Form No. 3370-336 Rev A

TORO®

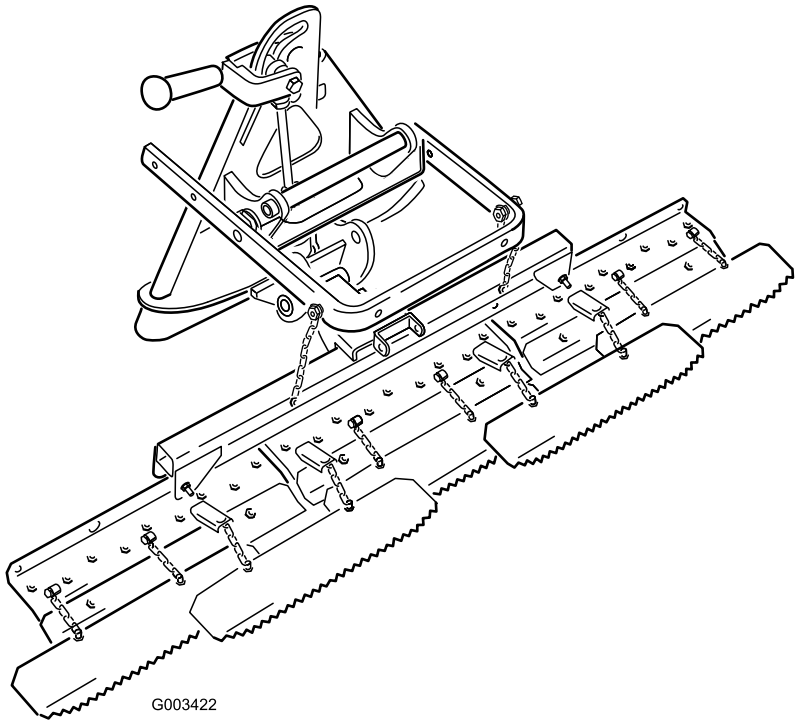
Count on it.

Operator's Manual

Tooth Rake

Sand Pro® 3040 and 5040 Traction Units

Model No. 08751—Serial No. 310000851 and Up



G003422

Introduction

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

You may contact Toro directly at www.Toro.com for product and accessory information, help finding a dealer, or to register your product.

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.

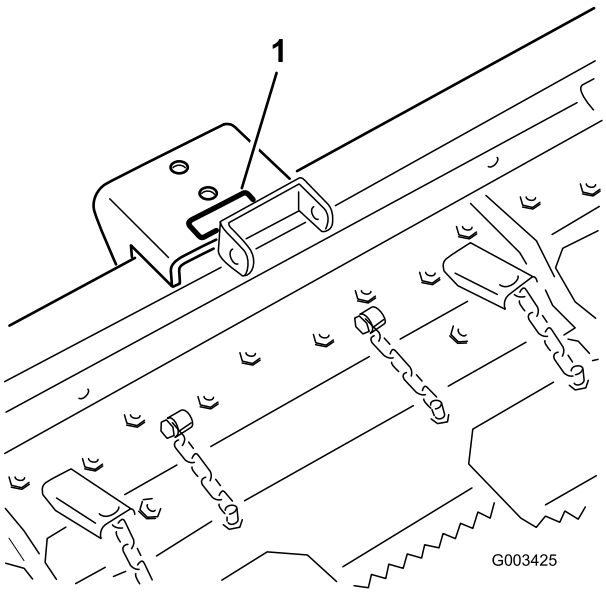


Figure 1

1. Model and serial number location

Model No. _____

Serial No. _____

This manual identifies potential hazards and has safety messages identified by the safety alert symbol (Figure 2), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



Figure 2

1. Safety alert symbol

This manual uses 2 other words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

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Safety

Safety and Instructional Decals

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



106-5517

1. Warning–Do Not touch the hot surface.

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	Tooth rake assembly Shoulder bolt Washer Jam nut Attachment adapter assembly Cotter pin Lift arm assembly Pivot bar Bolt (3/8 x 1-1/4 inches) Locknut (3/8 inch)	1 1 3 2 1 2 1 1 1 1	Assemble the rake.
2	Bolt (3/8 x 2-1/2 inches) Washer (3/8 x 7/8 inch) Spacer Locknut (3/8 inch)	2 4 2 2	Mount the tooth rake to the traction unit.
3	No parts required	–	Adjust the link assembly.
4	Operator's Manual Parts Catalog	1 1	Read the documentation and store it in a safe location.

