Form No. 3380-563 Rev A

Hydraulic Power Pack

ProPass 200 Top Dresser

Model No. 44713—Serial No. 314000001 and Up

Installation Instructions

⚠ WARNING

CALIFORNIA
Proposition 65 Warning

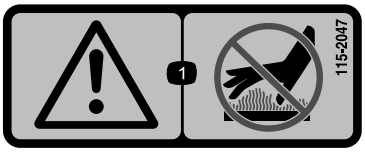
This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Safety

Safety and Instructional Decals

Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.

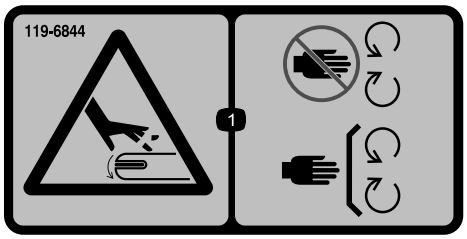


115-2047

1. Warning—do not touch the hot surface.

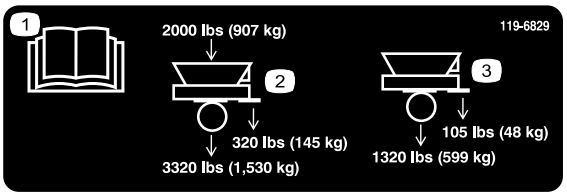
119–6807

1. Warning—no step



119-6844

1. Cutting/dismemberment hazard of hand, conveyor—stay away from moving parts, keep all guards and shields in place.



119–6829

1. Read the *Operator's Manual*.
2. Maximum load of 907 kg (2000 lbs) results in an axle weight of 1,530 kg (3320 lbs) and a tongue weight of 145 kg (320 lbs).
3. Empty hopper has an axle weight o f599 kg (1320 lbs) and a tongue weight o f48 kg (105 lbs).

8111 Lyndale Avenue South
Bloomington, MN 55420

Register at www.Toro.com.

CE

Original Instructions (EN)
Printed in the USA.

3380-563 A

Installation

⚠ CAUTION

Before attempting to install the ProPass - 11 HP Hydraulic Power Pack, ensure that:

- **The ProPass is located on firm level ground.**
- **The ProPass jack stand is lowered.**
- **All external hydraulic and electrical power sources are disconnected.**
- **The ProPass should be prevented from unexpected movement by blocking the wheels at the front and the rear.**
- **Use an assistant when lifting the Power Pack assembly.**

1. Following the instructions given in the ProPass Operator's Manual. Remove the Twin Spinner option and secure the hydraulic power and return hoses.

   Note: ProPass models manufactured after April 2005 feature a pre-drilled chassis rear wall. If your ProPass is pre-drilled skip instructions 2-13.

2. Check that the ProPass chassis rear wall is clear to mount the hydraulic tank.

   Note: Two mounting bolts must be removed from the chassis rear wall to allow the hydraulic tank to be mounted. Use the bolts for mounting the tank.

3. Remove the hydraulic tank assembly from the crate.
4. Support the hydraulic tank from underneath and position the tank against the ProPass chassis rear wall. The tank should be centered evenly from left to right and should be positioned vertically (Figure 1).

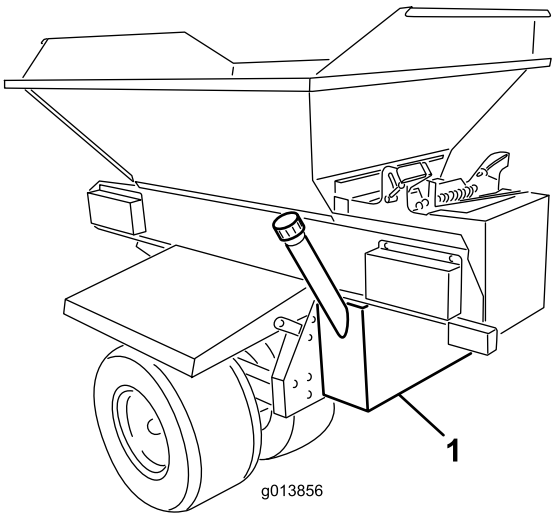


Figure 1

1. Hydraulic tank

5. Ensure that the inlet and outlet fittings and the hose guide mounting bracket all fit cleanly within the round holes in the ProPass chassis rear wall (Figure 2).

