

## Rear Remote Hydraulic Kit

## Sand Pro®/Infield Pro® 3040 and 5040 Traction Unit

Model No. 08781—Serial No. 409800000 and Up

Installation Instructions

This product complies with all relevant European directives. For details, please see the Declaration of Incorporation (DOI) at the back of this publication.

**Note:** For Sand Pro Models 08703 and 08705, order the following parts before installing this kit:

Description	Part number	Quantity
Dipstick	110-8162	1
Valve plate	108-8460-01	1
Thread-forming screw (5/16 x 3/4 inch)	32144-11	2
Toro PX extended life Hydraulic fluid (5 gallons)	133-8086	6.7 L (7 US qt)



Hydraulic fluid escaping under pressure can penetrate skin and cause injury.

- Make sure that all hydraulic fluid hoses and lines are in good condition and all hydraulic connections and fittings are tight before applying pressure to the hydraulic system.
- Keep your body and hands away from pin-hole leaks or nozzles that eject high-pressure hydraulic fluid.
- Use cardboard or paper to find hydraulic leaks.
- Safely relieve all pressure in the hydraulic system before performing any work on the hydraulic system.
- Seek immediate medical attention if fluid is injected into skin.

Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready. Figure 1 identifies the location of the model and serial numbers on the product. Write the numbers in the space provided.

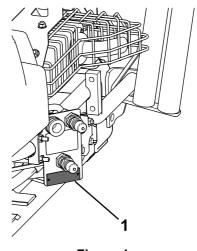


Figure 1

g220043

1. Location of the model and serial numbers

Model No.	
Serial No.	

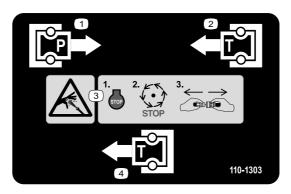
**Note:** Determine the left and right sides of the machine from the normal operating position.

## **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 missing.



decal110-1303

110-1303

- 1. Pressure
- 2. Tank

- High pressure fluid, injection into body hazard—shut off the engine, stop the attachment, and disconnect the quick-connect ports.
- 4. Tank

## **Loose Parts**

Use the chart below to verify that all parts have been shipped.

1 No parts required — Prepare the machine. 2 No parts required — Remove the air cleaner. 3 No parts required — Remove the hydraulic reservoir and shrouds. 4 Small 90-degree tee with barb	Procedure	Description	Qty.	Use
3	1	No parts required	_	Prepare the machine.
Small 90-degree tee with barb   Large 90-degree elbow (threaded both ends)   Strainer   1	2	No parts required	ı	Remove the air cleaner.
Large 90-degree elbow (threaded both ends)   Strainer   1	3	No parts required	_	
Strainer		_	1	
Retainer bracket   1	4	ends)	1	Install fittings to the hydraulic tank.
Muffler clamp				
Hose-retainer bracket				
Coupler bracket	5	•	2	Install the coupler bracket to the rear
Valve	<b>J</b>		1	frame.
Bolt (1/4 x 3 inches)		·	•	
Nut (1/4 inch)   Small 90-degree elbow   1				
Small 90-degree elbow Tee fitting Relay  1  7  Hydraulic line number 1 Hydraulic line number 2 Hydraulic line (hose) number 5  Hydraulic line (hose) number 5  Hydraulic pump 45-degree fitting (male ends) Hub assembly Square key (1/4 x 1 inch) Setscrew (5/16 x 3/4 inch) Pump bracket Bolt (with thread-locking compound) (5/16 x 3/4 inch) Washer (3/8 inch) Large 90-degree elbow (with hose barbed end)  Hydraulic line number 3 Hydraulic line number 4  Large hydraulic hose Hydraulic hose with fittings Large bose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  Install the manifold and bracket. Install the hydraulic lines.  Install the hydraulic hose.  Install the hydraulic hoses.		,		
Tee fitting	6	, ,	2	Install the manifold and bracket.
Relay		=	1	
The stable of		1	1	
1			1	
Hydraulic line (hose) number 5	_	1 7	1	
# Hydraulic pump 45-degree fitting (male ends) 1	7	•	1	Install the hydraulic lines.
## 45-degree fitting (male ends)   Hub assembly   1			1	
Hub assembly   1		· · ·	1	
Square key (1/4 x 1 inch)   1			1	
8       Setscrew (5/16 x 3/4 inch)       4       Install the hydraulic pump.         Pump bracket       1       Install the hydraulic pump.         Bolt (with thread-locking compound) (5/16 x 3/4 inch)       2         Washer (3/8 inch)       2         Large 90-degree elbow (with hose barbed end)       1         Hydraulic line number 3       1         Hydraulic line number 4       1         Large hydraulic hose       1         Hydraulic hose with fittings       1         Large hose clamp       2         Small hose clamp       2         Small molded hydraulic hose       1         R-clamp       1         Bolt (5/16 x 7/8 inch)       1         Flange nut (5/16 inch)       1			1	
Pump bracket Bolt (with thread-locking compound) (5/16 x 3/4 inch) Washer (3/8 inch) Large 90-degree elbow (with hose barbed end)  Hydraulic line number 3 Hydraulic line number 4  Large hydraulic hose Hydraulic hose with fittings Large hose clamp Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  Install the hydraulic pump.  Install the hydraulic hydraulic lines.  Install the hydraulic hydraulic lines.  Install the hydraulic hose.  Install the hydraulic hose.			1	
Bolt (with thread-locking compound) (5/16 x 3/4 inch) Washer (3/8 inch) Large 90-degree elbow (with hose barbed end)  1  Phydraulic line number 3 Hydraulic line number 4 Large hydraulic hose Hydraulic hose with fittings Large hose clamp Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  2  Install the hydraulic lines.  Install the hydraulic hoses.	0			Install the budgaulie nump
(5/16 x 3/4 inch) Washer (3/8 inch) Large 90-degree elbow (with hose barbed end)  1  Hydraulic line number 3 Hydraulic line number 4 Large hydraulic hose Hydraulic hose with fittings Large hose clamp Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  1  Install the hydraulic lines.  Install the hydraulic hose.  Install the hydraulic hoses.	<b>o</b>	·	1	install the hydraulic pump.
Washer (3/8 inch) Large 90-degree elbow (with hose barbed end)  1  Hydraulic line number 3 Hydraulic line number 4  Large hydraulic hose Hydraulic hose with fittings Large hose clamp Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  1  Install the hydraulic lines.  Install the hydraulic hose.  Install the hydraulic hoses.		Bolt (with thread-locking compound)	2	
Large 90-degree elbow (with hose barbed end)  1 9 Hydraulic line number 3 1 Install the hydraulic lines.  Hydraulic line number 4 1 Install the hydraulic lines.  Large hydraulic hose 1 1 Hydraulic hose with fittings 1 1 Install the hydraulic lines.  Large hose clamp 2 2 Small hose clamp 2 2 Small molded hydraulic hose 1 Install the hydraulic hoses.  R-clamp 1 Bolt (5/16 x 7/8 inch) 1 Flange nut (5/16 inch) 1			2	
hydraulic line number 3 Hydraulic line number 4 Hydraulic line number 4 Large hydraulic hose Hydraulic hose with fittings Large hose clamp Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  Hydraulic line number 3 I Install the hydraulic lines.  Install the hydraulic hoses.		` ,		
Hydraulic line number 4  Large hydraulic hose Hydraulic hose with fittings Large hose clamp Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  Install the hydraulic lines.  Install the hydraulic lines.  Install the hydraulic lines.  Install the hydraulic lines.			1	
Hydraulic line number 4  Large hydraulic hose Hydraulic hose with fittings Large hose clamp Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  Install the hydraulic lines.  Install the hydraulic lines.  Install the hydraulic lines.  Install the hydraulic lines.	^	,	1	Install the hydraulia lines
Hydraulic hose with fittings Large hose clamp Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  1  Large hose with fittings 1 2 Install the hydraulic hoses.	<b>9</b>		1	install the nyuraulic lines.
Large hose clamp Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  Large hose clamp 2 Install the hydraulic hoses.		Large hydraulic hose	1	
Small hose clamp Small molded hydraulic hose R-clamp Bolt (5/16 x 7/8 inch) Flange nut (5/16 inch)  Small hose clamp 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Hydraulic hose with fittings	1	
Small molded hydraulic hose  R-clamp  Bolt (5/16 x 7/8 inch)  Flange nut (5/16 inch)  Install the hydraulic noses.		Large hose clamp	2	
R-clamp 1 Bolt (5/16 x 7/8 inch) 1 Flange nut (5/16 inch) 1	40	Small hose clamp	2	Install the hydraulic hoses
Bolt (5/16 x 7/8 inch) 1 Flange nut (5/16 inch) 1	10	Small molded hydraulic hose	1	mistali tile fiyufatilit floses.
Flange nut (5/16 inch) 1		R-clamp	1	
		Bolt (5/16 x 7/8 inch)	1	
11 No parts required – Tighten all connections.		Flange nut (5/16 inch)	1	
I I I I I I I I I I I I I I I I I I I	11	No parts required	_	Tighten all connections.

