

### 3WD Kit

### Greensmaster® eTriFlex® 3360 or 3370 Traction Unit

Model No. 04504—Serial No. 400000000 and Up

**Installation Instructions** 

## Installation

## **Preparing the Machine**

No Parts Required

### **Procedure**

- 1. Park the machine on a level surface.
- 2. Engage the parking brake.
- 3. Lower the cutting units.
- 4. Shut off the machine and remove the key.
- Disconnect the main-power connectors; refer to your machine Operator's Manual.

## Raising the Machine

No Parts Required

### **Procedure**

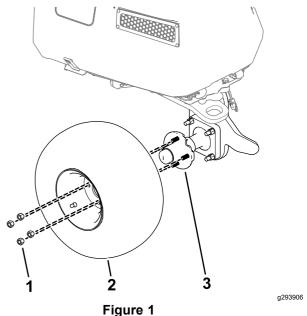
Raise the machine; refer to the pre-maintenance section of your machine Operator's Manual.

### Remove the Rear Wheel

No Parts Required

### **Procedure**

1. Remove the 4 lugnuts that secure the wheel to the wheel-hub assembly (Figure 1).



- 1. Lugnut

3. Wheel-hub assembly

- 2. Tire
- Remove the wheel from the machine (Figure 1).



# Removing the Existing Wheel-Hub Assembly

No Parts Required

### **Procedure**

Remove the existing wheel-hub assembly by removing the bolts and nuts that secure the assembly to the castor fork (Figure 2).

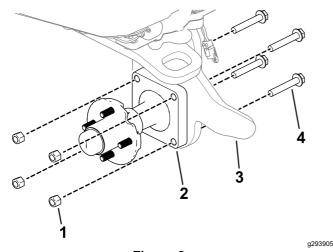


Figure 2

- 1. Nut
- 2. Wheel-hub assembly
- 3. Castor fork
- 4. Bolt

# 5

## **Installing the Gearbox**

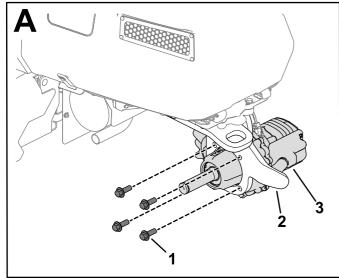
### Parts needed for this procedure:

1	Gearbox assembly
1	Dust cap
1	Snap ring
4	Bolt (M12)
1	Fitting
1	Vent hose

### **Procedure**

- 1. Remove the snap ring (shown in Figure 3) from the axle.
- 2. Remove the hub assembly (shown in Figure 3) from the gearbox.
- 3. Slide the gearbox into the caster fork.

**Note:** Observe the correct orientation of the gearbox as shown in Figure 3. The axle shaft should point toward the left side of the machine.



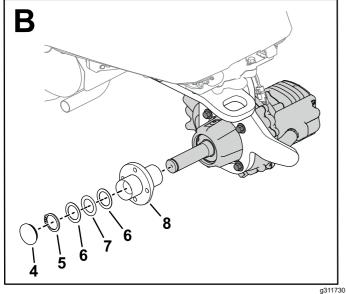
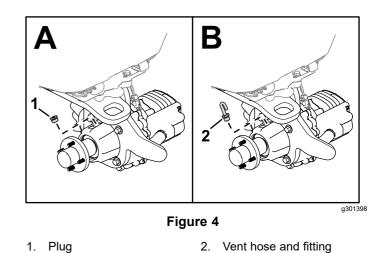


Figure 3

- 1. Bolt (M12)
- 2. Castor fork
- 3. Gearbox
- 4. Dust cap with O-ring
- 5. Snap ring
- 6. Thrust washer
- 7. Bearing
- 8. Hub assembly
- 4. Use 4 bolts (M12) to secure the gearbox to the castor fork (A in Figure 3).
- 5. Torque the bolts (M12) to 81 to 95 N·m (60 to 70 ft-lb).
- Install the hub assembly, snap ring, and dust cap with O-ring on the axle shaft (B in Figure 3).
   When you install the snap ring, compress the wave washer in the hub assembly.