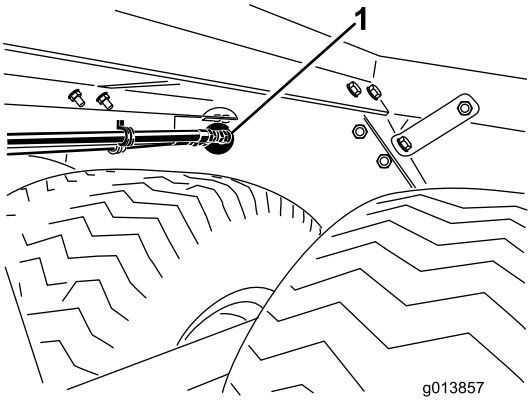


Figure 2

1. Holes in the chassis

6. Ensure that the hydraulic tank is level.
7. Using C-clamps, or similar devices, temporarily clamp the hydraulic tank firmly in place on the ProPass chassis rear wall.
8. Recheck that the hydraulic tank is level.
9. Mark the position of the hydraulic tank mounting holes onto the ProPass chassis rear wall.
10. Un-clamp and remove the hydraulic tank.
11. Center punch the position of the marked holes.
12. Drill a 7/16 inch diameter hole through the ProPass chassis rear wall in each marked and punched position.
13. De-burr each hole.
14. Ensure that the ProPass Hitch Tube is clean and free from dirt or debris.
15. Unpack the engine assembly.
16. Loosen, but do not remove, the (2) bolts and nuts securing the engine mount brackets to the engine mounting plate (Figure 3).

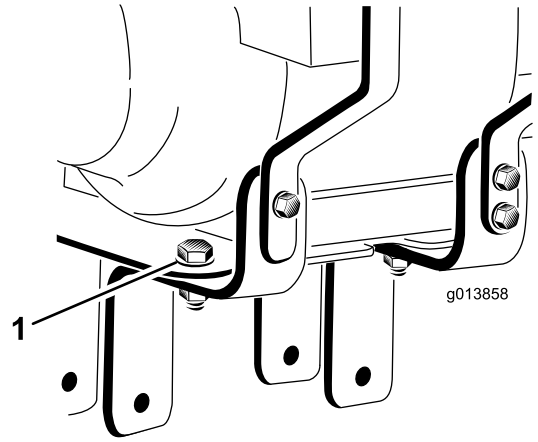


Figure 3

1. Mounting bolts (2)

17. Remove the two nuts holding the battery hold down straps in place and set the nuts, washers and bolt tube off to the side (Figure 4).

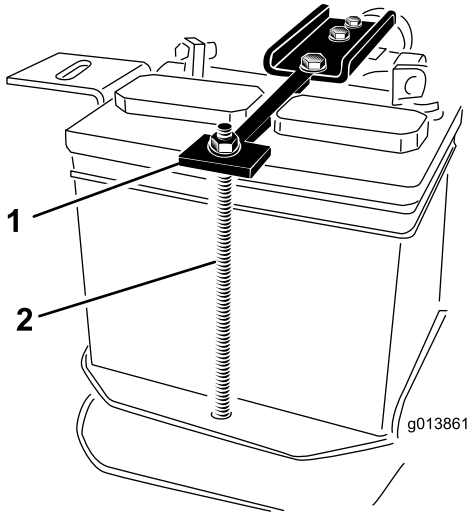


Figure 4

1. Battery hold down strap 2. Battery hold down bolt (2)

18. Remove the battery from its position on the assembly and rest the filter on the base plate. Charge the battery; refer to Charging the Battery in the Operation Section.

19. Since the engine assembly is heavy, positioning of this component can be difficult. With the help of an assistant, position the engine assembly onto the ProPass hitch tube. Ensure that the engine mount brackets straddle the hitch tube (Figure 5 and that the rear of the engine mount plate is approximately 25 mm (1 inch) from the ProPass hitch tube receiver (Figure 6).

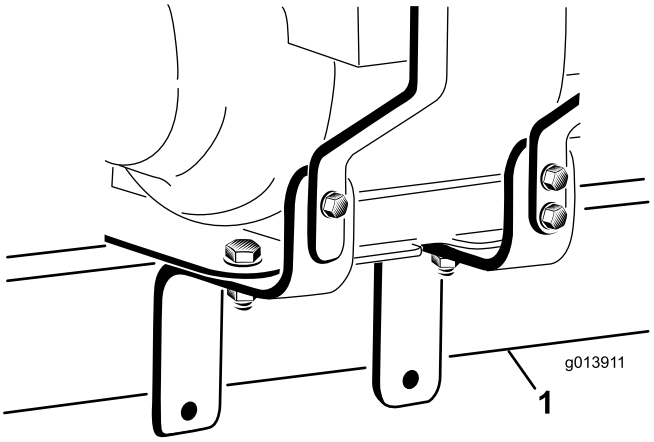


Figure 5

1. Hitch tube

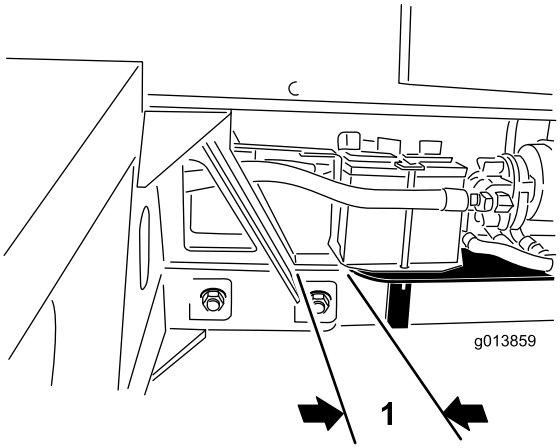


Figure 6

1. One inch

20. Insert the (2) 1/2 x 5 inch bolts through the engine mount bracket holes ensuring that a flat washer is fitted against each outer face of the engine mount bracket and ensuring that the bolts pass clear beneath the bottom of the ProPass hitch tube. Hand tighten the (2) 1/2 inch nuts (Figure 7).