Procedure	Description	Qty.	Use
12	Harness Switch Fuse	1 1 1	Install the switch and harness.
13	Hydraulic fluid	6.6 L (7 US qt) for Models 08703 and 08705	Install the hydraulic fluid and check for leaks.



## **Preparing the Machine**

## No Parts Required

## **Procedure**

- 1. Park the machine on a level surface.
- 2. Lower the attachments.
- 3. Engage the parking brake.
- 4. Shut off the engine and remove the key.
- 5. Thoroughly clean the machine. Remove all debris to ensure that the mounting brackets will fit properly and that no dirt or debris gets into the hydraulic system.



## Removing the Air Cleaner

## No Parts Required

## **Procedure**

- 1. Thoroughly clean the area around the air cleaner.
- Loosen the radiator clamp around the hose and lower the clamp onto the hose.
- 3. Remove the inside bolt holding the air cleaner in place.
- Remove the air-cleaner cover and filter (Figure 2).

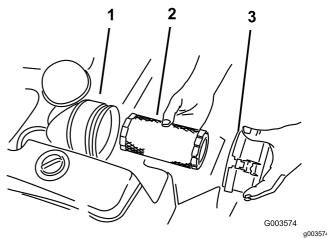


Figure 2

- 1. Air-cleaner canister
- Canister cover
- 2. Air filter
- 5. Remove the hose from the air-cleaner canister.
- 6. Spread the air-cleaner strap open and pull it over the end of the canister where the filter was taken out (Figure 3).

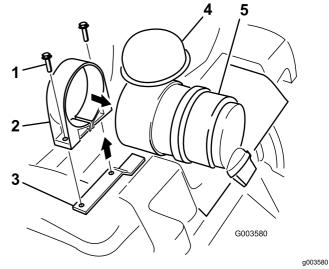


Figure 3

- . Bolt
- 2. Air-cleaner strap
- 3. Machine frame
- 4. Cap
- 5. Air-cleaner canister

- 7. Cover the hose or insert a rag into it so that no dirt or debris gets into it while installing this kit.
- Remove the opposite bolt holding the air-cleaner strap to the machine frame.



## Removing the Hydraulic Reservoir and Shrouds

No Parts Required

## **Procedure**

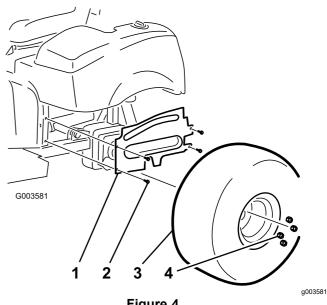
- Drain the hydraulic tank. Refer to the machine Operator's Manual.
- Raise the rear of the machine off the ground and block up the rear of the machine. Refer to the machine Operator's Manual under Raising the Machine.

