

Count on it.

Operator's Manual

Pro Force Debris Blower

Groundsmaster® 360 Traction Units Model No. 44547—Serial No. 313000001 and Up

This product complies with all relevant European directives, for details please see the separate product specific Declaration of Conformity (DOC) sheet.

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.

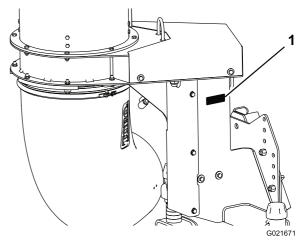


Figure 1

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

A CAUTION

If a user makes changes or modifications not expressly approved by the party responsible for compliance, they could void the user's authority to operate the equipment.

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Safety

Hazard control and accident prevention are dependent upon the awareness, concern, and proper training of the personnel involved in the operation, transport, maintenance, and storage of the machine. Improper use or maintenance of the machine can result in injury or death. To reduce the potential for injury or death, comply with the following safety instructions.

Safe Operating Practices

Training

- Read the Operator's Manual and other training material. If the operator(s) or mechanic(s) can not read English it is the owner's responsibility to explain this material to them.
- Become familiar with the safe operation of the equipment, operator controls, and safety signs.
- All operators and mechanics should be trained. The owner is responsible for training the users.
- Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator.
- The owner/user can prevent and is responsible for accidents or injuries occurring to himself or herself, other people or property.

Preparation

- 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.
- Wear appropriate clothing including hard hat, safety glasses and hearing protection. Long hair, loose clothing or jewelry may get tangled in moving parts.
- Inspect the area where the equipment is to be used and remove all objects such as rocks, toys and wire which can be thrown by the machine.
- Keep all bystanders away from the operating area.
- Keep all shields and safety devices in place. If a shield, safety device, or decal is illegible or damaged, repair or replace it before operation is commenced. Also tighten any loose nuts, bolts, and screws to ensure that the machine is in safe operating condition.
- Check that safety switches and shields are attached and functioning properly. Do not operate unless they are functioning properly.

Operation

- Never operate the debris blower when it is not connected to a tow vehicle.
- Be alert, slow down and use caution when making turns.
 Look behind and to the side before changing directions.

- Be aware of the blower nozzle direction and do not point it at anyone.
- Use extreme care when loading or unloading the machine into or off of a trailer or truck.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- Do not run the engine in or direct the blower nozzle into a confined area without adequate ventilation. Exhaust fumes are hazardous and could possibly be deadly.
- Using the machine demands attention. To prevent loss of control:
 - Operate only in daylight or when there is good artificial light.
 - Drive slowly and watch for holes or other hidden hazards.
 - Do not drive close to a sand trap, ditch, creek, or other hazard.
 - Reduce your speed when making sharp turns and when turning on hillsides.
 - Avoid sudden starts and stops.
 - Before backing up, look to the rear and ensure that no one is behind the machine.
 - Watch out for traffic when near or crossing roads.
 Always yield the right-of-way.
- Stay away from the nozzle opening when the machine is operating. Keep all bystanders away from the nozzle opening and don't direct discharge toward bystanders.
- 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.
- If the tow vehicle engine stalls or the machine loses headway and cannot make it to the top of a slope, do not turn the machine around. Always back the tow vehicle slowly straight down the slope.
- Do not take an injury risk! When a person or pet appears unexpectedly in or near the operating area, stop operation. Careless operation, combined with terrain angles, ricochets, or improperly positioned guards can lead to thrown object injuries. Do not resume operation until the area is cleared.

Maintenance and Storage

- Park machine on level ground. Never allow untrained personnel to service machine.
- Use jack stands to support components when required.
- Remove the key from the ignition 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 reduce a potential fire hazard, keep the engine free of excessive grease, grass, leaves, and accumulations of dirt. Never wash a warm engine or any electrical parts with water.
- Be sure that the machine is in safe operating condition by keeping nuts, bolts, and screws tight. Check the fan shaft bearing mounting bolts and nuts frequently to be sure that they are tightened to specification.
- If the engine must be running to perform a maintenance adjustment, keep hands, feet, clothing, and other parts of the body away from the fan and other moving parts.
- Keep hands and feet away from moving parts. If possible, do not make adjustments with the engine running.
- Keep all parts in good working condition and all hardware tightened. Replace all worn or damaged decals.
- Use only Toro approved attachments. Warranty may be voided if used with unapproved attachments.

