Form No. 3412-312 Rev A

TORO®

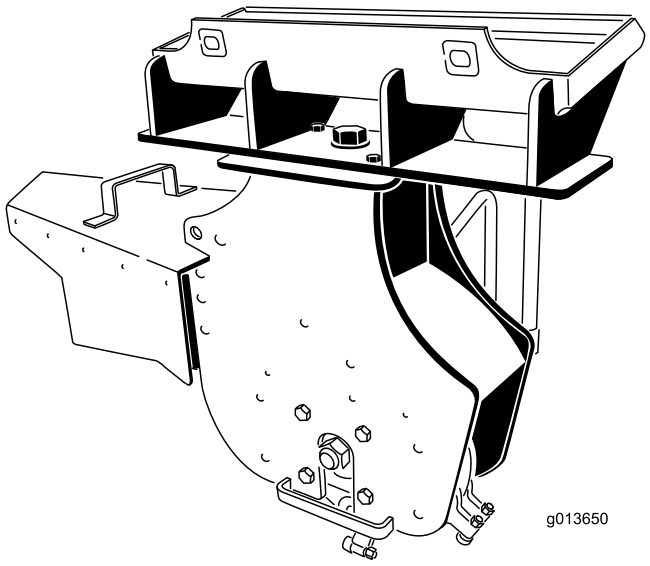
Count on it.

Operator's Manual

Stump Grinder

Compact Tool Carrier

Model No. 22429—Serial No. 400000000 and Up



Register at www.Toro.com.
Original Instructions (EN)

CE

3412-312 A

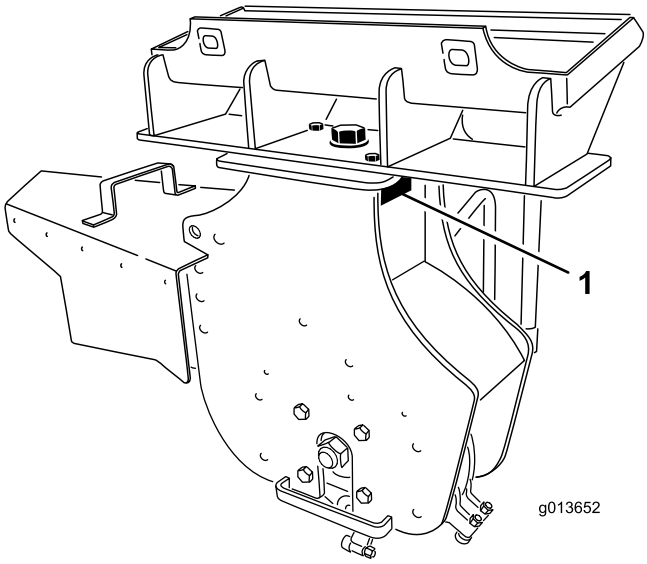
This product complies with all relevant European directives. For details, please see the Declaration of Incorporation (DOI) at the back of this publication.

⚠ 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.

Use of this product may cause exposure to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.



g013652

Figure 1

1. Model and serial number location

Introduction

This machine is designed for use on Toro compact tool carriers to grind and remove tree stumps and surface roots. It is not intended to cut rock or any other material other than wood and the soil around a stump.

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. Figure 1 identifies the location of the model and serial numbers on the product. 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 2), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



g000502

Figure 2

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.

© 2017—The Toro® Company
8111 Lyndale Avenue South
Bloomington, MN 55420

Contact us at www.Toro.com.
Printed in the USA
All Rights Reserved

Contents

Safety 3
Stability Ratings..... 5
Safety and Instructional Decals 5
Setup 6
1 Installing the Shield Brackets 6
2 Assembling the Operator Shield..... 9
3 Installing the Chip Guard.....10
Product Overview 10
Specifications 10
Attachments/Accessories.....10
Operation 11
Grinding Stumps.....11
Grinding Roots 12
Transporting the Stump Grinder on a Trailer 12
Operating Tips 12
Maintenance 13
Recommended Maintenance Schedule(s) 13
Greasing the Machine 13
Replacing the Teeth 14
Storage 14
Troubleshooting 15

Safety

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and those in the traction unit *Operator's Manual*. Always pay attention to the safety alert symbol, which means *Caution*, *Warning*, or *Danger*—personal safety instruction. Failure to comply with the instruction may result in personal injury or death.

⚠ DANGER

There may be buried power, gas, and/or telephone lines in the work area. Shock or explosion may occur if you dig into them.

Have the property or work area marked for buried lines and do not dig in marked areas. Contact your local marking service or utility company to have the property marked (for example, in the United States, call 811 for the nationwide marking service).

⚠ DANGER

The stump grinder is solely designed and tested for grinding stumps less than 91 cm (36 inch) tall. Any other uses may cause a hazardous situation resulting in injury or death to you or bystanders.

Only use the stump grinder for grinding stumps less than 91 cm (36 inch) tall.

⚠ WARNING

When the engine is off, attachments in the raised position can gradually lower. Someone nearby may be pinned or injured by the attachment as it lowers.

Always lower the attachment lift each time you shut off the traction unit.

⚠ WARNING

During operation, debris will fly in all directions and can cause injury to eyes and other exposed body parts.

- **Never operate the stump grinder without the shield installed on the traction unit and the chip guard on the grinder.**
- **Wear personal protective gear during operation.**
- **Keep all bystanders at least 9 m (30 ft) away from the work area.**

⚠ WARNING

When going up or down hill, the machine could overturn if the heavy end is toward the downhill side. Someone may be pinned or seriously injured by the machine if it overturns.

