



Count on it.

Operator's Manual

Spiker

**Greensmaster® 3300/3400 Series TriFlex™
Traction Unit**

Model No. 04723—Serial No. 312000001 and Up

1

Installing the Spiker Units

No Parts Required

Procedure

Park the unit on a level surface, set the parking brake, turn the ignition off, and remove the key.

1. Position the spiker unit under the suspension arm.
2. With the latches on the suspension-arm bar in the Open position (Figure 1), push the suspension arm down so that it fits over the bar across the top of the spiker unit (Figure 2).

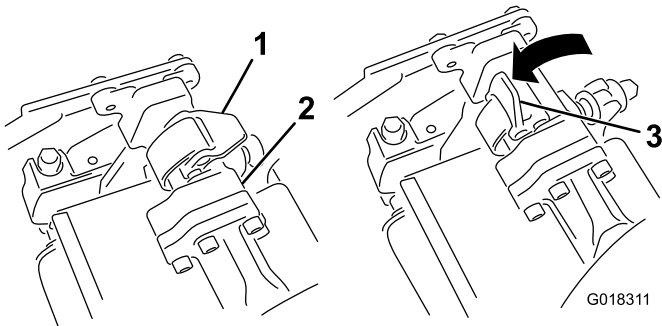


Figure 1

1. Latch—closed position
2. Suspension-arm bar
3. Latch—open position

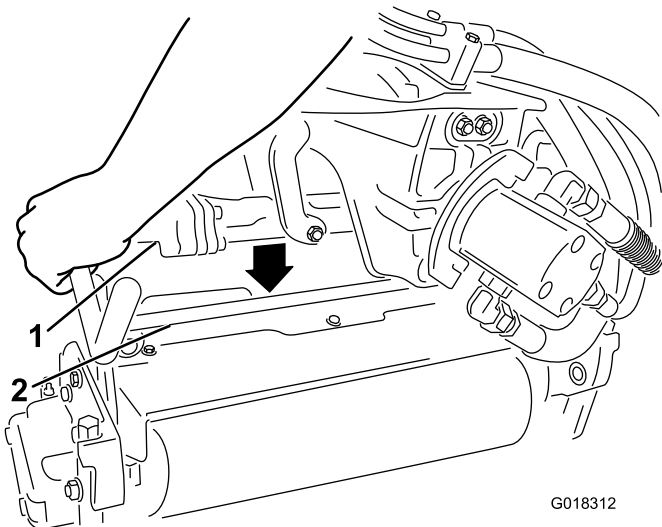


Figure 2

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

Note: When the latches are properly locked a “click” can be heard and felt.

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 an audible “click” from both sides of the motor (Figure 3).

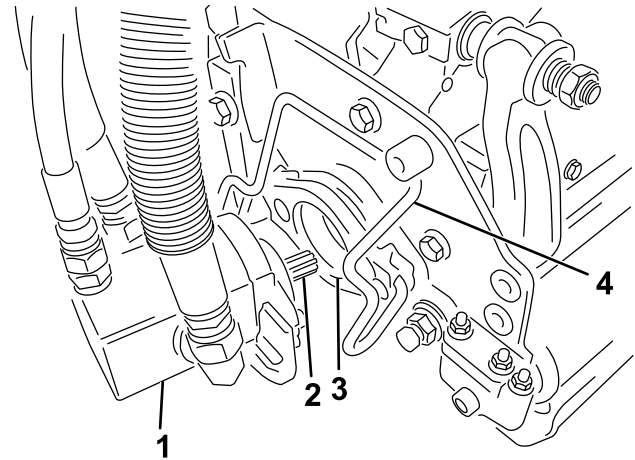


Figure 3

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

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Removing the Spiker Units

No Parts Required

Procedure

Park the unit on a level surface, set the parking brake, turn the ignition off, and remove the key.

1. Park the machine on a clean level surface, lower the spiker units to the ground until the suspension hydraulics are fully extended, stop the engine, set the parking brake, and remove the key from the ignition switch.
2. Push the motor retaining bar out of the slots on the motor towards the spiker unit and remove the motor from the spiker unit.

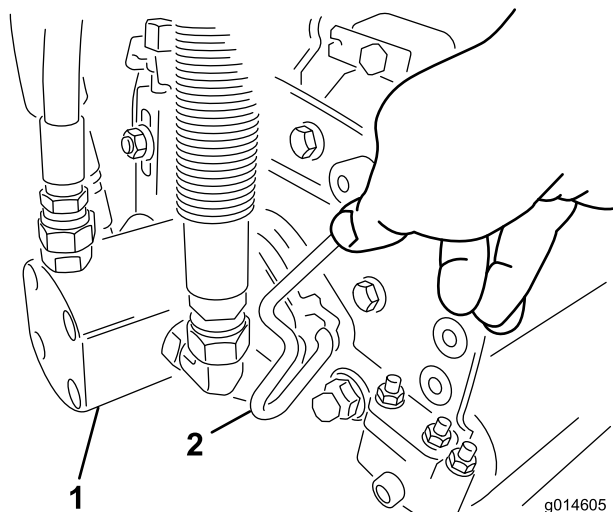


Figure 4

1. Motor
2. Motor-retaining bar

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

Note: Do not raise the suspension to the transport position when the reel motors are in the holders in the machine frame. Damage to the motors or hoses could result. If you must move the traction unit without the spiker units installed, secure the motors to the suspension arms using cable ties.

4. Open the latches on the suspension-arm bar of the spiker unit 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.

Operation

Training

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

Operating Tips

- 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. The spikers must be raised completely before making turns.
- 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.

Maintenance

Lubrication

Lubricate the 2 grease fittings (Figure 5) on each spiker unit after every 15 hours of operation using a #2 multi-purpose lithium-based grease. For best results, a hand operated grease gun is recommended.

1. Wipe each grease fitting with a clean rag.
2. Apply grease to the spiker shaft bearings until you feel pressure (Figure 5).

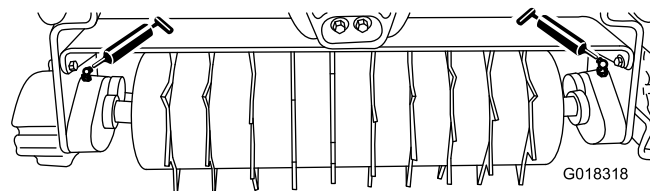


Figure 5

3. Wipe excess grease away.



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.