



Rotary Hydraulic Broom

Groundsmaster[®] 300 Series Traction Units

Model No. 30743—Serial No. 260000001 and Up



Operator's Manual

Contents

	Page
Introduction	2
Safety	3
Before Operating	3
While Operating	3
Maintenance	4
Safety and Instruction Decals	4
Specifications	6
General Specifications	6
Optional Equipment	6
Setup	7
General	7
Head and Tank Assembly	7
Electric Swivel Option (Model No. 30728)	7
Broom Control Box and Wiring (Electric Swivel Option)	7
Install the Push Arm	7
Pump Mounting	8
Install Rear Weight	9
Before Operating	10
Adjust Brush Down Pressure	10
Broom Lift Chain Tension	10
Check Hydraulic System	10
Operating Instructions	11
Operation	11
Broom Angle	11
Operating Tips	11
Ground Speed	11
Curb Climbing and Trailer Loading	11
Maintenance	12
Lubrication	12
Disconnecting the Broom from the Traction Unit	12
Changing Brush Elements	12
Broom Lift Chain Tension	13
Changing Hydraulic System Oil And Filter	13
Servicing Castor Fork Bushings	13
Servicing Castor Wheel And Bearing	14
The Toro General Commercial Products Warranty ..	16

Introduction

Read this manual carefully to learn how to operate and maintain your product properly. The information in this manual can help you and others avoid injury and product damage. Although Toro designs and produces safe products, you are responsible for operating the product properly and safely.

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 two numbers are stamped on a plate which is located on the broom.

Write the product model and serial numbers in the space below:

Model No. _____
Serial No. _____

This manual identifies potential hazards and has special safety messages that help you and others avoid personal injury and even death. ***Danger***, ***Warning***, and ***Caution*** are signal words used to identify the level of hazard. However, regardless of the hazard, be extremely careful.

Danger signals an extreme hazard that *will* cause serious injury or death if you do not follow the recommended precautions.

Warning signals a hazard that *may* cause serious injury or death if you do not follow the recommended precautions.

Caution signals a hazard that may cause minor or moderate injury if you do not follow the recommended precautions.

This manual uses two other words to highlight information. **Important** calls attention to special mechanical information and **Note:** emphasizes general information worthy of special attention.

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. A free replacement manual is available by sending the complete Model and Serial Number to The Toro Company, 8111 Lyndale Avenue South, Bloomington, Minnesota 55420-1196.
 - 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.
- Ensure the appropriate rear weight kits are added to rear of traction unit when the broom is installed. Refer to Install Rear Weight on page 9.
 - When transporting, especially travelling on a slope, rotate the broom up but keep castor wheels on the ground, travel slowly and do not brake suddenly.
 - Do not drive on highway or public roads.
 - Always SLOW the traction unit when approaching and while making a turn.
 - Always SLOW the traction unit when driving in unfamiliar areas or over rough terrain.
 - Always SLOW the traction unit when changing direction of travel or preparing to stop.
 - When turning or driving on slopes, always SLOW the traction unit, then turn to prevent loss of control and possible upset.
 - DO NOT make sudden or sharp turns. DO NOT suddenly change direction of travel on an incline, ramp, grade, slope or similar surface.
 - Always adjust the traction unit speed to allow for existing ground conditions such as wet slick surfaces, loose sand or gravel and/or low visibility conditions such as dim or bright lighting, fog, mist or rain.
 - Be especially careful when driving down an incline or slope. Drive the vehicle UP and DOWN the face of the slopes, inclines or grades whenever possible. DO NOT DRIVE across the face if at all possible. There is a risk of upsetting the vehicle, which can result in serious injury or death.
 - Before backing up, look to the rear and assure no one is behind the machine.
- Stay away from discharge area when machine is operating. Keep all bystanders away from the discharge area and do not direct discharge toward bystanders.
 - **DO NOT TAKE AN INJURY RISK!** When a person, pet or animal 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.
 - Lower the broom to the ground and remove key from ignition whenever machine is left unattended.
 - If engine stalls or machine loses headway and cannot make it to the top of a slope, do not turn machine around. Always back slowly straight down the slope.
 - Watch out for traffic when near or crossing roads. Always yield the right of way to pedestrians and other vehicles.

