

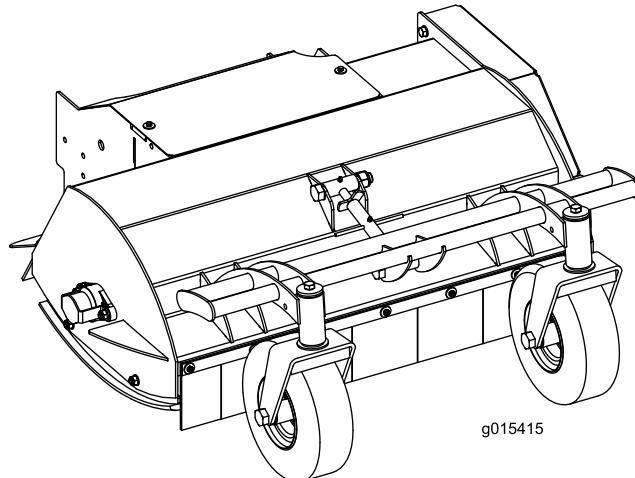
**TORO**<sup>®</sup>

**Count on it.**

**Operator's Manual**

## **91cm (36in) Mid-Size Flail Attachment**

**Model No. 02720—Serial No. 410300000 and Up**



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

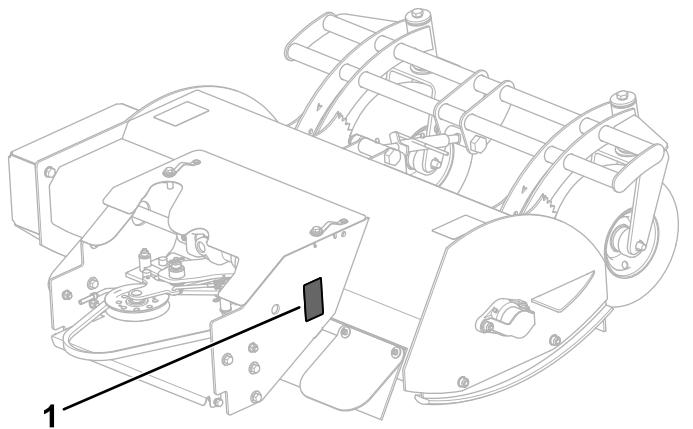
# Introduction

This flail-blade cutting unit is mounted to a walk-behind traction unit and is intended to cut grass and other low-lying vegetation within the limitations stated in this manual. 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](http://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.



**Figure 1**

g373546

1. Model and serial number location

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

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

The safety-alert symbol (**Figure 2**) appears both in this manual and on the machine to identify important safety messages that you must follow to avoid accidents. This symbol will appear with the word **Danger**, **Warning**, or **Caution**.

- **Danger** indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.
- **Warning** indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.
- **Caution** indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.



sa-black

**Figure 2**  
Safety-alert symbol

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# Safety

This machine has been designed in accordance with EN 12733.

## General Safety

This product is capable of amputating hands and feet and of throwing objects. Always follow all safety instructions to avoid serious personal injury.

- Read, understand, and follow the instructions and warnings in this *Operator's Manual* and on the machine and attachments before starting the engine.
- Do not put your hands or feet near moving parts of or under the machine. Keep clear of any discharge opening.
- Do not operate the machine without all guards and other safety protective devices in place and functioning properly on the machine.
- Keep bystanders and children out of the operating area. Do not allow children to operate the machine. Allow only people who are responsible, trained, familiar with the instructions, and physically capable to operate the machine.
- Stop the machine, shut off the engine, remove the ignition key (if equipped), and wait for all moving parts to stop 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.

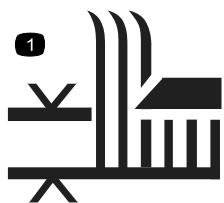
## Cutting Unit Safety

- The cutting unit is only a complete machine when installed on a traction unit. Read the traction unit *Operator's Manual* carefully for complete instructions on the safe use of the machine.
- Stop the machine, remove the key, and wait for all moving parts to stop before inspecting the attachment after striking an object or if there is an abnormal vibration in the machine. Make all necessary repairs before resuming operation.
- Keep all parts in good working condition and all hardware tightened. Replace all worn or damaged decals.
- Use only accessories, attachments, and replacement parts approved by Toro.

# Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Keep safety signs clear and visible, replace any decal that is damaged or missing.

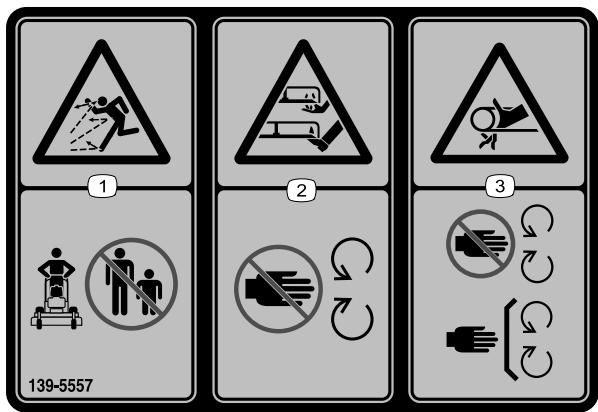


**320006**

decal320006

1. Height of cut

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**139-5557**

decal139-5557

1. Thrown object hazard—keep bystanders away.
2. Cutting/dismemberment hazard of hand or foot, mower blade—stay away from moving parts.
3. Entanglement hazard, belt—stay away from moving parts; keep all guards and shields in place.

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# Product Overview

## Specifications

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

Length	212 cm (83-1/2 inches)
Width	109.5 cm (43-1/8 inches)
Height	112 cm (44 inches)
Weight (cutting unit only)	135 kg (298 lb)
Engine speed	3600 rpm
Rotor speed	3000 rpm
Number of blades	24

## Attachments/Accessories

A selection of Toro approved attachments and accessories is available for use with the machine to enhance and expand its capabilities. Contact your Authorized Service Dealer or authorized Toro distributor or go to [www.Toro.com](http://www.Toro.com) for a list of all approved attachments and accessories.

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

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

## Adjusting the Height of Cut

You can adjust the height of cut from 12.7 mm to 140 mm (1/2 to 5-1/2 inches) as follows:

1. Park the machine on a level surface, disengage the PTO, and engage the parking brake.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. While facing the mower from the front, release the turnbuckle lock (Figure 3).

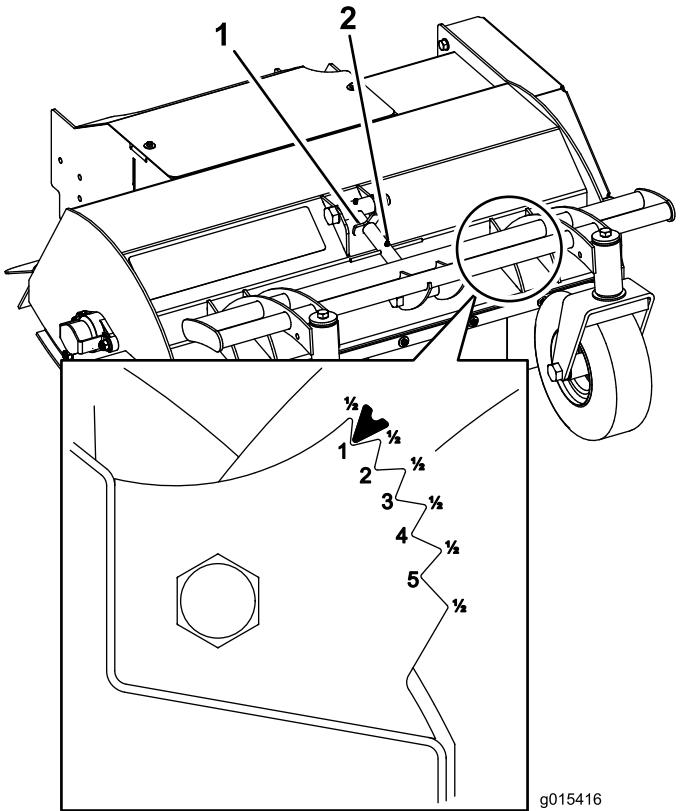


Figure 3

1. Turnbuckle lock

2. Turnbuckle

4. Turn the turnbuckle clockwise to lower the height of cut and counterclockwise to raise it until you reach the desired setting on the height-of-cut gauge (Figure 3).

Height of Cut (mm)	Height of Cut (inches)
13 mm	1/2 inch
25 mm	1 inch
38 mm	1-1/2 inches
51 mm	2 inches
64 mm	2-1/2 inches
76 mm	3 inches
89 mm	3-1/2 inches
102 mm	4 inches
114 mm	4-1/2 inches
127 mm	5 inches
140 mm	5-1/2 inches

5. Set the turnbuckle lock to lock the height-of-cut setting (Figure 3).

## Adjusting the Anti-Scalp Skids

1. Park the machine on a level surface, disengage the PTO, and engage the parking brake.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Loosen the 2 bolts and 2 nuts securing an anti-scalp skid and raise or lower it so that they are lower than the blades but not touching the ground (Figure 4).

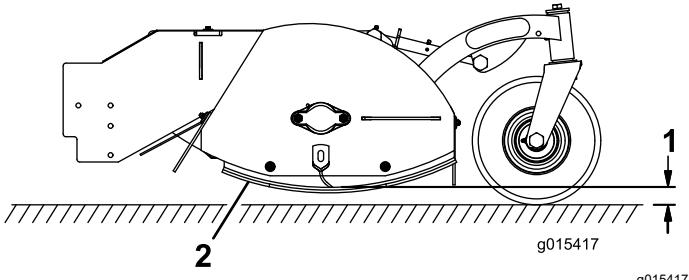


Figure 4

1. Height of cut

2. Anti-scalp skid

4. Tighten the bolts and nuts.
5. Repeat this procedure for the other side using the same measurement you set in step 3.

# Maintenance

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

## Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
Before each use or daily	<ul style="list-style-type: none"><li>Inspect the blades for wear or damage.</li><li>Clean under the guards.</li><li>Check the rubber discharge guards.</li></ul>
Every 50 hours	<ul style="list-style-type: none"><li>Grease the fittings.</li><li>Check the gearbox oil level.</li><li>Check the brake.</li><li>Check the rotor drive belt for wear or damage.</li><li>Check the gearbox drive belt for wear or damage.</li></ul>
Every 400 hours	<ul style="list-style-type: none"><li>Grease the internal parts.</li></ul>

## Pre-Maintenance Procedures

### Preparing the Machine for Maintenance

1. Park the machine on a level surface, disengage the PTO, and engage the parking brake.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Disconnect the spark-plug wires.

# Lubrication

## Greasing the Machine

**Service Interval:** Every 50 hours—Grease the fittings.

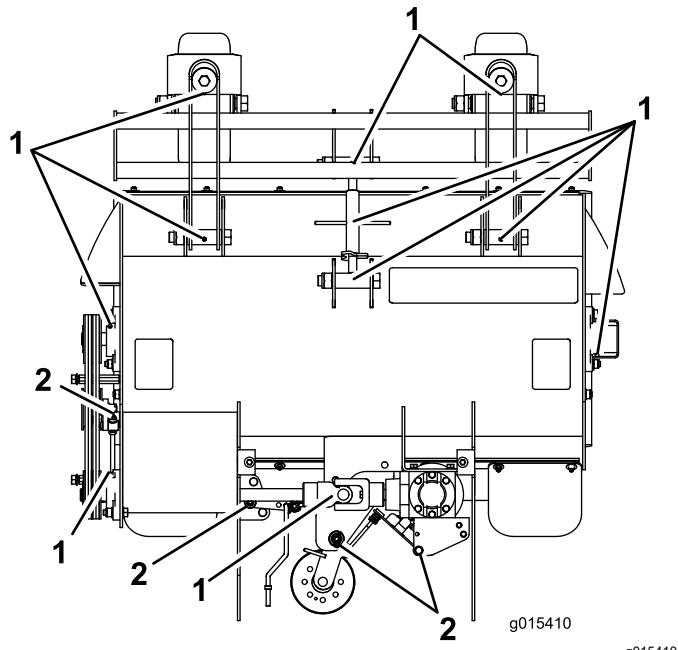
Every 400 hours—Grease the internal parts.

**Grease Type:** No. 2 lithium or molybdenum grease

1. Park the machine on a level surface, disengage the PTO, and engage the parking brake.
2. Shut off the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Clean the grease fittings with a rag. Scrape any paint off the front of the fitting(s).
4. Connect a grease gun to the fitting. Pump grease into the fittings until grease begins to ooze out of the bearings.
5. Wipe up any excess grease.

**Note:** You will need to remove some of the machine guards to reach all the grease fittings. Replace the guards when finished.

6. Every 400 operating hours, disassemble the points shown in [Figure 5](#) and apply anti-seize grease.



**Figure 5**

1. Grease fittings—grease every 50 hours
2. Internal grease points—grease every 400 hours

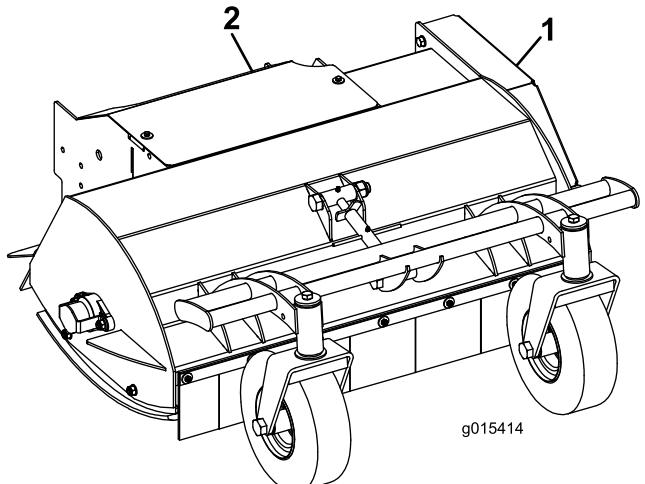
# Drive System Maintenance

## Checking the Gearbox Oil Level

**Service Interval:** Every 50 hours

**Fluid type:** EP 220 gear lube

1. Remove the top guard (Figure 6).



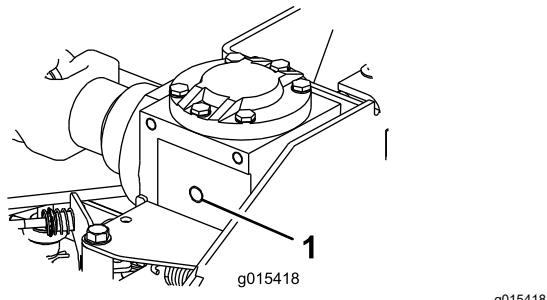
**Figure 6**

1. Side belt guard      2. Top guard

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2. Remove the plug from the gearbox fill hole and check the oil level (Figure 7).

The oil should be even with the bottom of the fill hole.



**Figure 7**

1. Gearbox fill hole

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3. If it needs oil, add oil to the fill hole until it starts to run out of the hole.
4. Install the plug in the fill hole.
5. Install the top guard (Figure 6).

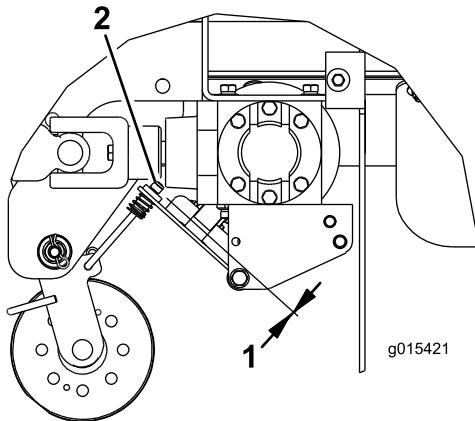
# Brake Maintenance

## Checking and Adjusting the Brake

**Service Interval:** Every 50 hours

With the PTO disengaged, check the brake clearance to ensure that it is 1 to 2 mm ([Figure 8](#)).

If not, adjust the brake nut ([Figure 8](#)) for proper clearance.



**Figure 8**

1. 1 to 2 mm

2. Brake nut

# Belt Maintenance

## Replacing the Rotor Drive Belt

**Service Interval:** Every 50 hours—Check the rotor drive belt for wear or damage.

Visually inspect the belt (Figure 9) for dirt, wear, cracks, and/or signs of overheating.

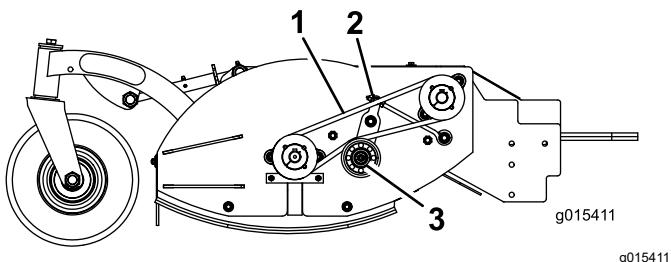
If the belt is excessively worn or shows any signs of damage, replace the belt as follows:

1. Loosen the locknut and adjusting nut to remove the tension from the belt.
2. Remove the idler pulley and worn belt.
3. Install the new belt with the idler pulley.
4. Check the belt tension.

The proper mower belt tension is 2 kg (4.5 lb) of force to deflect the belt 13 mm (1/2 inch) at the midpoint of the longest span (Figure 9).

To adjust the tension, do the following:

- A. Loosen the locknut (Figure 9).
- B. Turn the adjusting nut to increase or decrease the tension on the belt.
- C. Tighten the locknut.



**Figure 9**

1. 13 mm (1/2 inch) deflection here
2. Locknut/adjuster nut
3. Idler pulley

# Replacing the Gearbox Drive Belt

**Service Interval:** Every 50 hours—Check the gearbox drive belt for wear or damage.

Visually inspect the belt (Figure 10) for dirt, wear, cracks, and signs of overheating. If the belt is excessively worn or shows any signs of damage, replace the belt.

**Note:** Figure 10 shows the belt viewed from underneath, but the belt can be checked, adjusted, or replaced from either the top or bottom after removing the relevant guard.

To replace the belt, do the following:

1. Remove the idler pulley and belt.
2. Install the new belt with the idler pulley.
3. Engage the blade-control lever (PTO) and check the belt tension.

The proper mower belt tension is 4.5 kg (10 lb) of force to deflect the belt 13 mm (1/2 inch) at the midpoint of the longest span (Figure 10).

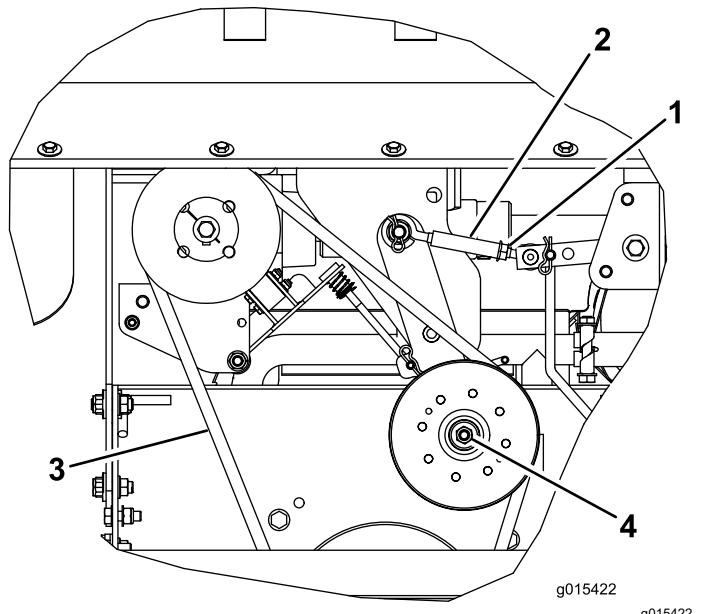
**Important:** The belt must be tight enough to not slip during heavy loads while cutting grass. Over-tensioning the belt reduces the life of the gearbox, belt, and idler pulley.

To adjust the tension, do the following:

- A. Loosen the locknut (Figure 10).
- B. Rotate the turnbuckle.

Increase the length between the eyebolts to increase the tension to the belt or decrease the length to decrease the tension on the belt.

- C. Tighten the locknut.



**Figure 10**

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1. Locknut
2. Turnbuckle
3. 13 mm (1/2 inch) deflection here
4. Idler pulley

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# Cutting Unit Maintenance

## Inspecting the Blades

**Service Interval:** Before each use or daily

Check the blades for wear or damage, paying particular attention to the cutting edge, curved area, and installation hole (Figure 11). If the blade is excessively worn or damaged, replace the blade. To ensure a superior quality of cut, keep the blades sharp.

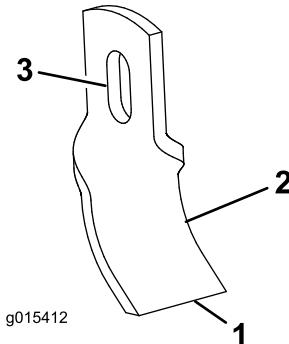


Figure 11

1. Cutting edge
2. Curved area
3. Installation hole

## Replacing a Blade

1. Holding the blade in a rag or thickly-padded glove, remove the nut, blade bolt, and blade (Figure 12).  
Discard the blade, nut, and bolt.
2. Install a new blade with a new nut and blade bolt (Figure 12).
3. Torque the fasteners to 10 N·m (7.3 ft-lb).

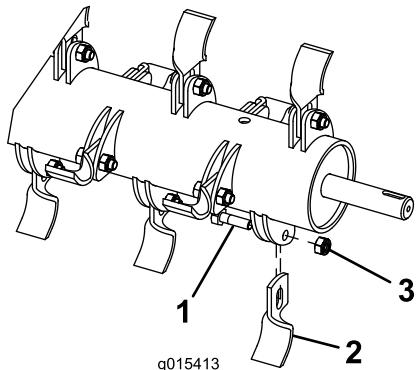


Figure 12

## Cleaning Under the Guards

**Service Interval:** Before each use or daily

Remove the top and side guards (Figure 13) and remove any debris. Replace the guards when finished.

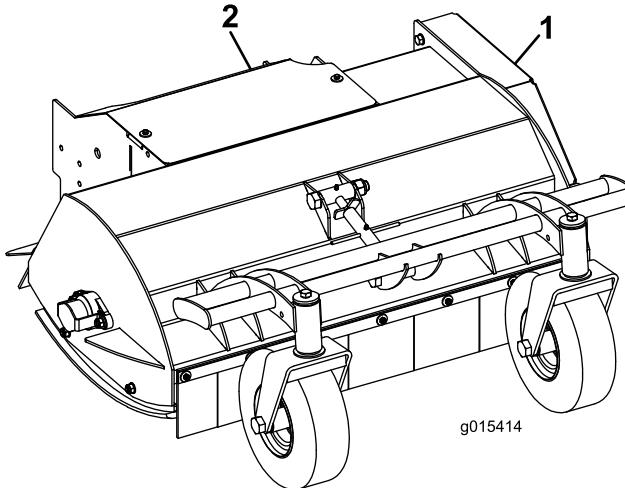


Figure 13

1. Side belt guard
2. Top guard

## Checking the Rubber Discharge Guards

**Service Interval:** Before each use or daily

Inspect the front and rear rubber guards for wear or damage (Figure 14). Replace damaged rubber guards to prevent objects being thrown into the operator's area.

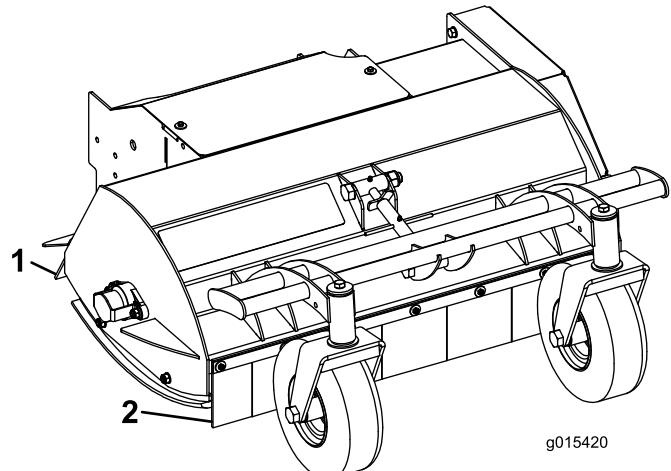


Figure 14

1. Rear rubber guard
2. Front rubber guard

# Storage

Refer to the traction unit *Operator's Manual* for properly storing the machine.

# Notes:

# Notes:

# Declaration of Incorporation

The Toro Company, 8111 Lyndale Ave. South, Bloomington, MN, USA declares that the following unit(s) conform(s) to the directives listed, when installed in accordance with the accompanying instructions onto certain Toro models as indicated on the relevant Declarations of Conformity.

Model No.	Serial No.	Product Description	Invoice Description	General Description	Directive
02720	—	91cm (36in) Mid-Size Flail Attachment	92CM (36") MS FLAIL ATTACHMENT	Cutting deck	2006/42/EC

Relevant technical documentation has been compiled as required per Part B of Annex VII of 2006/42/EC.

We will undertake to transmit, in response to requests by national authorities, relevant information on this partly completed machinery. The method of transmission shall be electronic transmittal.

This machinery shall not be put into service until incorporated into approved Toro models as indicated on the associated Declaration of Conformity and in accordance with all instructions, whereby it can be declared in conformity with all relevant Directives.

Certified:



Tom Langworthy  
Engineering Director  
8111 Lyndale Ave. South  
Bloomington, MN 55420, USA  
November 7, 2022

Authorized Representative:

Marcel Dutrieux  
Manager European Product Integrity  
Toro Europe NV  
Nijverheidsstraat 5  
2260 Oevel  
Belgium

# UK Declaration of Incorporation

The Toro Company, 8111 Lyndale Ave. South, Bloomington, MN, USA declares that the following unit(s) conform(s) to the regulations listed, when installed in accordance with the accompanying instructions onto certain Toro models as indicated on the relevant Declarations of Conformity.

Model No.	Serial No.	Product Description	Invoice Description	General Description	Regulation
02720	—	91cm (36in) Mid-Size Flail Attachment	92CM (36") MS FLAIL ATTACHMENT	Cutting deck	S.I. 2008 No. 1597

Relevant technical documentation has been compiled as required per Schedule 10 of S.I. 2008 No. 1597.

We will undertake to transmit, in response to requests by national authorities, relevant information on this partly completed machinery. The method of transmission shall be electronic transmittal.

This machinery shall not be put into service until incorporated into approved Toro models as indicated on the associated Declaration of Conformity and in accordance with all instructions, whereby it can be declared in conformity with all relevant Regulations.

This declaration has been issued under the sole responsibility of the manufacturer.  
The object of the declaration is in conformity with relevant UK legislation.

Authorized Representative:

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November 7, 2022



## EEA/UK Privacy Notice

### Toro's Use of Your Personal Information

The Toro Company ("Toro") respects your privacy. When you purchase our products, we may collect certain personal information about you, either directly from you or through your local Toro company or dealer. Toro uses this information to fulfil contractual obligations - such as to register your warranty, process your warranty claim or to contact you in the event of a product recall - and for legitimate business purposes - such as to gauge customer satisfaction, improve our products or provide you with product information which may be of interest. Toro may share your information with our subsidiaries, affiliates, dealers or other business partners in connection with these activities. We may also disclose personal information when required by law or in connection with the sale, purchase or merger of a business. We will never sell your personal information to any other company for marketing purposes.

### Retention of your Personal Information

Toro will keep your personal information as long as it is relevant for the above purposes and in accordance with legal requirements. For more information about applicable retention periods please contact [legal@toro.com](mailto:legal@toro.com).

### Toro's Commitment to Security

Your personal information may be processed in the US or another country which may have less strict data protection laws than your country of residence. Whenever we transfer your information outside of your country of residence, we will take legally required steps to ensure that appropriate safeguards are in place to protect your information and to make sure it is treated securely.

### Access and Correction

You may have the right to correct or review your personal data, or object to or restrict the processing of your data. To do so, please contact us by email at [legal@toro.com](mailto:legal@toro.com). If you have concerns about the way in which Toro has handled your information, we encourage you to raise this directly with us. Please note that European residents have the right to complain to your Data Protection Authority.



**Count on it.**