1

Assembling the Rake

Parts needed for this procedure:

1	Tooth rake assembly
1	Shoulder bolt
3	Washer
2	Jam nut
1	Attachment adapter assembly
2	Cotter pin
1	Lift arm assembly
1	Pivot bar
1	Bolt (3/8 x 1-1/4 inches)
1	Locknut (3/8 inch)

Procedure

1. Secure the pivot assembly to the tooth rake with a shoulder bolt, (2) washers and (2) jam nuts, positioning as shown in Figure 3.

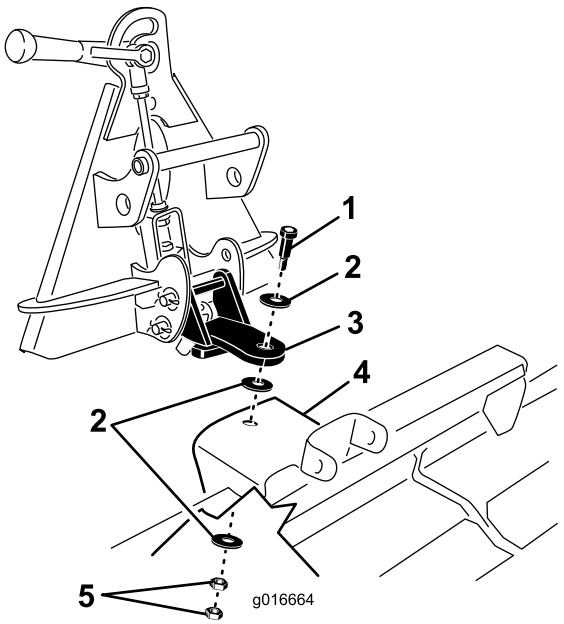


Figure 3

1. Shoulder bolt
2. Washer
3. Pivot assembly
4. Tooth rake hanger
5. Jam nut

2. Align the lift arm with the bracket on the attachment adapter (Figure 4) and connect them using the pivot bar as illustrated in Figure 5.

   Note: When moving the attachment adapter, use the handle provided on the back of the adapter (Figure 4).

