



3-Wheel Drive Kit

for Greensmaster® 3100, Model No. 04356

Part No. 100-6441

Installation Instructions

Removing Existing Wheel

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

CAUTION

POTENTIAL HAZARD

- If you leave the key in the ignition switch, someone could start the engine.

WHAT CAN HAPPEN

- Accidental starting of the engine could seriously injure you or other bystanders.

HOW TO AVOID THE HAZARD

- Remove the key from the ignition switch before you do any maintenance.

2. Lift rear of traction unit and remove tire assembly from castor 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).

2. Mount tire assembly to motor and hub assembly with (4) lug nuts. Torque lug nuts to 70-90 ft-lbs.
3. Re-install grease fitting in hub assembly, pointing away from tire.

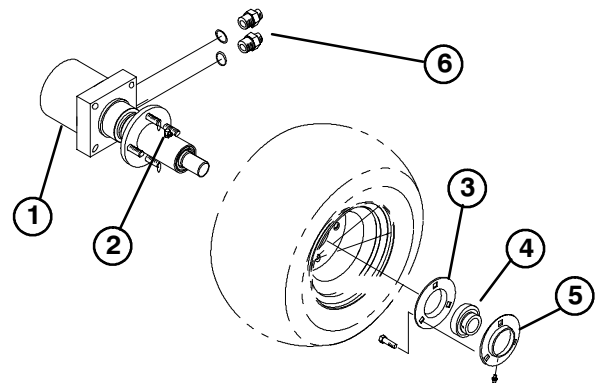


Figure 1

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|---------------------------|-------------------------|
| 1. Motor and hub assembly | 4. Bearing |
| 2. Grease fitting | 5. Relube flangette |
| 3. Standard flangette | 6. Straight fitting (2) |
4. Insert flangettes and bearing onto end of motor shaft as shown in figure 2.
 5. Mount (2) straight fittings to side of motor assembly (Fig. 1).
 6. Position motor hub, flangettes w/bearing and tire assembly into castor fork. Ports on motor to face to rear (Fig. 2).

7. Loosely secure motor to right, inside of castor fork with (2) socket head capscrews and (2) nuts (Fig. 2).

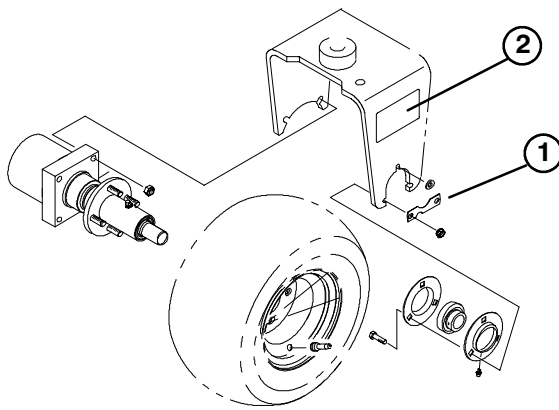


Figure 2

1. Bearing tab

2. Decal

8. Loosely secure flanges w/bearing to left inside of castor fork with (3) capscrews, locknuts, and a bearing tab. Grease fitting must be in downward position on flange (Fig. 2) Tighten motor capscrews to 85 ft-lbs and flange capscrews to 30 ft-lbs.
9. Apply loctite (not supplied) to bearing setscrews and torque to 80-100 in-lbs.
10. Verify overrunning bearing operation: tire should roll freely forward, but engage the wheel motor when rolled backwards.
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 castor fork as shown in Figure 2.
14. Apply decal to front of traction unit frame as shown in Figure 5.

Installing Hydraulic Components

1. Disconnect negative cable and then positive cable from battery.
2. Drain all hydraulic oil from reservoir by removing outboard hose from pump. Re-connect hose after reservoir is drained.

Note: Hydraulic system capacity is approximately 8.5 gallons.

IMPORTANT: Care must be taken not to contaminate oil if it is going to be re-used. A very small amount of dirt or debris can severely damage hydraulic system.

