

Count on it.

Operator's Manual

Debris Blower

Sand Pro®/Infield Pro® 3040 and 5040 Traction Unit

Model No. 08759—Serial No. 315000001 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.

Introduction

The debris blower is mounted to a ride-on machine which is intended to be used by professional, hired operators in commercial applications. It is primarily designed to use wind power to quickly clear large areas of unwanted debris on well-maintained lawns in parks, golf courses, sports fields, and on commercial grounds.

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.

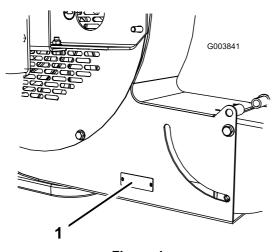


Figure 1

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.



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

Improperly using or maintaining the machine can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert symbol **A**, which means Caution, Warning, or Danger—personal safety instruction. Failure to comply with the instruction may result in personal injury or death.

Training

- Read the operator's manual and other training material carefully. Become familiar with the controls, safety signs, and the proper use of the equipment.
- If the operator(s) or mechanic(s) cannot read or understand the information, it is the owner's responsibility to explain it to them.
- Never allow children or people unfamiliar with these instructions to use or service the machine. Local regulations may restrict the age of the operator.
- Never operate while people, especially children, or pets are nearby.
- Do not carry passengers.
- All drivers and mechanics should seek and obtain professional and practical instruction. The owner is responsible for training the users. Such instruction should emphasize:
 - the need for care and concentration when working with ride-on machines;
 - control of a ride-on machine sliding on a slope will not be regained by the application of the brake. The main reasons for loss of control are:
 - ♦ insufficient wheel grip, especially on wet grass;
 - being driven too fast;
 - ♦ inadequate braking;
 - ♦ the type of machine is unsuitable for the task;
 - lack of awareness of the effect of ground conditions, especially slopes;
 - ♦ incorrect attachment and counterweight installation.
- The owner/user can prevent and is responsible for accidents or injuries occurring to people or damage to property.

Preparation

- While operating, always wear substantial, slip-resistant footwear, long trousers, hard hat, safety glasses, and ear protection. Long hair, loose clothing, or jewelry may get tangled in moving parts. Do not operate the equipment when barefoot or wearing open sandals.
- Replace faulty mufflers.

- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by the manufacturer.
- Check that operator's presence controls, safety switches and shields are attached and functioning properly. Do not operate unless they are functioning properly.

Safe Handling of Fuels

- To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.
- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only an approved fuel container.
- Never remove fuel cap or add fuel with the engine running.
- Allow engine to cool before refueling.
- Never refuel the machine indoors.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or on other appliances.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- Remove equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a fuel dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.
 Do not use a nozzle lock open device.
- If fuel is spilled on clothing, change clothing immediately.
- Never overfill fuel tank. Replace fuel cap and tighten securely.

Operation

A WARNING

Engine exhaust contains carbon monoxide, which is an odorless, deadly poison that can kill you.

Do not run engine indoors or in an enclosed area.

- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- Operate only in daylight or in good artificial light.
- Before attempting to start the engine, disengage all attachments, shift into neutral, and engage the parking brake.
- Do not put hands or feet near or under rotating parts.

- Using the machine demands attention. To prevent tipping or loss of control:
 - Watch for holes or other hidden hazards.
 - Use caution when operating the machine on a steep slope. Reduce your speed when making sharp turns or when turning on hillsides.
 - Avoid sudden stops and starts. Do not go from reverse to full forward without first coming to a complete stop.
 - Before backing up, look to the rear and ensure that no one is behind the machine.
 - Watch out for traffic when near of crossing roads.
 Always yield the right of way.
- If the optional Hitch Tow Bar, Part No. 110-1375, is installed on the machine, refer to the attachment Operator's Manual for maximum hitch load.
- Stay alert for holes in the terrain and other hidden hazards.
- Use care when pulling loads or using heavy equipment.
 - Use only approved hitch points.
 - Limit loads to those you can safely control.
 - Do not turn sharply. Use care when reversing.
- Watch out for traffic when crossing or near roadways.
- Never operate the machine with damaged guards, shields, or without safety protective devices in place. Be sure all interlocks are attached, adjusted properly, and functioning properly.
- Do not change the engine governor settings or overspeed the engine. Operating the engine at excessive speed may increase the hazard of personal injury.
- Before leaving the operator's position:
 - stop on level ground;
 - release the traction pedal and lower the attachments;
 - set the parking brake;
 - stop the engine and remove the key.
- Disengage drive to attachments when transporting or not in use.
- Stop the engine and disengage drive to attachment
 - before refuelling;
 - before checking, cleaning or working on the machine;
 - after striking a foreign object or if an abnormal vibration occurs. Inspect the machine for damage and make repairs before restarting and operating the equipment.
- Reduce the throttle setting during engine run-out and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of operation.
- Look behind and down before backing up to be sure of a clear path.
- Slow down and use caution when making turns and crossing roads and sidewalks.