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.



115-5106

- 1. Warning—read the Operator's Manual.
- 2. Thrown object hazard—keep bystanders a safe distance from the machine.
- Cutting/dismemberment hazard; hand—stay away from moving parts; keep all guards and shields in place.



119-0217

 Warning—stop the engine; keep away from moving parts; keep all guards and shields in place.



Thrown object hazard—keep bystanders away from the machine



 Warning—read the Operator's Manual, wear hearing and eye protection.

Setup

Loose Parts

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

Procedure	Description	Qty.	Use	
1	No parts required	-	Remove the blower from the crate	
2	Drive shaft assembly Roll pin	1	Install the drive shaft to the blower gea	
	Bolt, 5/16 x 1-3/4 inch Lock nut, 5/16 inch	2 2	box shaft	
3	Mounting plate Bolt, 1/2 x 1-1/4 inches Lock nut, 1/2 inch	1 4 4	Install the mounting plate to the debris blower frame	
4	Debris blower assembly Locking pin Hair pin cotter	1 1 1	Mount the blower to the traction unit	
5	Proximity switch assembly Sensor plate Carriage screw, 5/16 x 1–1/4 inch Flange nut, 5/16 inch	1 1 2 2	Install the proximity switch	
6	General Purpose Lithium Base Grease	A/R	Grease the machine	

Media and Additional Parts

Description	Qty.	Use
Parts Catalog	1	Read before operating.
Operator's Manual	1	Read before operating.
Operator Training Material	1	View before operating the machine
Certificate of Compliance	1	Ensure CE compliance.

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

Note: To install and operate the debris blower, the traction unit must be a 4 Wheel Drive machine which is equipped with the Front Quick Attach Front Frame, Model 30509 and one of the following; the Electric Accessory Kit, part no. 115–0019 or the Joystick Kit, model 31219.



Removing the Blower from the Crate

No Parts Required

Procedure

Use the instructions in Procedure 1 to simplify the removal of the blower from the crate.

Important: Before the blower frame is unbolted from the shipping crate or the crate is removed, make sure to install the jack stand to help stabilize the blower.

1. Remove the top of the crate (Figure 3).

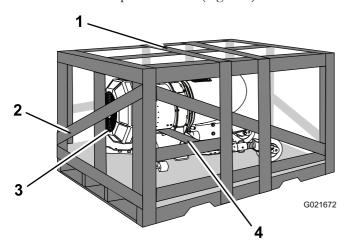
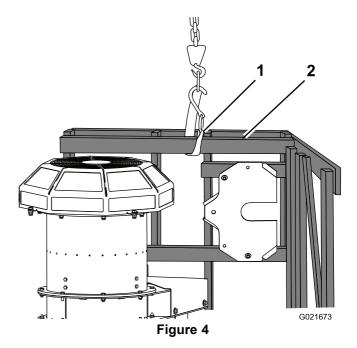
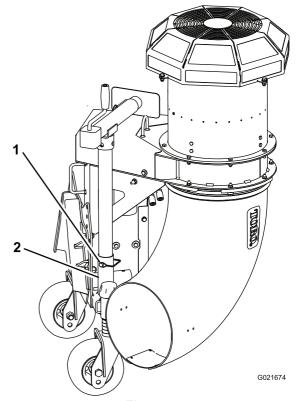


Figure 3

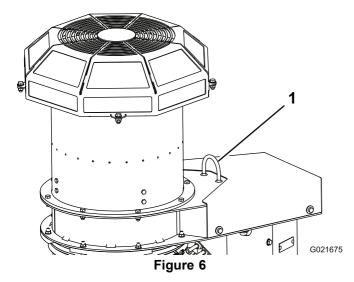
- 1. Top of crate
- 2. End of crate
- 3. Top of machine
- 4. Board under blower housing
- 2. Remove the end of the crate which is toward the top of the machine (Figure 3).
- 3. Remove the board that is under the blower housing (Figure 3).
- 4. Secure a strap to the top end, 2 x 4, deckboard and lift the pallet until the crate and blower is standing up vertically (Figure 4).



