

Count on it.

Operator's Manual

Verticutter

Reelmaster® 6000-D Series Cutting Unit

Model No. 03877—Serial No. 316000001 and Up

A WARNING

CALIFORNIA Proposition 65 Warning

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

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

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 safety and operation training materials, 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. Write the numbers in the space provided.

Model No	
Serial No	

This manual identifies potential hazards and has safety messages identified by the safety-alert symbol (Figure 1), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



1. Safety-alert symbol

This manual uses 2 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

This machine has been designed in accordance with EN ISO 5395:2013.

Improper use or maintenance of this equipment can result in injury or death. To reduce the potential for injury or death, comply with the following safety instructions.

- Read, understand, and follow all instructions in the traction unit *Operator's Manual* before operating the verticutters.
- Read, understand, and follow all instructions in this *Operator's Manual* before operating the verticutters.
- Never allow children to operate the traction unit or the verticutters. Do not allow adults to operate the traction unit or the verticutters without proper instruction. Only trained operators who have read this *Operator's Manual* should operate the verticutters.
- Never operate the verticutters when tired, ill, or under the influence of drugs or alcohol.
- Keep all shields and safety devices in place. If a shield, a
 safety device, or a decal is illegible or damaged, repair or
 replace it before resuming operation. Also, tighten any
 loose nuts, bolts, and screws to ensure that the verticutters
 are in safe operating condition.
- Always wear substantial, slip-resistant footwear. Always wear long pants. Wearing safety glasses and safety shoes

- is advisable and required by some local ordinances and insurance regulations.
- Tie back long hair. Do not wear jewelry.
- Remove all debris or other objects that might be picked up and thrown by the reel blades of the cutting unit. Keep all bystanders away from the working area.
- If the verticutter blades strike a solid object or the unit vibrates abnormally, stop and shut the engine off. Check the verticutter for damaged parts. Repair any damage before starting and operating the verticutter.
- Lower the verticutters to the ground, set the parking brake, shut off the engine, and remove the key from the ignition switch whenever you leave the machine unattended.
- Be sure that the verticutters are in safe operating condition by keeping nuts, bolts, and screws tight.
- Remove the key from the switch to prevent accidental starting of the engine when servicing, adjusting, or storing the machine.
- Perform only those maintenance instructions described in this manual. If major repairs are ever needed or assistance is desired, contact an Authorized Toro Distributor.
- To ensure optimum performance and continued safety certification of the machine, use only genuine Toro replacement parts and accessories. Replacement parts and accessories made by other manufacturers could be dangerous, and such use could void the product warranty.

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.



- Warning—read the Operator's Manual before performing maintenance.
- Cutting hazard of hand or foot—shut off the engine and wait for all moving parts to stop.

Setup

Loose Parts

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

Procedure	Description	Description Qty.			
1	No parts required	-	Inspect the verticutter.		
2	Transport roller	2	Install the transport rollers.		
3	No parts required	_	Adjust the blade depth.		
4	No parts required	_	Adjust the rear grass shield.		
5	No parts required	-	Adjust the roller scrapers.		
6	No parts required	_	Adjust the transport rollers.		
7	Lift chain Chain bracket U-bolt Nut Washer Screw	1 1 1 3 1	Mount the lift brackets and chains.		
8	No parts required	-	Install the counterweights.		
9	Screw O-ring	1 1	Install the verticutter reels.		

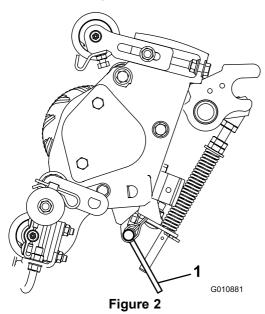
Media and Additional Parts

Description	Qty.	Use
Operator's Manual	1	Review the material and save it in an appropriate place.
Parts Catalog	1	Neview the material and save it in an appropriate place.

Important: Without these parts, total setup cannot be completed.

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

Note: Whenever the verticutter has to be tipped to expose the verticutter blades, use the kickstand (supplied with traction unit); refer to Figure 2.



1. Kickstand

1

Inspecting the Verticutter

No Parts Required

Procedure

1. Check each end of the reel for grease.

Note: Grease should be visible in the reel bearings and the internal splines of the reel shaft.