- Do not operate the machine under the influence of alcohol or drugs.
- Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, do not operate the machine; seek shelter.
- Use care when loading or unloading the machine into a trailer or truck.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

Maintenance and Storage

- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- Never store the equipment with fuel in the tank inside a building where fumes may reach an open flame or spark.
- Allow the engine to cool before storing in any enclosure.
- To reduce the fire hazard, keep the engine, muffler, battery compartment and fuel storage area free of grass, leaves, or excessive grease.
- Keep all parts in good working condition and all hardware and hydraulic fittings tightened. Replace all worn or damaged parts and decals.
- If the fuel tank has to be drained, do this outdoors.
- Be careful during adjustment of the machine to prevent entrapment of the fingers between moving parts and fixed parts of the machine.
- Disengage drives, lower the attachment, set parking brake, stop engine and remove key. Wait for all movement to stop before adjusting, cleaning or repairing.
- Use jack stands to support components when required.
- Carefully release pressure from components with stored energy.
- Disconnect battery and remove spark plug wire before making any repairs. Disconnect the negative terminal first and the positive last. Reconnect positive first and negative last.
- Keep hands and feet away from moving parts. If possible, do not make adjustments with the engine running.
- Charge batteries in an open well ventilated area, away from spark and flames. Unplug charger before connecting or disconnecting from battery. Wear protective clothing and use insulated tools.
- Make sure all hydraulic line connectors are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- Keep your body and hands away from pin hole leaks or nozzles that eject hydraulic fluid under high pressure. Use paper or cardboard, not your hands, to search for leaks. Hydraulic fluid escaping under pressure can have sufficient force to penetrate the skin and cause serious injury. Seek immediate medical attention if fluid is injected into skin.

- Before disconnecting or performing any work on the hydraulic system, all pressure in the system must be relieved by stopping the engine and lowering the attachments to the ground.
- Check all fuel lines for tightness and wear on a regular basis. Tighten or repair them as needed.
- If the engine must be running to perform a maintenance adjustment, keep hands, feet, clothing, and any parts of the body away from the attachments and any moving parts, especially the screen at the side of the engine. Keep everyone away.
- To ensure safety and accuracy, have an Authorized Toro Distributor check the maximum engine speed with a tachometer.
- If major repairs are ever needed or if assistance is desired, contact an Authorized Toro Distributor. Use only Toro-approved attachments and replacement parts. The warranty may be voided if used with unapproved attachments.

Hauling

 Use care when loading or unloading the machine into a trailer or truck.

- Use full width ramps for loading machine into trailer or truck.
- Tie the machine down securely using straps, chains, cable, or ropes. Both front and rear straps should be directed down and outward from the machine

Vibration Level

Hand-Arm

Measured vibration level for right hand = 0.58 m/s^2

Measured vibration level for left hand = 0.78 m/s^2

Uncertainty Value (K) = 0.5 m/s^2

Measured values were determined according to the procedures outlined in EN ISO 5395, with the debris blower installed on a Sand Pro 3040 traction unit (Model 08703).

Whole Body

Measured vibration level = 0.69 m/s^2

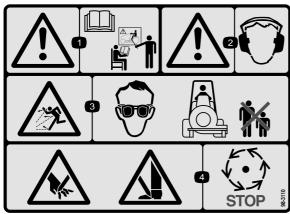
Uncertainty Value (K) = 0.5 m/s^2

Measured values were determined according to the procedures outlined in EN ISO 5395, with the debris blower installed on a Sand Pro 3040 traction unit (Model 08703).

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.



98-3110

- 1. Warning—read the Operator's Manual and receive training.
- 2. Warning—wear hearing protection.
- Thrown object hazard—wear eye protection and keep bystanders a safe distance from the machine.
- Cutting hazard of hand or foot—wait for moving parts to stop.



1. Point of rotation



 Cutting/dismemberment hazard, fan—stay away from moving parts.