## **A WARNING**

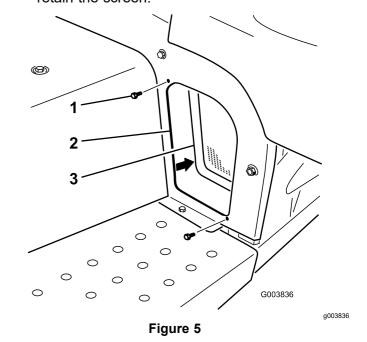
Mechanical or hydraulic jacks may fail to support the machine and cause serious injury.

Use jack stands when supporting the machine.

- Remove the left rear tire. 3.
- Remove the 4 flange-head screws securing the left wheel shroud to the frame (Figure 4). Remove and retain the shroud.

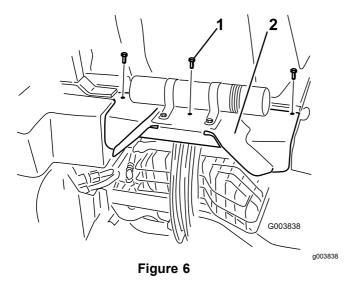


- Figure 4
- 1. Left wheel shroud
- 3. Tire
- Flange-head screws
- 4. Nut
- Remove the 2 flange-head screws securing the left front screen to the frame. Remove and retain the screen.



- Flange-head screws
- 3. Left front screen

- Frame
- 6. Remove the 3 bolts securing the rear hitch shield to the frame.



1. Bolt

- 2. Rear hitch shield
- Remove the 2 screws securing the center shroud to the frame (Figure 7). Remove and retain the shroud.

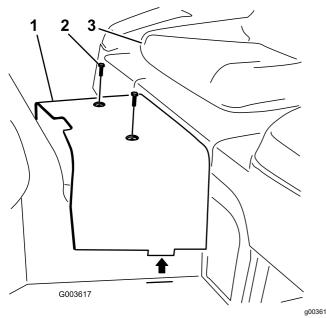
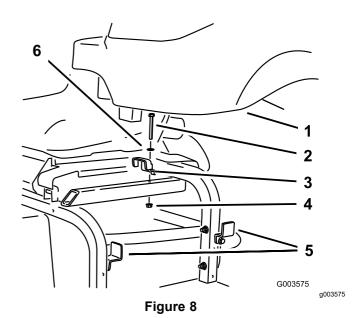


Figure 7

- Center shroud
- 3. Seat

- 2. Screws
- 8. Disconnect the hydraulic lines going to the tank.
- Remove the top hydraulic tank bracket from the machine frame and loosen the 2 brackets on the side of the frame (Figure 8). Remove the tank and retain the hardware.



- . Hydraulic tank
- 2. Bolt
- 3. Top bracket
- 4. Nut
- 5. Side bracket
- 6. Washer



# Installing Fittings to the Hydraulic Tank

### Parts needed for this procedure:

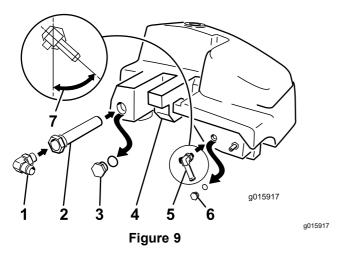
1	Small 90-degree tee with barb
1	Large 90-degree elbow (threaded both ends)
1	Strainer

## **Procedure**

**Note:** Make sure that all O-rings are lubricated and properly positioned on all fittings before installation.

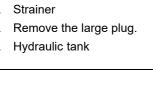
**Note:** Install all fittings and hydraulic lines loosely first and then tighten them when everything is installed. Install the fittings at the angles shown in the figures.

- Remove the 2 hydraulic tank plugs from the side of the tank.
- Install the strainer into the hydraulic tank where the large plug was removed.
- 3. Install the large 90-degree elbow into the strainer.
- 4. Install the small 90-degree tee with barb where the small plug was removed (Figure 9).



- Large 90-degree elbow (install at angle shown)
- 2.

- Small 90-degree tee (install at angle shown)
- 6. Remove the small plug.
- 7. 45 degrees





## Installing the Coupler **Bracket to the Rear Frame**

## Parts needed for this procedure:

1	Retainer bracket
2	Muffler clamp
1	Hose-retainer bracket
1	Coupler bracket

## **Procedure**

Note: Install all hydraulic lines loosely first and then tighten them when everything is installed.

- Position the clamps around the round tube of the rear frame.
- Install the hose-retainer bracket and the coupler bracket to the muffler clamps.

**Note:** Do not tighten the nuts at this time. The coupler bracket needs to be loose to install the hydraulic lines (Figure 10).

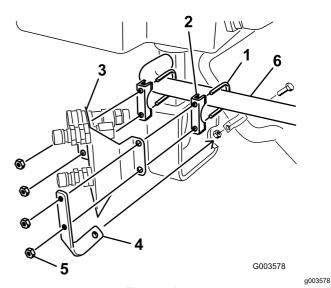


Figure 10

- Muffle clamp
- Muffler bracket
- Coupler bracket
- 4. Retainer bracket
- Nut
- Rear frame round tube
- Temporarily position the coupler bracket on the round frame tube; refer to Figure 11.

Note: Place the coupler bracket where the tube begins to bend.

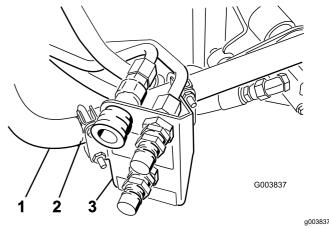


Figure 11

- Round frame tube
- Temporary position for the coupler bracket
- 3. Coupler bracket



## Installing the Valve

## Parts needed for this procedure:

1	Valve
2	Bolt (1/4 x 3 inches)
2	Nut (1/4 inch)
1	Small 90-degree elbow
1	Tee fitting
1	Relay

## **Procedure**

**Note:** Make sure that all O-rings are lubricated and properly positioned on all fittings before installation.

**Note:** Install all fittings and hydraulic lines loosely first and then tighten them when everything is installed. Install the fittings at the angles shown in the figures.