- 2. Ensure that all nuts and bolts are securely tightened.
- 3. Ensure that the carrier-frame suspension operates freely and does not bind when moved back and forth.

2

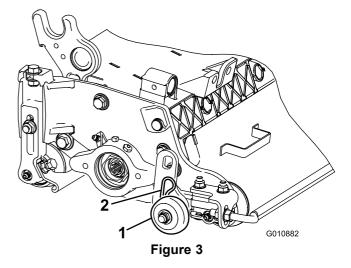
Installing the Transport Rollers

Parts needed for this procedure:

2 Transport roller

Procedure

Secure a transport-roller bracket to each side-plate pin with a cotter pin (Figure 3).



1. Transport roller

2. Cotter pin

Note: The roller should be positioned to the rear of the verticutter.

3

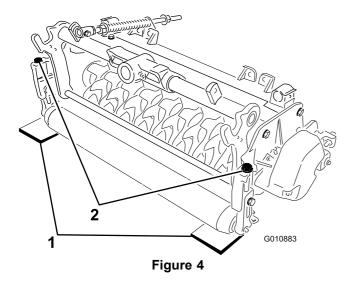
Adjusting the Blade Depth

No Parts Required

Procedure

Note: The maximum recommended blade penetration depth is 6 mm (1/4 inch).

- 1. Place the verticutter reel on a level surface.
- 2. Place 2 gauge bars, which have the desired depth of blade penetration below the ground, under the front and rear rollers of the verticutter reel (on each end of the reel); refer to Figure 4.



- 1. Gauge bar (1/4 inch)
- 2. Adjusting bolt

Note: The verticutter blades must not touch the gauge bars.

3. Turn the adjusting bolt on each height-of-cut bracket (Figure 4) so that the reel blades come in contact with the level surface on both ends.

Note: As the verticutter blades wear, the diameter of the reel will decrease and the depth setting will change. Check the depth setting periodically to ensure that the desired setting is achieved.



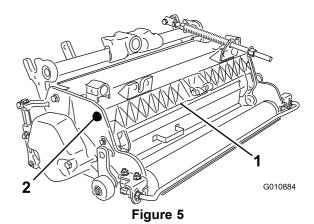
Adjusting the Rear Grass Shield

No Parts Required

Procedure

Note: When operating in turf conditions where much debris or unusually heavy thatch is encountered, open the rear discharge shield to help allow the debris to discharge from the reel.

1. Loosen the cap screws on the pivot of the grass shield (Figure 5).



- 1. Rear grass shield
- 2. Pivot cap screw
- 2. Rotate the grass shield to the desired setting, and tighten the cap screws (Figure 5).

A WARNING

Opening the rear shield too much could cause personal injury due to thrown debris.

Do not open the rear shield so that it is higher than level to the ground.

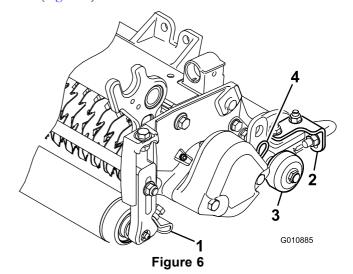


Adjusting the Roller Scrapers

No Parts Required

Procedure

1. Loosen the flange nuts that secure the roller scrapers (Figure 6).



- 1. Front roller scraper
- Transport roller
- Rear roller scraper
- 4. Cotter pin

- 2. Move the scraper rods in or out to attain 0.0 to 0.75 mm (0.0 to 0.03 inch) clearance between the scraper and the roller.
- 3. Ensure that the scraper rod is parallel to the roller and to the level surface.
- 4. Tighten the flange nuts to lock the adjustment.



Adjusting the Transport Rollers

No Parts Required

Procedure

Before you lower the verticutters to the shop floor or remove them from the traction unit, lower the transport rollers (Figure 6) to protect the blades from hard surface contact.

- 1. Remove the cotter pin that secures the transport roller bracket to the side-plate pin.
- 2. Position the transport roller as follows:
 - Lower the roller bracket before the verticutter is lowered to the shop floor.
 - Raise the roller bracket after the verticutter is raised to the operating position.
- 3. Secure the transport roller bracket to the side-plate pin with the cotter pin.
- 4. Repeat the procedure on the opposite end of the verticutter.



