPS is not installed

REEL MOTORS

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* FLOW RATE CALCULATED AT 2800 RPM AND 80% EFFICIENCY

