



Count on it.

Form No. 3431-366 Rev C

Operator's Manual

18in, 21in, and 26in; 8-Blade, 11-Blade, and 14-Blade Cutting Units

Greensmaster® 1018, 1021, and 1026 Mower

Model No. 04823—Serial No. 400000000 and Up

Model No. 04824—Serial No. 400000000 and Up

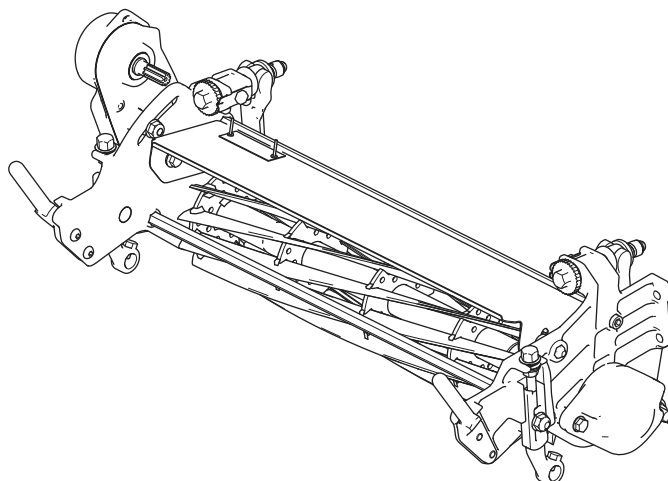
Model No. 04832—Serial No. 400000000 and Up

Model No. 04833—Serial No. 400000000 and Up

Model No. 04834—Serial No. 400000000 and Up

Model No. 04842—Serial No. 400000000 and Up

Model No. 04843—Serial No. 400000000 and Up



This product complies with all relevant European directives. For details, please see the Declaration of Incorporation (DOI) at the back of this publication.

Introduction

This cutting unit is designed for cutting turf on greens and small fairways of golf courses. 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.

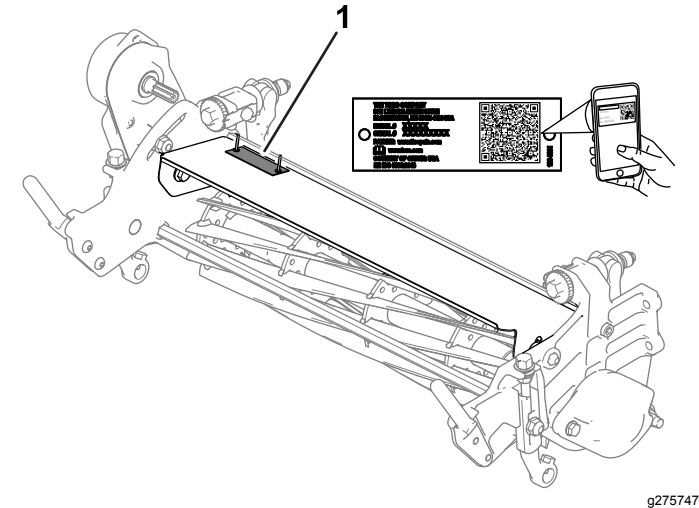


Figure 1

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.



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.

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Safety

This machine has been designed in accordance with EN ISO 5395 and ANSI B71.4-2017.

General Safety

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

- Read and understand the contents of this *Operator's Manual* before starting the machine.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Do not put your hands or feet near moving components of the machine.
- Do not operate the machine without all guards and other safety protective devices in place and functioning properly on the machine.
- Keep clear of any discharge opening.
- Keep bystanders and children out of the operating area. Never allow children to operate the machine.
- Before you leave the operator's position, do the following:
 - Park the machine on a level surface.
 - Lower the cutting unit(s).
 - Disengage the drives.
 - Engage the parking brake (if equipped).
 - Shut off the engine and remove the key.
 - Wait for all movement to stop.

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 (if equipped), and wait for all movement 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.

Blade Safety

A worn or damaged blade can break, and a piece of the blade could be thrown toward you or bystanders, resulting in serious personal injury or death.

- Inspect the blade periodically for wear or damage.
- Use care when checking the blades. Wrap the blades or wear gloves, and use caution when servicing the blades. Only replace or sharpen the blades; never straighten or weld them.
- On multi-bladed machines, take care as rotating 1 blade can cause other blades to rotate.

Safety and Instructional Decals



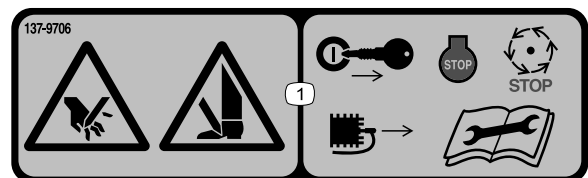
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



120-9570

decal120-9570

1. Warning—stay away from moving parts, keep all guards and shields in place.



137-9706

decal137-9706

1. Cutting hazard of the hand or foot—shut off the engine, remove the key or disconnect the spark plug, wait for all moving parts to stop, and read the *Operator's Manual* before performing maintenance.