Mounting the Lift Brackets and Chains

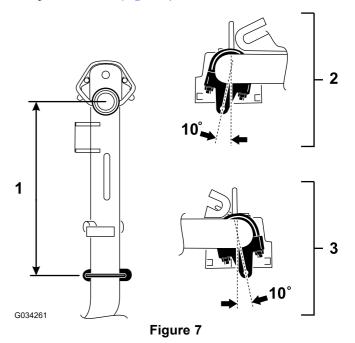
Parts needed for this procedure:

1	Lift chain
1	Chain bracket
1	U-bolt
3	Nut
1	Washer
1	Screw

Procedure

Mount a chain bracket to each lift arm with a U-bolt and 2 nuts. Position the brackets as follows:

1. On lift arms 1, 4, and 5, position the chain brackets and U-bolts 38 cm (15 inches) behind the center line of the pivot knuckle (Figure 7).

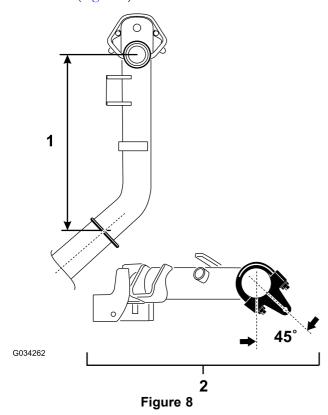


- 1. 38 cm (15 inches)
 - es) 3. Lift arms 1 and 5
- 2. Lift arm 4

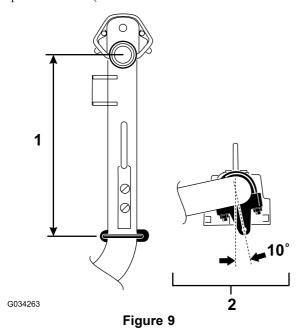
Note: On lift arms 1 and 5, the brackets should be rotated to the right 10° from vertical (Figure 7).

Note: On lift arm 4, the bracket should be rotated to the left 10° from vertical (Figure 7).

2. On lift arms 2 and 3, position the brackets and U-bolts 38 cm (15 inches) behind the center line of the pivot knuckle (Figure 8).



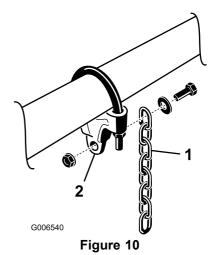
- 1. 38 cm (15 inches)
- 2. Lift arm 3
- 3. On lift arms 6 and 7, position the brackets and U-bolts 36.8 cm (14-1/2 inches) behind the center line of the pivot knuckle (



- 1. 36.8 cm (14-1/2 inches)
- 2. Lift arm 7

Note: Rotate the brackets 10° to the outboard side of the machine.

- 4. Tighten all the U-bolt nuts to 52 to 65 N·m (38 to 48 ft-lb).
- 5. Mount a lift chain to each chain bracket with a screw, a washer, and a nut, positioning them as shown in Figure 10.



- 1. Lift chain
- 2. Chain bracket



Installing the Counterweights

No Parts Required

Procedure

Important: When lowering the verticutter reels, take care to prevent damage to the reel blades due to contact with a concrete floor or a paved surface. Lower the transport rollers before lowering the verticutters to a concrete floor or a paved surface.

You can install the verticutters at any of the 7 locations on the traction unit. Figure 11 shows the orientation of the hydraulic drive motor for each of the locations. For any of the locations requiring the motor to be mounted on the right end of the verticutters, install a counterweight on the left end of the verticutters. For the locations requiring the motor to be mounted on the left end, install a counterweight on the right end of the verticutters.

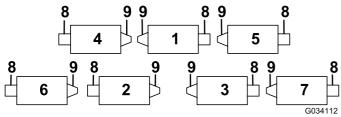


Figure 11

- 1. Cutting unit 1
- 2. Cutting unit 2
- 3. Cutting unit 3
- 4. Cutting unit 4
- 5. Cutting unit 5
- 6. Cutting unit 6
- 7. Cutting unit 7
- 8. Reel motor
- 9. Weight

Note: The counterweights are shipped installed to the left end of the verticutters. The 2 cap screws, shipped in the loose parts bag, are to be used for securing the hydraulic motor.