While Operating

- This Rotary Hydraulic Broom is only intended for use with Groundsmaster 300 Series Traction Units.
- Hearing protection is recommended for prolonged exposure to reduce the potential of permanent hearing damage.
- Using the machine demands attention. This attachment adds extra weight to the traction unit and when in the raised position can effect the ability to steer the traction unit, especially on slopes. Drive the vehicle safely and adhere to the following points in order to prevent loss of control:

- If the Rotary Hydraulic Broom begins to vibrate abnormally, stop immediately. Shut off the traction unit engine. Repair all damage before commencing operation.
- Before servicing or making any adjustments to the Rotary Hydraulic Broom:
 - Stop the traction unit and set the parking brake.
 - Shut off the traction unit's engine and remove key from ignition.
- Keep all nuts, bolts and other fasteners tightened securely. Replace any parts removed during servicing or adjustments.
- To assure optimum performance and continued safety of this product, always use genuine TORO replacement parts. Replacement parts and accessories made by other manufacturers may affect the product's operation, performance or durability. Such use could also void the warranty of The Toro Company.
- 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.
- Make sure all hydraulic line connectors are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- Keep your body and hands away from pin hole leaks or nozzles that eject hydraulic fluid under high pressure. Use paper or cardboard, not your hands, to search for leaks. Hydraulic fluid escaping under pressure can have sufficient force to penetrate the skin and cause serious injury. Seek immediate medical attention if fluid is injected into skin.
- Before disconnecting or performing any work on the hydraulic system, all pressure in the system must be relieved by stopping the engine and lowering the cutting units and attachments to the ground.
- If the engine must be running to perform a maintenance adjustment, keep hands, feet, clothing, and any parts of the body away from the cutting units, attachments, and any moving parts. Keep everyone away.
- 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.

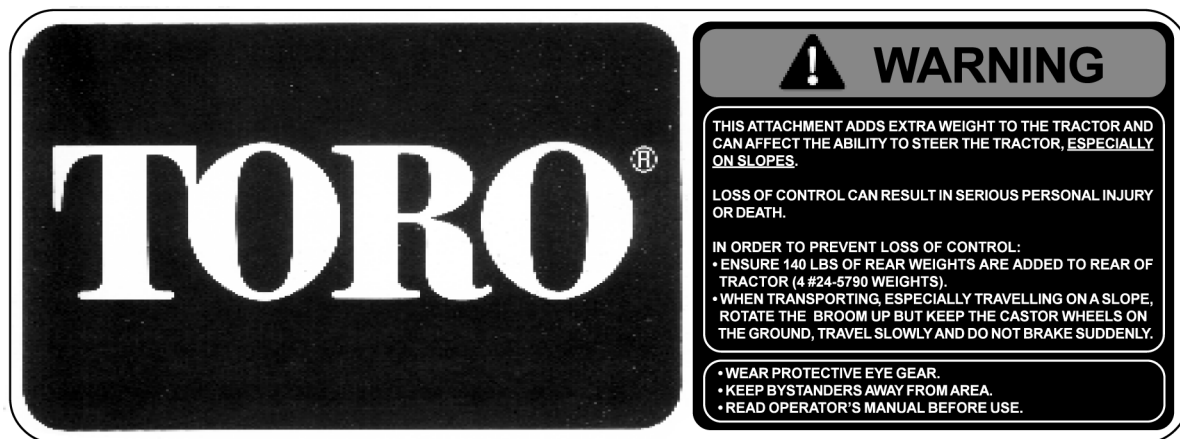
Maintenance

- 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.