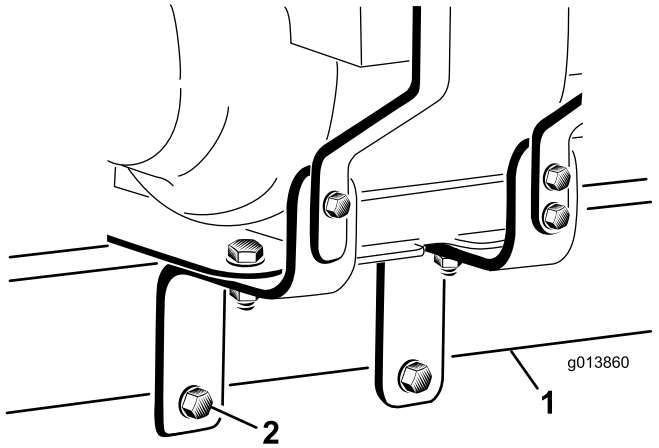


Figure 7

1. Hitch tube
2. Mounting bolts (2)

21. Adjust the engine mount bracket so that it is tight to the hitch. Fully tighten the two bolts securing the engine mount brackets to the engine mounting plate (Figure 8).
22. Check that the engine mounting plate is level and fully tighten the (2) 1/2 x 5 inch bolts through the engine mount bracket lower holes.
23. Place the battery onto the battery tray, positioning the terminals as shown in Figure 8.
24. Position the battery hold down on the battery (Figure 8).
25. Hold the battery mount strap around the underside of the hitch tube (Figure 8).
26. On the right side, install a battery bolt through the washer, battery mount strap, engine mount plate, battery tray and hold down. Loosely install a flange nut (Figure 8).

    Note: Make sure the bolts are installed from the bottom.
27. On the left side, install a battery bolt through the washer, battery mount strap, engine mount plate, battery tray, battery bolt tube, and hold down. Loosely install a flange nut (Figure 8).
28. Make sure everything is concentric and tighten the nuts

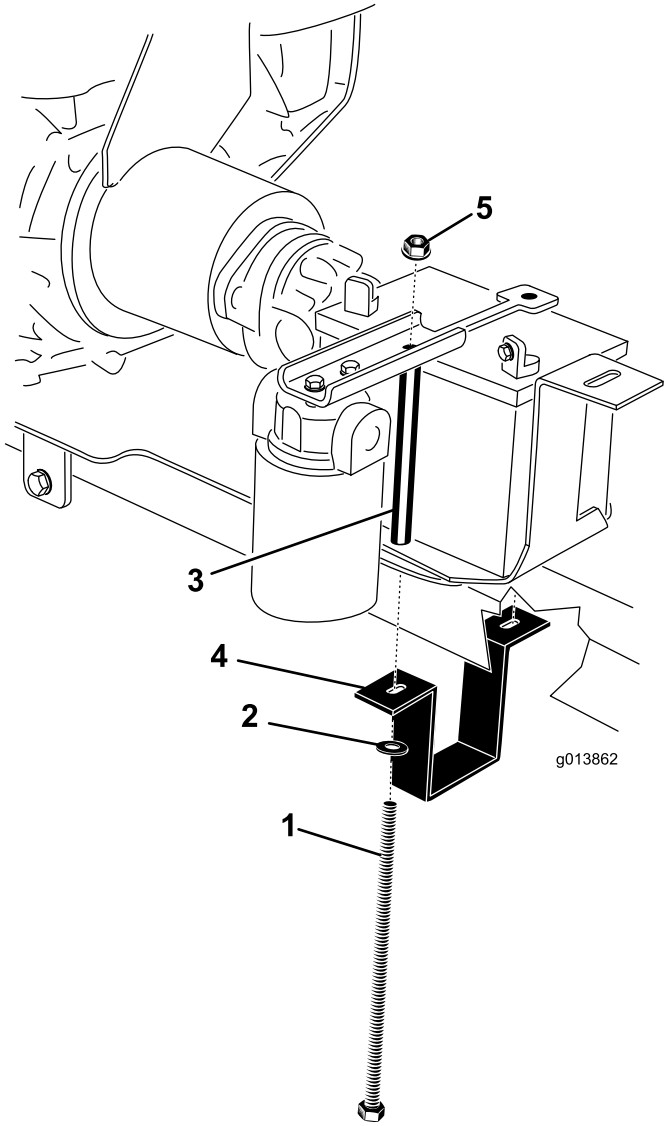


Figure 8

1. Battery bolt (2
2. Washer (2))
3. Bolt tube
4. Battery mount strap
5. Flange nut (2)

29. Unpack the hose guide, hydraulic return hose (hose #3), hydraulic suction hose (hose #4), (4) 1/4 x 3/4 inch bolts and (4) 1/4 inch flange lock nuts.