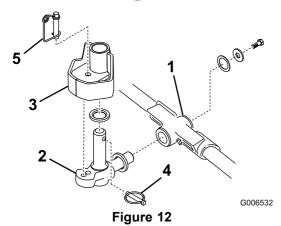
Installing the Verticutter Reels

Parts needed for this procedure:

1	Screw
1	O-ring

Procedure

1. Insert a thrust washer onto horizontal shaft of pivot knuckle as shown in Figure 12.

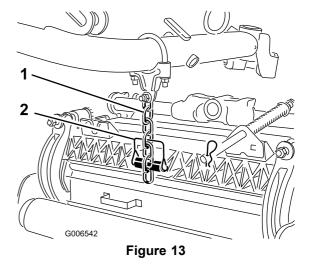


- Carrier frame
- 2. Pivot knuckle
- 4. Lynch pin
- Steering locking pin
- 3. Lift-arm steering plate
- Insert the horizontal shaft of the pivot knuckle into the mounting tube of the carrier frame (Figure 12).

- 3. Secure pivot knuckle to carrier frame with a thrust washer, a flat washer, and a flange-head cap screw (Figure 12).
- 4. Insert a thrust washer onto the vertical shaft of the pivot knuckle (Figure 12).
- 5. If removed, insert the vertical shaft of the pivot knuckle into the lift-arm pivot hub (Figure 12).

Note: Guide the pivot knuckle in place between the 2 rubber centering bumpers in the underside of the lift-arm steering plate.

- 6. Insert the lynch pin into the cross hole on the pivot-knuckle shaft (Figure 12).
- 7. Secure the lift-arm chain to the cutting unit chain bracket (Figure 13) with the snapper pin as follows:



- On cutting units 1, 4, 5, 6, and 7, use only 6 of the chain links.
- On cutting units 2 and 3, use all 7 of the chain links.
- 8. Coat the splines of the reel motor with clean grease.
- 9. Oil the reel motor O-ring and install it onto the motor flange.
- 10. Install the motor by rotating it clockwise so that the motor flanges clear the cap screws (Figure 14).

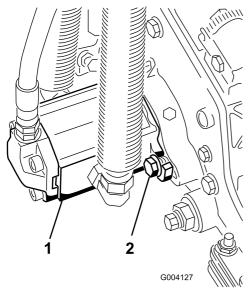


Figure 14

1. Reel drive motor

2. Cap screw

Note: Rotate the motor counterclockwise until the flanges encircle the cap screws; then, tighten the cap screws.

Important: Ensure that the reel motor hoses are not twisted, kinked or in the risk of being pinched.

Note: If a fixed cutting unit position is required, insert the steering locking pin into the pivot knuckle mounting hole.

11. Hook the spring wire around the bottom of the steering locking pin (Figure 12).

Operation

Training Period

Before operating the verticutter reels, evaluate the performance of the reel at the desired setting. Operate them in a clear, unused area to determine if they will achieve the desired results. Adjust them as desired.

Operating Tips

- Operate the traction unit at full throttle, full reel speed (setting 11) and between 5 to 8 km/h (3 to 5 mph).
- The maximum recommended blade penetration depth is 6 mm (1/4 inch).
- Power requirements to operate the verticutter reels will vary with turf and soil conditions. Travel speed may need to be reduced in some conditions.
- When operating in turf conditions with much debris or unusually heavy thatch, open the rear discharge shield to help allow the debris to discharge from the reel.

A WARNING

Opening the rear shield too much could cause personal injury due to thrown debris.

Do not open the rear shield so that it is higher than level to the ground.

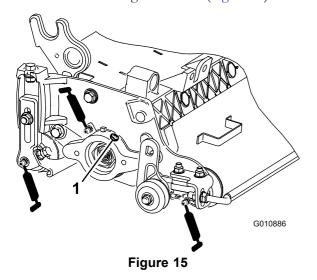
Maintenance

Lubricating the Verticutter

Each cutting unit has 7 grease fittings that you must lubricate weekly with No. 2 lithium grease. The lubrication points are the front roller (2), the rear roller (2), the reel bearings (2), and the bed-knife adjuster.