- 1. Lift strap
- 2. Top end, 2 x 4, deckboard
- 5. Remove the snapper pin securing the jack stand tube to the storage tube (Figure 5). Remove the jack assembly from the storage position.

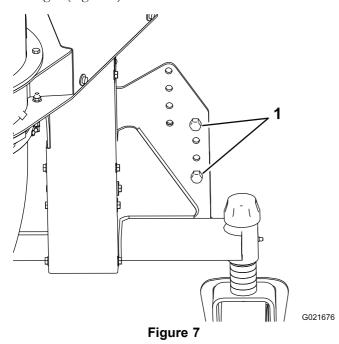


- Figure 5
- 1. Snapper pin
- 2. Jack stand tube
- 6. Remove the strap from the pallet and attach it to the lift loop on the blower (Figure 6). Lift the blower until the strap is tight.



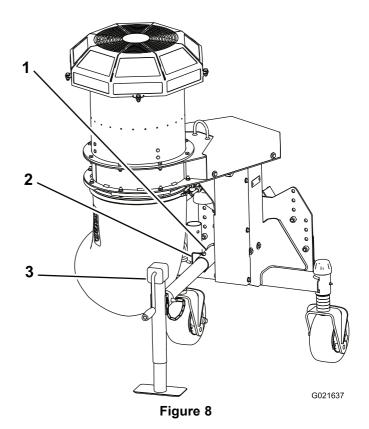
1. Lift loop

7. Carefully remove the screws holding the blower to the wood pallet. After the screws are removed, slide the crate away from the blower and lower the blower until the castor wheels touch the floor but the strap is still tight (Figure 7).



1. Screws

8. Insert the jack stand tube into the frame tube, align the holes and secure it into position with the snapper pin (Figure 8).



- 1. Frame tube
- 2. Snapper pin
- 3. Jack stand
- 9. Remove the cable tie securing the crank handle to the jack crank.
- 10. Crank the jack stand down until the jack pad is level with the castor wheel tires.
- 11. Remove the strap from the blower lift loop.



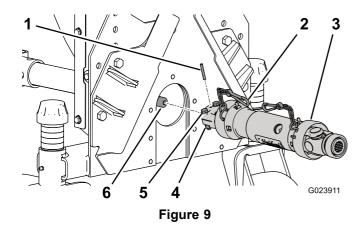
Installing the Drive Shaft to the Blower Gear Box Shaft

Parts needed for this procedure:

1	Drive shaft assembly	
1	Roll pin	
2	Bolt, 5/16 x 1-3/4 inch	
2	Lock nut, 5/16 inch	

Procedure

- 1. Remove the cable tie securing the drive shaft to the shipping crate.
- 2. Slide the drive shaft onto the gear box shaft. Align the mounting holes in the gear box shaft with the holes in the drive shaft and slide them together.



- 1. Roll pin
- 2. Safety chain (2)
- 3. Drive shaft
- 4. Bolts, 5/16 x 1-3/4 inch
- 5. Lock nuts, 5/16 inch
- 6. Gear box shaft
- 3. Secure them with a roll pin (Figure 9).
- 4. Secure the drive shaft to the gear box shaft with two 5/16 x 1–3/4 inch bolts and 5/16 inch lock nuts (Figure 9).
- 5. Torque the bolts and lock nuts to 18 to 25 N-m (175 to 225 in-lb).
- 6. Remove the cable tie keeping the drive shaft together
- 7. Secure the safety chain to blower frame (Figure 9).