    Note: Remove the hose secured to the hose guide, hydraulic return hose and hydraulic suction hose for shipping.
30. Using two of 1/4 x 3/4 inch bolts and flange lock nuts, attach the hose guide to the bracket on the hydraulic tank (Figure 9).

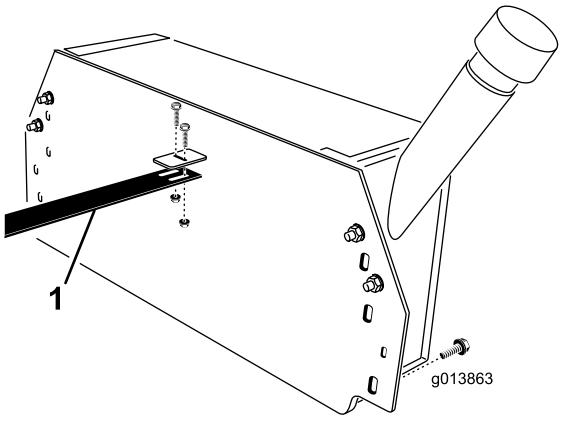


Figure 9

1. Hose guide

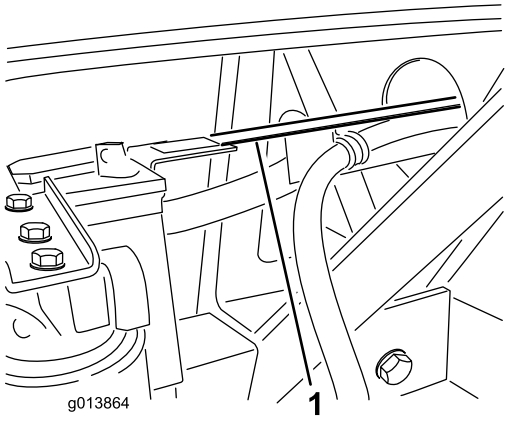


Figure 10

1. Hose guide

Note: Two mounting bolts must be removed from the chassis rear wall to allow the hydraulic tank to be mounted. Use the bolts for mounting the tank.

31. Unpack (4) 3/8 x 1 inch bolts and nylon lock nuts. Supporting the hydraulic tank from below, pass the hose guide and hydraulic hoses #3 and #4 through the large central hole in the ProPass chassis rear wall and locate the hydraulic tank against the chassis rear wall. Temporarily clamp, or bolt, the hydraulic tank in place.

Note: The hose guide should be fed through the center hole on the front side of the chassis. Two people may be required

32. Install the hydraulic return hose (#3) and the hydraulic suction hose (#4) to the appropriate fittings on the hydraulic tank.

Note: Hose #3 and hose #4 do not have the same fittings so each hose will only fit into the correct fitting in the hydraulic tank.

Note: When mounting the hoses, make sure there is adequate clearance to the tires.

33. The hose guide should sit on top of the tab from the vertical leg of the battery tray (Figure 10). If the holes in the hose guide do not match the holes in the battery tray tab, the hose guide length may be adjusted by loosening the bolts attaching the hose guide to the hydraulic tank bracket and sliding the hose guide forward or to the rear as required.

34. Attach the hose guide to the battery tray tab using (2) 1/4 x 3/4 inch bolts and flange lock nuts (Figure 10).

35. Mount the hydraulic tank to the ProPass chassis rear wall using the 3/8 x 1 inch bolts, nylon lock nuts and flat washers. Also, use the mounting bolts previously removed. Tighten the fasteners.