Important: Lubricating the cutting units immediately after washing helps purge water out of the bearings and increases bearing life.

- 1. Wipe each grease fitting with a clean rag.
- 2. Apply grease until clean grease comes out of the roller seals and the bearing relief valve (Figure 15).



- 1. Relief valve
- 3. Wipe any excess grease away.

Adjusting the Reel Bearings

To ensure long life of the reel bearings, periodically check for any reel end play. Check and adjust the bearings as follows:

1. Hold on to the reel shaft and try to move the reel assembly side to side (Figure 16).

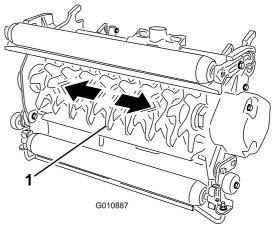


Figure 16

- 1. Reel shaft
- 2. If there is any end play, proceeded as follows:
 - A. Loosen the external set screw that secures the bearing adjusting nut to the bearing housing located on the left side of the cutting unit (Figure 17).
 - B. Use a 1-3/8 inch socket wrench to slowly tighten the bearing adjustment nut until there is no end play in the reel. If adjusting the nut does not eliminate reel end play, replace the reel bearings.

Important: The reel bearings do not require preload. Overtightening the bearing adjuster nut will damage the reel bearings.

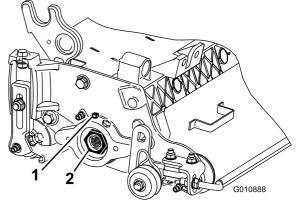


Figure 17

- 1. Setscrew
- 2. Bearing adjusting nut
- 3. Tighten the setscrew that secures the bearing adjusting nut to the bearing housing. Torque the setscrew to 136 to 169 N·cm (12 to 15 in-lb).

Replacing the Blades

Removing the Blades from the Shaft

- 1. Secure the end of the verticutter shaft that has only 1 washer and 1 nut in a vise.
- 2. On other end of the shaft, rotate the nut counterclockwise and remove the nut.

A WARNING

The blades are extremely sharp and may have burrs that will cut your hands.

Use caution when removing the blades from the shaft.

3. Remove the small spacer, the washer, the blades, and the large spacers.

Important: Do not invert the verticutter reel blades when disassembling or reverse the order when assembling them. Note the verticutter blades index hole. The index hole is provided for assembly in order to obtain the proper helix for the verticutter reel.

Installing the Blades

- 1. Clean and lubricate the square shaft with a light coating of grease.
- 2. Install a blade.
- 3. Install a spacer.

Important: Do not invert the blades when installing them on the shaft. If the blades are inverted, the blades that are in use (rounded) will be mixed with the sharp ends of the blades that were not in use. This will cause unsatisfactory performance in the verticutter reel unit. Pay close attention when removing and installing the verticutter blades.

4. Install the next blade clockwise so that the index reference hole (Figure 18) is not aligned with the first blade hole by 1 flat of the shaft.

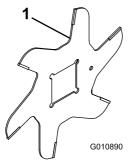


Figure 18

1. Index reference hole

5. Continue to install spacers and blades in this manner until the full complement of blades have been installed.

Note: When properly assembled, the blades are staggered in such a manner as to appear like a helix.

- 6. Install the small spacer to the shaft.
- 7. Apply blue Loctite 242 to the nut.
- 8. Install the nut onto the shaft, (machined side of the nut toward the spacer) and tighten it to 108 to 136 N·m (80 to 100 ft-lb).

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
03877	316000001 and Up	Verticutter	7" VERTICUTTER - RM6000	Verticutter	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:

David Klis

Sr. Engineering Manager 8111 Lyndale Ave. South Bloomington, MN 55420, USA

David S. Klis

January 12, 2016

EU Technical Contact:

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

Tel. +32 16 386 659

International Distributor List

Distributor:	Country:	Phone Number:	Distributor:	Country:	Phone Number:
Agrolanc Kft	Hungary	36 27 539 640	Maquiver S.A.	Colombia	57 1 236 4079
Asian American Industrial (AAI)	Hong Kong	852 2497 7804	Maruyama Mfg. Co. Inc.	Japan	81 3 3252 2285
B-Ray Corporation	Korea	82 32 551 2076	Mountfield a.s.	Czech Republic	420 255 704 220
Brisa Goods LLC	Mexico	1 210 495 2417	Mountfield a.s.	Slovakia	420 255 704 220
Casco Sales Company	Puerto Rico	787 788 8383	Munditol S.A.	Argentina	54 11 4 821 9999
Ceres S.A.	Costa Rica	506 239 1138	Norma Garden	Russia	7 495 411 61 20
CSSC Turf Equipment (pvt) Ltd.	Sri Lanka	94 11 2746100	Oslinger Turf Equipment SA	Ecuador	593 4 239 6970
Cyril Johnston & Co.	Northern Ireland	44 2890 813 121	Oy Hako Ground and Garden Ab	Finland	358 987 00733
Cyril Johnston & Co.	Republic of Ireland	44 2890 813 121	Parkland Products Ltd.	New Zealand	64 3 34 93760
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Femco S.A.	Guatemala	502 442 3277	Pratoverde SRL.	Italy	39 049 9128 128
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G.Y.K. Company Ltd.	Japan	81 726 325 861	Riversa	Spain	34 9 52 83 7500
Geomechaniki of Athens	Greece	30 10 935 0054	Lely Turfcare	Denmark	45 66 109 200
Golf international Turizm	Turkey	90 216 336 5993	Lely (U.K.) Limited	United Kingdom	44 1480 226 800
Hako Ground and Garden	Sweden	46 35 10 0000	Solvert S.A.S.	France	33 1 30 81 77 00
Hako Ground and Garden	Norway	47 22 90 7760	Spypros Stavrinides Limited	Cyprus	357 22 434131
Hayter Limited (U.K.)	United Kingdom	44 1279 723 444	Surge Systems India Limited	India	91 1 292299901
Hydroturf Int. Co Dubai	United Arab Emirates	97 14 347 9479	T-Markt Logistics Ltd.	Hungary	36 26 525 500
Hydroturf Egypt LLC	Egypt	202 519 4308	Toro Australia	Australia	61 3 9580 7355
Irrimac	Portugal	351 21 238 8260	Toro Europe NV	Belgium	32 14 562 960
Irrigation Products Int'l Pvt Ltd.	India	0091 44 2449 4387	Valtech	Morocco	212 5 3766 3636
Jean Heybroek b.v.	Netherlands	31 30 639 4611	Victus Emak	Poland	48 61 823 8369

European Privacy Notice

The Information Toro Collects

Toro Warranty Company (Toro) respects your privacy. In order to process your warranty claim and contact you in the event of a product recall, we ask you to share certain personal information with us, either directly or through your local Toro company or dealer.

The Toro warranty system is hosted on servers located within the United States where privacy law may not provide the same protection as applies in your country.

BY SHARING YOUR PERSONAL INFORMATION WITH US, YOU ARE CONSENTING TO THE PROCESSING OF YOUR PERSONAL INFORMATION AS DESCRIBED IN THIS PRIVACY NOTICE.

The Way Toro Uses Information

Toro may use your personal information to process warranty claims, to contact you in the event of a product recall and for any other purpose which we tell you about. Toro may share your information with Toro's affiliates, dealers or other business partners in connection with any of these activities. We will not sell your personal information to any other company. We reserve the right to disclose personal information in order to comply with applicable laws and with requests by the appropriate authorities, to operate our systems properly or for our own protection or that of other users.

Retention of your Personal Information

We will keep your personal information as long as we need it for the purposes for which it was originally collected or for other legitimate purposes (such as regulatory compliance), or as required by applicable law.

Toro's Commitment to Security of Your Personal Information

We take reasonable precautions in order to protect the security of your personal information. We also take steps to maintain the accuracy and current status of personal information.

Access and Correction of your Personal Information

If you would like to review or correct your personal information, please contact us by email at legal@toro.com.

Australian Consumer Law

Australian customers will find details relating to the Australian Consumer Law either inside the box or at your local Toro Dealer.

TORO_®

The Toro Warranty

A Two-Year 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.

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