**Note:** If the thrust washers and bearing are removed from the hub assembly, assemble them as shown in Figure 3.

Remove the plug from the top of the gearbox (A of Figure 4).



3. Secure the vent hose and fitting to the gearbox (B of Figure 4).



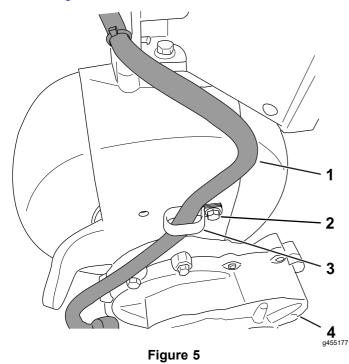
## **Connecting the Gearbox Wire Harness**

### Parts needed for this procedure:

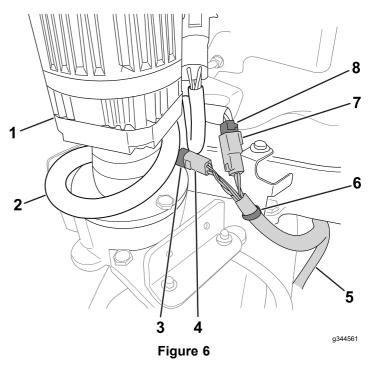
1	R-clamp
1	Bolt (5/16 x 1-1/2 inches)
1	Locknut (5/16 inch)
1	Push-mount fastener

### **Procedure**

- Raise the hood; refer to your machine Operator's Manual.
- 2. Route the gearbox wire harness toward the hood and secure it with the R-clamp as shown in Figure 5.



- Gearbox wire harness
- R-clamp
- 2. Bolt (5/16 x 1-1/2 inches)
- 4. Gearbox
- 3. Route the remaining gearbox-wire-harness connectors toward the steering motor (Figure 6)



- 1. Steering column
- 2. Machine wire harness
- 4-socket connector (machine wire harness)
- 4. 4-pin connector (gearbox wire harness)
- 5. Gearbox wire harness
- 6. Push-mount fastener
- 7. 2-socket connector (machine wire harness)
- 8. 2-pin connector (motorgearbox wire harness)
- 4. Cut the tie wrap that secures the machine harness to the bracket, leaving the push-mount in place (Figure 6). Discard the tie wrap.
- 5. Connect the gearbox connectors to the machine wire-harness connectors (Figure 6):
  - 2-pin connector of the gearbox to the 2-socket connector of the machine wire harness
  - 4-pin connector of the gearbox to the 4-socket connector of the machine wire harness
- 6. Wrap the extra machine wire harness slack around the steering motor as shown in Figure 6.
- 7. Using the tie wrap supplied in the kit, secure the gearbox harness to the push-mount as shown in Figure 6.
- 8. Close the hood.



## Greasing the Hub Assembly Installing the Fuse

No Parts Required

### **Procedure**

Grease the hub assembly; refer to Greasing the Hub Assembly (page 7).

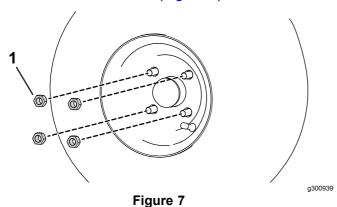


## Installing the Rear Wheel

No Parts Required

### **Procedure**

Use the previously removed lugnuts to secure the wheel to the hub (Figure 7).



1. Lugnut

Torque the lugnuts (in a crossing pattern as shown in Figure 8) to 108 to 122 N·m (80 to 90 ft-lb).



Figure 8

Parts needed for this procedure:

1	Fuse
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### **Procedure**

Install the fuse to the designated 3-wheel-drive slot on the reel-drive-circuit fuse block; refer to the electrical system maintenance section in your machine Operator's Manual.