36. Connect hydraulic hose #3 to the filter outlet (Figure 11).

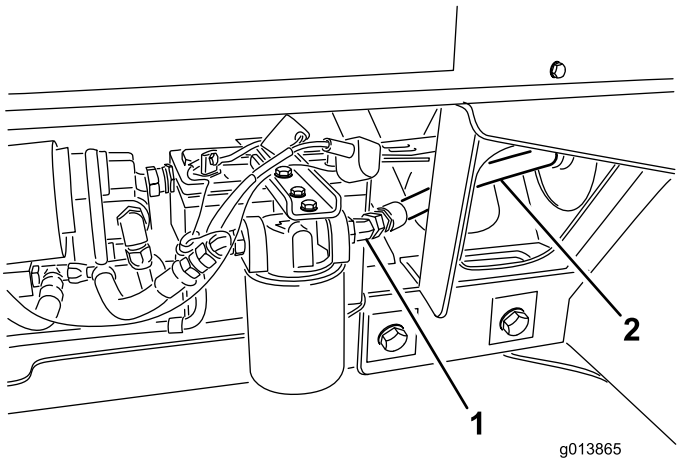


Figure 11

1. Filter outlet
2. Hydraulic hose #3

37. Connect hydraulic hose #4 to the suction side of the hydraulic pump (Figure 12).

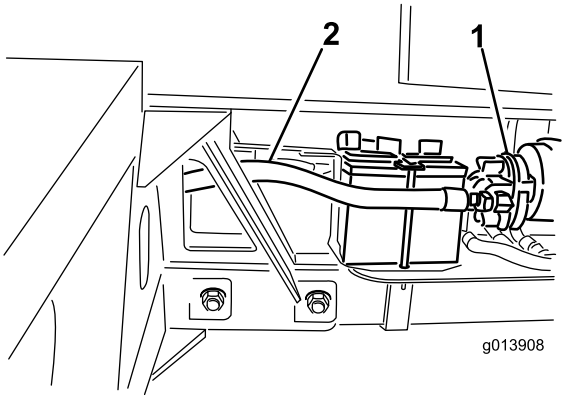


Figure 12

1. Hydraulic pump
2. Hydraulic hose #4

38. On the SH version, model 44701, remove the fasteners securing the cover to the front of the ProPass and set the cover aside (Figure 13).

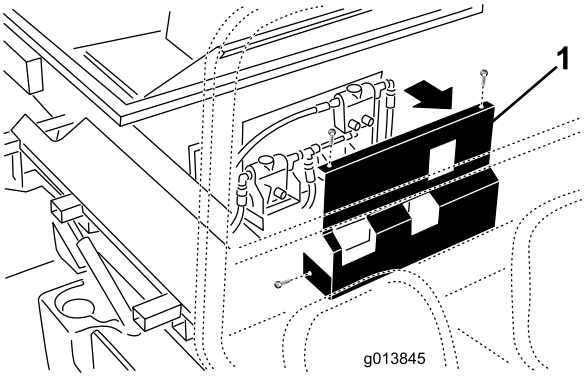


Figure 13

1. Cover

39. Identify the pressure and return connections on the ProPass base model. Refer to Figure 14 for the SH versions and Figure 15 for the EH versions.

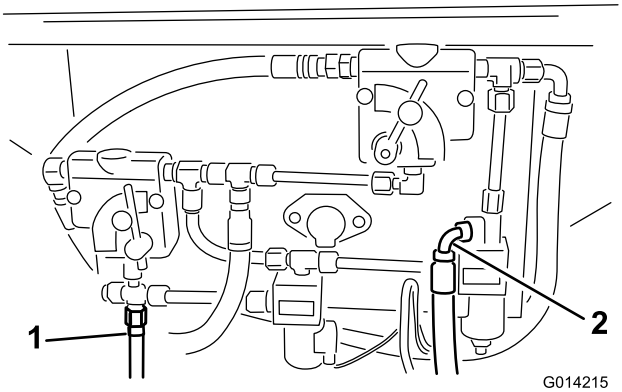


Figure 14

1. Pressure
2. Return

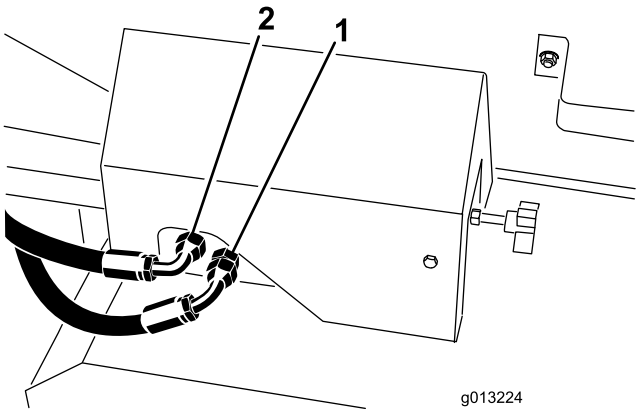


Figure 15

1. Pressure
2. Return

40. If pressure and return hoses were previously installed at the locations shown in Figure 14 and Figure 15, remove them.

Note: Make sure the hoses do not contact any hot, sharp or moving parts. Try to attain as much clearance from the muffler as possible.

41. Connect the hydraulic hoses to the hydraulic control panel. Refer to Figure 14 and Figure 16 on the SH versions and Figure 15 and Figure 17 on the EH versions.

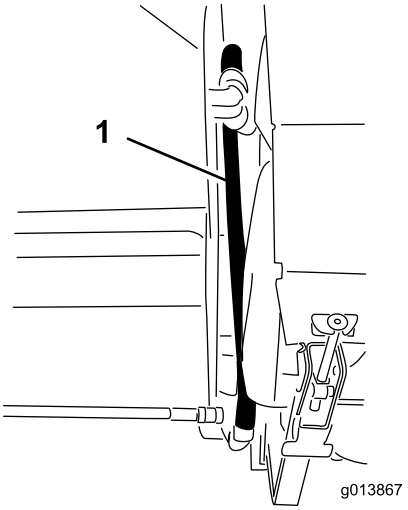


Figure 16

1. Hose routing

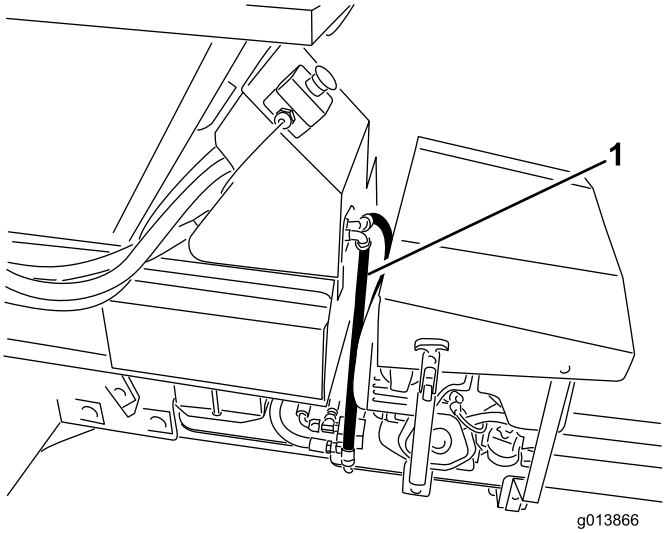


Figure 17

1. Hose routing

42. Tighten all of the hydraulic connections and fasteners.
43. Refit the ProPass Twin Spinner assembly.
44. Connect the black cable and the black pre-routed cable to the battery negative terminal and the white cable and the red pre-routed cable to the battery positive terminal.
45. Plug the intermediate wire harness into the power harness connector on the ProPass (Figure 18 or Figure 19).

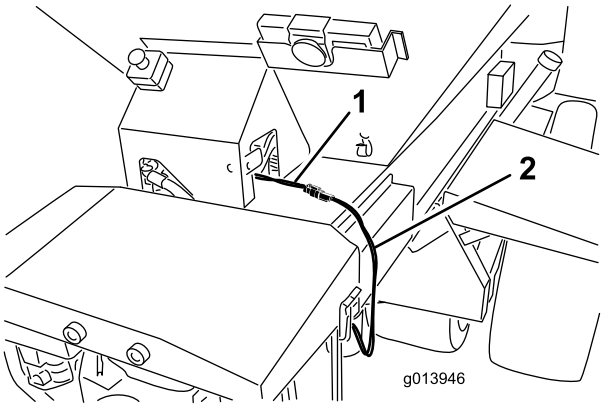


Figure 18

1. Power harness
2. Intermediate wire harness

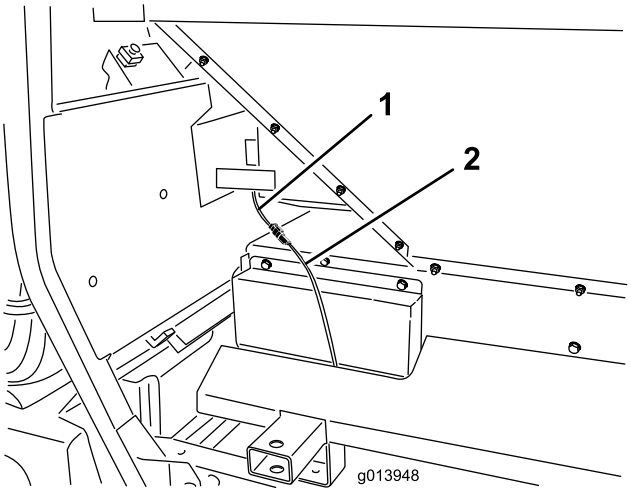


Figure 19

1. Power harness
2. Intermediate wire harness

Operation

⚠ CAUTION

Ensure that all control systems are turned off when working on the Power Pack.

Engine Oil

Important: The engine is shipped *WITHOUT OIL* (except for residual oil after testing at the factory). Refer to the engine owners manual for additional information.

The engine is shipped from the factory **without** oil so it must be filled with approximately 1,005 cm^3 (34 ounces) of oil before starting. Check the level of oil before the engine is first started and daily thereafter.

The engine uses any high-quality oil having the American Petroleum Institute - APl - "service classification" SJ, SL or equivalent. Oil viscosity - weight - must be selected according to ambient temperature. Figure 20 illustrates the temperature/viscosity recommendations.

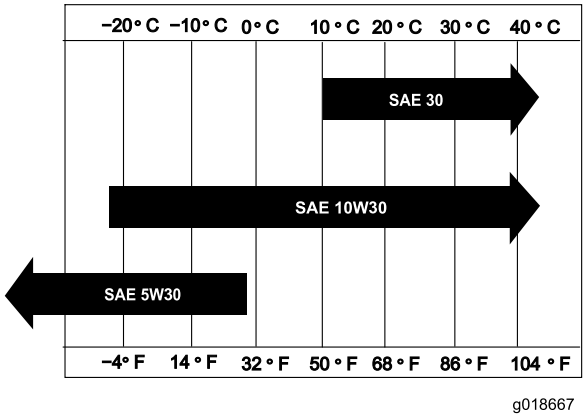


Figure 20

1. Position the machine so that the engine is level.
2. Clean the area around the oil filler cap/dipstick.
3. Remove the oil filler cap/dipstick by rotating it counterclockwise.
4. Wipe the dipstick clean and insert it into the filler port. Do not screw it into the port.
5. Remove the dipstick and check the level of the oil.
6. If the level is near or below the lower limit mark on the dipstick, add only enough oil to raise level to the upper limit mark. Recheck level of oil. Do not overfill.
7. Install the oil filler cap/dipstick and wipe up any spilled oil.