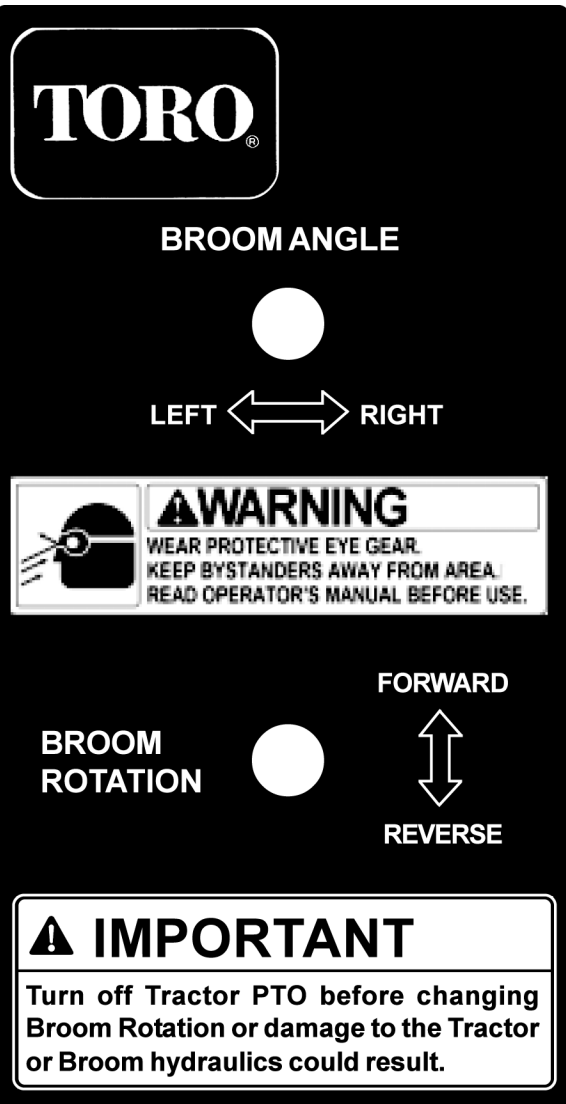
Safety and Instruction Decals



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.



99-6542



100-5854



94-8701

1. Warning—read the *Operator's Manual*; crushing hazard of hand.



99-6522



85-4730



54-0910



99-6540



58-6520

1. Grease

Specifications

General Specifications

Brush Filament Material	Virgin polypropylene, high carbon wire or combination of both.
Brush Diameter	24 inches.
Sweeping Width Angle	Broom swings 30 degrees in both directions. 60 inches nominal sweeping width @ center position, 52 inches minimum sweeping width @ 30 degree swing.
Broom Swing/Control	Manual pin position.
Broom Ground Pressure Adjustment	Adjustment is with .5 inch spacers at the castor forks.
Brush Speed	220 rpm @ full engine RPM
Hydraulic Drive	PTO driven pump. Tank has 10 U.S. gallon capacity.
Castor Wheels	Two 8.5 inch x 3.5 inch pneumatic tires.
Weight	560 lbs.

Note: Specifications and design subject to change without notice.

Optional Equipment

Steel brush element	Part No. 95-5942
Electric swivel option	Model No. 30728
Brush rotation reversing option	

Setup

General

Refer to illustrated parts list for details of parts used in assembling and installing the Rotary Hydraulic Broom.

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

Note: See Pump Mounting for installing brooms on traction units with different PTO shaft lengths.

Head and Tank Assembly

1. Extend stands on tank / mount frame and retain with latch pins.
2. Align broom head pivot with tank / mount frame. Insert pivot pin and retain with cotter pin.
3. Connect hydraulic hoses from motor to pump and inlet filter. Route hydraulic hose to pump through bottom clamp at lift stop. Route hydraulic hose to inlet filter by looping around right side of lift stop through upper clamp. Pull hoses snug from pump and inlet filter to clamps and secure.
4. Pivot broom head and/or extend manual swivel tube until it can be attached to the broom head frame. Secure to broom head frame with the capscrew, spacer and locknut. Attach the manual swivel shaft to the tank I frame mount with the capscrew and locknut.

Electric Swivel Option (Model No. 30728)

1. Pivot broom head until the actuator can be attached to the broom head frame.
2. Secure motor end (motor facing right) of actuator to broom head frame with the capscrew and locknut. Attach the shaft end of the actuator to the tank / frame mount with the capscrew and locknut.

Broom Control Box and Wiring (Electric Swivel Option)

1. Attach broom control box to the steering column with clamp and nuts about 6 inches below steering wheel.
2. Route the actuator wire through the steering column and connect to actuator.
3. Remove the instrument panel cover.

4. Route the power wires through the steering column and frame to the instrument panel and attach the negative wire (black) to the common ground terminal and the positive wire (red) to the rear terminal of the fuel gauge. Reinstall cover.

Install the Push Arm

Note: Ball Joint Mount L. H. (21–3050), which is used with the side discharge deck, is required before proceeding with installation.

1. Position traction unit on level surface and shut the engine off.
2. Move broom into position in front of traction unit.



Warning



Since the right hand push arm is spring loaded to about 100 pounds and left hand push arm is spring loaded to about 150 pounds, a helper is needed to push the push arm down. Sudden release of the push arm could cause injury.

3. Have a helper carefully push down on right hand push arm until holes in ball joint mount line up with holes in broom mount. Attach ball joint mount to broom mount with capscrews, flat washers and flange nuts but don't tighten.
4. Align and insert the traction unit PTO splined shaft into the broom PTO receiver (Fig. 1).

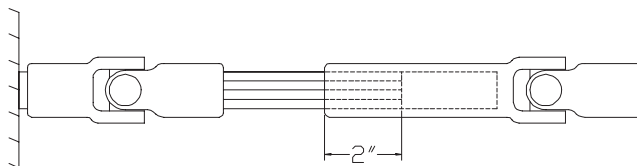


Figure 1

Important

Ensure 2 inches of PTO shaft engages with implement shaft (Fig. 1). If not, the implement shaft must be replaced with the appropriate length of shaft available from the Toro Parts Department.



Warning



- Improper PTO operation could result in failure of the PTO drive.
- Failure of the PTO drive could damage the implement, traction unit, or result in serious personal injury or death.
- Read the traction unit and implement manuals and be familiar with PTO operation.

The traction unit or broom may need to be moved slightly to allow the PTO shafts to be coupled.

Note: The PTO shafts will only align and insert in one position.

5. Have a helper carefully push down on left hand push arm until holes in ball joint mount are in line with holes in broom mount.

Immediately slide 4 x 4 in. block of wood between top of push arm and underside of chassis.



Warning



Make sure wooden block does not slip out accidentally.

6. Attach ball joint mount to broom mount bracket with spacer (100-5876) using the supplied capscrews, flat washers and flange nuts.
7. Tighten all fasteners.
8. Remove 4 x 4 inch block.
9. Install broom lift chain.
10. Install arm lock brackets using 1/2" x 4" pins and secure with retaining pins
11. Connect wire from control box to actuator plug. (Option)

Pump Mounting

Important The pump needs to be mounted differently on traction units that have been equipped with different cutting decks. If the pump is not mounted correctly the PTO shaft could separate under some circumstances

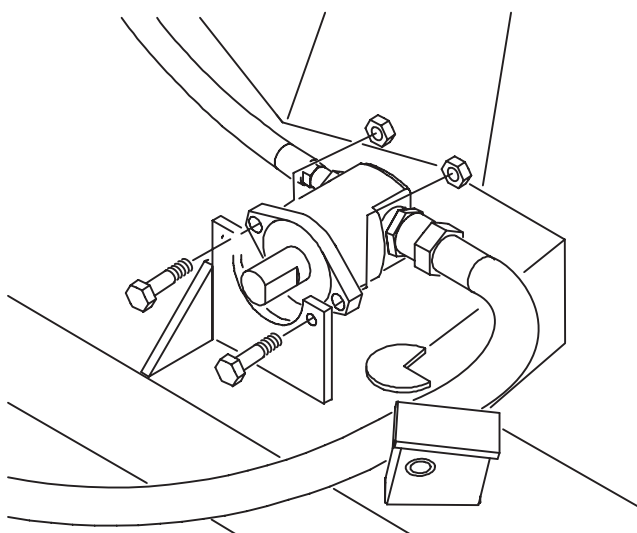


Figure 2

1. Gm 300 with Side Discharge / Rear Discharge Deck (8-1/2" of male spline)

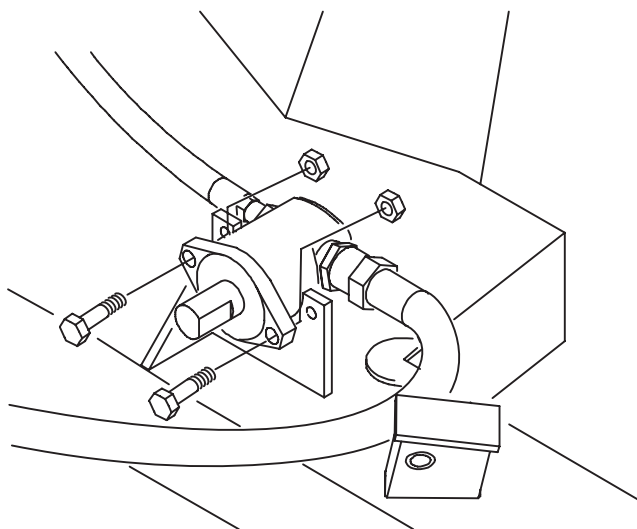


Figure 3

1. Gm 300 with Recycler Cutting Deck (6-3/4" of male spline)

Install Rear Weight

To comply with CEN standard EN 836:1997, ISO standard 5395:1990 and ANSI/OPEI B71.4—1999 Standard, rear weight must be added to rear of traction unit. Use chart below to determine weight requirements. Order parts from your local Authorized Toro Distributor.

Two Wheel Drive

Attachment Description	Rear Weight Required	Weight Part Number	Weight Description	Qty.
Rotary Broom (Model No. 30743)	140 lb.	24-5780	Rear Weight Kit (two 35 lb. weights and mounting hardware)	2

Four Wheel Drive

Attachment Description	Rear Weight Required	Weight Part Number	Weight Description	Qty.
Rotary Broom (Model No. 30743)	70 lb.	24-5780	Rear Weight Kit (two 35 lb. weights and mounting hardware)	1

Before Operating

Adjust Brush Down Pressure

Improper downward pressure can decrease brush life up to 95% (depending on the incorrect amount of pressure).

A brush sweeps with the tips of its bristles. When too much down pressure is applied, the brush is no longer using its tips; the brush is now working with the sides of the bristles. This limits the flicking action of the bristles and limits its sweeping effectiveness.

To check for correct downward pressure, operate brush on the ground, rotating at normal operating speed with traction unit remaining stationary. Stop operation, raise brush and measure width of swept path. A properly adjusted brush will have a sweeping path (flat spot on ground) width of 2" – 4" (Fig. 4)

If ground speed is too fast, debris will pile up in front of brush causing brush to bulldoze instead of sweep. This can damage the bristles and the drive line.

Adjust castor height for proper brush ground pressure. The castor wheel height is adjustable from 4 to 7 1/2 inches in 1/2 inch increments by adding or removing an equal amount of spacers from each castor wheel. To adjust castor height:

1. Start traction unit and raise broom by shortening chain or positioning on ground rise. Stop engine after broom is raised.
2. Remove cap securing castor spindle to frame bracket and lower castor.
3. To remove spacers from bottom, lift lowest spacer .25 inch and rotate until the opening in the spacer aligns with the slot on the castor spindle and slides off. To add spacers to the bottom, lift lowest spacer until slot on castor spindle is exposed and a spacer can be slid onto castor spindle.
4. Move desired amount of spacers to top or bottom of bracket. Make sure spacers are equal on both castor wheels and a thrust washer is positioned on each side of frame bracket.
5. Reinstall cap, lower broom and correct broom chain length.

Broom Lift Chain Tension

With the castors adjusted so there is a 2" – 4" brush flat spot on ground (Fig. 4) adjust lift chain so, in transport lift position, the brush is raised approximately 1–2" off ground with castors still on ground. Chain should not lift castors off of ground (Fig. 5).

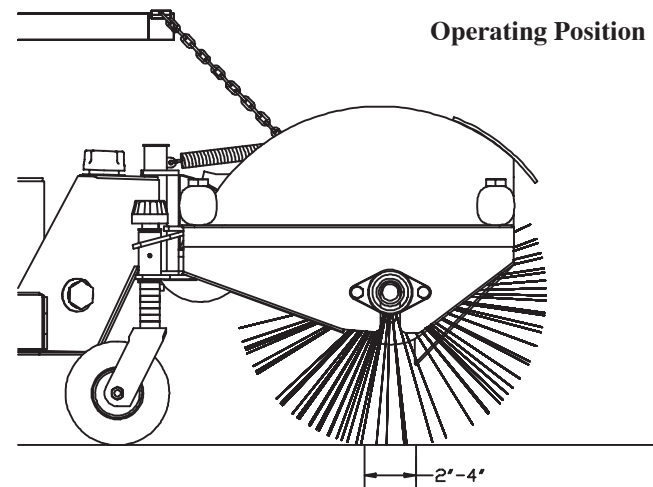


Figure 4

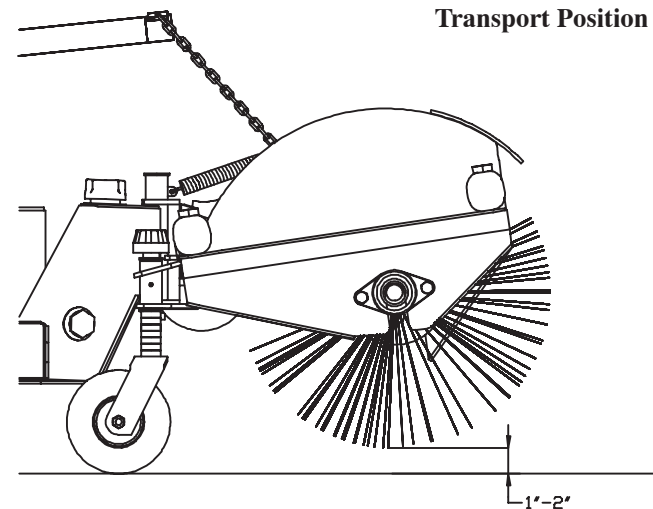


Figure 5

Check Hydraulic System

The hydraulic system is designed to operate on Mobil 424 hydraulic oil. The machine has a 10 gallon reservoir; verify that the reservoir is filled before initial operation and daily thereafter.

To check hydraulic oil:

1. Position machine on a level surface.
2. View oil level in site glass.
3. Add oil until oil shows 1/4 way up on site glass.

Important To prevent system contamination, clean top of hydraulic oil containers before puncturing seal. Assure pour spout and funnel are clean.

Operating Instructions

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

**Warning**

Thrown debris has considerable force and could cause injury.

- **Stay away from the sweeping area when the machine is operating.**
- **Keep bystanders away from the sweeping area when the machine is running.**

Operation

1. Lower the broom to the ground and place lever in float position.
2. Increase engine speed to full throttle position.
3. Engage PTO lever.
4. Drive traction unit at a slow, comfortable speed.

Broom Angle

Manual Swivel

To set the broom angle straight, left or right, remove the pin from the manual swivel, swivel the broom head to the desired position and replace the pin.

Electric Swivel Option (Model 30728)

Toggle the control box broom angle switch left or right until the desired position is reached and release the switch.

Operating Tips

You can add measurable sweeping hours to your brush by remembering these simple things:

1. More pressure does not give a better sweep.
2. A level brush lasts longer.
3. Faster ground speed will cause the brush to wear faster.

Ground Speed

Bulldozing produces a side thrust and excessive stress on the broom. While operating under the plow effect, the bristles are flexed against the steel ring which holds them and, eventually, this flexing will break the bristles from the ring.

Curb Climbing and Trailer Loading

When climbing curbs or loading the broom on a trailer, raise the broom to the transport position and drive forward slowly. The curb or trailer ramp will contact the brush bristles and raise the broom for proper climbing.

Maintenance



Caution



To prevent accidental starting of the engine, while performing maintenance, shut engine off and remove key from the ignition switch.

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

Lubrication

The broom must be lubricated regularly. If machine is operated under normal conditions, lubricate with No. 2 general purpose lithium base grease after every 8 hours of operation or daily, whichever comes first. Lubricate fittings immediately after every washing regardless of the interval listed.

The broom has (9) fittings that must be lubricated.

- Castor shaft bushings (2)
- Broom head pivot (1)
- Rotor bearing (1)
- Rotor yoke (1)
- Broom lift pivot tubes (4)

Disconnecting the Broom from the Traction Unit

1. Position the traction unit on a level surface, lift the broom to highest position and remove the 1/2" x 4" arm lock pins and arm lock brackets.
2. Lower the broom, shut off engine and engage the parking brake.
3. Remove the lift chain.



Warning



Since the right hand push arm is spring loaded to about 100 pounds and left hand push arm is spring loaded to about 150 pounds, a helper is needed to push the push arm down. Sudden release of the push arm could cause injury.

4. Have a helper carefully push down on right push arm while you remove the capscrews, flat washers and flange nuts securing the ball joint mount to the broom

mount. Now the helper can carefully allow the push arm to move upward, which will gradually release the 100 pounds of spring load.

5. Have a helper carefully push down on left push arm while you remove the capscrews, flat washers and flange nuts securing the ball joint mount to the broom mount. Now the helper can carefully allow the push arm to move upward, which will gradually release the 150 pounds of spring load.
6. Disconnect wire from control box to actuator plug. (Option)
7. Back the traction unit away from the broom.

Changing Brush Elements

The rotor assembly contains 34 brush elements.

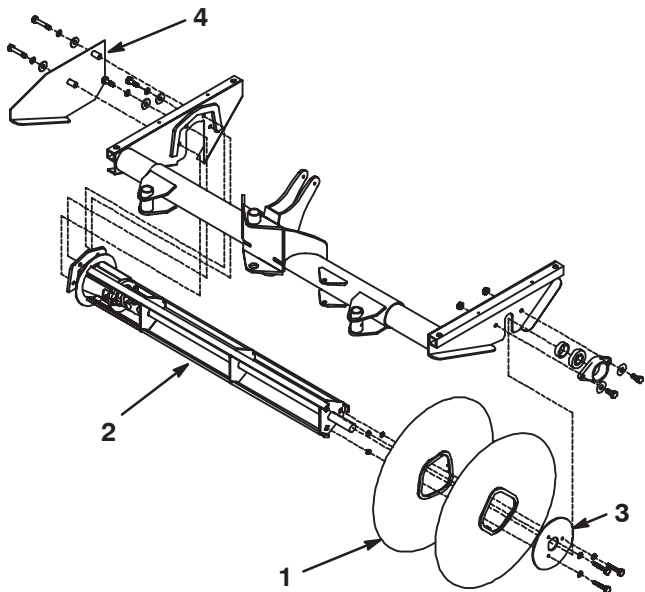


Figure 6

- | | |
|-------------------------|----------|
| 1. Brush element | 3. Rotor |
| 2. Brush retainer plate | 4. Guard |

1. Park machine on a level surface and lower broom head.
2. Remove bearing housing bolts.
3. Remove bolts from guard and hydraulic motor mount.
4. Start traction unit and slowly raise broom to highest possible position and turn off engine. Block up broom frame so it cannot accidentally fall.
5. Remove brush retaining plate.
6. Slide brush elements off rotor.
7. Slide new brush elements onto rotor so alignment pins of element ride over extended bar of rotor.

8. Reinstall brush retaining plate.
9. Reinstall bearing housing, hydraulic motor mount and guard.

Broom Lift Chain Tension

Note: Whenever brush elements are replaced or castor height adjusted the lift chain must be adjusted to apply proper downward brush pressure

With castors adjusted for 2" – 4" brush flat spot on ground (Fig. 4) adjust lift chain so, in transport lift position, the brush is raised approximately 1 – 2" off ground with castors still on ground. Chain should not lift castors off of ground. (Fig. 5)

Changing Hydraulic System Oil And Filter

The hydraulic system filter must be changed initially, after the first 5 hours of operation, and thereafter every 200 hours of operation or yearly, whichever comes first. Use a suitable oil filter for replacement. The hydraulic oil must be changed every 200 hours of operation or yearly, whichever comes first. To change oil:

1. Park machine on a level surface, raise broom and turn the engine off.
2. Place drain pan under drain plug in underside of tank. Remove drain plug. Remove reservoir cap.
3. Clean the area around the hydraulic oil filter. Remove filter from the bottom of the filter head and allow the oil to flow into a drain pan. Dispose of oil and filter properly.
4. Apply a film of oil on the filter gasket. Install filter by hand until gasket contacts filter head, then tighten filter an additional three-fourths turn.
5. Lower broom to ground.

Note: Do not fill past 1/4 way up on sight glass.

6. Add 7 gallons of hydraulic oil to the reservoir (refer to Check Hydraulic System). Run brush for 1 minute, then add 3 additional gallons of oil or until level shows 1/4 way up on sight glass.
7. Check all connections for leaks.

Servicing Castor Fork Bushings

After many hours of operation, the bushings pressed into the top and bottom of the frame bracket will wear. To check the bushings, move castor fork fore and aft and from side to side. If castor spindle is loose in the bushings, bushings are worn and must be replaced.

1. Start traction unit and raise broom to highest possible position and turn off engine. Block up broom frame so it cannot accidentally fall.
2. Remove cap and thrust washers from top of castor spindle.
3. Pull castor spindle out of bracket. Allow thrust washers to remain on bottom of spindle.
4. Insert pin punch into top or bottom of bracket and drive bushing out of tube. Also, drive other bushing out of bracket. Clean inside of bracket to remove any dirt.

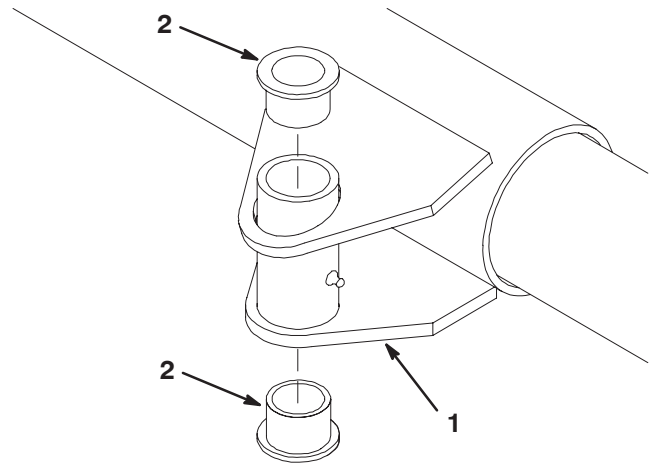


Figure 7

1. Bracket 2. Bushing

5. Apply grease to inside and outside of new bushings. Using a hammer and flat plate, drive bushings into bracket.
6. Inspect castor shaft for wear and replace if damaged.
7. Push castor shaft through bushings in bracket. Slide spacers onto shaft and secure with cap.

Servicing Castor Wheel And Bearing

The castor wheel rotates on a high-quality sealed roller bearing and is supported by a spacer bushing. Even after many hours of use the bearing wear will be minimal. A wobbly castor wheel usually indicates a worn bearing.

1. Remove locknut from capscrew holding castor wheel assembly in castor fork. Grasp castor wheel and slide capscrew out of fork.
2. Remove outer bearing from wheel hub and allow bearing spacer to fall out. Remove outer bearing from opposite side of wheel hub.

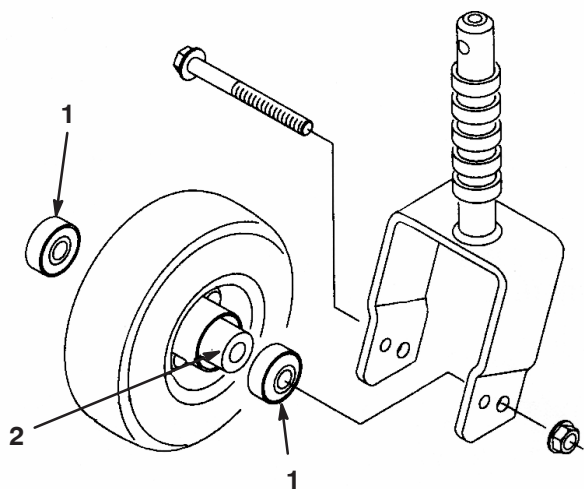


Figure 8

1. Bearing

2. Spacer

3. Check the bearings, spacer and inside of wheel hub for wear. Replace defective parts as required.
4. To assemble the castor wheel, push outer bearing into wheel hub. Slide bearing spacer into wheel hub. Push other bearing into open end of wheel hub to captivate the spacer inside the wheel hub.
5. Install castor wheel assembly in castor fork and secure in place with capscrew and locknut.



The 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. 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 800-982-2740
E-mail: commercial.service@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 express 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, modified, or unapproved accessories
- Product failures which result from failure to perform required maintenance and/or adjustments
- 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, blades, reels, bedknives, tines, spark plugs, castor wheels, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.

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. If all other remedies fail, you may contact us at Toro Warranty Company.

- Failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, or chemicals, etc.
- Normal "wear and tear" items. 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 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 factory remanufactured parts rather than new parts for some warranty repairs.

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 printed in your operator's manual or contained in the engine manufacturer's documentation for details.