Installing the Mounting Plate to the Debris Blower Frame

Parts needed for this procedure:

1	Mounting plate
4	Bolt, 1/2 x 1-1/4 inches
4	Lock nut, 1/2 inch

Procedure

1. Remove the bolts securing the mounting plate to the crate (Figure 10).

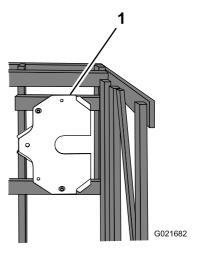


Figure 10

- 1. Mounting plate
- 2. Install the mounting plate to the debris blower frame with (4) 1/2 x 1-1/4 inch bolts and (4) 1/2 inch locknuts (Figure 11). Use the lower set of holes on each side of the mounting plate when installing. Torque the bolts to 92 to 113 N-m (68 to 82 ft-lb)

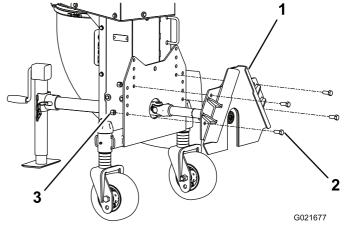


Figure 11

- 1. Mounting plate
- 3. Locknut (4)

2. Bolt (4)



Mounting the Debris Blower to the Traction Unit

Parts needed for this procedure:

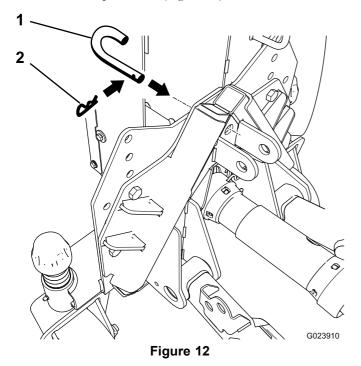
1	Debris blower assembly
1	Locking pin
1	Hair pin cotter

Procedure

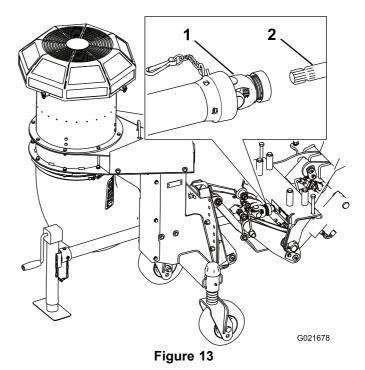
- 1. Remove any attachment from the front of the machine.
- 2. Move the traction unit into position behind the attachment adapter.
- 3. Raise the traction unit adapter into the attachment adapter.

Note: If the jack stand is raised slightly higher than the castors, the adapter will be easier to install.

4. Insert the locking pin through the adapters and secure with a hairpin cotter (Figure 12).



- 1. Locking pin
- 2. Hairpin cotter
- 5. Install the drive shaft to the quick attach frame by sliding the quick coupler onto the shaft (Figure 13).



- 1. Drive shaft
- 2. Quick attach frame shaft
- 6. Secure the safety chain to the quick attach frame (Figure 13).
- 7. Remove the dust plugs from the hydraulic couplers and make sure couplers are free of any dirt or contamination.
- 8. Connect the attachment hydraulic hose couplers to the hydraulic couplers on the traction unit rear auxiliary hydraulic power kit.

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

Installing the Proximity Switch

Parts needed for this procedure:

1	Proximity switch assembly
1	Sensor plate
2	Carriage screw, 5/16 x 1-1/4 inch
2	Flange nut, 5/16 inch

Procedure

1. Using the hole in the bottom of the front frame, loosely mount the proximity switch with the washers and jam nuts (Figure 14).