Operate up and down slopes with the heavy end of the machine uphill. This attachment makes the front end heavy.

⚠ WARNING

If you do not fully seat the attachment locking pins in the attachment mount plate holes, the attachment could fall off the traction unit and severely injure you or bystanders.

- **Ensure that you fully seat the attachment locking pins through the holes in the attachment mount plate before lifting the attachment.**
- **Ensure that the attachment mount plate is free of any dirt or debris that may hinder the connection of the traction unit to the attachment.**
- **Refer to your traction unit *Operator's Manual* for detailed information on safely connecting an attachment to your traction unit.**

⚠ WARNING

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.

⚠ CAUTION

Hydraulic fluid escaping under pressure can penetrate skin and cause injury. Fluid injected into the skin must be surgically removed within a few hours by a doctor familiar with this form of injury; otherwise, gangrene may result.

- **Keep your body and hands away from pinhole leaks or nozzles that eject high-pressure hydraulic fluid.**
- **Use cardboard or paper to find hydraulic leaks, never use your hands.**

⚠ CAUTION

Hydraulic couplers, hydraulic lines/valves, and hydraulic fluid may be hot and can burn you if you touch them.

- **Wear gloves when operating the hydraulic couplers.**
- **Allow the traction unit to cool before touching hydraulic components.**
- **Do not touch hydraulic fluid spills.**

Stability Ratings

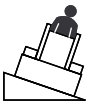
To determine the degree of slope you can traverse with the stump grinder installed on a traction unit, find the stability rating for the hill position you want to travel in the appropriate table below, then find the degree of slope for the same rating and hill position in the Stability Data section of the traction unit *Operator's Manual*.

⚠ WARNING

Exceeding the maximum recommended slope can cause the traction unit to tip, crushing you or bystanders.

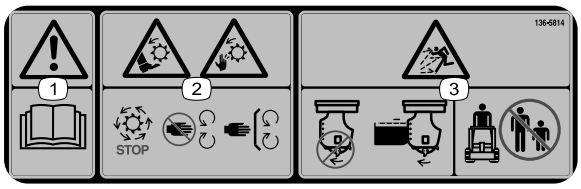
Do not drive the traction unit on a slope steeper than the maximum recommended slope, as determined in the following tables and the traction unit *Operator's Manual*.

Important: If you have a traction unit other than a TX compact utility loader, do not use the counterweight on the traction unit when using the stump grinder. If you use the counterweight, the traction unit will be less stable in the front and side uphill positions.

Orientation	Stability Rating
Front Uphill 	**D**
Rear Uphill 	**C**
Side Uphill 	**C**

Safety and Instructional Decals

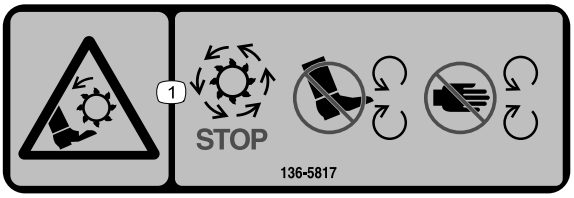
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



decal136-5814

136-5814

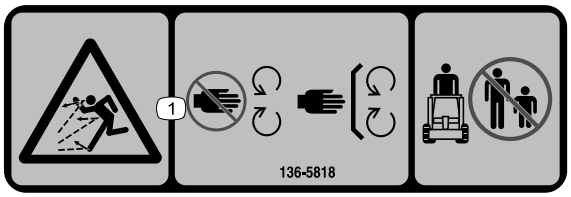
1. Warning—read the *Operator's Manual*.
2. Cutting/dismemberment hazard of hands and feet, rotating knives/blades—wait for all moving parts to stop; keep all guards and shields in place.
3. Thrown object hazard—keep all guards and shields in place; keep bystanders away from the machine.



decal136-5817

136-5817

1. Cutting/dismemberment hazard of foot, rotating knives/blades—wait for all moving parts to stop; keep hands and feet away from moving parts.



decal136-5818

136-5818

1. Thrown object hazard—keep all guards and shields in place; keep bystanders away from the machine.

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	Right shield bracket (3 holes)—200/300 Series or TX 400/500 Series only	1	Install the shield brackets.
	Left shield bracket (3 holes)—200/300 Series or TX 400/500 Series only	1	
	Self-tapping screw (5/16 x 3/4 inch)	4	
	Right shield bracket (2 holes)—TX 1000 only	1	
	Left shield bracket (2 holes)—TX 1000 only	1	
	Bolt (1/4 x 3/4 inch)—TX 1000 only	4	
	Locknut (1/4 inch)—TX 1000 only	4	
2	Shield support (1 bend)—200/300 Series or TX 400/500 Series	2	Assemble the operator shield.
	Shield support (2 bends)—TX 1000 only	2	
	Shield	1	
	Bolt (1/4 x 1-1/2 inch)	8	
	Washer	8	
	Locknut (1/4 inch)	8	
3	Chip guard	1	Install the chip guard.
	Guard pin	1	
	Hairpin cotter	1	

1

Installing the Shield Brackets

Parts needed for this procedure:

1	Right shield bracket (3 holes)—200/300 Series or TX 400/500 Series only
1	Left shield bracket (3 holes)—200/300 Series or TX 400/500 Series only
4	Self-tapping screw (5/16 x 3/4 inch)
1	Right shield bracket (2 holes)—TX 1000 only
1	Left shield bracket (2 holes)—TX 1000 only
4	Bolt (1/4 x 3/4 inch)—TX 1000 only
4	Locknut (1/4 inch)—TX 1000 only

200 or 300 Series Traction Unit Only

Important: Use the shield brackets with 3 holes.

