



**Count on it.**

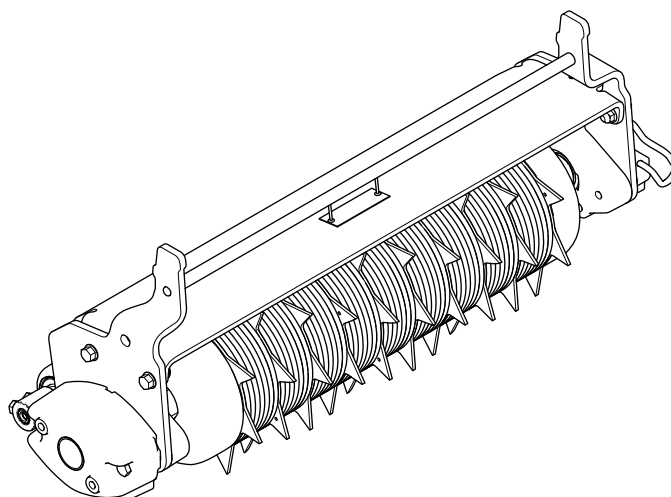
Form No. 3431-606 Rev A

# Operator's Manual

## Spiker

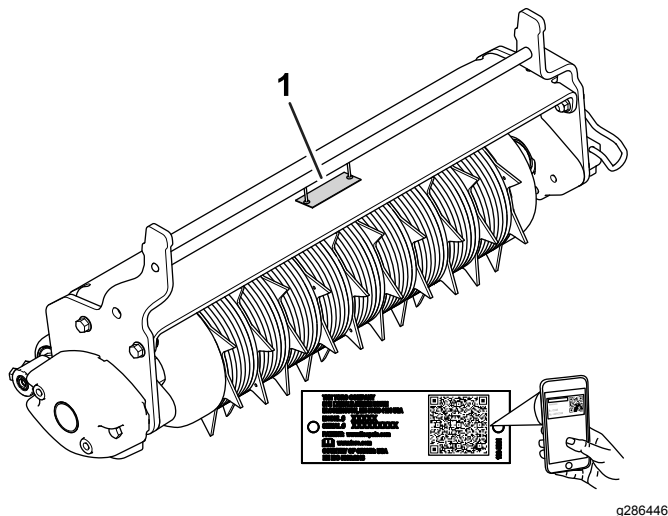
### Greensmaster® 3300/3400 Series TriFlex® Traction Unit

Model No. 04723—Serial No. 403350001 and Up



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

**Important:** With your mobile device, you can scan the QR code on the serial number decal (if equipped) to access warranty, parts, and other product information.



**Figure 1**

1. Model and serial number location

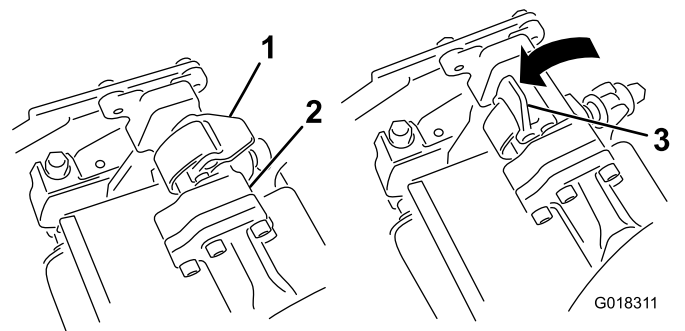
# 1

## Installing the Spiker Units

### No Parts Required

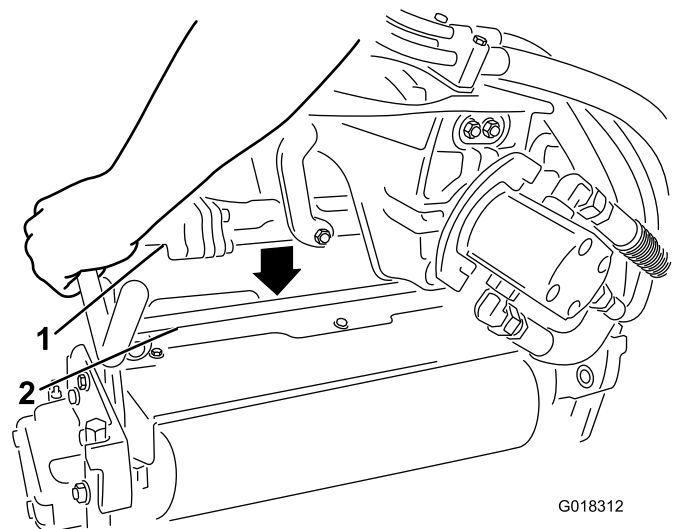
### Procedure

1. Position the spiker unit under the traction-unit suspension arm.
2. With the latches on the suspension-arm bar opened ([Figure 2](#)), push the suspension arm down so that it fits over the bar across the top of the spiker unit ([Figure 3](#)).