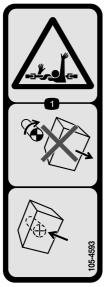


1. Grease



106-5517

1. Warning—do not touch the hot surface.



105-4593

 Entanglement hazard, shaft—do not remove cover while parts are moving, keep all guards in place.

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	Debris blower assembly	1	Mount the debris blower to the traction unit.
2	No parts required	I	Adjust the link assembly.
3	No parts required	-	Grease the blower.

Media and Additional Parts

Description	Qty.	Use
Operator's Manual	1	Review the manual before operating the machine.
Parts Catalog	1	Use the parts catalog to reference product part numbers.

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

Note: To operate the debris blower, the traction unit must be equipped with the Rear Remote Hydraulics Kit, Model 08781.



Mounting the Debris Blower to the Traction Unit

Parts needed for this procedure:

1 Debris blower assembly

Procedure

- 1. Remove any attachment from the rear of the machine.
- 2. Back the traction unit into position behind the attachment adapter.

Note: Make sure that the locking lever (Figure 3) is pivoted to the left (unlocked position) as viewed from the rear of the machine.

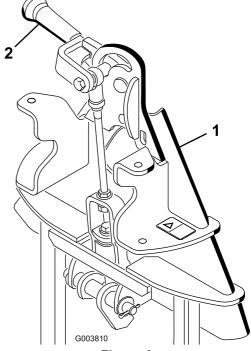


Figure 3

- 1. Attachment adapter
- 2. Locking lever
- 3. Raise the traction unit adapter into the attachment adapter.
- 4. Pivot the locking lever to the right to lock the adapters together.
- 5. Connect the attachment hydraulic hose couplers to the hydraulic couplers on the traction unit rear remote hydraulics kit.

Important: Whenever the hydraulic hose couplers are disconnected, make sure that the dust plugs are installed to prevent contamination from entering either hydraulic system.



Adjusting the Link Assembly

No Parts Required

Procedure

- 1. With the debris blower 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 4.

Note: The gap between the washer and the shoulder should be 1.5 to 2.0 mm (0.060 to 0.080 inch).

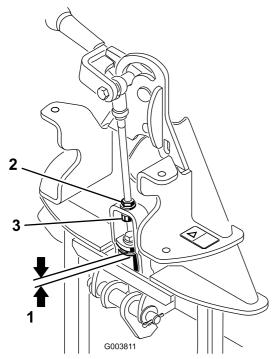


Figure 4

- 1. 1.5 to 2.0 mm (0.060 to 0.080 inch)
- 3. Adjustment nut
- 2. Jam nut

3

Greasing the Blower

No Parts Required

Procedure

Before you operate the debris blower, grease it to ensure proper lubrication. Refer to Lubricating the Debris Blower (page 11). Failure to properly grease the machine will result in premature failure of critical parts.

Product Overview

Specifications

Note: Specifications and design are subject to change without notice.

Net weight	107 kg (235 lb)
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Attachments/Accessories

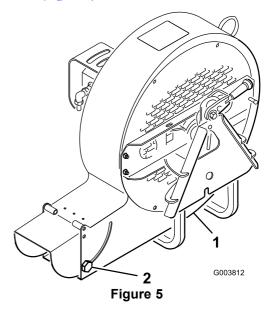
A selection of Toro approved attachments and accessories is available for use with the machine to enhance and expand its capabilities. Contact your Authorized Service Dealer or Distributor or go to www.Toro.com for a list of all approved attachments and accessories.

Operation

Adjusting the Discharge Opening

You can adjust the discharge opening (Figure 5) to increase or decrease the air output velocity and volume. Decreasing the discharge opening size increases the velocity. Increasing the discharge opening size decreases the velocity.

1. Loosen the discharge opening deflector mounting screws (Figure 5).



- Discharge opening deflector
- Mounting screw
- 2. Pivot the deflector until the opening is the desired size.
- 3. Tighten the mounting screws.

Operating Tips

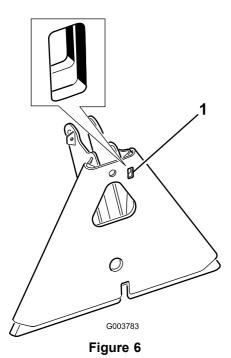
A WARNING

The discharged air has considerable force and could cause injury or loss of footing.

- Stay away from the discharge opening when the machine is operating.
- Keep bystanders away from the discharge opening when the machine is running.

Practice blowing material. It is advisable to blow the same direction the wind is blowing to prevent material from blowing back into the cleared area.

Note: If the attachment adapter becomes stuck to the traction unit adapter, insert a prybar/screwdriver into the pry slot to disengage the parts (Figure 6).

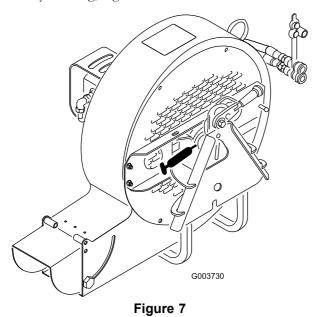


1. Pry slot

Maintenance

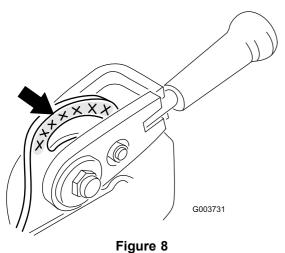
Lubricating the Debris Blower

The debris blower has (2) fan shaft bearings that must be lubricated regularly. The bearings are located on each side of the blower housing. If the machine is operated under normal conditions, lubricate bearings with #2 general-purpose, lithium-based grease after every 8 hours of operation or daily, whichever comes first. Lubricate the fittings immediately after every washing, regardless of the interval listed.



Greasing the Attachment Adapter

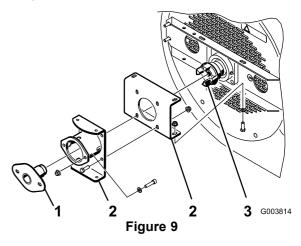
If the locking lever on the attachment adapter does not pivot freely and easily, apply a light coat of grease to the area shown in Figure 8.



Aligning the Bearings

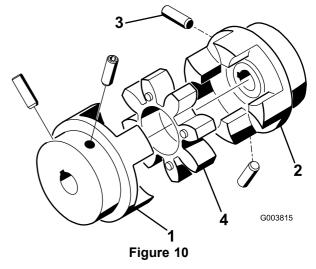
If the motor mounting brackets are ever removed, they must be realigned before the debris blower is operated. Refer to the Parts Catalog for the Alignment Tool part number.

1. Make sure that the mounting brackets are installed to the blower housing but the bolts and nuts are loose (Figure 9).



- Alignment tool
- 2. Mounting bracket
- Fan coupler
- 2. Insert the bearing alignment tool through the mounting brackets and into the fan coupler (Figure 9).

Note: Make sure that the coupler spider (Figure 10) is not in the coupler.

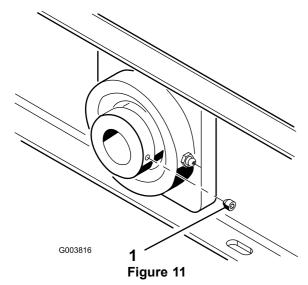


- Motor coupler
- 3. Setscrew (2 each)
- 2. Fan coupler
- 4. Coupler spider
- 3. Tighten the bolts and nuts securing the mounting brackets together and to the blower housing.
- 4. Remove the alignment tool and finish the assembly.

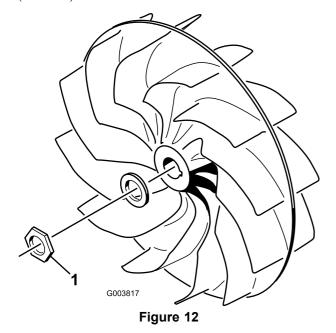
Torquing the Fasteners

If the blower is ever disassembled, the following fasteners must be torqued as specified. Also, apply removable thread-locking compound to the threads before installing the fasteners.

- Torque the setscrews securing the motor and fan shaft couplers (Figure 10) to 6.6 to 9.3 N-m (58 to 82 in-lb).
- Torque the fan shaft bearing setscrews (Figure 11) to 6.6 to 9.3 N-m (58 to 82 in-lb).



- 1. Set screw
- Torque the fan mounting nut (Figure 12) to 678 N-m (500 ft-lb).



1. Fan mounting nut

Notes:

Notes:

Declaration of Incorporation

Model No.	Serial No.	Product Description	Invoice Description	General Description	Directive
08759	315000001 and Up	Debris Blower	DEBRIS BLOWER	Scarifier	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:

EU Technical Contact:

Peter Tetteroo Toro Europe NV B-2260 Oevel-Westerloo Belgium

Tel. 0032 14 562960 Fax 0032 14 581911

David Klis Sr. Engineering Manager 8111 Lyndale Ave. South Bloomington, MN 55420, USA November 10, 2014

David S. Klis

TORO_®

Toro General Commercial Product 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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