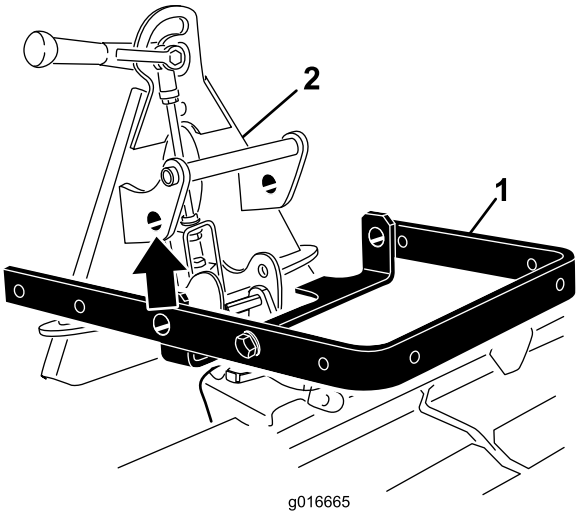


Figure 4

1. Lift arm
2. Attachment adapter

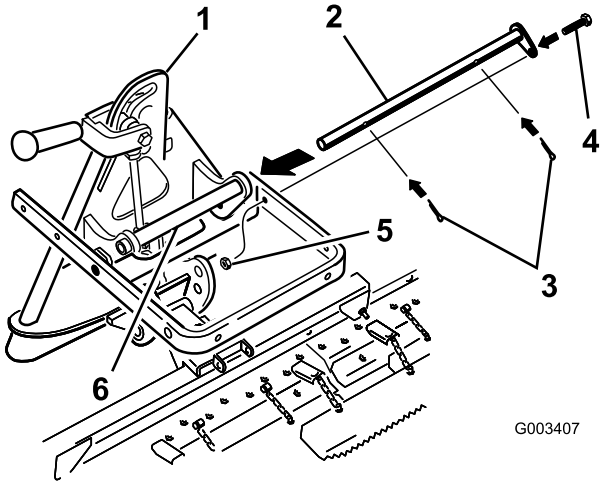


Figure 5

1. Attachment adapter
2. Pivot bar
3. Cotter pins
4. Bolt (3/8 x 1-1/4 inches)
5. Locknut (3/8 inch)
6. Handle

3. Secure the pivot bar with 2 cotter pins and a bolt (3/8 x 1-1/4 inches) (Figure 5).

2

Mounting the Tooth Rake to the Traction Unit

Parts needed for this procedure:

2	Bolt (3/8 x 2-1/2 inches)
4	Washer (3/8 x 7/8 inch)
2	Spacer
2	Locknut (3/8 inch)

Procedure

1. Remove any attachment from the rear of the machine.
2. Lower the traction unit adapter and back the traction unit into position in front of the attachment adapter.

   Note: Make sure the locking lever is pivoted to the left (unlocked position) as viewed from the rear of the machine.

3. Slide the attachment adapter onto the traction adapter.

   Important: The long arm of the lift arm assembly must be under the traction unit rear frame assembly (Figure 6).

   ⚠ CAUTION

   If you are not careful, you could pinch your fingers between the attachment and traction unit adapters.

   Always lift and move the attachment using the handle on the back of the attachment adapter (Figure 6).

4. Pivot the locking lever to the right to lock the adapters together.
5. Secure the top link of each chain to the inside of the lift arm using a bolt (3/8 x 2-1/2 inches), 2 washers (3/8 x 7/8 inch), a spacer, and a locknut (3/8 inch) (Figure 6).

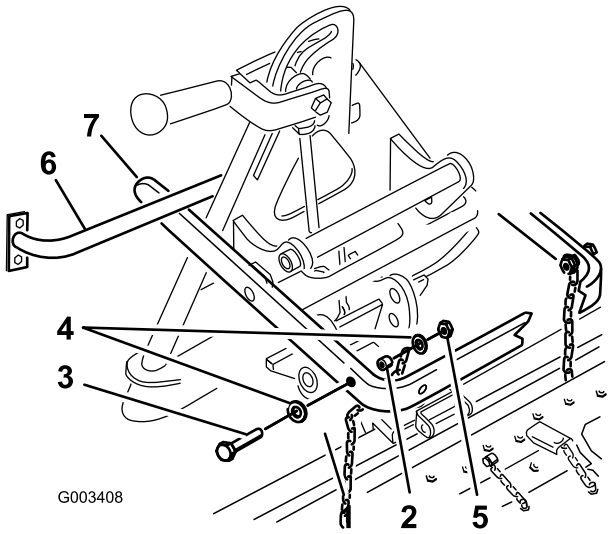


Figure 6

1. Chain
2. Spacer
3. Bolt (3/8 x 2-1/2 inches)
4. Washer (3/8 x 7/8 inch)
5. Locknut (3/8 inch)
6. Traction unit rear frame
7. Long arm of the lift arm assembly

Note: For proper operation of the rake, the chains must be slack when the rake is in the lowered (operating) position.

Note: Make sure all the finishing rakes are overlapping properly, laying flat and none of the chains are tangled or twisted.

3

Adjusting the Link Assembly

No Parts Required

Procedure

1. With the rake mounted and secured on the traction unit, raise the attachment.
2. Measure the gap between the top washer and the spacer in the link assembly on the attachment adapter as shown in Figure 7.

   Note: The gap between the washer and the shoulder should be 0.060 to 0.080 inch (.15 to .20 cm) (Figure 7).