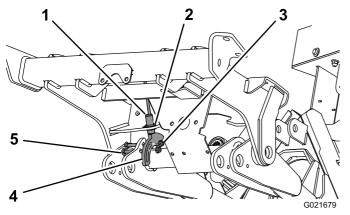


Figure 14

- 1. Proximity switch
- 4. Carriage screw (2)
- 2. Jam nut and washer (2)
- 5. Sensor plate
- 3. Flange nut (2)
- Loosely mount the sensor plate to the left lift arm with
 (2) 5/16 x 1–1/4 inch carriage screws and flange nuts.
 Do not tighten the jam nuts at this time. Position the sensor plate as shown in Figure 14. Make sure the switch does not contact the sensor plate.
- 3. Start the machine and raise the blower. Stop the machine.
- 4. Adjust the sensor plate until it aligns with the proximity switch and tighten the carriage screw nuts. Make sure it does not contact the proximity switch.
- 5. Using the jam nuts, adjust the proximity switch up or down until the gap between the switch plunger and the sensor plate is 3.8 to 4.3 mm (.150 to .170 inch) (Figure 15). Torque the jam nuts to 20 N-m (15 ft-lb) when the gap is attained.

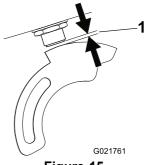


Figure 15

- 1. 3.8 to 4.3 mm (.150 to .170 inch) gap
- 6. Connect the wires from the proximity switch to the front attachment up switch on the Groundsmaster 360 electrical accessory kit
- When the switch is adjusted correctly, the blower should shut off if raised.

Note: When the traction unit is converted back to a mowing machine, the PTO will not come on when the front attachment is in the fully raised position. To engage the mower, the front attachment must be fully lowered.



Greasing the Machine

Parts needed for this procedure:

A/R General Purpose Lithium Base Grease

Product Overview

Controls

Raise/Lower Front Attachment Switch

Press the front or back of the rocker switch to raise or lower the front attachment (Figure 16).

A WARNING

Holding down the power down or front attachment lower switch can cause significant hydraulic system damage and result in front attachment damage.

Nozzle Direction Switch

Press the front or back of the rocker switch to rotate the nozzle to the desired direction (Figure 16).

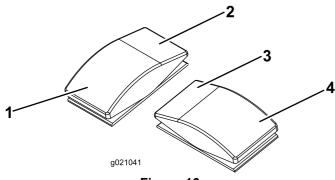


Figure 16

- Tap to float front attach down. Hold to power
- down.
- 3. Rotate blower nozzle right
- 2. Raise and hold front attach 4. Rotate blower nozzle left

Joystick (Optional)

Note: All references to right and left orientation are determined by normal operating position.

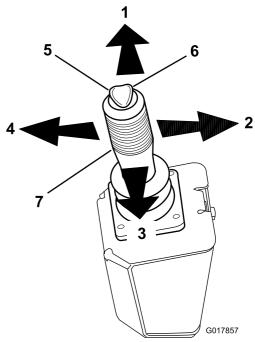


Figure 17

- 1. Joystick forward
- 2. Joystick right
- 3. Joystick back
- 4. Joystick left
- 5. Left-hand toggle
- 6. Right-hand toggle
- 7. Joystick

Joystick Action	Function
Forward	Lowers the blower
Back	Raises the blower
Left	Rotates the blower nozzle to the left
Right	Rotates the blower nozzle to the right
Left toggle	Do not use this function
Right toggle	Do not use this function

Specifications

Weight 171 kg. (376 lb.)

Operation

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

Think Safety First

Carefully read all the safety instructions and decals in the safety section. Knowing this information could help you or any bystanders avoid injury.

The use of protective equipment for eyes, hearing, feet and head is recommended.

A CAUTION

This machine produces sound levels in excess of 85 dBA at the operator's ear and can cause hearing loss through extended periods of exposure.

Wear hearing protection when operating this machine.

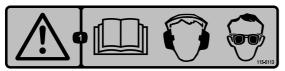
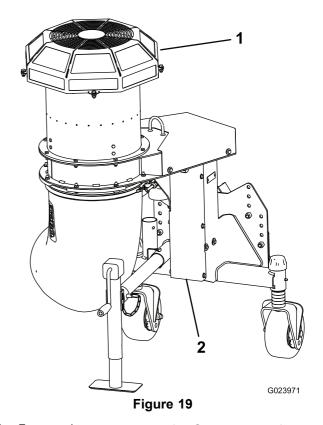


Figure 18

A CAUTION

Never operate the debris blower without all of the guards in place (Figure 19).