3. Remove right shield (Fig. 3).

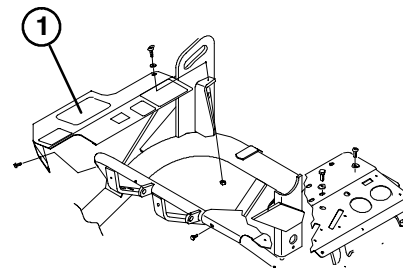


Figure 3

1. Right shield

4. Disconnect right and center lift cylinder hoses from brazed tee fitting (Fig. 4).
5. Disconnect right wheel hose from upper right tee fitting on control valve (Fig. 4).
6. Disconnect pump hose from 45 degree fitting on control valve, (lower row, 2nd from left) (Fig. 4).
7. Disconnect steering hose from 45 degree fitting on tee manifold (Fig. 4).
8. Remove and discard 45 degree fitting from top of tee manifold (Fig. 4).

9. Remove and discard U-shaped tube (Fig. 4).

10. Remove and discard hydraulic plug from center port of traction hardline (Fig. 4).

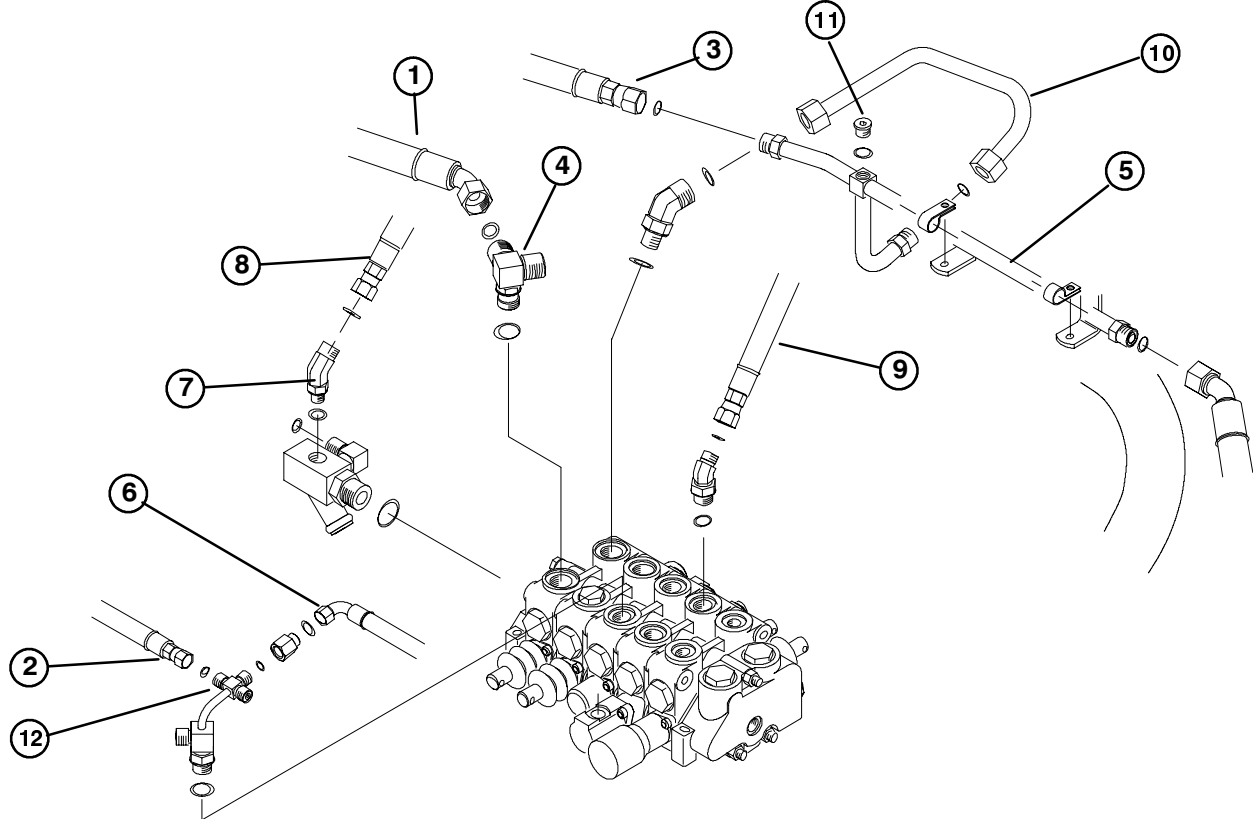


Figure 4

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|---------------------------------|------------------------------|----------------------|------------------------|
| 1. Right wheel hose | 4. Tee fitting | 7. 45 degree fitting | 10. U-shaped tube |
| 2. Right lift cylinder hose | 5. Traction hardline | 8. Steering hose | 11. Hydraulic plug |