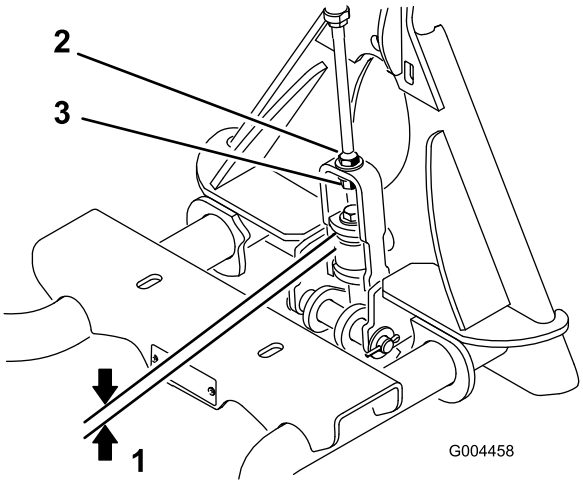


Figure 7

1. 0.060 to 0.080 inch (.15 to .20 cm)
2. Jam nut
3. Adjustment nut

3. If the gap is not correct, loosen the jam nut and tighten or loosen the adjustment nut on the link assembly as needed to change the gap (Figure 7).

4

Reading/Storing the Documentation

Parts needed for this procedure:

1	*Operator's Manual*
1	*Parts Catalog*

Procedure

1. Read the documentation.
2. Store the documentation in a safe place.

Product Overview

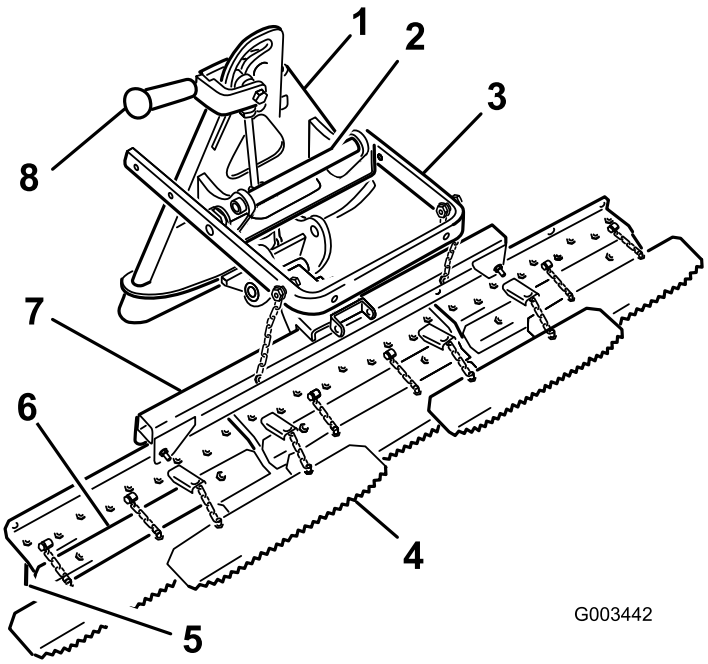


Figure 8

1. Attachment adapter
2. Handle
3. Lift arm
4. Finishing rake
5. Prong
6. Trowel
7. Tooth rake hanger
8. Locking lever

Operation

We suggest that you read this **entire section on raking** before actually raking a trap. There are many conditions that will determine the adjustments necessary. The texture and depth of the sand, moisture content, weeds, the amount of compaction; all these conditions can vary from course to course, or even from trap to trap on the same course. Make the adjustments on the rake for optimum results in your particular area.

Training Period

Practice raking in one of the large and level traps on the course. Practice starting and stopping, turning, raising and lowering the rake, entering and leaving the trap, etc. Practice at a moderate engine speed and a slow ground speed. This training period will be beneficial to the operator in gaining confidence in the performance of the machine.

Note: Do not back up the traction unit with the attachment lowered. Damage to the attachment will occur.

General Raking Information

If the sand is deep enough, you can rake right up to the edge of the trap in level areas.

If the sand feathers out to the turf, stay far enough away from the edge to avoid disturbing the underlying soil.

Do not rake too close to a short steep bank. The sand will merely flow down into the bottom of the trap.

Some touch up with a hand rake may be necessary on steep banks, small pockets, etc.

Raking Pattern

The recommended pattern for raking a trap is shown in Figure 9. This pattern avoids unnecessary overlap, holds compaction to a minimum and leaves a neat, attractive pattern on the sand.

Enter the trap straight into the long dimension, where the bank is the least severe. Drive through the center of the trap almost to the end, turn to either direction as sharp as you can, and come right back next to the first pass. Spiral outward as shown in the drawing, and leave the trap at a right angle in a level area.