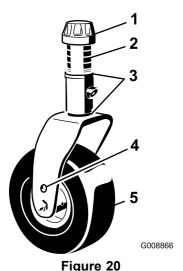
1. Fan guard

2. Gear case guard

Adjusting the Blower Nozzle Height

The blower nozzle can be operated at a height range from 114 to 216 mm (4.5 to 8.5 inches). To adjust the blower nozzle height, position the castor wheel axles in the upper or lower holes of the castor forks and add or remove an equal number of spacers from the castor forks.

- 1. Start the engine and raise the blower off the floor so the castor wheels can be changed. Stop the engine and remove the key after the blower is raised.
- 2. Position the castor wheel axles in the same holes in both castor forks (Figure 20). Use the lower castor fork axle mounting holes to attain higher blower nozzle height.



- 1. Tensioning cap
- 2. Spacers
- 3. Shims

- 4. Axle mounting holes
- Castor Wheel
- 3. Remove the tensioning cap from the spindle shaft (Figure 20) and slide the spindle out of the castor arm. Put the 2 shims (1/8 inch) onto the spindle shaft as they were originally installed. These shims are required to achieve a level across the entire width of the blower. Slide the appropriate number of 1/2 inch spacers onto the spindle shaft to get the desired height; then slide the washer onto the shaft
- 4. Push the castor spindle through the castor arm. Install the shims (as they were originally installed) and the remaining spacers onto the spindle shaft. Install the tensioning cap to secure the assembly.

Operating Tips

A WARNING

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

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

A DANGER

TIP OVER CAN CAUSE SERIOUS INJURY OR DEATH.

- NEVER operate on steep slopes.
- Operate on slopes up and down, never across the face.
- When going uphill or downhill, do not stop or start suddenly.
- Stay alert for holes in the terrain or other hidden hazards. To avoid tipping or loss of control, do not drive close to a ditch, creek or drop off.
- If the tow vehicle stops while going uphill, back slowly downhill. Do not attempt to turn.
- Practice operating the blower. It is advisable to blow the same direction the wind is blowing to prevent material from blowing back into the cleared area.
- Be alert, slow down and use caution when making turns. Look behind and to the side before changing directions.
- Be aware of the blower nozzle direction and do not point it at anyone.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- Check carefully for overhead clearances (i.e. branches, doorways, electrical wires) before driving under any objects and do not allow them to contact the blower screen.
- Reduce your speed when making sharp turns and when turning on hillsides.
- Before backing up, look to the rear and ensure that no one is behind the machine.
- Do not run the engine in or direct the blower nozzle into a confined area without adequate ventilation. Exhaust fumes are hazardous and could possibly be deadly.
- Use caution when blowing around newly planted sod as the force of the air could disrupt the grass.
- Stay away from the nozzle opening when the machine is operating. Keep all bystanders away from the nozzle opening and don't direct discharge toward bystanders.
- **Do not take an injury risk!** When a person or pet appears unexpectedly in or near the operating area, **stop**

operation. Careless operation, combined with terrain angles, ricochets or improperly positioned guards can lead to thrown object injuries. Do not resume operation until the area is cleared.

Important: Raise the blower before transporting. If the nozzle is left in the down position during transport, the nozzle may contact the ground and damage to the nozzle may occur.

Maintenance

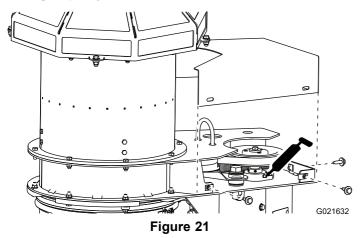
Lubrication

Service Interval: Every 50 hours

The debris blower has bearings and bushings that must be lubricated regularly. If the machine is operated under normal conditions, lubricate bearings with No. 2 general purpose lithium base grease after every 50 hours of operation. Lubricate fittings immediately after every washing, regardless of the interval listed.