10

## Installing the Serial-Plate Decal

### Parts needed for this procedure:

1 Serial-plate decal

### **Procedure**

Install the serial-plate decal on the frame tube as shown in Figure 9.

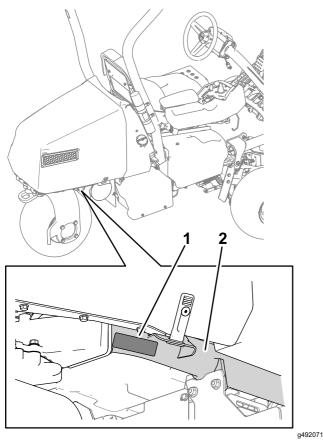


Figure 9

1. Serial-plate decal

2. Frame tube

11

## **Engaging 3-Wheel-Drive Mode**

No Parts Required

### **Procedure**

The 3-wheel-drive mode should automatically enable when you install the gearbox-wire-harness connections to the machine wire harness.

To ensure that the 3-wheel-drive mode is activated, navigate to the 3WD KIT option in the SETTINGS menu of your InfoCenter. The item selected/active icon

indicates that 3-wheel-drive mode is activated.

**12** 

## **Completing the Installation**

No Parts Required

### **Procedure**

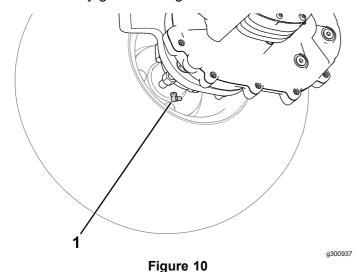
- 1. Lower the machine to the ground.
- 2. Connect the main-power connectors; refer to your machine *Operator's Manual*.

## **Maintenance**

## **Greasing the Hub Assembly**

Service Interval: Every 100 hours

Use No. 2 lithium grease to lubricate the hub assembly. Refer to Figure 10 for the location of the hub-assembly grease fitting.



1. Grease fitting

## Changing the Gearbox Fluid

Service Interval: After the first 8 hours

Every 800 hours

Fluid specification: SAE 80W-90

Gearbox fluid capacity: approximately 1.2 L (40 fl

oz)

### **Preparing the Machine**

- 1. Park the machine on a level surface.
- 2. Engage the parking brake.
- 3. Lower the cutting units.
- 4. Shut off the machine and remove the key.
- 5. Disconnect the main-power connectors; refer to your machine *Operator's Manual*.

### **Draining the Gearbox Fluid**

1. Place a drain pan under the wheel-motor assembly (Figure 11).

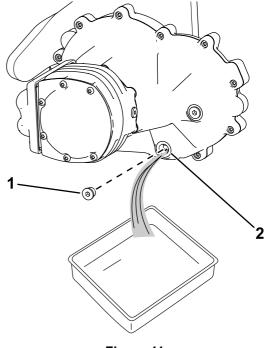


Figure 11

- 1. Drain plug
- 2. Drain port

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2. Remove the plug from the drain port (Figure 11).

**Note:** The drain port is located on the bottom of the gearbox.

**Note:** You can loosen the fill-port fitting (as shown in Figure 12) to ensure that it can be removed after you drain the fluid.

- 3. Allow the fluid to drain completely from the gearbox.
- 4. Clean the plug.
- 5. Install the drain plug into the drain port (Figure 11).

### **Adding Fluid to the Gearbox**

1. Remove the fill-port fitting shown in Figure 12.

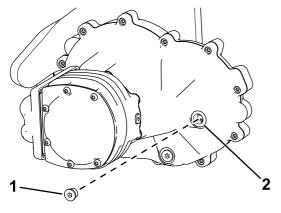


Figure 12

1. Fitting

2. Fill port

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2. Add the specified fluid to the gearbox until the fluid level reaches the bottom of the fill port.

The gearbox fluid capacity is approximately 1.2 L (40 fl oz).

3. Install the fitting into the fill port (Figure 12).

## **Notes:**

## **Notes:**

### 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.