Leave steep, short banks and small pockets for touch-up with a hand rake.

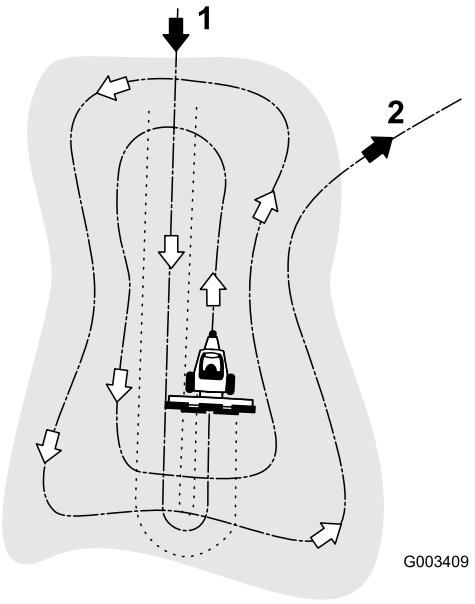


Figure 9

1. Enter a trap straight into the long dimension in a level area.
2. Exit a trap at a right angle in a level area.

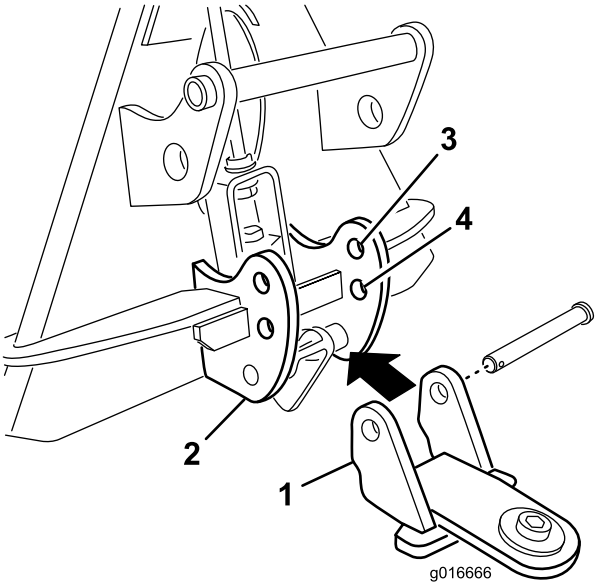


Figure 10

1. Rake pivot
2. Attachment adapter brackets
3. More aggressive
4. Less aggressive

Entering and Leaving the Trap

When entering the trap, do not lower the rake until the rake is actually over the sand. This will avoid cutting the turf or dragging grass clippings or other debris into the trap. Lower the rake while the machine is moving.

When leaving the trap, start raising the rake when the front wheel leaves the trap. As the machine moves out, the rake will be lifting and will not drag sand out onto the grass.

The operator will soon gain, through experience and practice, the required timing for entering and leaving the trap properly.

Adjusting the Rake Angle

You can change the angle of the rake to increase or decrease its aggressiveness in the sand. Mount the rake pivot to the bottom holes in the attachment adapter brackets (Figure 10) for less aggressive raking or the top holes for more aggressive raking.

Adjusting the Trowels

You can adjust the length of the trowels to increase or decrease the amount of prong penetration.

Loosen the trowel mounting screws, move the trowel up or down to the desired position, and tighten the screws (Figure 11).

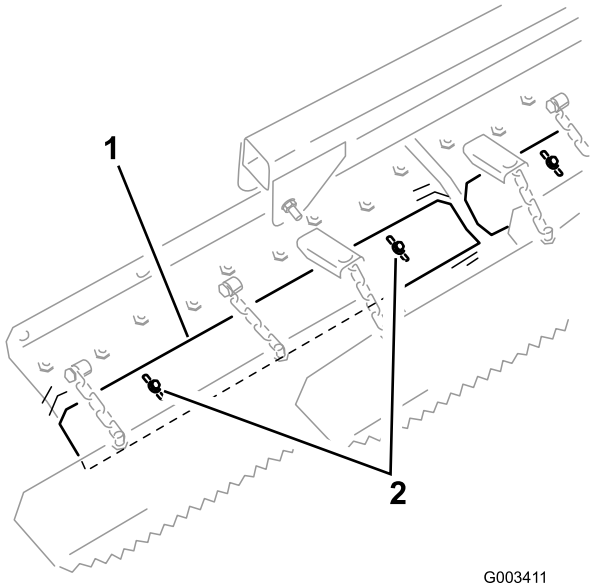


Figure 11

1. Trowel
2. Mounting screws

Using Drag Weights

In damp or coarse sand, or if there is considerable vegetation or deep foot prints in the traps, optional weights may be bolted to the finishing rakes. Order weight part no. 18-7570 from your Authorized Toro Distributor.

Setting the Transport Position

Complete the following procedure to increase the height of the rake when transporting:

1. Lower the rake and lift assembly as low as possible.
2. Disconnect the chains from the lift arms and reconnect them higher.

Note: To ensure proper operation of rake, the chains must be returned to the original slack position before commencing operation.

Inspecting and Cleaning the Rake and Traction Unit

When the raking operation is completed, clean the machine thoroughly. Since this machine is used primarily in sand, and sand is extremely abrasive, the sand should be flushed off after each use. If the machine is cleaned frequently, (before the sand has a chance to cake), it can be cleaned with a stream of water from a hose with the nozzle removed. A high pressure stream could drive the sand into wear areas where it could act as a grinding compound.

Note: If the attachment adapter becomes stuck to the traction unit adapter, insert a pry bar/screwdriver into the pry slot to disengage the parts (Figure 12).

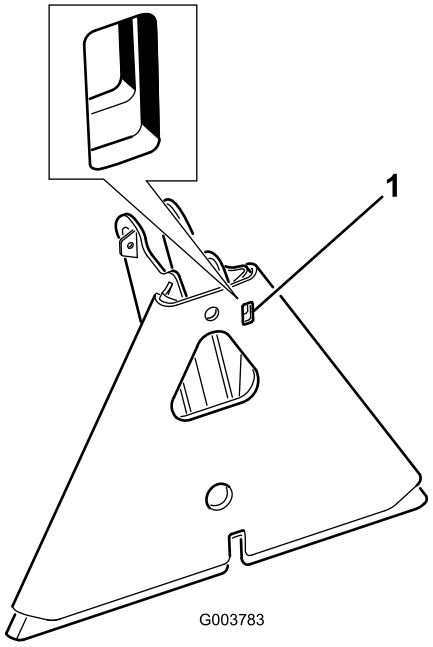


Figure 12

1. Pry slot

Maintenance

Greasing the Attachment Adapter

If the locking lever on the attachment adapter does not pivot freely and easily, apply a light coat of grease to the area shown in Figure 13.

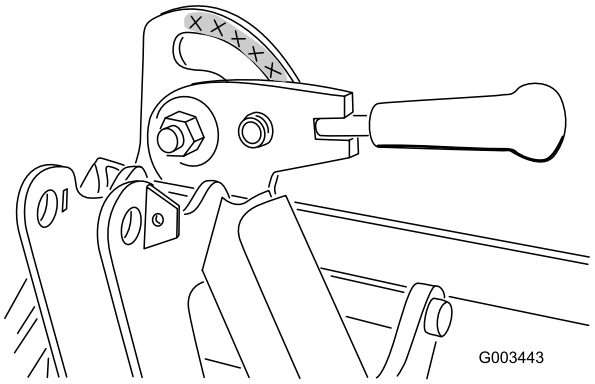


Figure 13

Notes:

The Toro Total Coverage Guarantee

A Limited Warranty

Conditions and Products Covered

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

Instructions for Obtaining Warranty Service

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

Commercial Products Service Department
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196
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, brakes pads and linings, clutch linings, blades, reels, bed knives, tines, spark plugs, castor wheels, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- Failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- 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.

Note Regarding Deep Cycle Battery Warranty:

Deep cycle 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.

Maintenance is at Owner's Expense

Engine tune-up, lubrication cleaning and polishing, replacement of Items and Conditions Not Covered 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 printed in your *Operator's Manual* 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. If all other remedies fail, you may contact us at Toro Warranty Company.