The lubrication points are as follows:

Drive pulley (Figure 21)

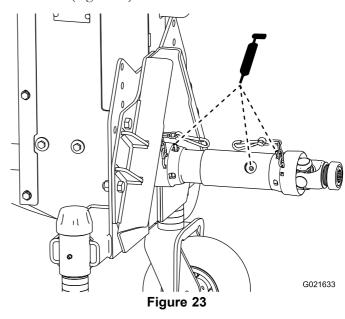


Shown with cover removed

Castor wheel shaft (2) (Figure 22)



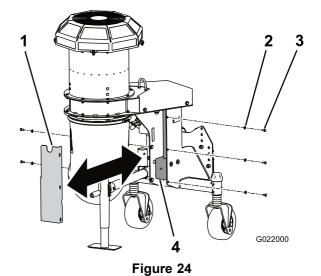
Drive shaft (Figure 23)



Checking the Gear Box Lubrication

Service Interval: Every 50 hours

- 1. Position the machine and blower on a level surface and lower the blower.
- 2. Remove the (5) screws and washers securing the gear case cover to the blower (Figure 24).



- 1. Cover
- 2. Washer

- 3. Screw
- 4. Gear box
- 3. Remove the cover to expose the blower gear case (Figure 24).
- 4. Remove the check/fill plug from the side of the gear box (Figure 25).

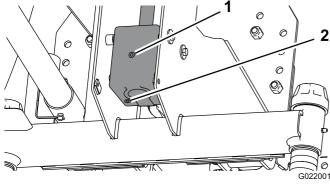


Figure 25

- 1. Check/fill plug
- 2. Drain plug
- 5. Check the oil level to make sure it is up to the plug hole in the gear box. If the lubricant level is low, add enough SAE 80-90 weight gear lube to raise the level up to the hole. The gear box capacity is 207 ml (7 oz).
- 6. Install the check/fill plug to the gear box.
- 7. Install the cover.

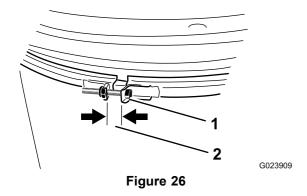
Checking the Nozzle

Service Interval: Before each use or daily

Checking the Nozzle Clamp

Check the nozzle clamp (Figure 26) daily to assure it is tight. If the nozzle is dragged over obstacles or through low areas in the terrain it could be knocked loose from the clamp. Tighten the clamp fasteners to maintain a gap of 1.3 cm (.50 inch).

Note: The nozzle must rotate freely when moved by hand.

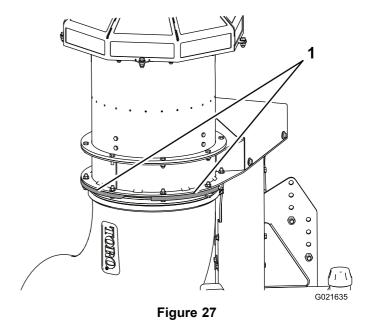


1. Nozzle clamp

2. 1.3 cm (.50 inch) gap

Cleaning the Nozzle Guides

Check and remove any grass, dirt or debris buildup around and in between the nozzle guides (Figure 27). If the nozzle guides are not keep free of debris, the nozzle may not rotate freely which could cause the motor to stall.



1. Nozzle guides

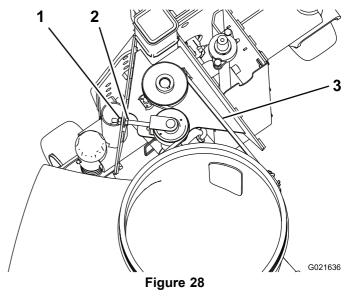
Adjusting the Nozzle Belt

Service Interval: After the first 8 hours

Every 50 hours

If the belt slips when changing the direction of the nozzle, an adjustment to the belt is required.

1. Check the tension by depressing the belt, at the center of the longest span, with 30 N-m. (22 lb) of force (Figure 28). The belt should deflect 4.8 mm (.19 inch). If the deflection is incorrect, proceed to the next step. If it is correct, continue operation.