Setup

1

Installing the Roller

No Parts Required

Procedure

The cutting unit is shipped without a front roller. Obtain a roller from your authorized Toro dealer and install it on the cutting unit, as follows:

1. Remove the plow bolt, washer, and flange nut securing one of the height-of-cut arms to the cutting unit side plate ([Figure 3](#)).

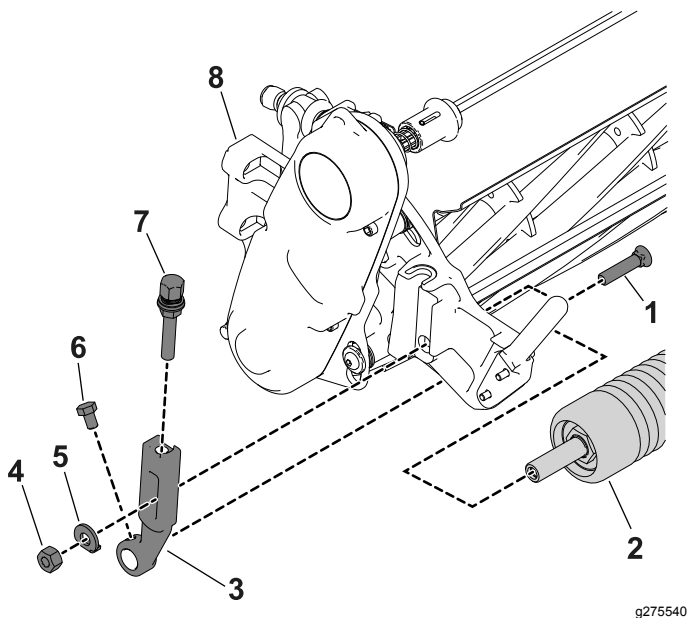


Figure 3

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- | | |
|----------------------|--------------------------|
| 1. Plow bolt | 5. Washer |
| 2. Roller | 6. Flange nut |
| 3. Height-of-cut arm | 7. Roller-mounting screw |
| 4. Adjusting screw | 8. Cutting-unit assembly |

2. Loosen the roller-mounting screws in the height-of-cut arms.
3. Slide the roller shaft into the height-of-cut arm on the opposite end of the cutting unit.
4. Slide the height-of-cut arm onto the roller shaft.
5. Loosely secure the roller to the cutting unit with the height-of-cut arm and fasteners previously removed.
6. Center the roller between the height-of-cut arms.

7. Tighten the roller-mounting screws.
8. Adjust to the desired height-of-cut and tighten the height-of-cut arm mounting fasteners.

2

Installing the Cutting Unit to the Traction Unit

No Parts Required

Procedure

Install the cutting unit to the traction unit; refer to your traction unit *Operator's Manual* for installation instructions.

3

Adjusting the Cutting Unit

No Parts Required

Procedure

1. Access the cutting unit by lowering the traction-unit handle to the ground ([Figure 4](#)).

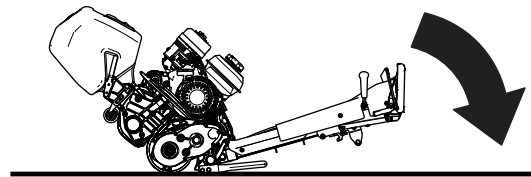


Figure 4

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2. Adjust the bedknife to the reel; refer to [Adjusting the Bedknife to the Reel](#) (page 8).
3. Adjust the height of cut; refer to [Adjusting the Height of Cut](#) (page 11).
4. Adjust the grass shield; refer to [Adjusting the Grass Shield](#) (page 13).

Product Overview

Specifications

Traction-unit compatibility	These cutting units mount on the appropriately-sized Greensmaster 1018, 1021 and 1026 traction units.		
Cutting width	Model No. 04823 and 04824	Model No. 04832, 04833, and 04834	Model No. 04842 and 04843
	46 cm (18 inches)	53 cm (21 inches)	66 cm (26 inches)
Height-of-cut	Adjust the front roller by 2 vertical screws and held by 2 screws and nuts.		
Height-of-cut range	1.5 mm (0.062 inch) to 8 mm (0.312 inch)	6 mm (0.250 inch) to 16 mm (0.625 inch)	16 mm (0.625 inch)
	Position the traction-unit drum in the Low setting.	Position the traction-unit drum in the HIGH setting.	Position the traction-unit drum in the HIGH setting and install the High Height of Cut Kit.
Reel bearings	There are 2 sealed stainless steel, deep-groove ball bearings.		
Front roller	The front roller is 6.3 cm (2.5 inches) in diameter with a variety of configurations selected by the customer.		
Bedknife	This machine comes standard with an EdgeMax Microcut bedknife. Optional bedknives with a variety of configurations are available. The bedknife is fastened to a machined, cast-iron bedbar with 11 screws (Greensmaster 1018), 13 screws (Greensmaster 1021), or 16 screws (Greensmaster 1026).		
Bedknife adjustment	There is a dual-screw adjustment to the reel with detents corresponding to 0.018 mm (0.0007 inch) of bedknife movement for each indexed position.		
Grass shield	The shield enhances grass discharge from the reel in wet conditions.		
Counterweight	A cast-iron weight mounted opposite to the drive line balances the cutting unit.		
Net weight	Model No. 04823 and 04824	Model No. 04832, 04833, and 04834	Model No. 04842 and 04843
	04823: 23 kg (51 lb); 04824: 24 kg (54 lb)	04832: 24 kg (52 lb); 04833: 25 kg (55 lb); 04834: 26 kg (58 lb)	04842: 27 kg (59 lb); 04843: 29 kg (63 lb)
Clip rate	Refer to your traction unit <i>Operator's Manual</i> .		