**Figure 2**

1. Latch—closed
2. Suspension-arm bar
3. Latch—opened



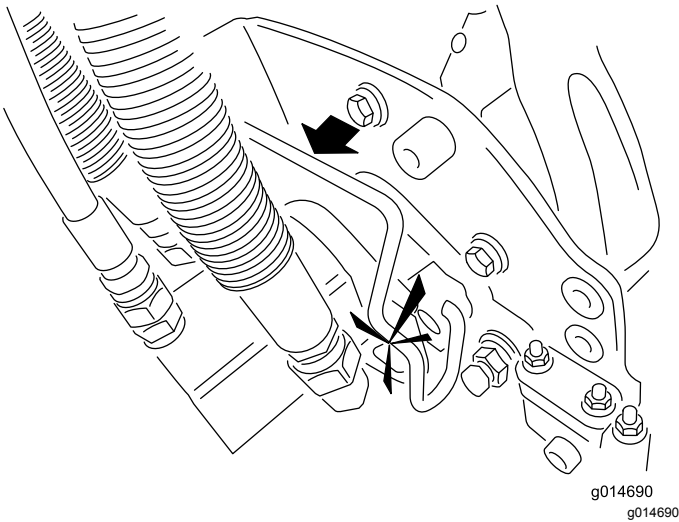
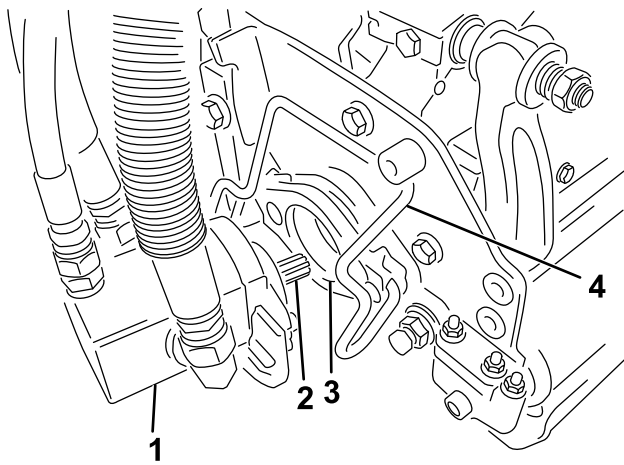
**Figure 3**

1. Suspension-arm bar
2. Spiker-unit bar

3. Close the latches to lock the spiker unit in place ([Figure 2](#))

**Note:** When the latches are properly locked, you can hear and feel a click.

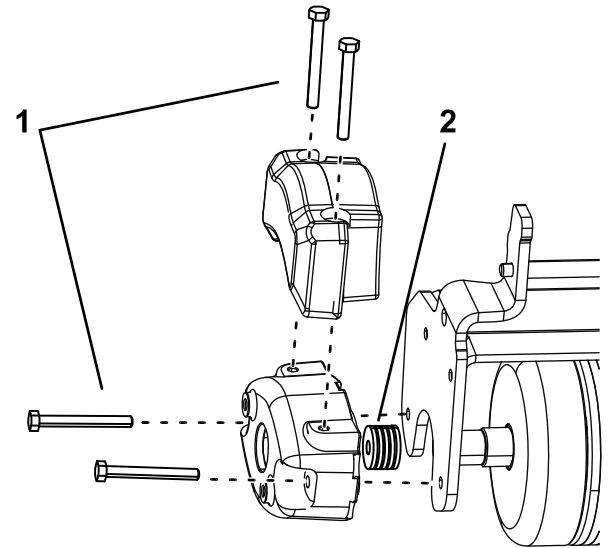
4. Insert the motor into the left side of the spiker unit (as viewed from the operator's position), and pull the motor retaining bar on the spiker unit toward the motor until you hear a click from both sides of the motor ([Figure 4](#)).



**Figure 4**

- |                 |                        |
|-----------------|------------------------|
| 1. Motor        | 3. Cavity              |
| 2. Spline shaft | 4. Motor-retaining bar |

**Note:** The bolts (Part No. 322-33) are not included with this kit.



**Figure 5**

- |          |           |
|----------|-----------|
| 1. Bolts | 2. Washer |
|----------|-----------|

3. Install 4 washers (1/8 inch) per bolt between the counterweight and the Tri-Roller side plate (Figure 5).

**Note:** The spacers (Part No. 63-8410) are not included with this kit.

4. Install the hybrid auxiliary weight provided with the traction unit with the provided bolts.

## Operation

### Training

Before spiking greens, find a clear area to practice starting, stopping, raising, lowering, and rolling with the spiker. This training helps you gain experience and confidence with the spiker before using it on a green.

