



Leak Detector Kit

Greensmaster® 3200 Series

Model No. 04497

Form No. 3328-210 Rev A

Installation Instructions

Installing the Leak Detector

1. Remove the hydraulic cap, cap tether retaining bolt, and washer from the main hydraulic tank (Fig. 1).
2. Remove the plastic insert plug from the main hydraulic tank (Fig. 1).

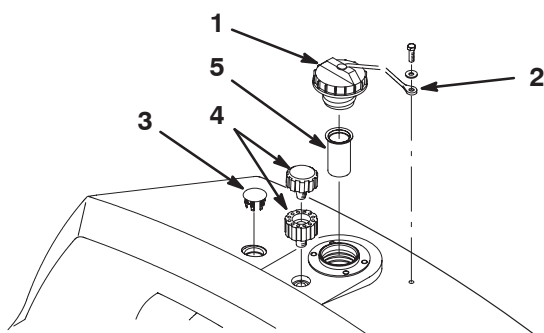


Figure 1

- | | |
|------------------|---------------------------|
| 1. Hydraulic cap | 4. Breather and extension |
| 2. Tether | 5. Filler screen |
| 3. Insert plug | |

3. Remove the pipe plug from the top of the auxiliary tank (Fig. 2).
4. Remove the breather and breather extension from the top of the main hydraulic tank (Fig. 1).

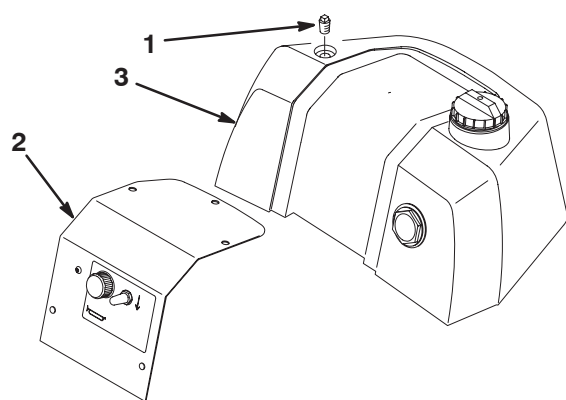


Figure 2

- | | |
|----------------|-----------------------------|
| 1. Pipe plug | 3. Auxiliary hydraulic tank |
| 2. Cover plate | |

5. Top off the main hydraulic tank until fluid is visible at the base of the breather port. This will ensure that the maximum amount of air is purged from the main tank before installing the leak detector.
6. Install the breather and breather extension into the top of the auxiliary tank and the pipe plug into the top of the main hydraulic tank (Fig. 3).
7. Remove the filler screen (Fig. 1) and place it in the neck of the auxiliary tank.
8. Remove the 5 capscrews and washers securing the cover plate to the auxiliary hydraulic tank (Fig. 2). Remove the cover from the tank.
9. Remove and discard 4 locknuts from the bottom of the manifold block (Fig. 3).

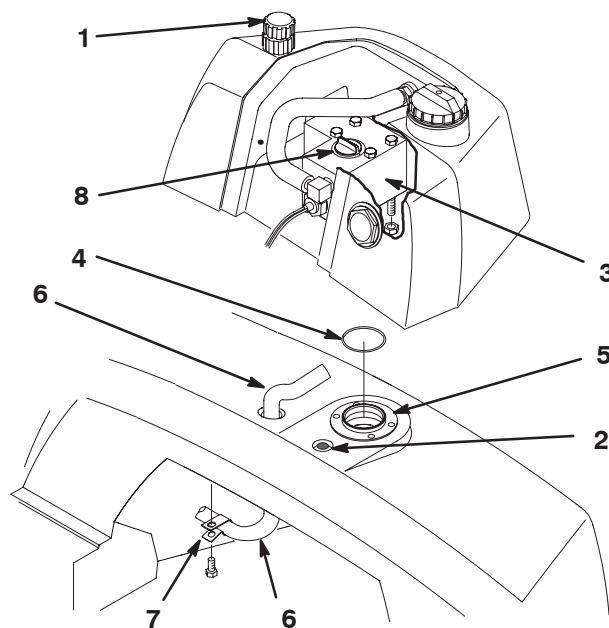


Figure 3

- | | |
|---------------------------|------------------------|
| 1. Breather and extension | 5. Main tank fill neck |
| 2. Pipe plug | 6. Wire harness |
| 3. Manifold block | 7. R-clamp |
| 4. O-ring | 8. Block fill cap |

10. Remove the 4 protective insert plugs from the main tank fill neck. Clean the mating surfaces of the block and fill neck with a clean, dry rag. Carefully place the o-ring from the loose parts over the fill neck boss.

11. Route the wire harness through the access hole in the main tank and align the manifold block with the fill neck as shown in Figure 3.
12. Secure the 4 manifold block mounting capscrews to the main tank fill neck.
13. Locate the plugged 2-pin connector with the white and black wires in the main tractor harness. Remove the plug from the main wire harness and attach the leak detector harness.
14. Secure the leak detector harness to the underside of the auxiliary tank with the R-clamp and 6 mm capscrew as shown in Figure 3.
15. Remove the fill cap from the top of the manifold block (Fig. 3). Carefully fill the float cavity to within 1 in. (25 mm) of the top of the threads. Do not overfill. Replace and tighten the fill cap.
16. Before attaching the cover plate, test the leak detector switch (Fig. 4) with the main tractor key switch in the On/Run position. The buzzer should sound with the toggle switch held in the down position for 1 second.

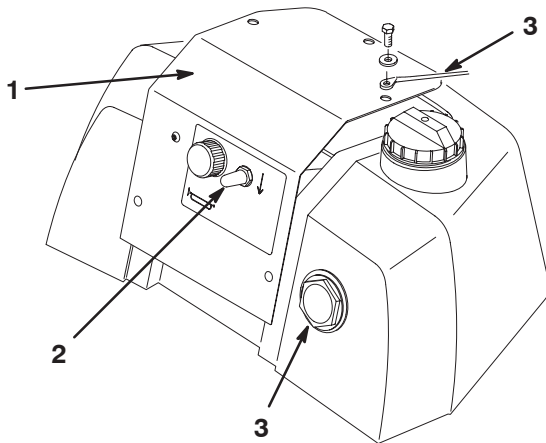


Figure 4

- | | |
|-------------------------|----------------|
| 1. Cover plate | 3. Cap tether |
| 2. Leak detector switch | 4. Sight gauge |

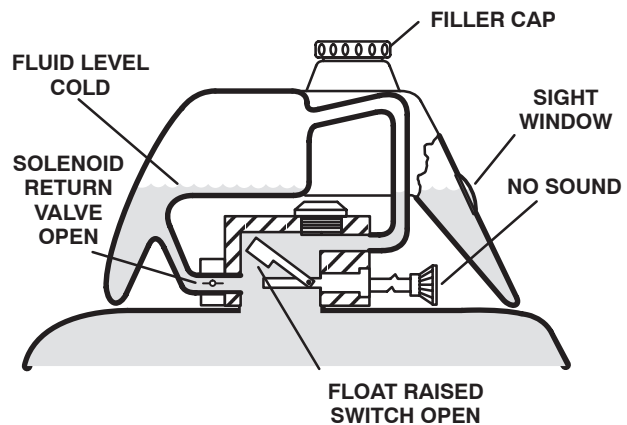
17. If the buzzer fails to sound, check to see if the main tractor key switch is in the “On/Run” position, all the connections are secure, and the test switch is held for 1 full second.
18. Assemble the cover plate to the auxiliary tank with the fasteners previously removed and secure the cap tether (Fig. 4) under the nearest hole to the fill neck. Do not overtighten screws.
19. Fill the auxiliary tank to the top of the sight glass (Fig. 4).

Note: Monitor the hydraulic fluid level in the sight glass and as air is removed from the hydraulic circuit, the auxiliary tank may need to be topped off after the initial fill.

Important If a leak occurs or oil is removed from the hydraulic system for service, the lost oil must be replaced. If a large amount of oil is lost, remove the auxiliary tank cover plate and follow steps 15–19 for refilling instructions. For small amounts of oil, simply add oil to the auxiliary tank.

Checking the Leak Detector Operation (Fig. 5–8)

The TURF GUARDIAN® leak detector system is designed to assist in early detection of hydraulic oil system leaks. If the oil level in the main hydraulic reservoir is lowered by 4 to 5 ounces, the float switch in the tank will close. After a 1 second delay, the alarm will sound, alerting the operator. Expansion of oil, due to normal heating during machine operation, will cause oil to transfer into the auxiliary oil reservoir. The oil is allowed to return to the main tank when the ignition switch is turned off.



BEFORE START (oil cold)

Figure 5

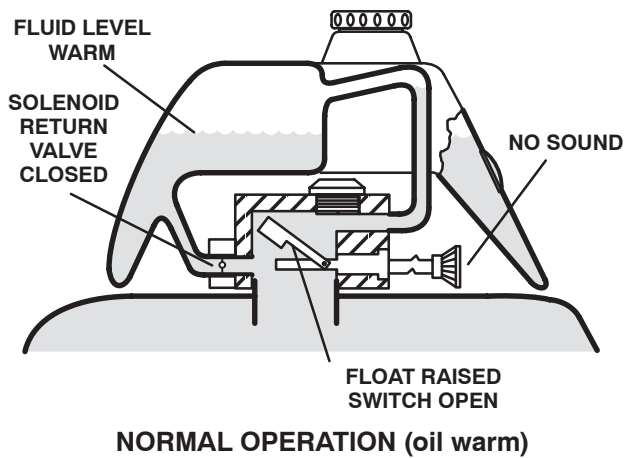


Figure 6

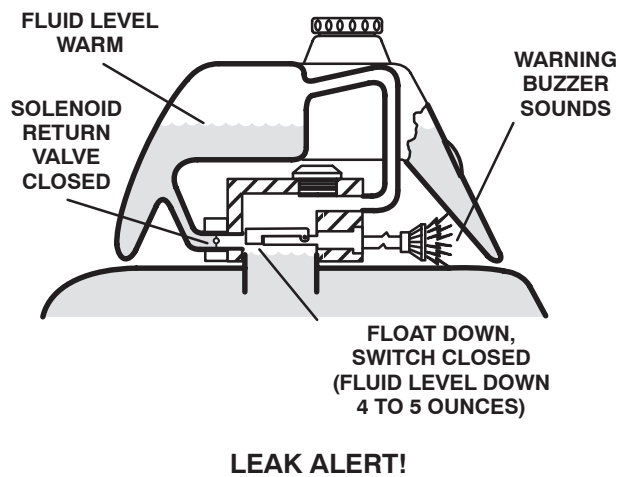


Figure 7

Checking the System Operation

1. With the ignition switch in the On position, move the leak detector switch downward and hold it. After the 1 second time delay elapses, the alarm should sound.
2. Release the leak detector switch.

Checking the Leak Detector System Operation

1. Move the ignition switch to the On position. **Do not start the engine.**
2. Remove the cover plate from the leak detector.
3. Remove the fill cap from the manifold block.
4. Insert a clean rod or screwdriver into the manifold block and gently push down on the switch float (Fig. 8). The alarm should sound after a 1 second delay.
5. Release the float. The alarm should stop sounding.
6. If the alarm fails to stop sounding, turn the ignition switch to the Off position and locate the solenoid on leak detector. Swap the solenoid wires and repeat steps 1 through 5.
7. Install the manifold block fill cap and cover plate. Move the ignition switch to the Off position.

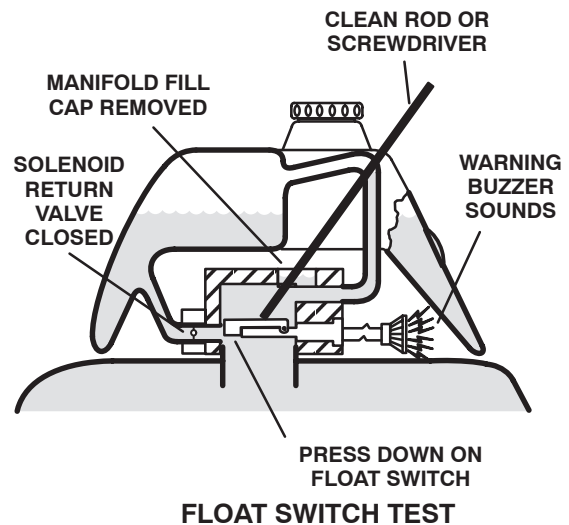
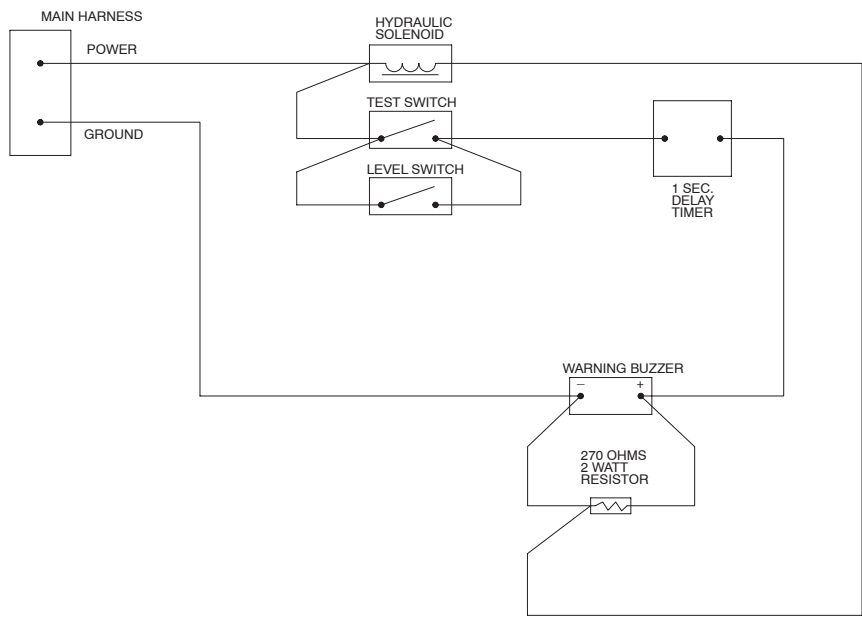


Figure 8

Electrical Schematic



Note: The main wire harness electrical schematic is shown in the traction unit *Operator’s Manual* and *Parts Catalog*.