- Install the fittings at the angles shown in the figures. Install the tee fitting to the side of the new valve; refer to Figure 12.
- 2. Install a small 90-degree elbow to the top of the new valve (Figure 12).
- 3. Remove the existing valve from the valve bracket (Figure 12).
- Install the relay to the valve bracket at the same time the valves are installed to the valve bracket.
- Install the valves to the valve bracket with 2 bolts (1/4 x 3 inches) and 2 nuts (1/4 inch); refer to Figure 12.

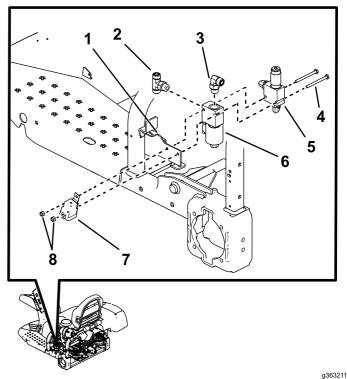


Figure 12

- 1. Valve bracket
- 2. Tee fitting
- 3. Small 90-degree elbow
- 4. Bolt (1/4 x 3 inches)
- 5. Existing valve
- 6. New valve
- 7. Relay
- 8. Nut (1/4 inch)

7

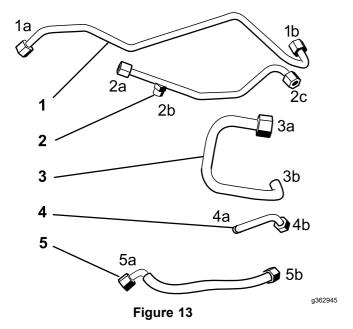
# Installing Hydraulic Lines 1, 2, and 5

## Parts needed for this procedure:

1	Hydraulic line number 1
1	Hydraulic line number 2
1	Hydraulic line (hose) number 5

## **Procedure**

Use Figure 13 for identifying the correct hydraulic lines.



- 1. Hydraulic line number 1
- 2. Hydraulic line number 2
- 3. Hydraulic line number 3
- 4. Hydraulic line number 4
- 5. Hydraulic line (hose) number 5
- **Note:** Install all hydraulic lines loosely first and then tighten them when everything is installed.
  - Position hydraulic line number 1 into the machine as shown in Figure 14.
- 2. Install hydraulic line number 1 to the tee fitting assembled to the side of the valve (Figure 14).
- 3. Install the hydraulic line number 1 to the upper male coupler (Figure 14).

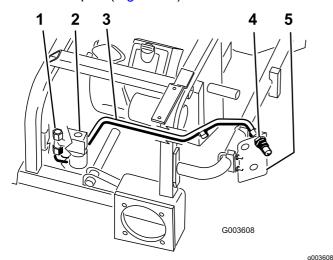


Figure 14

- Tee fitting on the side of the valve
- 2. New valve
- 4. Upper male coupler
- Coupler bracket
- 3. Hydraulic line number 1

- 4. Position hydraulic line number 2 into the machine as shown in Figure 15.
- 5. Install hydraulic line number 2 to the 90-degree elbow and the top of the new valve (Figure 15).
- Install hydraulic line number 2 to the upper female coupler (Figure 15).

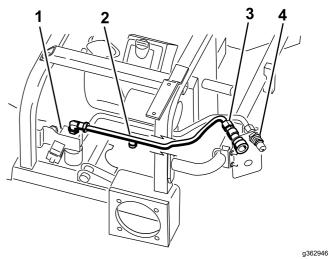


Figure 15

- 1. New valve
- 3. Upper female coupler
- 2. Hydraulic line number 2
- 4. Coupler bracket
- 7. Loosely install hydraulic line (hose) number 5 to the lower male coupler (Figure 16).

**Note:** The other end of this hose will be installed in Procedure 10.

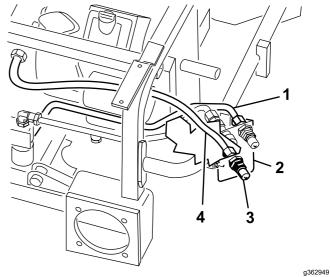


Figure 16

- 1. Hydraulic line number 1
- 2. Coupler bracket
- 3. Lower male coupler
- 4. Hydraulic line (hose) number 5



# Installing the Hydraulic Pump

## Parts needed for this procedure:

1	Hydraulic pump
1	45-degree fitting (male ends)
1	Hub assembly
1	Square key (1/4 x 1 inch)
4	Setscrew (5/16 x 3/4 inch)
1	Pump bracket
2	Bolt (with thread-locking compound) (5/16 x 3/4 inch)
2	Washer (3/8 inch)
1	Large 90-degree elbow (with hose barbed end)

## **Procedure**

- 1. Install the large square 90-degree elbow to the side of the hydraulic pump.
- 2. Install the 45-degree elbow to the side of the hydraulic pump (Figure 17).

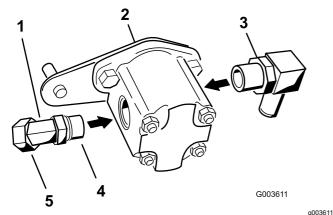
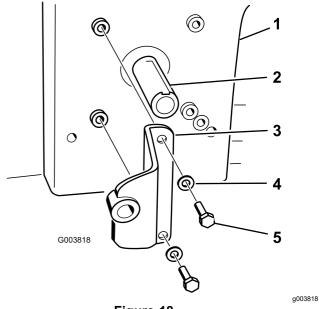


Figure 17

g

- 1. 45-degree elbow
- 4. Male end
- 2. Hydraulic pump
- 5. Female end
- Large 90-degree elbow (with hose barbed end)
- 3. Remove the existing cover over the engine PTO (power takeoff).
- Install the pump bracket to the engine with 2 bolts (5/16 x 3/4 inch) and 2 washers (3/8 inch).
   Refer to Figure 18 for the correct position to install the pump bracket.