Important: Make sure the engine oil is at the proper level. If the engine oil level is not correct, the engine will crank but will not start.

Hydraulic System

The machine is shipped from the factory without hydraulic fluid so it must be filled with 32.9 liters (8.7 U.S. gallons) of high quality hydraulic fluid. Check the level of hydraulic oil before the machine is first started and daily thereafter. The recommended hydraulic fluids are as follows:

Toro Premium Transmission/Hydraulic Tractor Fluid
(Available in 5 gallon pails or 55 gallon drums. See parts catalog or Toro distributor for part numbers.)

Alternate fluids: If the Toro fluid is not available, other petroleum-based Universal Tractor Hydraulic Fluids (UTHF) may be used provided its specifications fall within the listed range for all the following material properties and it meets industry standards. We do not recommend the use of synthetic fluid. Consult with your lubricant distributor to identify a satisfactory product Note: Toro will not assume responsibility for damage caused by improper substitutions, so use only products from reputable manufacturers who will stand behind their recommendation.

Important: The hydraulic system will not completely fill with fluid until the system is powered up. The hydraulic fluid must therefore be checked and topped up after initial running.

Note: Toro will not assume responsibility for damage caused by improper substitutions, so use only products from reputable manufacturers who will stand behind their recommendation.

Material Properties:

Viscosity, ASTM D445	cSt @ 40 degrees C 55 to 62 cSt @ 100 degrees C 9.1 to 9.8
Viscosity Index ASTM D2270	140 to 152
Pour Point, ASTM D97	-35 degrees F to -46 degrees F

Industry Specifications:

API GL-4, AGCO Powerfluid 821 XL, Ford New Holland FNHA-2-C-201.00, Kubota UDT, John Deere J20C, Vickers 35VQ25, and Volvo WB-101/BM

Note: Many hydraulic fluids are almost colorless, making it difficult to spot leaks. A red dye additive for the hydraulic system oil is available in 2/3 oz. (20 ml) bottles. One bottle is sufficient for 4-6 gal (15-22 1) of hydraulic oil. Order part number 44-2500 from your authorized Toro distributor.

Filling the Fuel Tank

Fuel Tank Capacity: 6.1 liters (6.4 quarts)

Recommended Fuel:

- For best results, use only clean, fresh (less than 30 days old), unleaded gasoline with an octane rating of 87 or higher (R+M)/2 rating method).
- Ethanol: Gasoline with up to 10% ethanol (gasohol) or 15% MTBE (methyl tertiary butyl ether) by volume is acceptable. Ethanol and MTBE are not the same.

Gasoline with 15% ethanol (E15) by volume is not approved for use. Never use gasoline that contains more than 10% ethanol by volume, such as E15 (contains 15% ethanol), E20 (contains 20% ethanol), or E85 (contains up to 85% ethanol). Using unapproved gasoline may cause performance problems and/or engine damage which may not be covered under warranty.

- Do not use gasoline containing methanol.
- Do not store fuel either in the fuel tank or fuel containers over the winter unless a fuel stabilizer is used.
- Do not add oil to gasoline.

Activating and Charging the Battery

Use only electrolyte (1.265 Specific Gravity) to fill battery initially.

1. Clean the top of the battery and remove the vent caps (Figure 21).

   Important: Do not add electrolyte while the battery is in the machine. You could spill it, causing corrosion.

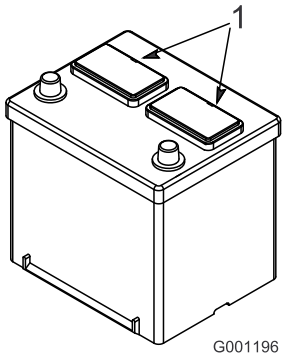


Figure 21

1. Vent caps

2. Carefully fill each cell with electrolyte until the plates are covered with about 6 mm (1/4 inch) of fluid (Figure 22).

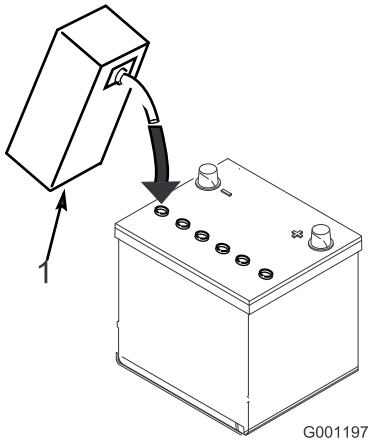


Figure 22

1. Electrolyte

3. Allow approximately 20 to 30 minutes for the electrolyte to soak into the plates. Refill as necessary to bring the electrolyte to within about 6 mm (1/4 inch) of the bottom of the fill well (Figure 22).

⚠ WARNING

Charging the battery produces gasses that can explode.

Never smoke near the battery and keep sparks and flames away from battery.