### Operating Tips

- Survey the green to determine if there are any obstacles that will be damaged or will damage the spikers, such as sprinkler heads or other protruding objects.
- Maintain a straight line when spiking. Do not turn the machine when the spikers are on the ground.
- When you reach the edge of the green, raise the spikers before turning or stopping the machine. You must raise the spikers completely before making turns.

# 2

## Installing the Electrical Counterweights

### No Parts Required

### Procedure

**Note:** If you are installing this kit on traction unit Model No. 04530 or 04540 with a Tri-Roller installed, you must use an additional hybrid counterweight.

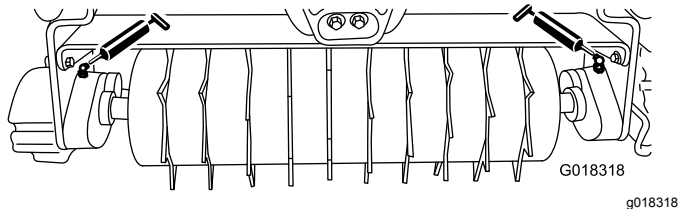
1. Remove and discard the counterweight bolts.
2. Install 2 bolts (5/16-18 x 2-3/4 inch) as shown in Figure 5.

# Maintenance

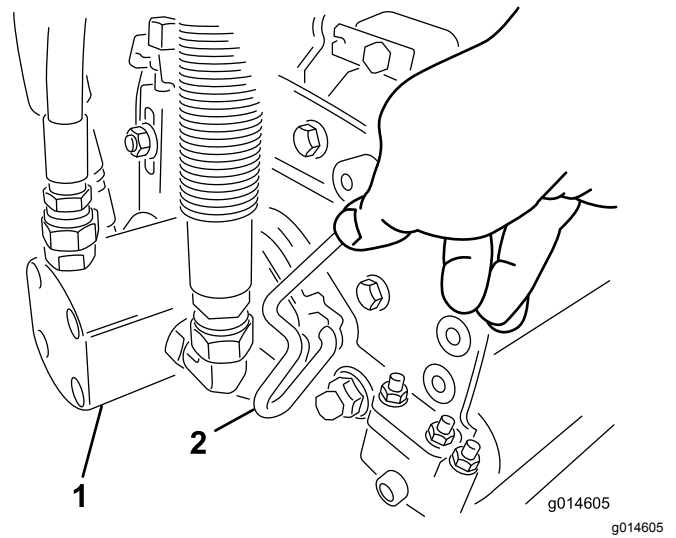
## Lubrication

**Service interval:** Every 15 hours.

Lubricate the 2 grease fittings (Figure 6) on each spiker unit after every 15 hours of operation using a No. 2 lithium grease. For best results, use a hand-operated grease gun.



**Figure 6**



**Figure 7**

1. Motor
2. Motor-retaining bar

1. Park the machine on a level surface, lower the spiker units to the ground until the suspension hydraulics are fully extended, engage the parking brake, shut off the engine, and remove the key.
2. Wipe each grease fitting (Figure 6) with a clean rag.
3. Apply grease to the spiker shaft bearings until you feel pressure.
4. Wipe excess grease away.

## Removing the Spiker Units

1. Park the machine on a level surface, lower the spiker units to the ground until the suspension hydraulics are fully extended, engage the parking brake, shut off the engine, and remove the key.
2. Push the motor retaining bar out of the slots on the motor toward the spiker unit and remove the motor from the spiker unit.

3. Move the motor to the storage location on the front of the suspension arm.

**Important:** Do not raise the suspension to the transport position when the reel motors are in the machine-frame holders. Damage to the motors or hoses could result.

**If you must move the traction unit without the spiker units installed, use cable ties to secure the motors to the suspension arms.**

4. Open the latches on the suspension-arm bar of the spiker unit that you are removing.
5. Disconnect the latches from the spiker unit bar.
6. Roll the spiker unit out from under the suspension arm.
7. Repeat steps 2 through 6 for the other spiker units as required.

**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
04723	403350001 and Up	Spiker, Greensmaster 3300/3400 Series TriFlex Traction Unit	GREENS SPIKER KIT-TRIFLEX	Spiker	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:



John Heckel  
Sr. Engineering Manager  
8111 Lyndale Ave. South  
Bloomington, MN 55420, USA  
March 11, 2019

Authorized Representative:

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

## 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](mailto: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](mailto: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 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 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  
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*. 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, 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.

### 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.

### 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): Pro-rated after 2 years. 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.

**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 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.