- Figure 18
- 1. Engine
- 4. Washer (3/8 inch)
- 2. Engine PTO shaft
- 5. Bolt (5/16 x 3/4 inch)
- 3. Pump bracket
- Apply anti-seize compound to the engine PTO (power takeoff) shaft and the hydraulic motor shaft.
- 6. Install the square key (1/4 x 1 inch) into the slot in the engine PTO shaft (Figure 19).
- 7. Align the hub assembly with the square key and install it onto the engine PTO (power takeoff) shaft (Figure 19).

**Note:** Make sure that the hub assembly is totally bottomed out on the shaft.

8. Apply removable thread-locking compound to the 2 setscrews (5/16 x 3/4 inch) and install them into the hub assembly to secure it to the PTO shaft (Figure 19).

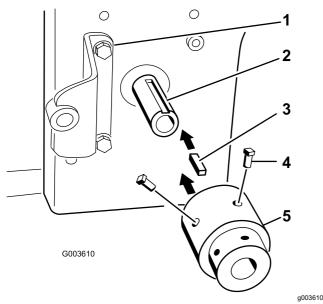


Figure 19

- 1. Pump bracket
- 4. Setscrew (5/16 x 3/4 inch)
- 2. Engine PTO shaft
- 5. Hub assembly
- 3. Square key (1/4 x 1 inch)
- 9. Install the pump plate stud into the pump bracket while installing the hydraulic pump shaft into the hub assembly.

**Note:** The hydraulic pump shaft will touch the end of the engine PTO shaft (Figure 20).

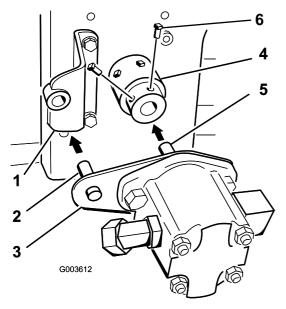


Figure 20

- 1. Pump bracket
- 4. Hub assembly
- 2. Pump plate stud
- 5. Hydraulic pump shaft
- Pump plate
- 6. Setscrew (5/16 x 3/4 inch)
- 10. The hub assembly needs to be totally seated on the shaft.

**Note:** Verify that there is a gap between the pump plate and the hub assembly. If there is no gap, then the hub assembly is not installed correctly and needs to be seated correctly (Figure 21).

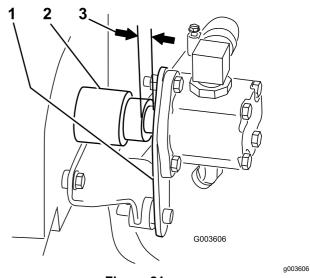


Figure 21

- 1. Pump plate
- 3. 1.0 to 3.1 mm (0.040 to 0.122 inch) gap between hub assembly and pump plate
- 2. Hub assembly
- 11. Apply removable thread-locking compound to the 2 setscrews (5/16 x 3/4 inch) and install them into the hub assembly to secure the hydraulic pump shaft (Figure 20).



## Installing Hydraulic Lines 3 and 4

### Parts needed for this procedure:

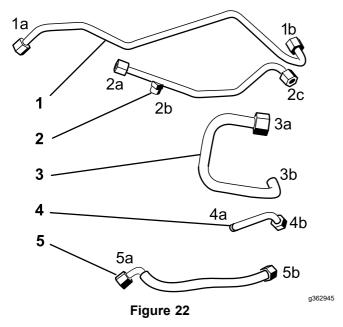
1	Hydraulic line number 3
1	Hydraulic line number 4

## **Procedure**

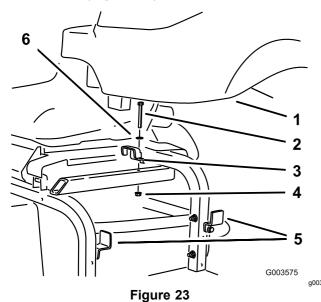
**Note:** Install all hydraulic lines loosely first and then tighten them when all everything is installed.

Use Figure 22 as a key for identifying the correct hydraulic lines.

g003612



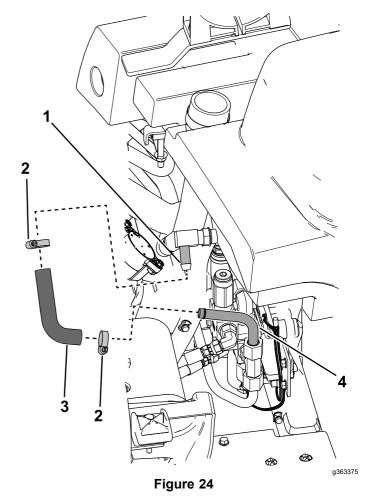
- 1. Hydraulic line number 1
- 4. Hydraulic line number 4
- 2. Hydraulic line number 2
- 5. Hydraulic line number 5
- 3. Hydraulic line number 3
- Install the existing hoses back onto the hydraulic tank.
- 2. Install the hydraulic tank to the frame and secure it with the 3 brackets previously removed and loosened (Figure 23).



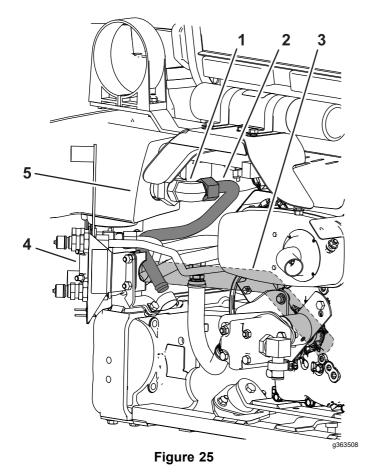
- 1. Hydraulic tank
- 4. Nut

2. Bolt

- Side bracket
- 3. Top bracket
- 6. Washer
- 3. Install hydraulic line number 4 to the tee fitting assembled to the side of the valve (Figure 24).



- 1. Small 90-degree tee with barb in hydraulic tank
- 3. Small molded hose
- 2. Hose clamp
- 4. Hydraulic line number 4
- 4. Position hydraulic line number 3 into the machine as shown in Figure 25.
- 5. Install hydraulic line number 3 to the large 90-degree elbow installed to the strainer and hydraulic tank (Figure 25).



4. Coupler bracket

5. Hydraulic tank

- Large 90-degree elbow installed in tank
- 2. Hydraulic line number 3
- 3. Machine frame

# 10

# **Installing the Hydraulic Hoses**

## Parts needed for this procedure:

1	Large hydraulic hose
1	Hydraulic hose with fittings
2	Large hose clamp
2	Small hose clamp
1	Small molded hydraulic hose
1	R-clamp
1	Bolt (5/16 x 7/8 inch)
1	Flange nut (5/16 inch)

## **Procedure**

**Note:** Make sure that nothing rubs against any hoses.

- 1. Slide the 2 large hose clamps onto the large hydraulic hose.
- 2. Install the large hydraulic hose to the 90-degree elbow installed to the side of the hydraulic pump (Figure 26).
- 3. Tighten a hose clamp around the hose and elbow (Figure 26).
- 4. Install the large hydraulic hose to hydraulic line number 3 (Figure 26).
- 5. Tighten the hose clamp around the hose and hydraulic line number 3 (Figure 26).

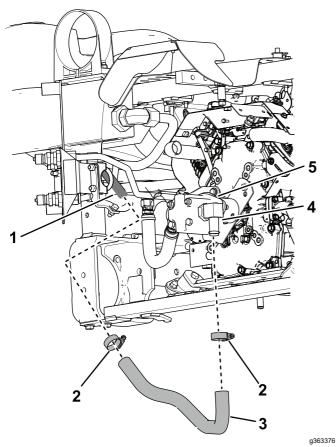


Figure 26

- 1. Hydraulic line number 3
- Hose clamp
- 3. Large hydraulic hose
- 4. 90-degree elbow
  - 5. Hydraulic pump
- Install an R-clamp onto the large hydraulic hose as shown in Figure 27 and Figure 30.

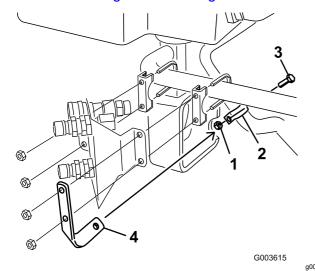
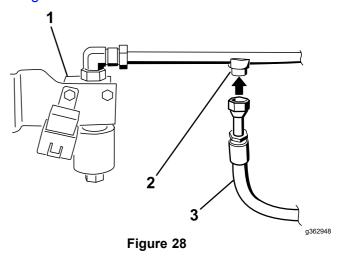


Figure 27

- 1. Nut (3/8 inch)
- 2. R-clamp
- 3. Bolt (3/8 x 3/4 inch)
- 4. Retainer bracket

- Install the R-clamp to the retainer bracket with a 7. bolt (5/16 x 7/8 inch) and a nut (5/16 inch); refer to Figure 27.
- Install the hydraulic hose with fittings to the fitting on hydraulic line number 2 as shown in Figure 28.



- 1. Valve
  - 3. Hydraulic hose with fittings
- Fitting on hydraulic line number 2
- 9. Install the hydraulic hose with fittings to the 45-degree elbow attached to the hydraulic pump (Figure 29 and Figure 30).

**Note:** It will be below the hydraulic cylinder.

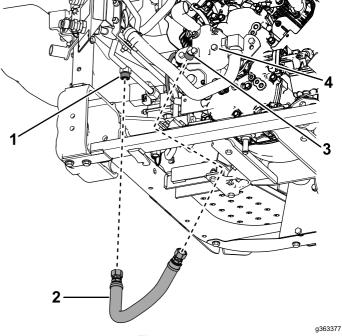
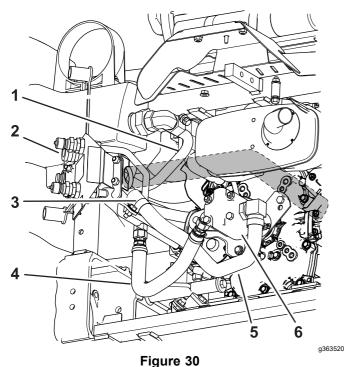


Figure 29

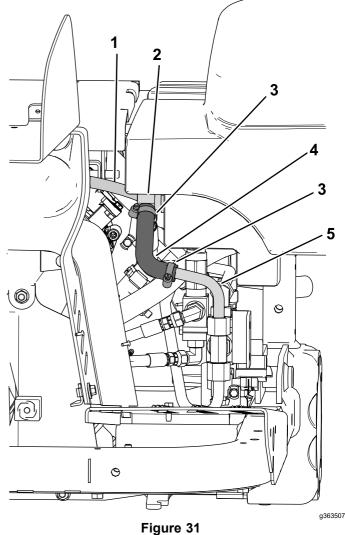
- Fitting on hydraulic line number 2
- 3. 45-degree elbow
- 2. Hydraulic hose with fittings 4. Hydraulic pump

10. Refer to Figure 30 for the correct locations of the hoses and hydraulic lines to the hydraulic pump.



- Hydraulic line number 3
- Coupler bracket 2.
- R-clamp

- 4. Hydraulic hose with fittings
- Large hydraulic hose
- 6. Hydraulic pump
- 11. Slide the 2 small hose clamps onto the small molded hydraulic hose (Figure 24 and Figure **31**).
- 12. Install the long leg of the molded hose onto the 90-degree tee in the hydraulic tank (Figure 31).
- Install the short leg of the molded hose onto the 13. barb end of hydraulic line number 4 (Figure 31).
- Tighten the two small hose clamps on each end 14. of the molded hose.
- Loosely install the hydraulic line (hose) number 5 to the small 90-degree tee (Figure 31).



- Hydraulic line (hose) number 5
- Small 90-degree tee with barb in hydraulic tank
- Small hose clamp
- Small molded hose
- Hydraulic line number 4



## **Tightening All Connections**

## No Parts Required

## **Procedure**

**Note:** Make sure that the hoses and hydraulic lines are routed away from and to do not rub against any sharp, hot, or moving components.

 When all hydraulic lines and hoses are installed, tighten all of the connections.

Note: Use a backup wrench on all tank fittings.

2. Position the coupler bracket as close to the left tire as possible and tighten the clamps.

12

## Installing the Switch and Harness

## Parts needed for this procedure:

1	Harness
1	Switch
1	Fuse

## **Procedure**

- 1. Remove the control panel from the machine.
- 2. Remove the plastic plug from the panel and install the switch to the panel (Figure 34).
- 3. Route the harness along the seat hinge from the switch and to the relay previously installed to the valve (Figure 32).

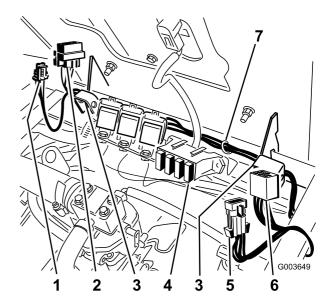


Figure 32

g003649

- 1. Small connector
- 2. Square connector
- 3. Seat hinges
- 4. Fuse block
- 5. Main harness connector
- 6. Switch connector
- 7. Cable tie
- 4. Install the harness to the switch in the control panel (Figure 34).
- 5. Remove the jumper wire from the main harness under the control panel (Figure 33).

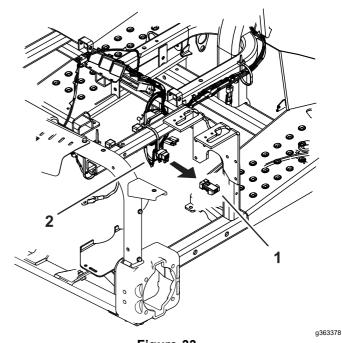


Figure 33

- 1. Main harness connector
- 2. Jumper wire
- 6. Install the main harness connector to the main harness (Figure 34).

7. Install the control panel to the machine.

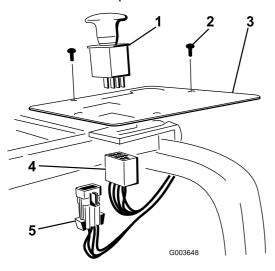


Figure 34

- 1. Switch
- 2. Screw
- 3. Control panel
- 4. Switch connector
- 5. Main harness connector

Install the fuse into right slot in the fuse block (Figure 32).

8. Install the square connector to the relay installed next with the valve (Figure 35).

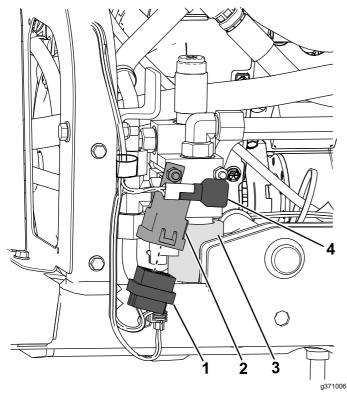


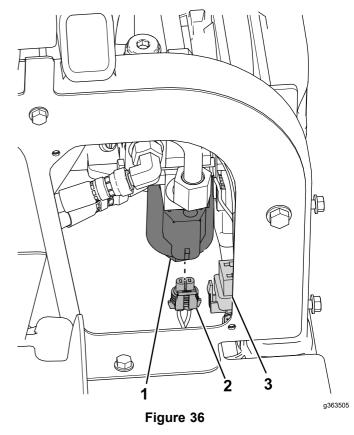
Figure 35

- 1. Square connector
- 3. Valve

2. Relay

4. Diode

9. Install the small connector to the new valve (Figure 35).



- 1. New valve
- 3. Square connector
- 2. Small connctor
- 10. Fasten the wire harness to the valve with a cable tie.

# **13**

# Installing the Hydraulic Fluid and Checking for Leaks

## Parts needed for this procedure:

6.6 L (7 US qt) for Models 08703 and 08705	Hydraulic fluid
--	-----------------

## **Procedure**

The hydraulic system capacity for Models 08743 and 08745 is 26.5 L (7 US gallons) and no extra fluid is needed.

For Models 08703 and 08705, add 6.6 L (7 US qt) of fluid.

Refer to the *Operator's Manual* for the correct fluid to use.

- 1. For Models 08703 and 08705, remove the old dipstick from the hydraulic tank and discard.
  - Contact your authorized Toro distributor for the correct dipstick (Part No. 110-8162).

**Note:** For Models 08743 and 08745, the correct dipstick comes with the machine.

- 2. Slowly pour approximately 80% of the specified fluid into the tank.
- 3. Insert the dipstick and check the level of the hydraulic fluid (Figure 37).
- Slowly add the additional fluid to bring it to the Full mark.

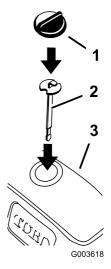


Figure 37

- 1. Hydraulic-tank cap
- 2. Dipstick
- 3. Hydraulic tank

a003618

- 5. Start the machine and let it run for 5 minutes.
- 6. Check for any leaks in the system with a piece of cardboard.

## **A WARNING**

Hydraulic fluid escaping under pressure can penetrate skin and cause injury.

If hydraulic fluid is injected into the skin it must be surgically removed within a few hours by a doctor familiar with this type of injury. Gangrene may result if this is not done.

- Keep body and hands away from pin-hole leaks or nozzles that eject high-pressure hydraulic fluid.
- Use cardboard or paper to find hydraulic leaks.
- Safely relieve all pressure in the hydraulic system before performing any work on the hydraulic system.
- Make sure that all hydraulic-fluid hoses and lines are in good condition and that all hydraulic connections and fittings are tight before applying pressure to the hydraulic system.
- 7. Install the left front screen to the frame.
- 8. Install the front shroud to the frame with 4 flange-head screws.
- 9. Install the 4 flange-head screws securing the left wheel shroud to the frame (Figure 38).
- 10. Install the left rear tire (Figure 38).

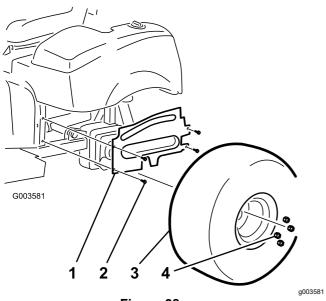


Figure 38

- 1. Left wheel shroud
- 3. Left tire
- 2. Flange-head screws
- 4. Nut
- 11. Lower the machine onto the ground.
- 12. Install the rear hitch shield.
- 13. Install the air-cleaner assembly.

## **Notes:**

## **Declaration of Incorporation**

The Toro Company, 8111 Lyndale Ave. South, Bloomington, MN, USA declares that the following unit(s) conform(s) to the directives listed, when installed in accordance with the accompanying instructions onto certain Toro models as indicated on the relevant Declarations of Conformity.

Model No.	Serial No.	Product Description	Invoice Description	General Description	Directive
08781	409800000 and Up	Rear Remote Hydraulic Kit	REAR REMOTE HYDRAULICS	Scarifier	2006/42/EC

Relevant technical documentation has been compiled as required per Part B of Annex VII of 2006/42/EC.

We will undertake to transmit, in response to requests by national authorities, relevant information on this partly completed machinery. The method of transmission shall be electronic transmittal.

This machinery shall not be put into service until incorporated into approved Toro models as indicated on the associated Declaration of Conformity and in accordance with all instructions, whereby it can be declared in conformity with all relevant Directives.

Certified:

Tom Langworthy Engineering Director

8111 Lyndale Ave. South Bloomington, MN 55420, USA

October 18, 2022

Authorized Representative:

Marcel Dutrieux Manager European Product Integrity Toro Europe NV Nijverheidsstraat 5 2260 Oevel Belgium

## **UK Declaration of Incorporation**

The Toro Company, 8111 Lyndale Ave. South, Bloomington, MN, USA declares that the following unit(s) conform(s) to the regulations listed, when installed in accordance with the accompanying instructions onto certain Toro models as indicated on the relevant Declarations of Conformity.

Model No.	Serial No.	Product Description	Invoice Description	General Description	Regulation
08781	409800000 and Up	Rear Remote Hydraulic Kit	REAR REMOTE HYDRAULICS	Scarifier	S.I. 2008 No. 1597

Relevant technical documentation has been compiled as required per Schedule 10 of S.I. 2008 No. 1597.

We will undertake to transmit, in response to requests by national authorities, relevant information on this partly completed machinery. The method of transmission shall be electronic transmittal.

This machinery shall not be put into service until incorporated into approved Toro models as indicated on the associated Declaration of Conformity and in accordance with all instructions, whereby it can be declared in conformity with all relevant Regulations.

This declaration has been issued under the sole responsibility of the manufacturer. The object of the declaration is in conformity with relevant UK legislation.

Authorized Representative:

Marcel Dutrieux
Manager European Product Integrity
Toro U.K. Limited
Spellbrook Lane West
Bishop's Stortford
CM23 4BU
United Kingdom

Tom Langworthy Engineering Director 8111 Lyndale Ave. South Bloomington, MN 55420, USA October 18, 2022

Jom Jongval

#### **EEA/UK Privacy Notice**

#### Toro's Use of Your Personal Information

The Toro Company ("Toro") respects your privacy. When you purchase our products, we may collect certain personal information about you, either directly from you or through your local Toro company or dealer. Toro uses this information to fulfil contractual obligations - such as to register your warranty, process your warranty claim or to contact you in the event of a product recall - and for legitimate business purposes - such as to gauge customer satisfaction, improve our products or provide you with product information which may be of interest. Toro may share your information with our subsidiaries, affiliates, dealers or other business partners in connection these activities. We may also disclose personal information when required by law or in connection with the sale, purchase or merger of a business. We will never sell your personal information to any other company for marketing purposes.

#### **Retention of your Personal Information**

Toro will keep your personal information as long as it is relevant for the above purposes and in accordance with legal requirements. For more information about applicable retention periods please contact legal@toro.com.

#### **Toro's Commitment to Security**

Your personal information may be processed in the US or another country which may have less strict data protection laws than your country of residence. Whenever we transfer your information outside of your country of residence, we will take legally required steps to ensure that appropriate safeguards are in place to protect your information and to make sure it is treated securely.

#### **Access and Correction**

You may have the right to correct or review your personal data, or object to or restrict the processing of your data. To do so, please contact us by email at legal@toro.com. If you have concerns about the way in which Toro has handled your information, we encourage you to raise this directly with us. Please note that European residents have the right to complain to your Data Protection Authority.

## The Toro Warranty



Two-Year or 1,500 Hours Limited Warranty

#### **Conditions and Products Covered**

The Toro Company warrants your Toro Commercial product ("Product") to be free from defects in materials or workmanship for 2 years or 1,500 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 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*. Repairs for product issues caused by failure to perform required maintenance and adjustments are not covered under this warranty.

## **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.
- Product failures which result from failure to perform recommended maintenance and/or adjustments.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts consumed through use that are not 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, flow meters, and
  check valves.
- Failures caused by outside influence, including, but not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals.
- 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.

#### **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. Note: (Lithium-Ion battery only): Refer to the battery warranty for additional information.

## Lifetime Crankshaft Warranty (ProStripe 02657 Model Only)

The Prostripe which is fitted with a genuine Toro Friction Disc and Crank-Safe Blade Brake Clutch (integrated Blade Brake Clutch (BBC) + Friction Disc assembly) as original equipment and used by the original purchaser in accordance with recommended operating and maintenance procedures, are covered by a Lifetime Warranty against engine crankshaft bending. Machines fitted with friction washers, Blade Brake Clutch (BBC) units and other such devices are not covered by the Lifetime Crankshaft Warranty.

#### 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.

The Toro Company is not 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 Emissions 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.

#### **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 your Authorized Toro Service Center.