- Flange nut
- 2. Hex nut

3. Depress belt here

- 2. To increase the belt tension, loosen the hex nut and tighten the flange nut until the desired belt tension is attained (Figure 28). Do not over tighten.
- 3. Tighten the hex nut to lock the adjustment.

Storage

- 1. Remove grass clippings, dirt, and grime from the external parts of the entire blower.
 - **Important:** You can wash the machine with mild detergent and water. Do not pressure wash the machine. Avoid excessive use of water.
- 2. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged or defective.
- 3. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Service Dealer.
- 4. Store the machine in a clean, dry garage or storage area. Use the jack stand to store the blower in the upright position. Do not lay the blower down on the ground.

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
44547	313000001 and Up	Pro Force Debris Blower	PROFORCE BLOWER-GM360	Debris Blower	2006/42/EC, 2000/14/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 55044, USA September 26, 2013

David & Kling

TORO_®

The Toro Total Coverage Guarantee

A Limited Warranty

Conditions and Products Covered

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

Instructions for Obtaining Warranty Service

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

Toro Commercial Products Service Department Toro Warranty Company 8111 Lyndale Avenue South Bloomington, MN 55420-1196

952–888–8801 or 800–952–2740 E-mail: commercial.warranty@toro.com

Owner Responsibilities

As the Product owner, you are responsible for required maintenance and adjustments stated in your *Operator's Manual*. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

Items and Conditions Not Covered

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. This warranty does not cover the following:

- Product failures which result from the use of non-Toro replacement parts, or from installation and use of add-on, or modified non-Toro branded accessories and products. A separate warranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recommended maintenance and/or adjustments. Failure to properly maintain your Toro product per the Recommended Maintenance listed in the Operator's Manual can result in claims for warranty being denied.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts subject to consumption through use unless found to be defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, brake pads and linings, clutch linings, blades, reels, rollers and bearings (sealed or greasable), bed knives, spark plugs, castor wheels and bearings, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- Failures caused by outside influence. Conditions considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- Failure or performance issues due to the use of fuels (e.g. gasoline, diesel, or biodiesel) that do not conform to their respective industry standards.

- Normal noise, vibration, wear and tear, and deterioration.
- Normal "wear and tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.

Parts

Parts scheduled for replacement as required maintenance are warranted for the period of time up to the scheduled replacement time for that part. Parts replaced under this warranty are covered for the duration of the original product warranty and become the property of Toro. Toro will make the final decision whether to repair any existing part or assembly or replace it. Toro may use remanufactured parts for warranty repairs.

Deep Cycle and Lithium-Ion Battery Warranty:

Deep cycle and Lithium-Ion batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and maintenance techniques can extend or reduce total battery life. As the batteries in this product are consumed, the amount of useful work between charging intervals will slowly decrease until the battery is completely worn out. Replacement of worn out batteries, due to normal consumption, is the responsibility of the product owner. Battery replacement may be required during the normal product warranty period at owner's expense. Note: (Lithium-Ion battery only): A Lithium-Ion battery has a part only prorated warranty beginning year 3 through year 5 based on the time in service and kilowatt hours used. Refer to the *Operator's Manual* for additional information.

Maintenance is at Owner's Expense

Engine tune-up, lubrication, cleaning and polishing, replacement of filters, coolant, and completing recommended maintenance are some of the normal services Toro products require that are at the owner's expense.

General Conditions

Repair by an Authorized Toro Distributor or Dealer is your sole remedy under this warranty.

Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. Except for the Emissions warranty referenced below, if applicable, there is no other express warranty. All implied warranties of merchantability and fitness for use are limited to the duration of this express warranty.

Some states do not allow exclusions of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Note regarding engine warranty:

The Emissions Control System on your Product may be covered by a separate warranty meeting requirements established by the U.S. Environmental Protection Agency (EPA) and/or the California Air Resources Board (CARB). The hour limitations set forth above do not apply to the Emissions Control System Warranty. Refer to the Engine Emission Control Warranty Statement supplied with your product or contained in the engine manufacturer's documentation for details

Countries Other than the United States or Canada

Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer.