



Count on it.

Operator's Manual

Debris Blower 600

Model No. 44536—Serial No. 310000001 and Up

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

Introduction

This machine is three point hitch, tractor mounted, debris blower 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, 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. The model and serial numbers are stamped on a plate on the rear of the cutting unit, under the cover. Write the numbers in the space provided.

<p>Model No. _____</p> <p>Serial No. _____</p>
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This manual identifies potential hazards and has safety messages identified by the safety alert symbol (Figure 1), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



Figure 1

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.

Contents

Introduction.....	2
Safety.....	3
Before Operating	3
While Operating.....	3
Maintenance.....	3
Safety and Instructional Decals	4
Setup.....	6
Ballast Requirements	6
Installing the Caster Wheels.....	6
Connecting the Lower Link Arms	6
Connect the Upper Link	6
Adjusting the PTO Shaft Length.....	7
Connecting the PTO Shaft.....	7
Adjusting the Sway Links	8
Adjusting the 3 Point Lift Stop.....	8
Removing the Blower from the Tractor	8
Greasing the Blower	9
Product Overview	9
Specifications	9
Dimensions and Weights (approx.).....	9
Attachments/Accessories.....	9
Operation.....	10
Adjusting Discharge Direction.....	10
Operating Tips	10
Maintenance.....	11
Lubrication.....	11
Fan Shaft Bearings.....	11
Caster Wheels	11
Drive Shaft.....	11
Adjusting the Blower Belt	11
Storage.....	13
Troubleshooting.....	14

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.

Before Operating

- Read and understand the contents of this Operator's Manual before operating the machine. Become familiar with all of the controls and know how to stop quickly.
- Never allow children to operate the machine. Do not allow adults to operate machine without proper instruction. Only trained operators who have read this manual should operate this machine.
- Never operate the machine when under the influence of drugs or alcohol.
- 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.
- Do not operate the machine while wearing sandals, tennis shoes, sneakers, or shorts. Also, do not wear loose fitting clothing which could get caught in moving parts. Always wear long pants and substantial shoes. Wearing safety glasses, safety shoes, and a helmet is advisable and required by some local ordinances and insurance regulations.

While Operating

- This product may exceed noise levels of 85 dB(A) at the operator position. Hearing protection is recommended for prolonged exposure to reduce the potential of permanent hearing damage.
- 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.
- 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.
- Stay away from the discharge opening when the machine is operating. Keep all bystanders away from the discharge opening and don't direct discharge toward bystanders.
- If the 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 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.
- Lower the blower to the ground and remove the key from the ignition switch whenever the machine is left unattended.

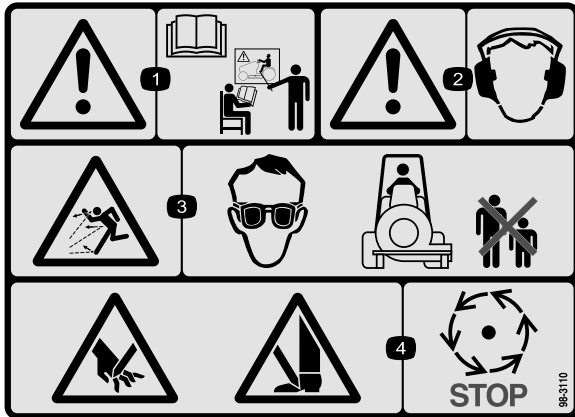
Maintenance

- 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.
- Be sure that the machine is in safe operating condition by keeping nuts, bolts, and screws tight. Check all bolts and nuts frequently to be sure that they are tightened to specification.
- To ensure optimum performance and safety, always purchase genuine Toro replacement parts and accessories to keep the machine all Toro. Never use "will-fit" replacement parts and accessories made by other manufacturers. Look for the Toro logo to ensure genuineness. Using unapproved replacement parts and accessories could void the warranty.

Safety and Instructional Decals



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



98-3110

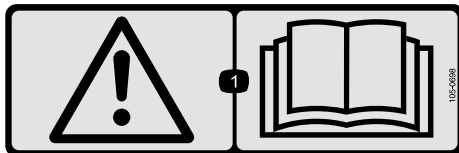
1. Warning—read the *Operator's Manual*, do not operate this machine unless you are trained.
2. Warning—wear hearing protection.
3. Thrown object hazard—wear eye protection and keep bystanders a safe distance from the machine.
4. Cutting hazard of hand or foot—wait for moving parts to stop.



105-0669



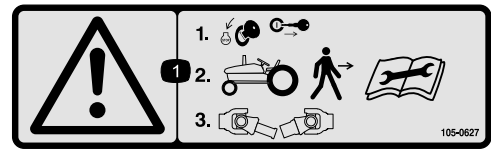
105-0707



105-0698

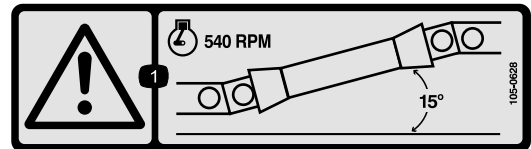
Apply over 105-0707 for CE compliance

1. Warning—read the *Operator's Manual*.



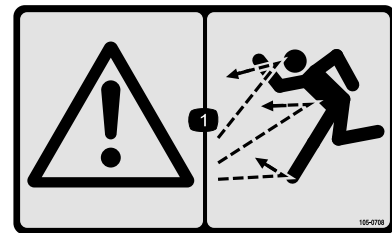
105-0627

1. Warning—stop the engine, remove the ignition key before leaving the machine and disconnect the power take-off (PTO) shaft.



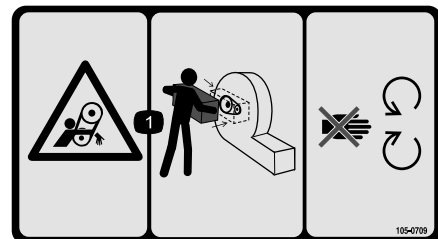
105-0628

1. Warning—do not operate the machine with power take-off (PTO) at a greater angle than 15 degrees.



105-0708

1. Warning—thrown object hazard; keep bystanders away from machine.



105-0709

1. Entanglement hazard, belt—keep all guards and shields in place; stay away from moving parts.

! DANGER



**ROTATING DRIVELINE
CONTACT CAN CAUSE DEATH
KEEP AWAY!**

DO NOT OPERATE WITHOUT —

- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE

L1 WEASLER 13-10021-00

92-7936

! DANGER



**SHIELD MISSING
DO NOT OPERATE**

L2 WEASLER 13-10022-00

! DANGER



**SHIELD MISSING
DO NOT OPERATE**

L2 WEASLER 13-10022-00

! DANGER

92-7937

Setup

Media and Additional Parts

Description	Qty.	Use
Decal	1	Apply to blower for CE compliance
Operator's Manual	1	Read before operating machine.
Parts Catalog	1	Use to reference parts number.

Ballast Requirements



Without the proper amount of ballast in the tires, the tractor may become unstable and cause bodily injury.

Make sure that the front of the tractor is equipped with the proper amount of ballast; refer to the tractor operator's manual for ballast requirements.

Installing the Caster Wheels

Install a caster wheel assembly between each caster fork with (4) washers, axle and (2) cotter pins (Figure 2).

Note: Two washers to be positioned between each side of wheel and caster fork.

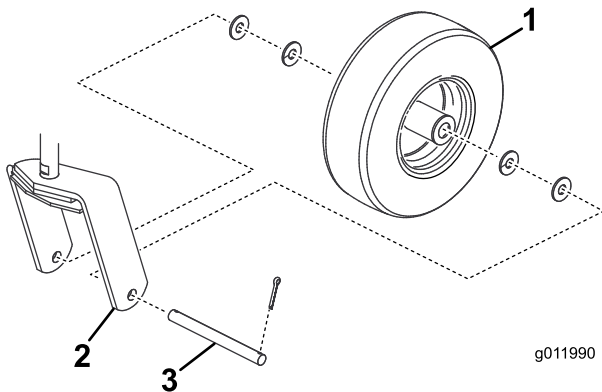


Figure 2

- 1. Wheel assembly
- 2. Caster fork
- 3. Axle

Connecting the Lower Link Arms

1. Position the blower on a flat, level surface.
2. Back the tractor squarely up to the blower until the lower link arms are aligned with the hitch pins.

3. Make sure that the PTO is disengaged.
4. Engage the parking brake, stop the engine, and remove the ignition key. Wait for the engine and all moving parts to stop before leaving the Operator's seat on the tractor.
5. Insert the right and left lower link arms onto the hitch pins (Figure 3).

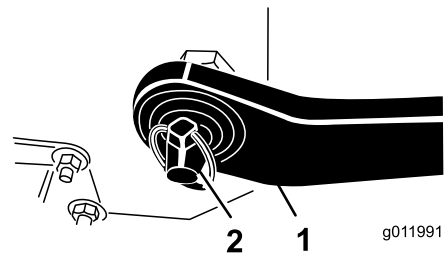


Figure 3

- 1. Lower link
- 2. Lynch pin

6. Secure the lower link arms to the hitch pins with the lynch pins (Figure 3).

Connect the Upper Link

1. Connect the upper link to the holes in the blower bracket and secure it with a clevis pin and lynch pin (Figure 4).

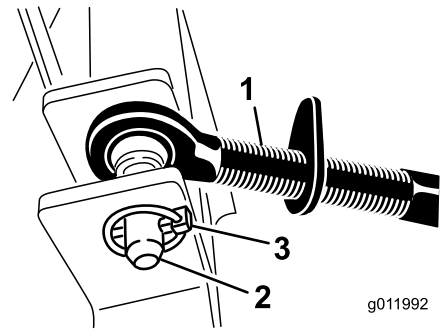


Figure 4

- 1. Upper link
- 2. Clevis pin
- 3. Lynch pin

2. Rotate the adjusting link to tighten the link. Do not overtighten to raise the back end of the blower off the ground.
3. Tighten the locknut to secure the upper link into position.

Adjusting the PTO Shaft Length

Important: A long PTO shaft is supplied with the machine to accommodate large variations in the tractor's PTO and 3 point locations. For most tractors this shaft is too long and must be cut to the correct length or damage may result.

1. With the blower on a level surface, lower the blower until the input shaft is approximately the same height as the tractor PTO shaft. This is the shortest distance between the two shafts.
2. Measure the distance from the lock groove of the tractor PTO shaft to the lock groove of the blower input shaft. Record this dimension.
3. Fully collapse the PTO shaft and measure the distance between the lock pin collars. Record this dimension.
4. At it's shortest length, the two halves of the PTO shaft must have at least 1-1/2 inches (37 mm) of additional clearance to collapse (Figure 5). If the dimension in step 2 is not at least 1-1/2 inches (37 mm) greater than the dimension in step 3, the PTO shaft is too long; proceed to step 5. If there is enough clearance to allow the PTO shaft to collapse, proceed to step 10.

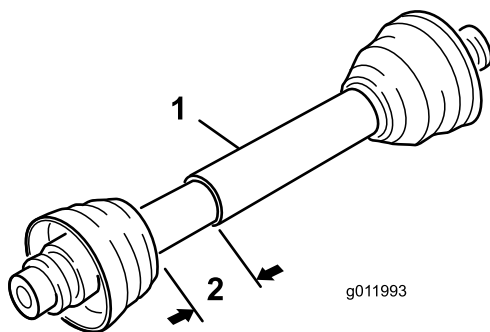


Figure 5

1. PTO shaft
2. 1-1/2 inches (37 mm)

5. Use the following calculation to establish how much shorter the shaft must be, when connected, to ensure a clearance of 1-1/2 inches (37 mm):
 - A. Subtract the dimension recorded in step 3 from the dimension recorded in step 2. Record this dimension.

- B. Subtract the result in step 5A from 1-1/2 inches (37 mm). The PTO shaft must be shortened by this amount.
6. Using a hacksaw, cut the guards and the steel tubes shorter by the calculated length. Cut both halves of the PTO shaft.
 7. Deburr the ends of the steel tubes internally and externally.
 8. Remove all debris from the tube sections.
 9. Grease the steel tubes liberally.
 10. Assemble the PTO shaft and secure it to the blower and tractor.
 11. Measure the shaft. If it is not at least 1-1/2 inches (37 mm), repeat the procedure.
 12. Raise the blower to the highest position. There must be at least 3 inches (75 mm) of overlap of the halves. Adjust the 3 point lift stop, if necessary; refer to Adjusting the 3 Point Lift Stop.

Connecting the PTO Shaft

1. Connect the PTO shaft to the blower input shaft.
2. Connect the PTO shaft to the rear tractor PTO shaft.
3. Slide the PTO shaft forward as far as it will go.
4. Depress the pin to secure the PTO shaft in place. Slide the PTO shaft back and forth to make sure it is properly locked.

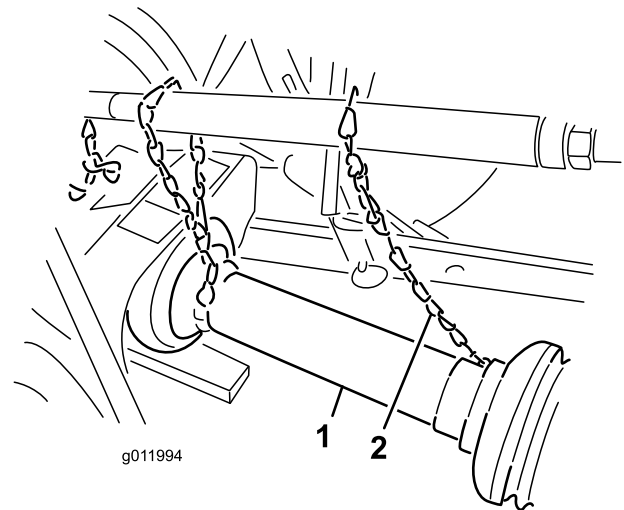


Figure 6

1. PTO shaft
2. Safety chains

5. Connect the shield safety chains from the power shaft sections to the welded clips on the link arms or to the PTO shields (Figure 6). Make sure that the chains remain slack when the blower is raised or lowered.



If shield chains are not connected, they could rotate during operation and cause bodily injury.

Keep all PTO shields in place and connect the shield chains to the link arms or PTO shields.

Adjusting the Sway Links

Adjust the sway links on the lower draft arms of the 3-point hitch to minimize side-to-side sway to a maximum of 1 inch (25 mm) on each side.

1. Adjust the lower links inboard until they contact the blower mounting plates (Figure 7). This will reduce the stress on the pins. If the tractor has sway chains instead of sway links, it is recommended that washers be installed between the lower link arm and lynch pin to reduce the over hung load on the lift pins.

Note: Refer to the tractor Operator's manual for additional installation and adjustment procedures.

2. Turn the adjustable link body (if provided) to raise or lower the link arm until the blower is leveled side-to-side.

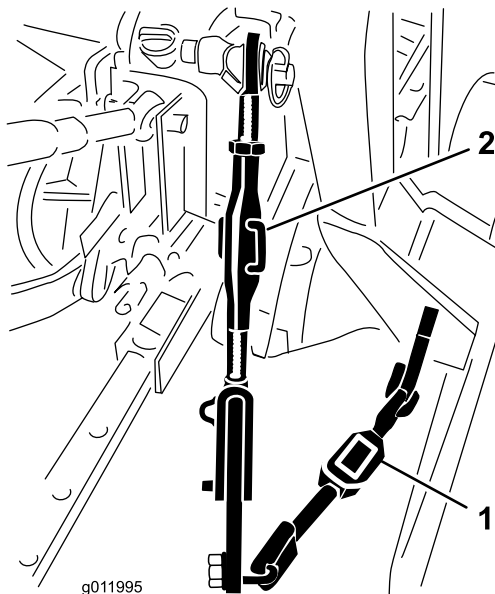


Figure 7

1. Sway link

2. Link body

Adjusting the 3 Point Lift Stop

Adjust and set the 3 point lift stop (Figure 8) to provide approximately 4 in. (10 cm) ground clearance, when in the raised position, to minimize the PTO angle when raising the blower. For transporting or trailer

loading/unloading, the full lift range can be used as long as the PTO tubes do not slide apart. Operating the PTO in the fully raised position may damage the PTO or other components.

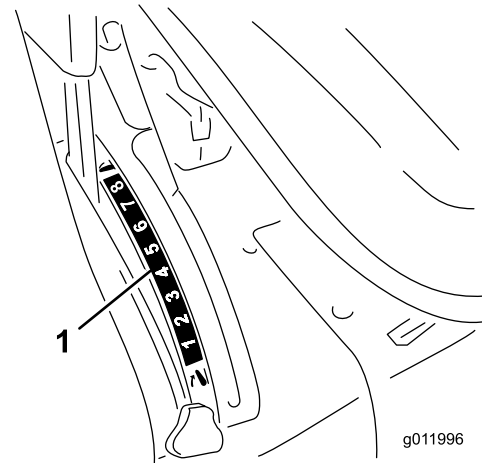


Figure 8

1. 3 point lift stop

Note: Refer to the tractor Operator's manual for adjustment procedures.

Removing the Blower from the Tractor

1. Stop the vehicle on a level surface, not on a slope.
2. Disengage the PTO and engage the parking brake.
3. Stop the engine and remove the key from the ignition switch.

Note: Before leaving the Operator's seat on the tractor, wait for the engine and all moving parts to stop.

4. Disconnect the safety shield chains from the tractor PTO. Secure the end of the chain to the blower side of the PTO shaft to prevent the PTO shaft from coming apart.
5. Slowly lower the blower until the roller and castor wheels contact the ground.
6. Remove the lynch pin and top link pin securing the center link to the bracket.
7. Disconnect the power shaft from the tractor PTO shaft.
8. Slide the power shaft back and remove it from the tractor.
9. Remove the lynch pins and slide the lower link arms off of the hitch pins.

Greasing the Blower

Before the blower is operated, the PTO shaft must be greased to ensure proper lubricating characteristics; refer to Greasing the Blower in the Maintenance section. Failure to properly grease the unit will result in premature failure of critical parts.

Product Overview

Specifications

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

Dimensions and Weights (approx.)

Length	49 inches (125 cm)
Width	59 inches (150 cm)
Height	46 inches (117 cm)
Net Weight	500 pounds (227 kg)

Attachments/Accessories

A selection of Toro approved attachments and accessories are 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

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

Adjusting Discharge Direction

The direction of the discharge opening can be changed from the side to the front by moving the control handle (Figure 9).

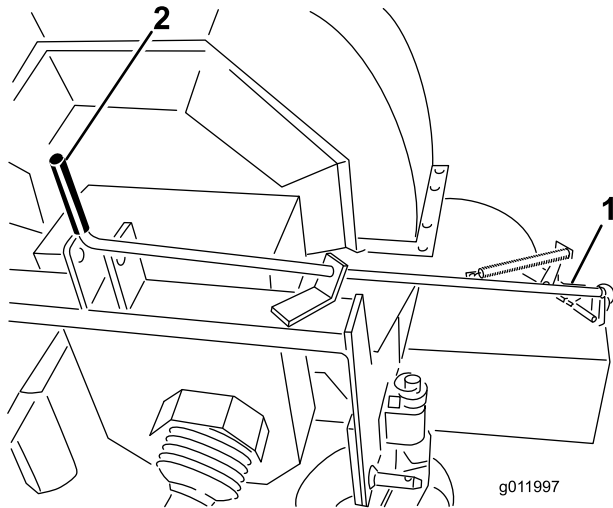


Figure 9

1. Discharge opening 2. Control handle

Operating Tips



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.

1. Start the tractor and run it at a low RPM.
2. Engage the PTO while the engine is at idle speed.
3. Increase the tractor PTO speed to 540 RPM.
4. 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.

Maintenance

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

Lubrication

The debris blower has grease fittings that must be lubricated regularly.

Fan Shaft Bearings

The (2) fan shaft bearings (Figure 10) must be lubricated after every 8 hours of operation with a No. 2 Lithium-based grease.

Note: Remove belt cover to access rear fitting.

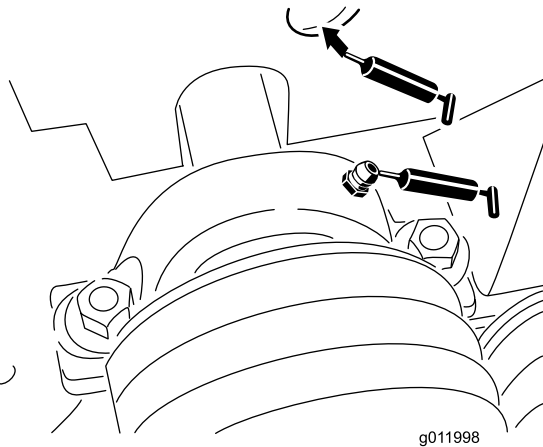


Figure 10

Castor Wheels

Under normal conditions, grease the (2) drive shaft fittings after every 100 hours of use (Figure 11). Use a No. 2 Lithium-based grease.

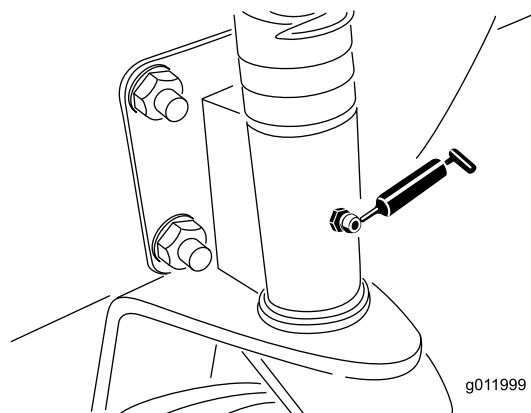


Figure 11

Drive Shaft

Under normal conditions, grease the (2) drive shaft fittings after every 100 hours of use (Figure 12). Use a No. 2 Lithium-based grease.

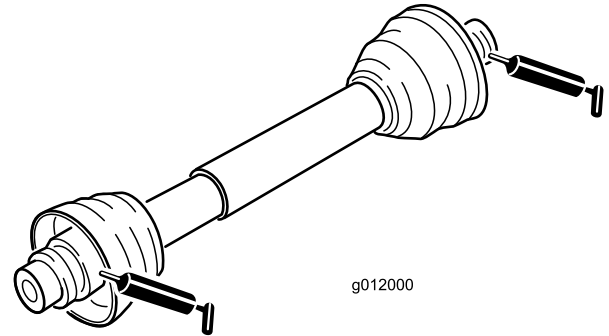


Figure 12

Adjusting the Blower Belt

Make sure belt is properly tensioned to ensure proper operation of the machine and unnecessary wear. Check belt frequently.

Note: Check/adjust the blower belt tension after the first 20 hours of operation.

Important: The fasteners on the covers of this machine are designed to remain on the cover after removal. Loosen all of the fasteners on each cover a few turns so that the cover is loose but still attached, then go back and loosen them until the cover comes free. This will prevent you from accidentally stripping the bolts free of the retainers.

1. Remove the capscrews, washers and nuts securing the belt guard to the blower housing (Figure 13). Remove the guard.

Note: The drive shaft does not have to be disconnected to adjust the belt.

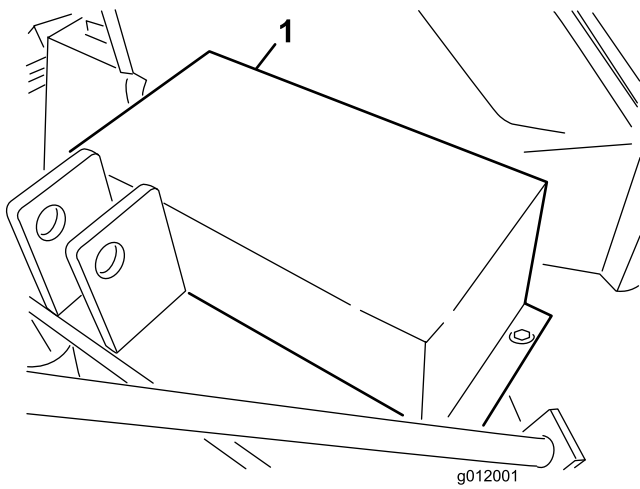


Figure 13

1. Belt guard

5. Insert capscrew into aligned guide holes and secure with nut. If holes are not exactly aligned, rotate guide to the next higher hole until aligned.
6. Tighten capscrew securing, on back side of frame to lock tensioner.
7. Install the belt guard to the blower housing with the capscrews, washers, and nuts.

2. Remove capscrew and nut securing tensioner guide to blower frame (Figure 14). Belt tension will be released when capscrew is removed.

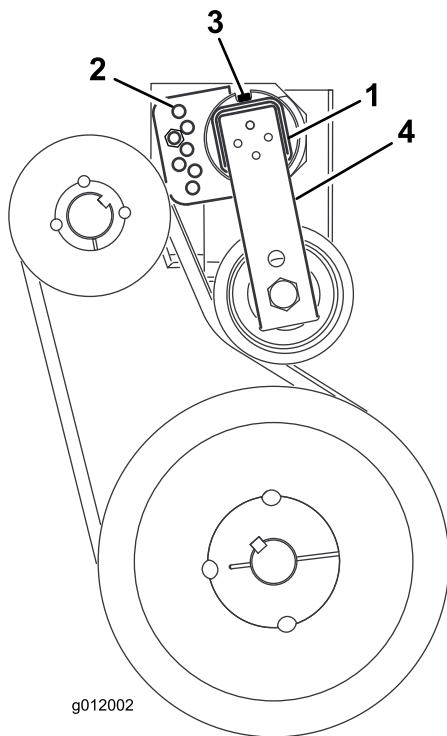


Figure 14

- | | |
|------------------------|----------------------|
| 1. Belt tensioner tube | 3. Capscrew location |
| 2. Tensioner guide | 4. Idler arm |

3. On back side of frame, loosen capscrew securing belt tensioner to frame.
4. Position a large wrench on tensioner. Rotate tensioner clockwise until decal is aligned with 15 degrees on tensioner tube.

Storage

1. Thoroughly clean the blower. The fan housing should be free of dirt, leaves, and debris.
2. Lubricate all grease fittings. Wipe off any excess lubricant.
3. Place a light coat of grease on the splines of the PTO shaft.
4. Tighten all fasteners.

Troubleshooting

Problem	Possible Cause	Corrective Action
There is excessive vibration.	<ol style="list-style-type: none">1. The bearing(s) on the fan shaft is damaged.2. Material is built up on the fan blades.3. The RPM of the PTO shaft is too fast.	<ol style="list-style-type: none">1. Replace the bearings.2. Clean out any build up on the inside of the housing.3. Reduce the PTO speed to 540 RPM.
There is lack of adequate air flow.	<ol style="list-style-type: none">1. The air slots are clogged with debris.2. The RPM on the tractor is too slow.3. The throttle on the tractor engine is too slow.	<ol style="list-style-type: none">1. Clean out any debris from the slots.2. Increase the PTO speed to 540 RPM.3. Make any necessary repairs to bring the tractor speed up to normal.

Notes:



Toro General Commercial Products 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 diagnosis, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.

* Product equipped with 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, aerator crankshaft and stomper arm bearings, tines, 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 coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- Normal noise, vibration, wear and tear, and deterioration.
- Normal "wear and tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.

Parts

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

Note Regarding Deep Cycle Battery Warranty:

Deep cycle batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and maintenance techniques can extend or reduce total battery life. As the batteries in this product are consumed, the amount of useful work between charging intervals will slowly decrease until the battery is completely worn out. Replacement of worn out batteries, due to normal consumption, is the responsibility of the product owner. Battery replacement may be required during the normal product warranty period at owner's expense.

Maintenance is at Owner's Expense

Engine tune-up, lubrication cleaning and polishing, replacement of 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.