4. Connect a 3 to 4 amp battery charger to the battery posts. Charge the battery at a rate of 3 to 4 amps until the specific gravity is 1.250 or higher and the temperature is at least 16 degrees C (60 degrees F.) with all cells gassing freely.
5. When the battery is charged, disconnect the charger from the electrical outlet and battery posts.

   Note: After the battery has been activated, add only distilled water to replace normal loss, although maintenance-free batteries should not require water under normal operating conditions.

WARNING

CALIFORNIA
Proposition 65 Warning

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

⚠ WARNING

Battery terminals or metal tools could short against metal tractor components causing sparks. Sparks can cause the battery gasses to explode, resulting in personal injury.

- **When removing or installing the battery, do not allow the battery terminals to touch any metal parts of the tractor.**
- **Do not allow metal tools to short between the battery terminals and metal parts of the tractor.**

Operating Tips

- Connect the clevis hitch of the ProPass to the tow vehicle. Use a high-strength hitch pin approved for tow vehicles.
- Turn on the fuel valve, place the throttle lever at half throttle, engage the choke, and start the engine. Once the engine starts, turn off the choke and increase the throttle to maximum.
- Test the ProPass operation. Ensure that there are no hydraulic leaks and make any additional adjustments.
- After testing the hydraulic system, check the hydraulic fluid and add more if required.

Note: Ensure that the pendant and any cords do not drag on the ground during operation.

Notes:

The Toro Total Coverage Guarantee

A Limited Warranty

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Commercial product (“Product”) to be free from defects in materials or workmanship for two years or 1500 operational hours*, whichever occurs first. This warranty is applicable to all products with the exception of Aerators (refer to separate warranty statements for these products). Where a warrantable condition exists, we will repair the Product at no cost to you including diagnostics, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.
* Product equipped with an hour meter.

Instructions for Obtaining Warranty Service

You are responsible for notifying the Commercial Products Distributor or Authorized Commercial Products Dealer from whom you purchased the Product as soon as you believe a warrantable condition exists. If you need help locating a Commercial Products Distributor or Authorized Dealer, or if you have questions regarding your warranty rights or responsibilities, you may contact us at:

Toro Commercial Products Service Department
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196

952–888–8801 or 800–952–2740
E-mail: commercial.warranty@toro.com

Owner Responsibilities

As the Product owner, you are responsible for required maintenance and adjustments stated in your *Operator's Manual*. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

Items and Conditions Not Covered

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. This warranty does not cover the following:

- Product failures which result from the use of non-Toro replacement parts, or from installation and use of add-on, or modified non-Toro branded accessories and products. A separate warranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recommended maintenance and/or adjustments. Failure to properly maintain your Toro product per the Recommended Maintenance listed in the *Operator’s Manual* can result in claims for warranty being denied.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts subject to consumption through use unless found to be defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, brake pads and linings, clutch linings, blades, reels, rollers and bearings (sealed or greasable), bed knives, spark plugs, castor wheels and bearings, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- Failures caused by outside influence. Conditions considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- Failure or performance issues due to the use of fuels (e.g. gasoline, diesel, or biodiesel) that do not conform to their respective industry standards.
- Normal noise, vibration, wear and tear, and deterioration.
- Normal “wear and tear” includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.

Parts

Parts scheduled for replacement as required maintenance are warranted for the period of time up to the scheduled replacement time for that part. Parts replaced under this warranty are covered for the duration of the original product warranty and become the property of Toro. Toro will make the final decision whether to repair any existing part or assembly or replace it. Toro may use remanufactured parts for warranty repairs.

Deep Cycle and Lithium-Ion Battery Warranty:

Deep cycle and Lithium-Ion batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and maintenance techniques can extend or reduce total battery life. As the batteries in this product are consumed, the amount of useful work between charging intervals will slowly decrease until the battery is completely worn out. Replacement of worn out batteries, due to normal consumption, is the responsibility of the product owner. Battery replacement may be required during the normal product warranty period at owner’s expense. Note: (Lithium-Ion battery only): A Lithium-Ion battery has a part only prorated warranty beginning year 3 through year 5 based on the time in service and kilowatt hours used. Refer to the *Operator's Manual* for additional information.

Maintenance is at Owner’s Expense

Engine tune-up, lubrication, cleaning and polishing, replacement of filters, coolant, and completing recommended maintenance are some of the normal services Toro products require that are at the owner’s expense.

General Conditions

Repair by an Authorized Toro Distributor or Dealer is your sole remedy under this warranty.

Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. Except for the Emissions warranty referenced below, if applicable, there is no other express warranty. All implied warranties of merchantability and fitness for use are limited to the duration of this express warranty.

Some states do not allow exclusions of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Note regarding engine warranty:

The Emissions Control System on your Product may be covered by a separate warranty meeting requirements established by the U.S. Environmental Protection Agency (EPA) and/or the California Air Resources Board (CARB). The hour limitations set forth above do not apply to the Emissions Control System Warranty. Refer to the Engine Emission Control Warranty Statement supplied with your product or contained in the engine manufacturer’s documentation for details

Countries Other than the United States or Canada

Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer.