



Form No. 3429-959 Rev B

Count on it.

Operator's Manual

Angle Broom TXL 2000 Tool Carrier

Model No. 22538—Serial No. 318000001 and Up



⚠ WARNING

CALIFORNIA Proposition 65 Warning

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

Introduction

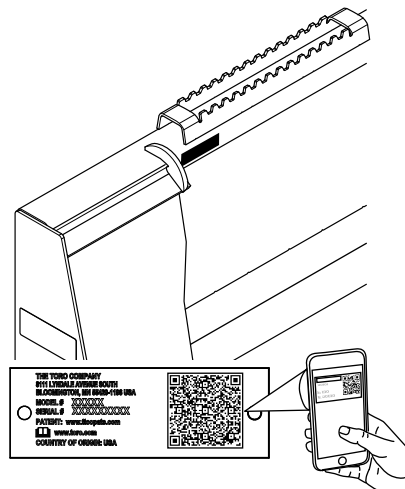
The angle broom attachment is intended to be used on a Toro tool carrier. It is designed primarily for sweeping walkways and driveways of dirt or snow. Using this product for purposes other than its intended use could prove dangerous to you and bystanders.

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.

Visit www.Toro.com for product safety and operation training materials, accessory information, help finding a dealer, or to register your product.

Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready. [Figure 1](#) identifies the location of the model and serial numbers on the product. Write the numbers in the space provided.

Important: With your mobile device, you can scan the QR code on the serial number decal (if equipped) to access warranty, parts, and other product information.



g271003

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.



g000502

Figure 2

1. Safety-alert symbol

This manual uses 2 words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

Contents


Safety	3
General Safety	3
Slope Safety	3
Broom Safety	4
Maintenance and Storage Safety	4
Safety and Instructional Decals	5
Product Overview	6
Specifications	6
Operation	6
Installing and Removing the Attachment	6
Using the Broom	7
Checking the Sweeping Path	7
Adjusting the Sweeping Path	8
Adjusting the Angle	8
Using the Kickstands	9
Clearing a Clogged Broom	9
Transport Position	10
Operating Tips	10
Maintenance	11
Recommended Maintenance Schedule(s)	11
Greasing the Broom	11
Replacing the Brushes	11
Checking the Hydraulic Lines	13
Storage	14
Troubleshooting	15

Safety

General Safety

Always follow all safety instructions to avoid serious injury or death.

- **Do not transport an attachment with the arms raised or extended;** always transport the attachment close to the ground, with the loader arms retracted; refer to [Transport Position \(page 10\)](#).
- Read and understand the content of this *Operator's Manual* before starting the engine.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Never allow children or untrained people to operate the machine.
- Keep your hands and feet away from the moving components and attachments.
- Do not operate the machine without the guards and other safety protective devices in place and working on the machine.
- Keep bystanders and pets a safe distance away from the machine.
- Stop the machine, shut off the engine, and remove the key before servicing, fueling, or unclogging the machine.

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

You can find additional safety information where needed throughout this *Operator's Manual*.

Slope Safety

- **Operate the machine up and down slopes with the heavy end of the machine uphill.** Weight distribution changes with attachments. This attachment makes the front of machine the heavy end.
- **Keep the attachment in the lowered position with the loader arms retracted when on slopes.** Raising the attachment or extending the loader arms on a slope affects the stability of the machine.
- Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. Operating the machine on any slope or uneven terrain requires extra caution.

- Establish your own procedures and rules for operating on slopes. These procedures must include surveying the site to determine which slopes are safe for machine operation. Always use common sense and good judgment when performing this survey.
- Slow down and use extra care on hillsides. Ground conditions can affect the stability of the machine.
- Avoid starting or stopping on a slope. If the machine loses traction, proceed slowly, straight down the slope.
- Avoid turning on slopes. If you must turn, turn slowly and keep the heavy end of the machine uphill.
- Keep all movements on slopes slow and gradual. Do not make sudden changes in speed or direction.
- If you feel uneasy operating the machine on a slope, do not do it.
- Watch for holes, ruts, or bumps, as uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use caution when operating on wet surfaces. Reduced traction could cause sliding.
- Do not operate the machine near drop-offs, ditches, embankments, or bodies of water. The machine could suddenly roll over if a wheel or track goes over the edge or the edge caves in. Maintain a safe distance between the machine and any hazard.
- Do not remove or add attachments on a slope.
- Do not park the machine on a hillside or slope.

- After striking a foreign object, shut off the engine, remove the key, thoroughly inspect the attachment for any damage, and repair the damage before starting and operating the attachment.
- Always lower the attachment each time you shut off the machine or leave the operating position.

Maintenance and Storage Safety

- Check fasteners at frequent intervals for proper tightness to ensure that the equipment is in safe operating condition.
- Refer to the *Operator's Manual* for important details if you store the attachment for an extended period of time
- Maintain or replace safety and instruction labels, as necessary.

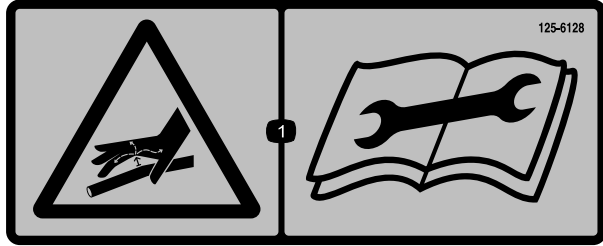
Broom Safety

- Wear appropriate clothing including eye protection, long pants, substantial slip-resistant footwear, and hearing protection; also wear a respirator or dust mask in dusty conditions. Tie back long hair and do not wear loose clothing or loose jewelry.
- Sharp objects can become entangled in the bristles. Wear protective gloves and use caution when cleaning out the broom of foreign objects; do not use your bare hands.
- Never operate the machine at high transport speeds on slippery surfaces. Use care when reversing.
- Do not operate the machine near glass enclosures, automobiles, window wells, drop offs, etc. without proper adjustment of the discharge angle. Keep children and pets away.
- Do not overload the machine capacity by attempting to clear snow, dirt, or thatch at too fast of a rate.

Safety and Instructional Decals



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



125-6128

1. High pressure fluid hazard, injection into the body—read the *Operator's Manual* before performing maintenance.

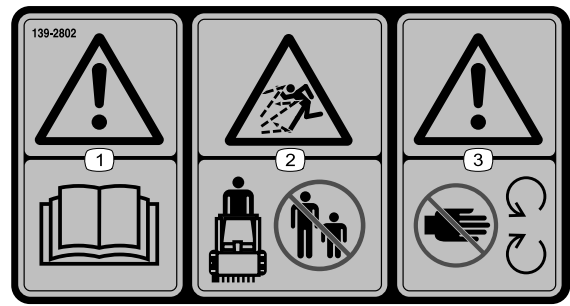


131-0711

1. Crushing hazard—keep away from pinch points and actuating parts.

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.
For more information, please visit www.ttcoCAProp65.com

133-8061



139-2802

1. Warning—read the *Operator's Manual*.
2. Thrown object hazard—keep bystanders away.
3. Warning—stay away from moving parts.

Product Overview

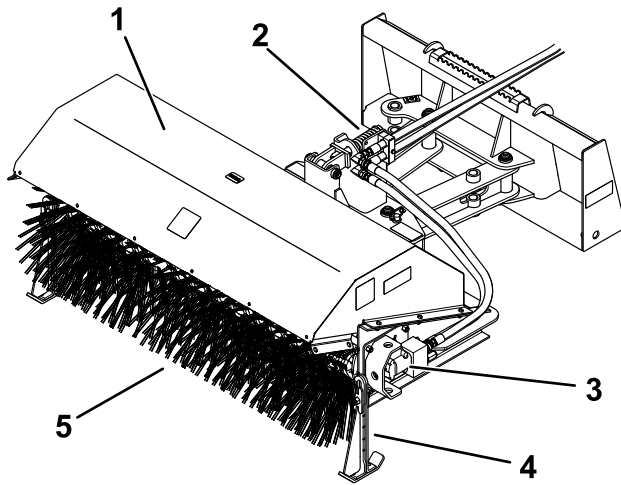


Figure 3

- | | |
|--------------------|--------------|
| 1. Hood | 4. Kickstand |
| 2. Adjustment bolt | 5. Brushes |
| 3. Motor | |

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Specifications

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

Sweeping width	152 cm (60 inches)
Overall Width	175 cm (69 inches)
Rotation angle	27 degrees
Sweeping width at full angle	137 cm (54 inches)
Depth	173 cm (68 inches)
Height	86 cm (34 inches)
Weight	440 kg (970 lb)
Number of brushes	29

To ensure optimum performance and continued safety certification of the machine, use only genuine Toro replacement parts and accessories. Replacement parts and accessories made by other manufacturers could be dangerous, and such use could void the product warranty.

Operation

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

Installing and Removing the Attachment

Refer to the *Operator's Manual* for the traction unit for the installation and removal procedure.

Important: Before installing the attachment, position the machine on a level surface, ensure that the mount plates are free of any dirt or debris, and ensure that the pins rotate freely. If the pins do not rotate freely, grease them.

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

Note: To check the rotation of the broom, raise the broom off the ground and engage the hydraulics using the detent position on the traction unit. The broom should sweep away from the machine or rotate clockwise when viewed from the left side. If it sweeps toward the machine or rotates counterclockwise when viewed from the left side, switch the couplers on the hydraulic hoses.

⚠ WARNING

If you do not fully seat the quick-attach pins through the attachment mount plate, the attachment could fall off the machine, crushing you or bystanders.

Ensure that the quick-attach pins are fully seated in the attachment mount plate.

⚠ WARNING

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

- Ensure that all hydraulic-fluid hoses and lines are in good condition and all hydraulic connections and fittings are tight before applying pressure to the hydraulic system.
- Keep your body and hands away from pinhole leaks or nozzles that eject high-pressure hydraulic fluid.
- Use cardboard or paper to find hydraulic leaks; never use your hands.

⚠ CAUTION

Hydraulic couplers, hydraulic lines/valves, and hydraulic fluid may be hot. If you contact hot components, you may be burned.

- Wear gloves when disconnecting the hydraulic couplers.
- Allow the machine to cool before touching hydraulic components.
- Do not touch hydraulic fluid spills.

Using the Broom

Use the auxiliary hydraulic controls to operate the broom.

Note: The broom should sweep away from the machine (i.e., rotate clockwise when viewed on the left side of the machine). If the broom sweeps toward the machine, switch the couplers on the hydraulic hoses.

Important: Do not quickly change rotation direction without waiting for the broom to stop; otherwise, you may damage drive components or the motor.

Checking the Sweeping Path

A broom sweeps with the tips of its bristles. When you apply too much downward pressure, the broom no longer uses its tips; the broom is now working with the sides of the bristles. This limits the flicking action of the bristles and sweeping effectiveness, decreasing the service life of the broom.

1. Drive the machine to a flat, dusty or snowy area and stop the machine.
2. Raise the broom, engage it, slowly lower it to the ground to sweep away some snow or debris for about 10 seconds, and then raise it.
3. Back the machine away from the area swept.
4. Disengage the broom and shut off the machine and remove the key.
5. Wait for all moving parts to stop before leaving the operating position.
6. Make sure that the area swept equals the length of the broom and a maximum width of 51 to 102 mm (2 to 4 inches) as shown [Figure 4](#).

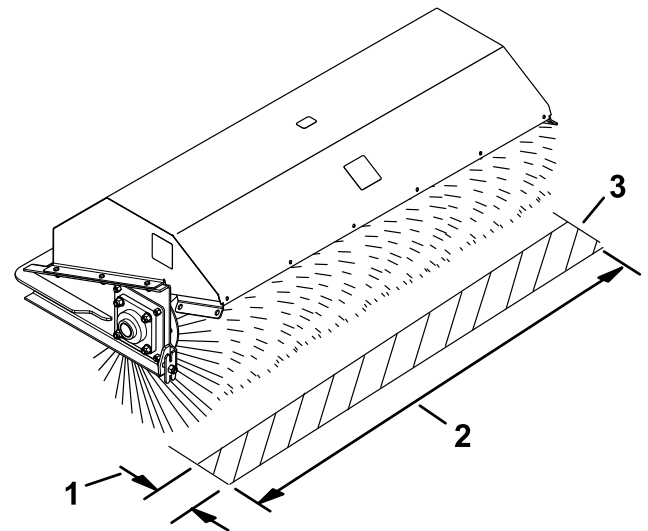


Figure 4

1. 51 to 102 mm (2 to 4 inches) maximum width
2. Length of broom
3. Swept area

7. If the width of the area swept is incorrect, proceed to [Adjusting the Sweeping Path \(page 8\)](#).

Adjusting the Sweeping Path

1. Park the machine on a level surface and disengage the auxiliary hydraulics.
2. Tilt the attachment fully rearward.
3. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
4. Use the adjustment bolt to raise or lower the broom as needed ([Figure 5](#)).

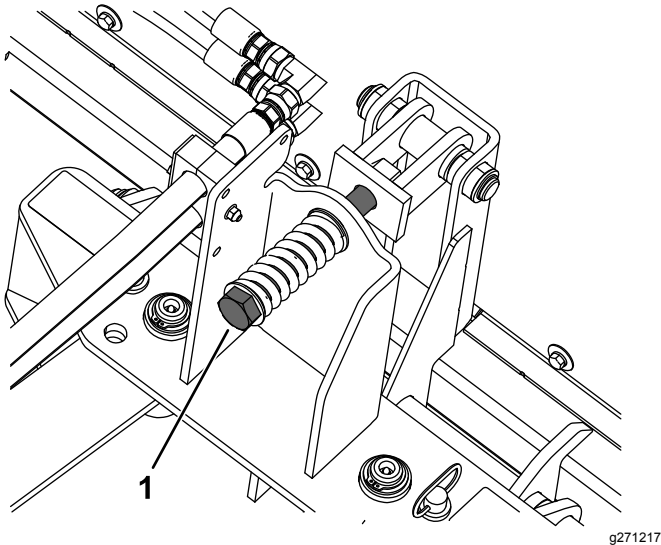


Figure 5

1. Adjustment bolt

Adjusting the Angle

1. Park the machine on a level surface and disengage the auxiliary hydraulics.
2. Lift the broom off the ground.
3. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
4. Remove the hairpin cotter from the hitch pin and remove the hitch pin ([Figure 6](#)).

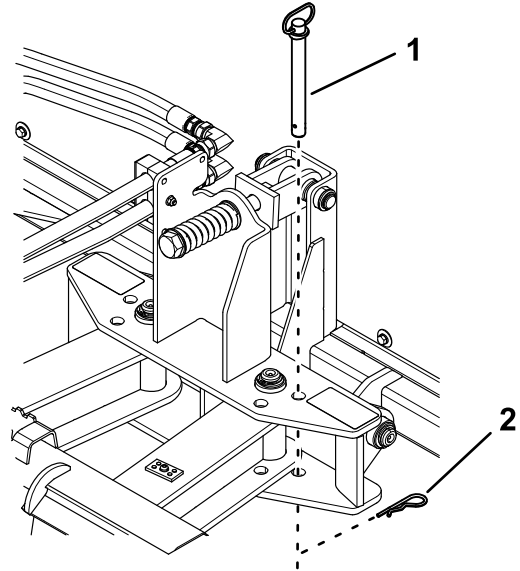


Figure 6

1. Hitch pin
2. Hairpin cotter

5. Check the sweeping path again; refer to [Checking the Sweeping Path \(page 7\)](#).

5. Rotate the broom.

Note: You can rotate the broom to 27° to the left or right or straight ahead.

6. Install the hitch pin and hairpin cotter ([Figure 6](#)).

Using the Kickstands

Use the kickstands to raise the broom off the ground when you are not using the machine, performing maintenance, or storing the broom. This eliminates unnecessary pressure on the bristles.

Important: Do not operate the broom with the kickstands down.

1. Park the machine on a level surface and disengage the auxiliary hydraulics.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. For both kickstands, complete the following steps (Figure 7):
 - A. Loosen the nut for the kickstand.
 - B. Raise or lower the kickstand.
 - C. Tighten the nut.

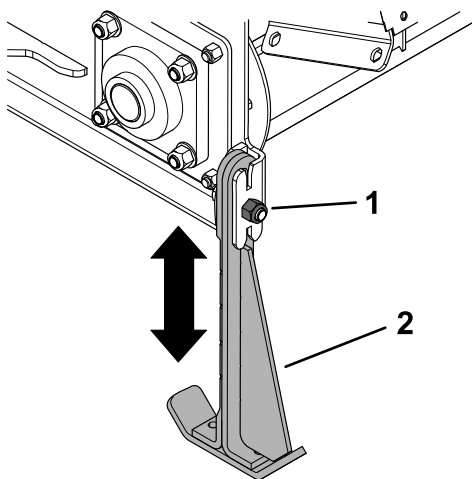


Figure 7

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Clearing a Clogged Broom

⚠ WARNING

The rotating broom could cause serious injury.

Shut off the machine and allow all rotating parts to stop before cleaning the broom.

1. Stay in the operating position and release the traction control.
2. While engaging the broom, raise the broom above the ground.

If you cannot unclog the broom by lifting it into the air, clear the broom as follows:

1. Park the machine on a level surface and disengage the auxiliary hydraulics.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. While wearing thickly-padded gloves, use caution to manually clear foreign objects out of the broom.

⚠ CAUTION

Sharp objects can become entangled in the bristles and can cause personal injury.

Wear gloves and use caution when cleaning foreign objects out of the broom; never use your bare hands.

Transport Position

When transporting an attachment, keep the attachment as close to the ground as possible, no more than 15 cm (6 inches) above the ground, and keep the loader arms retracted. Tilt it rearward.

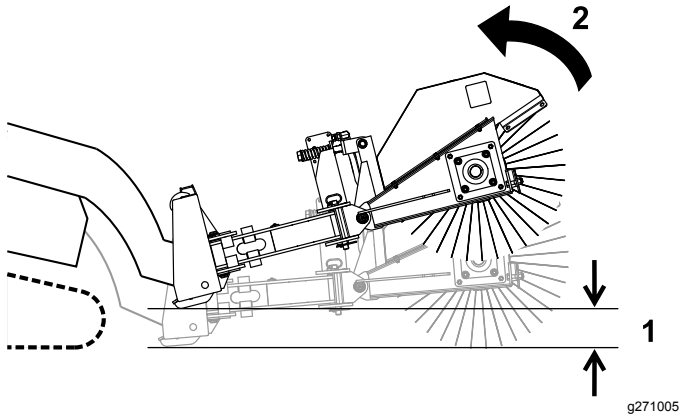


Figure 8

1. No more than 15 cm (6 inches) above the ground
2. Tilt the attachment rearward.

Operating Tips

- If the ground speed is too fast, debris will pile up in front of the broom, causing it to bulldoze instead of sweep. This can damage the broom.
- Reduce ground speed on rough terrain to minimize bouncing the broom.
- More pressure does not give a better sweep, but it will wear out the broom faster.
- A level broom lasts longer.
- Sweep with the wind to avoid debris blowing back into the operator.
- Increase the brush speed and decrease travel speed when sweeping snow.
- Make multiple passes to clear heavy or deep snow.

Maintenance

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

⚠ CAUTION

If you leave the key in the switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the switch before you perform any maintenance.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
Before each use or daily	<ul style="list-style-type: none">Grease the broom (and immediately after every washing).Check the hydraulic lines for leaks, loose fittings, kinked lines, loose mounting supports, wear, weather, and chemical deterioration.

Greasing the Broom

Service Interval: Before each use or daily (and immediately after every washing).

1. Park the machine on a level surface and disengage the auxiliary hydraulics.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Lower the kickstands.
4. Clean the grease fittings with a rag.
5. Grease the fittings and bearing shown in [Figure 9](#) and [Figure 10](#).
6. Wipe up any excess grease.

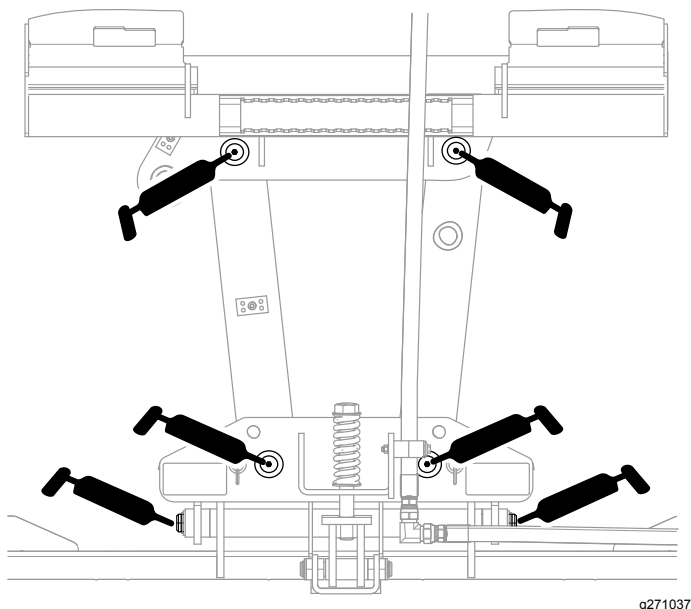


Figure 9

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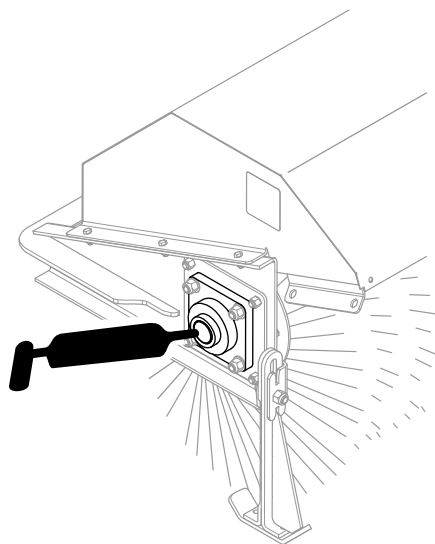


Figure 10

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Replacing the Brushes

Removing the Brushes

Note: Replace all bristles at the same time; otherwise, a mix of old and new bristles reduces performance.

1. Park the machine on a level surface and disengage the auxiliary hydraulics.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Disconnect the attachment hydraulic connectors from the traction unit.
4. Lower the kickstands.

5. Remove the 2 bolts (1/2 x 1-3/4 inch) and 2 locknuts (1/2 inch) securing the motor assembly and remove the motor assembly (Figure 11).

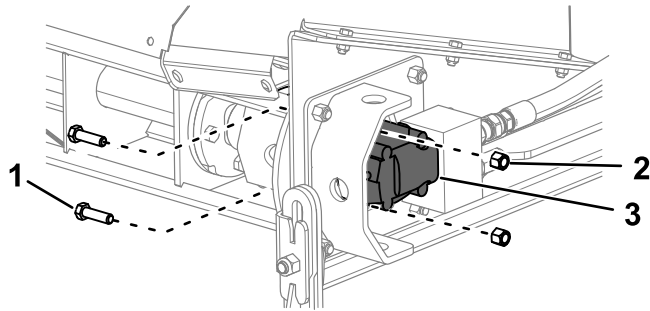


Figure 11

1. Bolt—1/2 x 1-3/4 inch (2)
2. Locknut—1/2 inch (2)
3. Motor

6. On the opposite side of the broom, remove the 4 bolts (1/2 x 1-1/4 inch), 4 spring washers, and 4 locknuts (1/2 inch) securing the bearing mount plate (Figure 12). Remove the bearing mount plate with the bearing still attached.

Note: The core should now be free from the brush head.

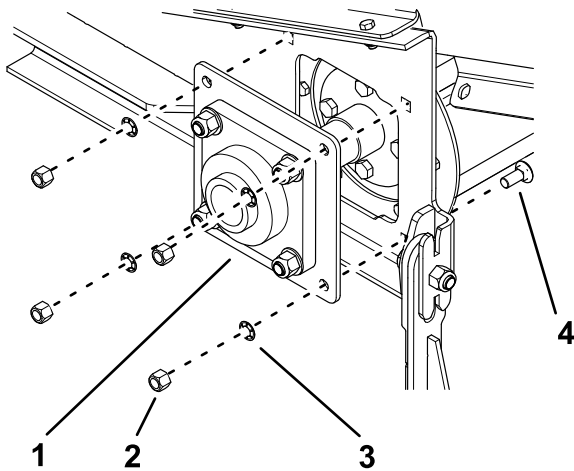


Figure 12

1. Bearing mount plate
2. Locknut—1/2 inch (4)
3. Spring washer (4)
4. Bolt—1/2 x 1-1/4 inch (4)

7. Lift open the hood and remove the core.
8. Remove the 6 bolts, 6 nuts, and the retaining plate (Figure 13).

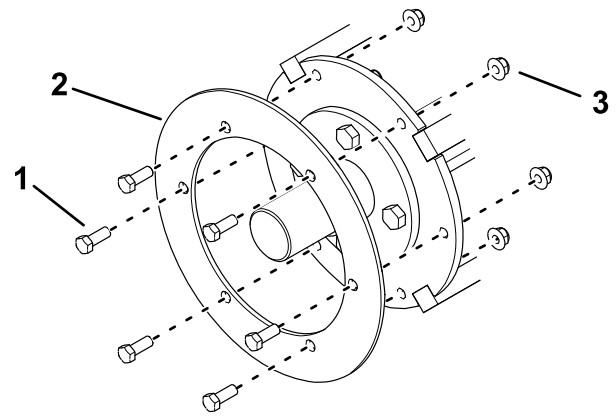


Figure 13

1. Bolt—3/8 x 1 inch (6)
2. Retaining plate
3. Nut—3/8 inch (6)

9. Slide the brushes off the broom.

Installing the Brushes

1. Inspect the broom core for damage or excessive wear. Replace it if it is damaged.
2. Stand the broom core on end. Starting with a polypropylene brush, install new brushes, ensuring the prongs straddle the rods of the core (Figure 14). Alternate between polypropylene and wire brushes, with each consecutive brush 180° apart.

Note: The last brush installed should be a polypropylene brush.

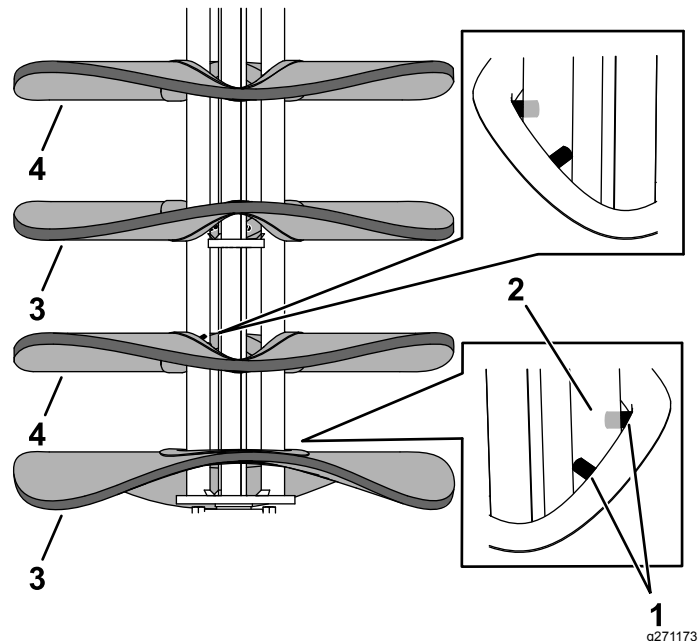


Figure 14

1. Prongs
2. Rod
3. Polypropylene brush
4. Wire brush

3. Install the retaining plate (Figure 13).
4. Lay the core on the ground.

Important: Do not move the core using the brushes.

5. Start the machine and raise the broom. Position the hood over the core, then lower it over the core.
6. Shut off the engine and remove the key.
7. Install the bearing mount plate (Figure 12).
8. Remove the bolt (3/8 x 3-1/2 inches) and washer securing the drive adapter to the hydraulic motor and apply a thin layer of grease to the splines of the motor (Figure 15).

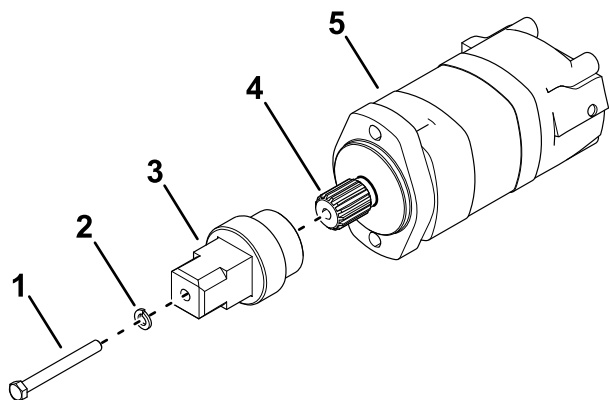


Figure 15

- | | |
|------------------------------|------------------|
| 1. Bolt (3/8 x 3-1/2 inches) | 4. Motor splines |
| 2. Washer | 5. Motor |
| 3. Drive adapter | |

-
9. Secure the drive adapter using the bolt (3/8 x 3-1/2 inches) and washer.
 10. Install the motor assembly (Figure 11).

Checking the Hydraulic Lines

Service Interval: Before each use or daily

⚠ WARNING

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

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

Storage

1. Before long-term storage, wash the attachment with mild detergent and water to remove dirt and grime.
2. Paint all scratched or bare metal surfaces.

Note: Paint is available from your Authorized Service Dealer.

3. Store the attachment in a clean, dry garage or storage area. Cover it to protect it and keep it clean.

Important: Do not store the broom with weight on the brushes.

Troubleshooting

Problem	Possible Cause	Corrective Action
The broom does not clean the surface.	<ol style="list-style-type: none">1. The broom height is incorrect.2. You are cleaning too much debris at a time.	<ol style="list-style-type: none">1. Adjust the broom height.2. Slow down and clear smaller areas of debris.
The broom does not rotate.	<ol style="list-style-type: none">1. The broom is clogged.2. The auxiliary hydraulics are not engaged.	<ol style="list-style-type: none">1. Unclog the broom.2. Engage the auxiliary hydraulics.
The broom wears out prematurely.	<ol style="list-style-type: none">1. You are using the incorrect broom height.	<ol style="list-style-type: none">1. Adjust the broom height.

California Proposition 65 Warning Information

What is this warning?

You may see a product for sale that has a warning label like the following:



WARNING: Cancer and Reproductive Harm—www.p65Warnings.ca.gov.

What is Prop 65?

Prop 65 applies to any company operating in California, selling products in California, or manufacturing products that may be sold in or brought into California. It mandates that the Governor of California maintain and publish a list of chemicals known to cause cancer, birth defects, and/or other reproductive harm. The list, which is updated annually, includes hundreds of chemicals found in many everyday items. The purpose of Prop 65 is to inform the public about exposure to these chemicals.

Prop 65 does not ban the sale of products containing these chemicals but instead requires warnings on any product, product packaging, or literature with the product. Moreover, a Prop 65 warning does not mean that a product is in violation of any product safety standards or requirements. In fact, the California government has clarified that a Prop 65 warning "is not the same as a regulatory decision that a product is 'safe' or 'unsafe.'" Many of these chemicals have been used in everyday products for years without documented harm. For more information, go to <https://oag.ca.gov/prop65/faqs-view-all>.

A Prop 65 warning means that a company has either (1) evaluated the exposure and has concluded that it exceeds the "no significant risk level"; or (2) has chosen to provide a warning based on its understanding about the presence of a listed chemical without attempting to evaluate the exposure.

Does this law apply everywhere?

Prop 65 warnings are required under California law only. These warnings are seen throughout California in a wide range of settings, including but not limited to restaurants, grocery stores, hotels, schools, and hospitals, and on a wide variety of products. Additionally, some online and mail order retailers provide Prop 65 warnings on their websites or in catalogs.

How do the California warnings compare to federal limits?

Prop 65 standards are often more stringent than federal and international standards. There are various substances that require a Prop 65 warning at levels that are far lower than federal action limits. For example, the Prop 65 standard for warnings for lead is 0.5 µg/day, which is well below the federal and international standards.

Why don't all similar products carry the warning?

- Products sold in California require Prop 65 labelling while similar products sold elsewhere do not.
- A company involved in a Prop 65 lawsuit reaching a settlement may be required to use Prop 65 warnings for its products, but other companies making similar products may have no such requirement.
- The enforcement of Prop 65 is inconsistent.
- Companies may elect not to provide warnings because they conclude that they are not required to do so under Prop 65; a lack of warnings for a product does not mean that the product is free of listed chemicals at similar levels.

Why does Toro include this warning?

Toro has chosen to provide consumers with as much information as possible so that they can make informed decisions about the products they buy and use. Toro provides warnings in certain cases based on its knowledge of the presence of one or more listed chemicals without evaluating the level of exposure, as not all the listed chemicals provide exposure limit requirements. While the exposure from Toro products may be negligible or well within the "no significant risk" range, out of an abundance of caution, Toro has elected to provide the Prop 65 warnings. Moreover, if Toro does not provide these warnings, it could be sued by the State of California or by private parties seeking to enforce Prop 65 and subject to substantial penalties.