1. Insert the tab on the shield bracket into the lift-point hole on the traction unit, with the hole in the bracket aligning with the small hole in the traction unit frame (Figure 3).

Note: There is a right and left bracket. Ensure that you install the correct bracket on each side. The tab should be in the lift-point hole and the bracket should be on the outside of the frame (Figure 3).

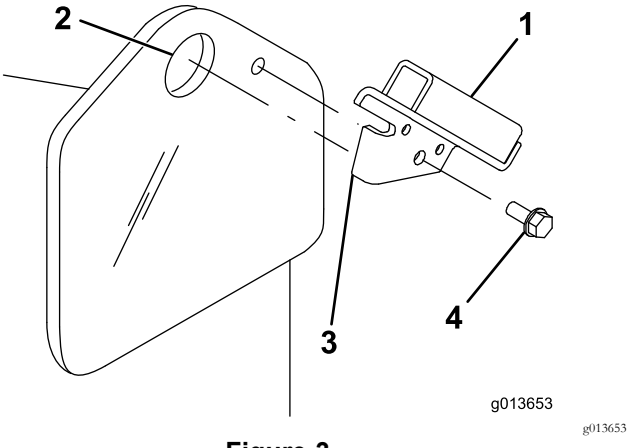


Figure 3

1. Shield bracket
2. Lift-point hole
3. Tab
4. Self-tapping screw

2. Secure the bracket to the frame with a self-tapping screw (Figure 3).
3. Repeat steps 1 and 2 for the other side of the traction unit.

TX 400 or 500 Series Traction Unit Only

Important: Use the shield brackets with 3 holes.

1. Measure in from the edges of the frame as illustrated in Figure 4 and mark the locations of the holes for mounting the shield bracket.

   Note: If the holes exist, skip to step 3.

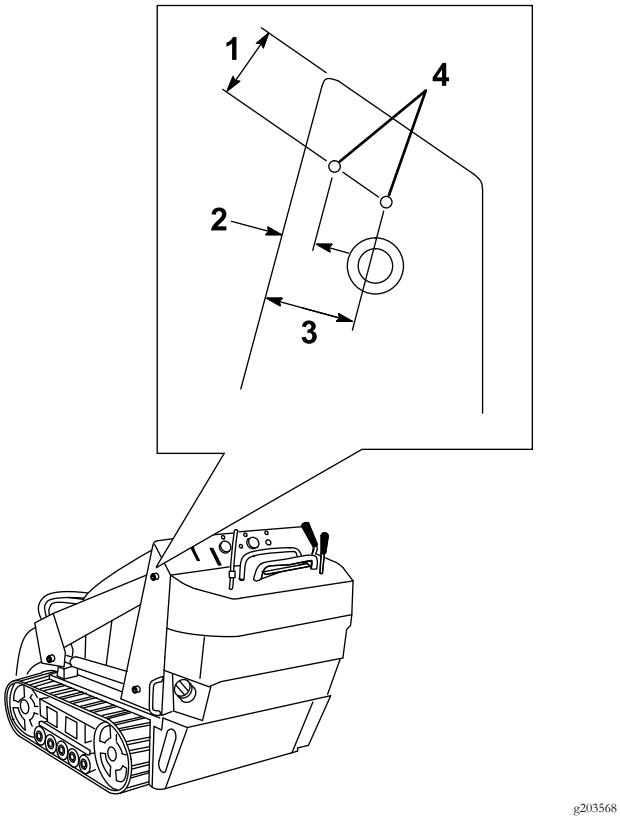
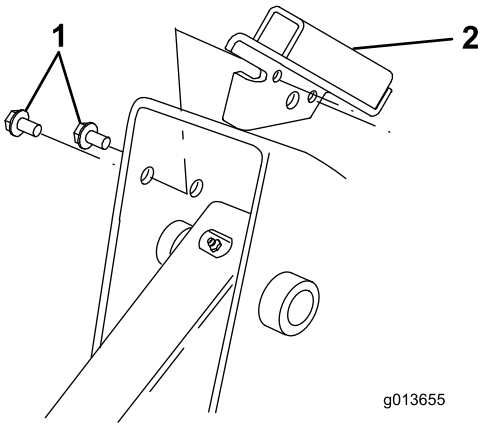


Figure 4

1. 4.6 cm (1.8 inch)
2. 1.4 cm (0.6 inch)
3. 4.6 cm (1.8 inch)
4. Mounting holes

2. Drill a hole (5/16 inch diameter) through the frame at each marked location.
3. Align the tab on the shield bracket with the front edge of the frame with the bracket inside of the loader-arm pocket (Figure 5).

   Note: There is a right and left bracket. Ensure that you install the correct bracket on each side. The tab should be over the frame edge and the bracket should be inside the loader-arm pocket with the 2 smaller holes in the bracket lined up with the holes you drilled in the frame (Figure 5).



g013655

Figure 5

1. Self-tapping screw
2. Shield bracket

4. Secure the bracket to the frame with 2 self-tapping screws as illustrated in Figure 5.
5. Repeat steps 1 through 4 for the other side of the traction unit.