| 3. Lower right wheel motor hose | 6. Center lift cylinder hose | 9. Pump hose | 12. Brazed tee fitting |

11. Install retainer nut into square hole in right side of frame. Clips to be facing outward (Fig. 5).

12. Loosely install top rear hardline and bottom rear hardline to frame using tube clamps and hardware (Fig. 5).

13. Fasten top rear hardline to traction hardline elbow (Fig. 5).

Note: Fitting may have to be rotated slightly to align with hardline.

14. Fasten lower rear hardline to 45 degree fitting on control valve (Fig. 5).

15. Install check adapter to center port of traction hardline (Fig. 5).

16. Tighten all fittings and hardline clamps.

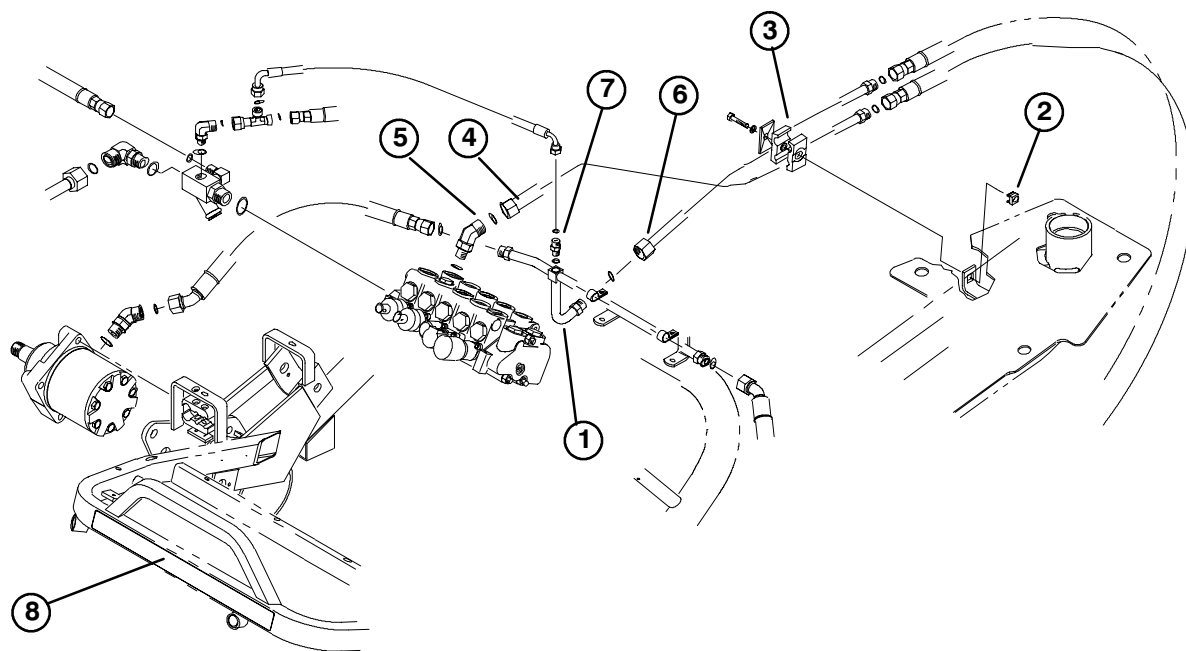


Figure 5

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|-----------------|----------------------|------------------------|------------------|
| 1. Elbow | 3. Tube clamps | 5. 45 degree fitting | 7. Check adapter |
| 2. Retainer nut | 4. Top rear hardline | 6. Lower rear hardline | 8. Decal |

17. Install new 90 degree adapter and swivel tee fitting to top of tee manifold at 45 degree angle toward center of machine (Fig. 6).

18. Re-install steering hose to end of swivel tee fitting (Fig. 6).

19. Install new hose to top of swivel tee fitting and to check adaptor on traction hardline (Fig. 6).

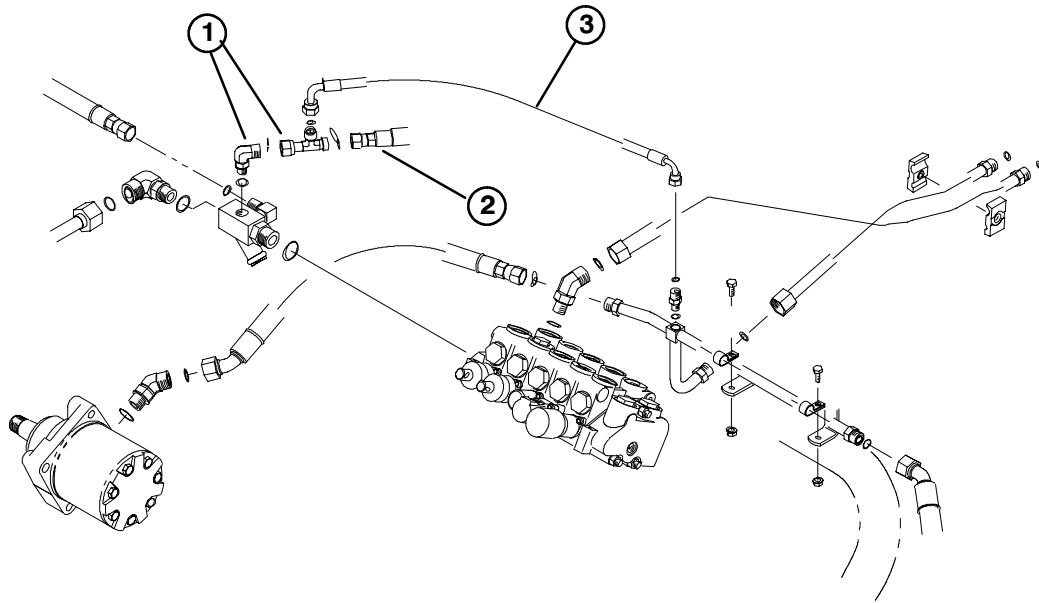


Figure 6

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|---|------------------|---------|
| 1. 90 degree adapter & swivel Tee fitting | 2. Steering hose | 3. Hose |
|---|------------------|---------|