TX 1000 Traction Unit Only

Important: **Use the shield brackets with 2 holes.**

1. Measure in from the edges of the frame as illustrated in Figure 6 and mark the locations of the holes for mounting the shield bracket.

   Note: If the holes exist, skip to step 3.

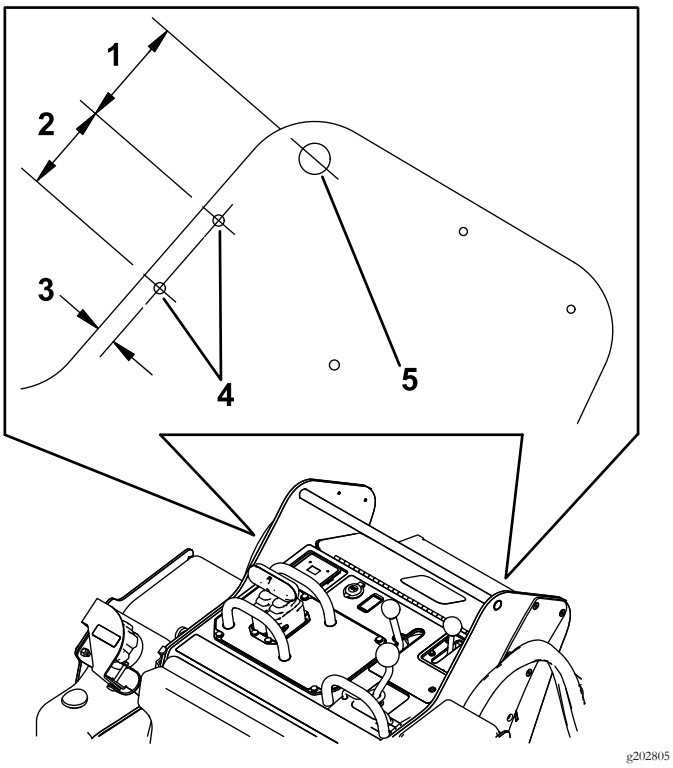


Figure 6

1. 7.0 cm (2-3/4 inch)
2. 5.7 cm (2-1/4 inch)
3. 1.3 cm (1/2 inch)
4. Hole
5. Reference bar

2. Drill a hole (9/32 inch diameter) through the frame at each marked location.
3. Install the left shield bracket on the left frame using 2 bolts (1/4 x 3/4 inch) and 2 Locknuts (1/4 inch) as shown in Figure 7.

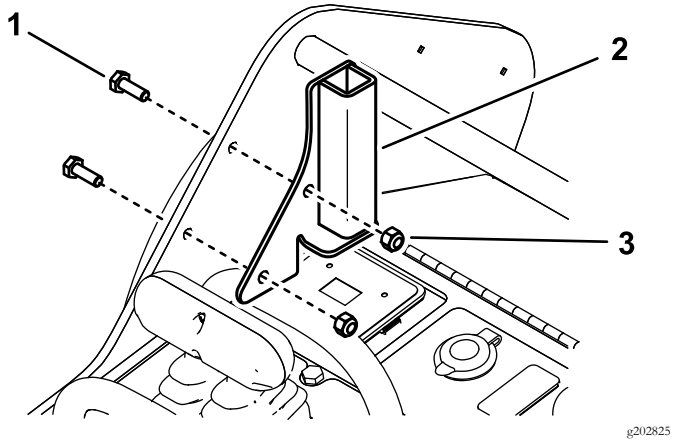


Figure 7

1. Bolts (1/4 x 3/4 inch)
2. Left shield bracket
3. Locknut (1/4 inch)

4. Install the right shield bracket on the right frame 2 bolts (1/4 x 3/4 inch) and 2 locknuts (1/4 inch), similar to Figure 7.

2

Assembling the Operator Shield

Parts needed for this procedure:

2	Shield support (1 bend)—200/300 Series or TX 400/500 Series
2	Shield support (2 bends)—TX 1000 only
1	Shield
8	Bolt (1/4 x 1-1/2 inch)
8	Washer
8	Locknut (1/4 inch)

Assembling the Shield

Note: Use the shield supports with 1 bend for 200/300 series or TX 400/500 series traction units. Use the shield supports with 2 bends for TX 1000 traction units.

1. Slide the shield supports into the pockets in the shield brackets on the traction unit (Figure 8).

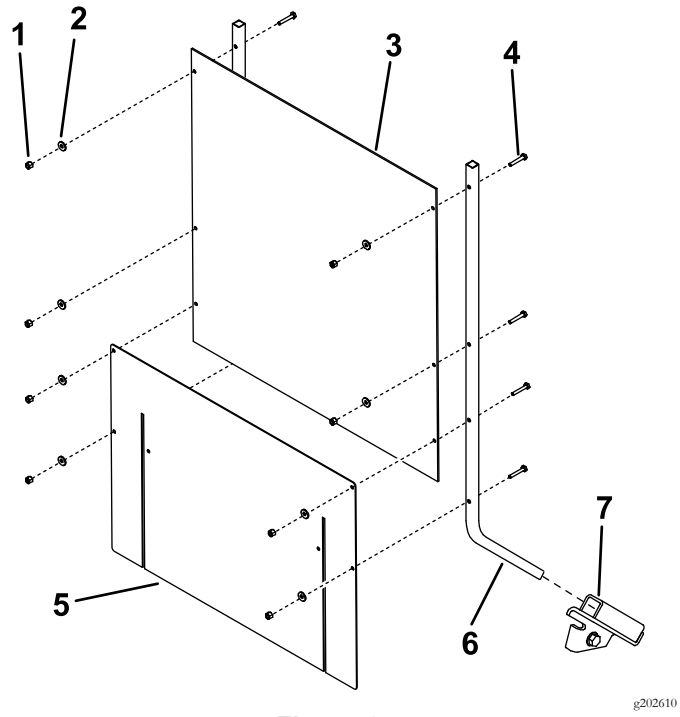


Figure 8

200/300 Series or TX 400/500 Series Traction Units

1. Locknut (8)
2. Washer (8)
3. Shield
4. Bolt (8)
5. Skirt
6. Shield support (2)
7. Shield bracket (2)

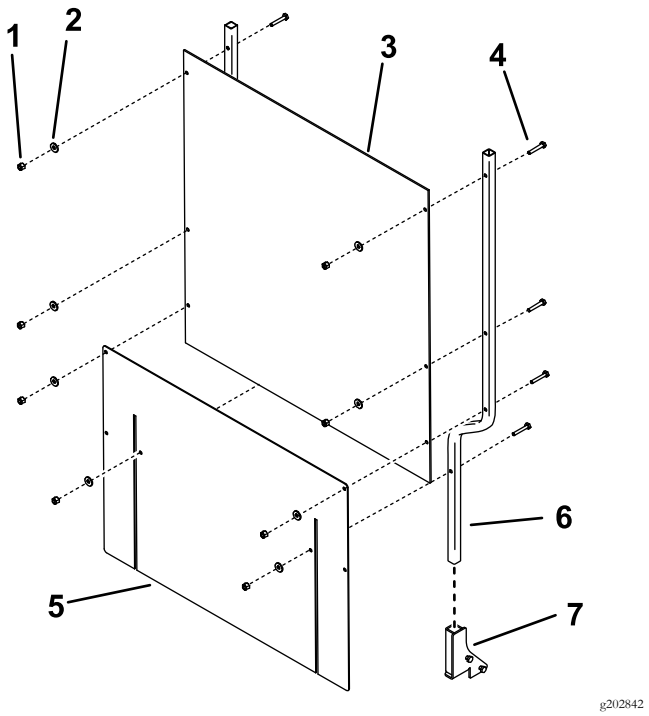


Figure 9

TX 1000 Traction Units Only

1. Locknut (8)
2. Washer (8)
3. Shield
4. Bolt (8)
5. Skirt
6. Shield support (2)
7. Shield bracket (2)

2. Assemble the shield and flexible skirt to the shield supports as illustrated in Figure 8, using 8 bolts (1/4 x 1-1/2 inch), 8 washers, and 8 locknuts (1/4 inch).

   Note: The skirt should drape over the engine or hood.

3

Installing the Chip Guard

Parts needed for this procedure:

1	Chip guard
1	Guard pin
1	Hairpin cotter

Procedure

The stump grinder has 4 sets of mounting holes for positioning the chip guard (Figure 10). Move the guard up (upper holes) when you are grinding close to the ground and down (lower holes) when you are chipping tall stumps. Install the chip guard as follows:

1. Position the mounting tube on the guard between 2 holes on the grinder (Figure 10).

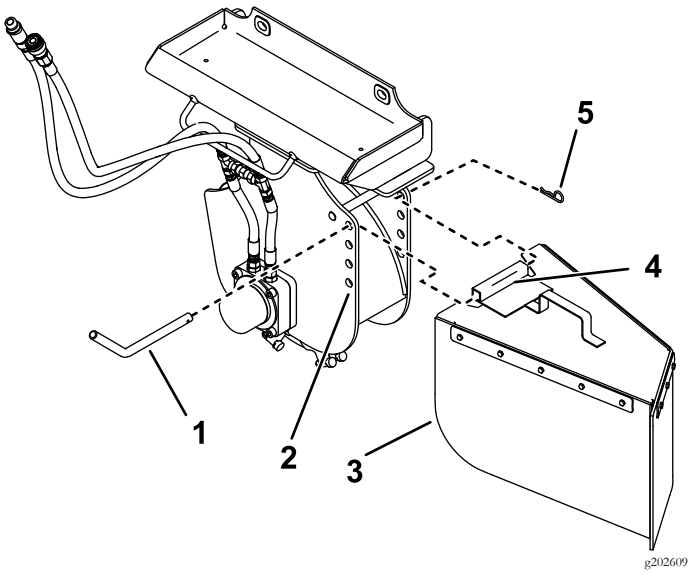


Figure 10

1. Guard pin
2. Mounting holes
3. Chip guard
4. Mounting tube
5. Hairpin cotter

2. Slide the guard pin through the holes in the grinder and the mounting tube (Figure 10).
3. Secure the pin with a hairpin cotter (Figure 10).

Product Overview

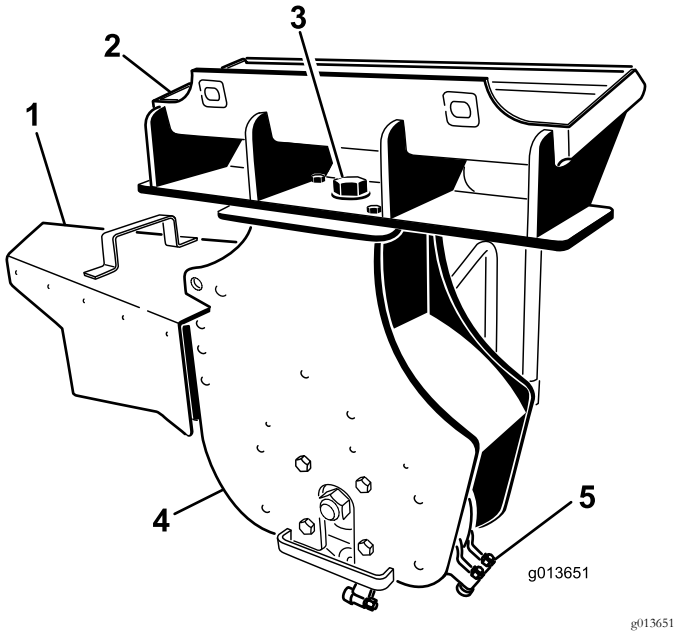


Figure 11

1. Chip guard
2. Mounting plate
3. Pivot bolt
4. Stump grinding head
5. Teeth

Specifications

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

Width, with chip guard	112 cm (44 inches)
Width, without chip guard	66 cm (26 inches)
Length	51 cm (20 inches)
Height	79 cm (31 inches)
Weight	120 Kg (265 lb)

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

⚠ WARNING

During operation, debris will fly in all directions and can cause injury to eyes and other exposed body parts.

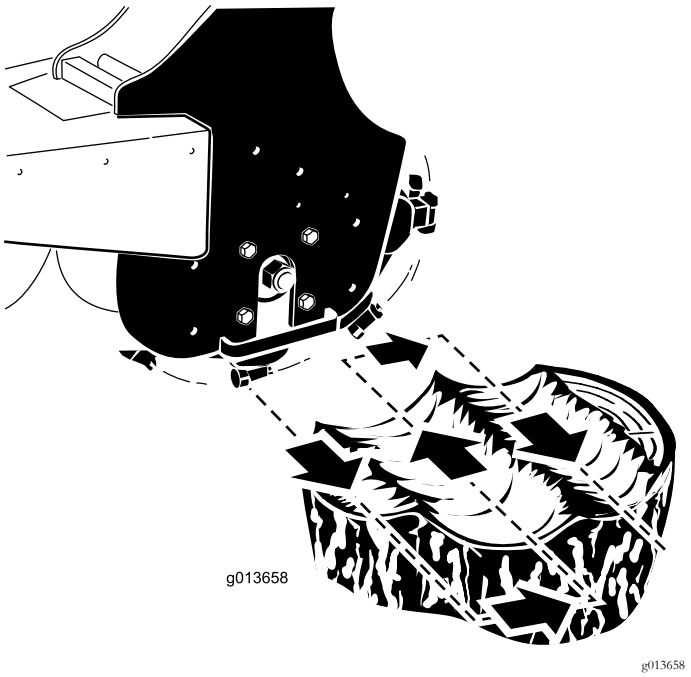
- **Never operate the stump grinder without the shield installed on the traction unit and the chip guard on the grinder.**
- **Wear personal protective gear during operation.**
- **Keep all bystanders at least 9 m (30 feet) away from the work area.**

Refer to your traction unit *Operator's Manual* for more information on installing and removing attachments on your traction unit.

Important: Always use the traction unit to lift and move the attachment.

Grinding Stumps

1. If your traction unit has a speed selector, set it to the SLOW position.
2. Start the engine.
3. Pull the auxiliary hydraulics lever to the operator grip to engage the stump grinder.
4. Position the grinder on the left side and behind the stump (Figure 12).



g013658

Figure 12

5. Swing the grinder toward you using the attachment-tilt lever, grinding at a depth of 0.5 to 5 cm (1/4 to 2 inches), depending on the hardness of the wood (Figure 12).

   Note: If you cut too deep, the grinder stalls. If it stalls, raise it slightly and try again.

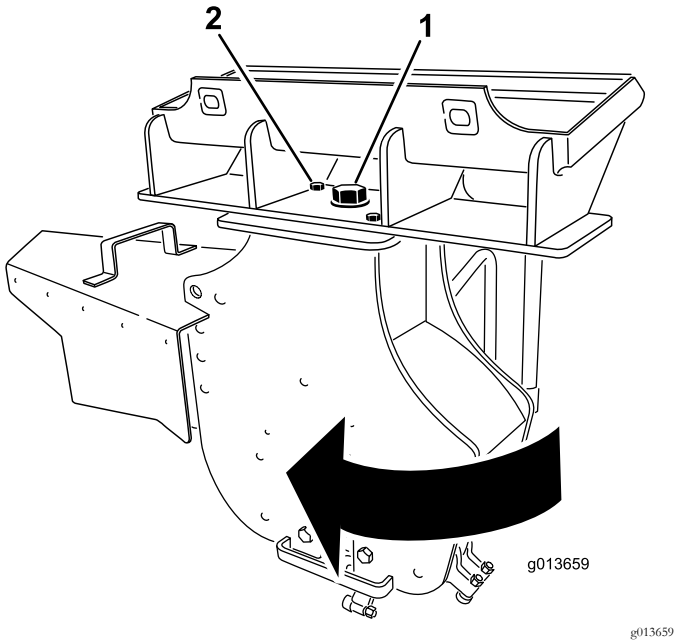
6. Swing the grinder back out (Figure 12), lower it 0.5 to 5 cm (1/4 to 2 inches), and repeat steps 4 through 6 until you have ground down a few inches.
7. Raise the loader arms to the original height.
8. Move the grinder to the right (Figure 12).
9. Repeat steps 4 through 8 until you reach the right side of the stump.
10. Return the grinder to the left side of the stump, lower it, and repeat steps 3 through 10 until you have ground the stump into the ground.

    Note: To contain the chips, you may need to stop the grinder and move the chip guard up as you move the grinder down.

11. When finished, stop the grinder by moving the auxiliary hydraulics lever into neutral.

Grinding Roots

1. Stop the grinder and hang it vertically from the loader arms a few centimeters (inches) off the ground.
2. Shut off the engine and remove the key.
3. Loosen the large bolt on the top of the grinder (Figure 13).



g013659

Figure 13

1. Large bolt—loosen
2. Front bolt—remove

4. Remove the front bolt and nut securing the grinder (Figure 13).
5. Swing the grinder 30 degrees clockwise (Figure 13).
6. Torque the large bolt on top of the grinder to 406 N·m (300 ft-lb) as shown in Figure 13.
7. Install the bolt and nut in the front hole and torque them to 101 N·m (75 ft-lb) as shown in Figure 13.
8. Start the traction unit and start the grinder.
9. Lower the grinder into the root.
10. Move the grinder along the length of the root by moving the traction unit over the root.
11. When finished, stop the grinder by moving the auxiliary hydraulics lever into neutral.
12. Shut off the engine and remove the key.
13. Loosen the large bolt on the top of the grinder (Figure 13).
14. Remove the front bolt and nut securing the grinder (Figure 13).
15. Swing the grinder 30 degrees counter-clockwise (Figure 13).
16. Torque the large bolt on top of the grinder to 406 N·m (300 ft-lb) as shown in Figure 13.
17. Install the bolt and nut in the front hole and torque them to 101 N·m (75 ft-lb) as shown in Figure 13.

Transporting the Stump Grinder on a Trailer

Place the attachment on a trailer or truck capable of carrying it. Securely tie it to the trailer or truck using tie straps appropriate for the weight of the attachment and for highway use.

Important: Remove the operator's shield before transporting the traction unit to avoid damage to the shield of the traction unit.

Operating Tips

- Always use full throttle (maximum engine speed).
- Never transport the attachment with the loader arms raised. Keep the arms lowered and the attachment tilted up.
- If your traction unit has a speed selector (present on some wheeled traction units), set it to the slow (turtle position).
- If your traction unit has a flow divider (present on some wheeled traction units), adjust it to approximately the 10 o'clock position.

Maintenance

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
Before each use or daily	• Grease the machine. • Check the condition of the teeth and rotate or replace any that are worn or damaged.
Before storage	• Grease the machine. • Paint chipped surfaces.

⚠ CAUTION

If you leave the key in the ignition switch, someone could start the engine. Accidental starting of the engine could seriously injure you or bystanders.

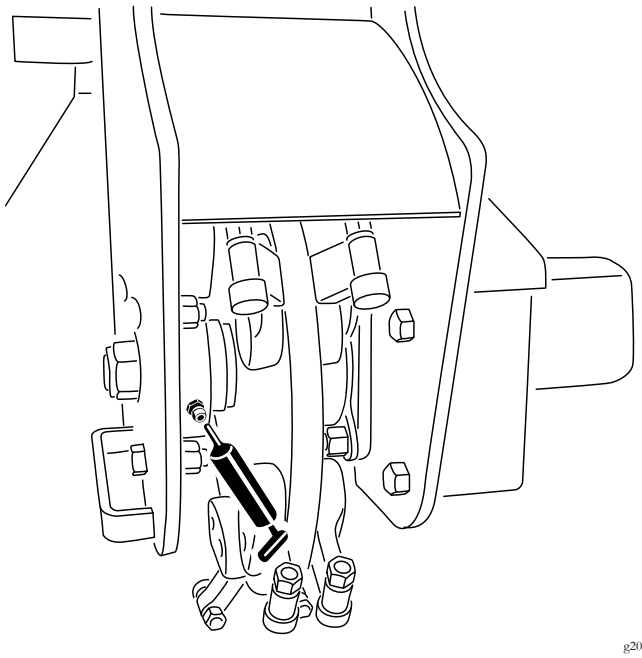
Remove the key from the ignition switch before you do any maintenance.

Greasing the Machine

Service Interval: Before each use or daily

Before storage

Grease the fitting in Figure 14.



g203602

Figure 14

Grease Type: General-purpose grease

1. Park the traction unit on a level surface, engage the parking brake (if equipped) and lower the loader arms.
2. Shut off the engine and remove the key.
3. Clean the grease fitting with a rag.
4. Connect a grease gun to the fitting.
5. Pump grease into the fitting until grease begins to ooze out of the bearings.
6. Wipe up any excess grease.

Replacing the Teeth

Service Interval: Before each use or daily—Check the condition of the teeth and rotate or replace any that are worn or damaged.

Due to the high amount of wear placed on the teeth, you will need to rotate and replace them periodically.

Each tooth is indexed with three positions so you can rotate it twice, exposing a new sharp edge before replacing the tooth. To rotate a tooth, loosen the nut securing the tooth (Figure 15). Push the tooth forward and rotate it one third of a turn, bringing an unused edge to the outside. Torque the nut securing the tooth to 37 to 45 N·m (27 to 33 ft-lb).

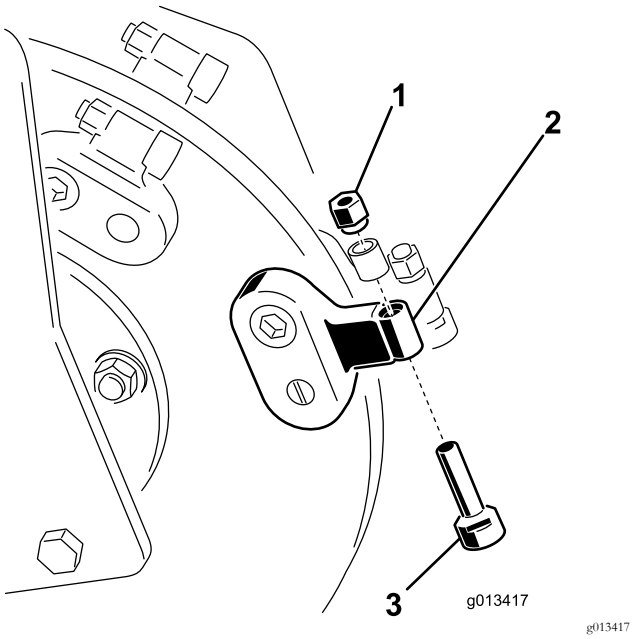


Figure 15

(Your grinder's appearance may vary from that shown in the illustration)

1. Nut
2. Tooth holder
3. Tooth

To replace a tooth, remove the nut securing the tooth to remove it, then install a new tooth and nut in the same position (Figure 15). Torque the nut securing the tooth to 37 to 45 N·m (27 to 33 ft-lb).

Storage

1. Before long term storage, brush the dirt from the attachment.
2. Check the condition of the teeth. Turn or replace any worn or damaged teeth.
3. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged or worn.
4. Ensure that all hydraulic couplers are connected together to prevent contamination of the hydraulic system.
5. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Service Dealer.
6. Store the attachment in a clean, dry garage or storage area. Cover it to protect it and keep it clean.

Troubleshooting

Problem	Possible Cause	Corrective Action
Cutting disk stops during cutting.	1. You are cutting too deep. 2. Teeth are worn, damaged, or broken.	1. Raise the loader arms 13 mm (1/2 inch). 2. Rotate or replace any worn, damaged, or broken teeth.
The cutting disk does not turn or turns slowly.	1. A hydraulic coupler is not completely connected. 2. A hydraulic coupler is damaged. 3. There is an obstruction in a hydraulic hose. 4. An auxiliary valve on the traction unit is not opening. 5. The hydraulic motor or drive has failed. 6. The check valve brake is reversed.	1. Check and tighten all couplers. 2. Check/replace couplers. 3. Find and remove the obstruction. 4. Repair the valve. 5. Contact your Authorized Service Dealer. 6. Reverse the check valve direction; contact your Authorized Service Dealer.
The grinder does not cut fast enough.	1. Teeth are worn. 2. The setting is wrong on the flow divider and speed lever (applicable wheeled units only). 3. There is a restriction in a quick coupler or hose. 4. The hydraulic system is too hot. 5. The relief valve is set below specifications.	1. Rotate or replace any worn teeth. 2. Set the flow divider to the 10:00 position and the speed lever to the turtle position. 3. Check the hoses and couplers and repair any problems found. 4. Shut the system down and allow it to cool. 5. Contact your Authorized Service Dealer.
The cutting disk turns in the wrong direction	1. The auxiliary-valve lever is in the wrong position. 2. The hydraulic hoses are reversed.	1. Move the auxiliary-valve lever to the rearward position. 2. Disconnect the hoses and switch positions.

Notes:

Notes:

Declaration of Incorporation

The Toro Company, 8111 Lyndale Avenue 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
22429	400000000 and Up	Stump Grinder	STUMP GRINDER ATTACHMENT CE	Stump Grinder	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:



Joe Hager
Sr. Engineering Manager
8111 Lyndale Ave. South
Bloomington, MN 55420, USA
January 13, 2017

EU Technical Contact:

Marcel Dutrieux
Manager European Product Integrity
Toro Europe NV
Nijverheidsstraat 5

2260 Oevel
Belgium

Tel. +32 16 386 659

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.

The Toro Warranty

A Limited Warranty

Underground Equipment

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Underground Equipment ("Product") to be free from defects in materials or workmanship. Where a warrantable condition exists, we will repair the Product at no cost to you including diagnostics, labor, and parts.
The following warranty applies from the date the Product is delivered to the original retail purchaser or rental owner.

Products	Warranty Period
Engine Powered Units & Fluid Mixers	1 year or 1000 operating hours, whichever occurs first
All Serialized Attachments	1 year
Rock Hammer	6 months
Engines	Through engine manufacturers: 2 years or 2000 operating hours, whichever occurs first

Instructions for Obtaining Warranty Service

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

Toro Customer Care
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196
Toll Free at 855-493-0088 (U.S. Customers)
1-952-948-4318 (International Customers)

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, filters, lights, bulbs, belts, tracks or tires, digging teeth, digging booms, digging, drive, or track chains, track pads, drive sprockets, idlers, rollers, blades, cutting edges, or other ground engaging components.
- 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, 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, etc.
- Hauling expenses, travel time, mileage, or overtime associated with transporting product to the authorized Toro dealer.

Parts

Parts scheduled for replacement as required maintenance in the *Operator's Manual,* 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.

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 Underground 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 Underground Dealer's service or have difficulty obtaining guarantee information, contact the Toro importer.

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