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|---|---|
| <p>20. Re-connect right wheel hose to upper right tee fitting on control valve (Fig. 7)</p> <p>21. Re-connect right and center lift cylinder hoses to brazed tee fitting (Fig. 7)</p> | <p>22. Re-connect pump hose to 45 degree fitting on control valve, (lower row, 2nd port from left) (Fig. 7).</p> |
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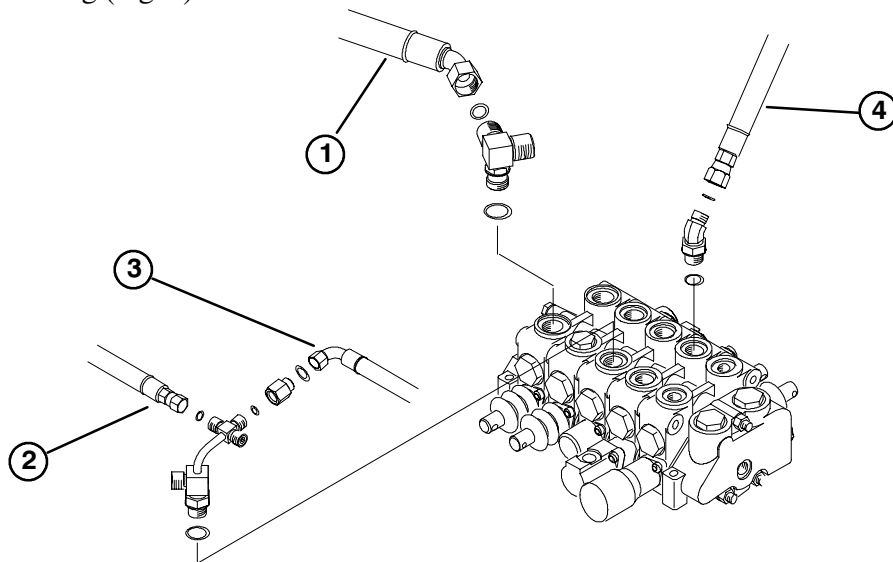


Figure 7

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|---------------------|-----------------------------|------------------------------|--------------|
| 1. Right wheel hose | 2. Right lift cylinder hose | 3. Center lift cylinder hose | 4. Pump hose |
|---------------------|-----------------------------|------------------------------|--------------|

23. Loosely install rear motor hose from top hardline to top fitting on rear motor (Fig. 8).
24. Loosely install rear motor hose from bottom hardline to bottom fitting on rear motor (Fig. 8). Hoses must not contact tire or rim. Tighten fittings.

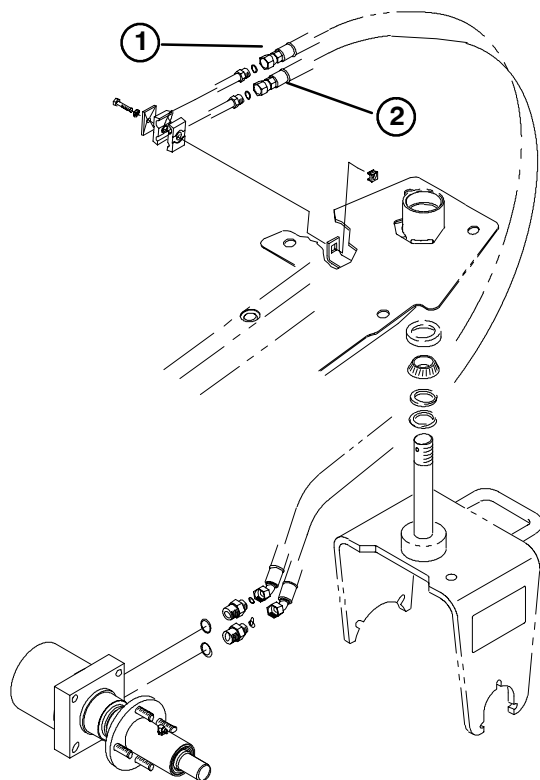


Figure 8

1. Rear motor hose from top hardline
2. Rear motor hose from bottom hardline

30. Re-connect positive then negative battery cables to battery.

Note: Make sure to connect negative cable last.

31. Start engine and cycle traction and reel valves to purge air. Recheck hydraulic oil level.

25. Turn steering fork fully side to side to check for proper hose flex and position. Hoses should not rub on tire, rim, tanks, steering fork or steering hoses.
26. Hydraulic lines must not be twisted, kinked, have sharp bends, touch sharp edges, moving parts or engine exhaust parts.
27. Tighten all fittings and clamps.
28. Re-install right shield.
29. Fill and check hydraulic oil reservoir level.

Hydraulic Schematic