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 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

Refer to your traction unit *Operator's Manual* for detailed operation instructions. Before using the cutting unit each day, adjust the bedknife; refer to [Adjusting the Bedknife Daily \(page 7\)](#). Test the quality of cut by cutting a test swath before using the cutting unit on a green to ensure that the finished cut is correct.

Maintenance

Checking the Reel-Driveshaft Grease Point

Service Interval: Yearly

1. Remove the hardware that secures the reel-drive assembly to the side plate ([Figure 5](#)).

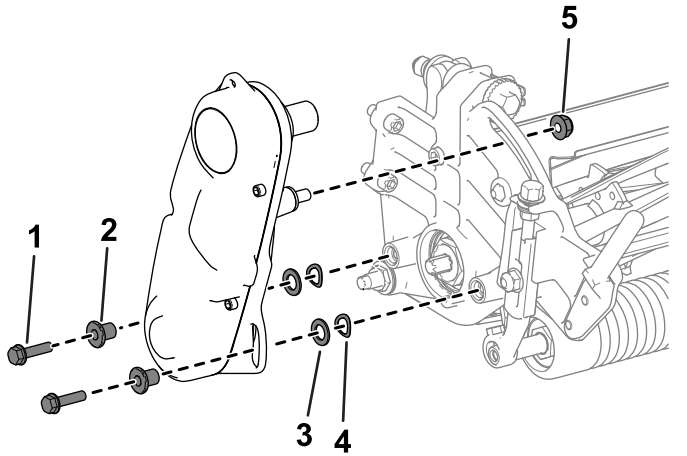


Figure 5

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- | | |
|----------------------|------------------|
| 1. Socket-head screw | 4. Spring washer |
| 2. Spacer | 5. Nut |
| 3. Washer | |

2. Remove the reel-drive assembly, flat washers, spring washers, and spacers from the side plate ([Figure 5](#)).
3. Check the inside of the reel driveshaft ([Figure 6](#)) for any remaining grease.

If you do not see a sufficient amount of grease, add more grease to the male and female spline shaft.

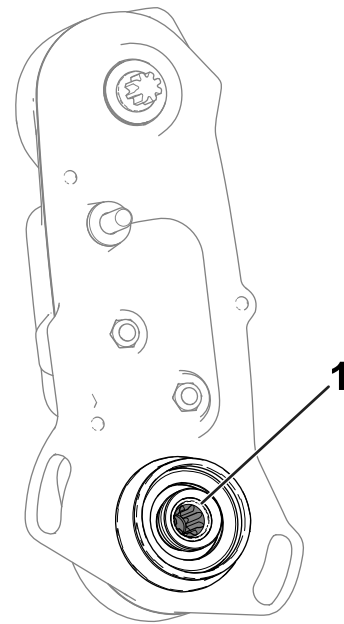


Figure 6

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1. Reel driveshaft

4. Use the previously removed socket-head screws, washers, and spacers to secure the reel-drive assembly to the side plate.
5. Install the cutting unit to the traction unit; refer to your traction unit *Operator's Manual*.

Adjusting the Bedknife-to-Reel Contact

Adjusting the Bedknife Daily

Prior to mowing each day, or as required, verify proper bedknife-to-reel contact. **Perform this procedure even though quality of cut is acceptable.**

Note: This procedure can be performed with the cutting unit installed to the traction unit.

1. Shut off the traction-unit engine.
2. Access the cutting unit by lowering the traction-unit handle to the ground (Figure 7).

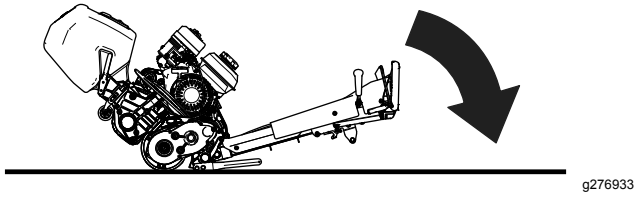


Figure 7

3. Slowly rotate the reel in a reverse direction, listening for reel-to-bedknife contact.
 - If no contact is evident, adjust the bedknife as follows
 - A. Turn the bedbar adjusting screws clockwise (Figure 8), 1 click at a time, until you feel and hear light contact.

Note: The bedbar adjusting screws have detents corresponding to 0.018 mm (0.0007 inch) bedknife movement for each indexed position.

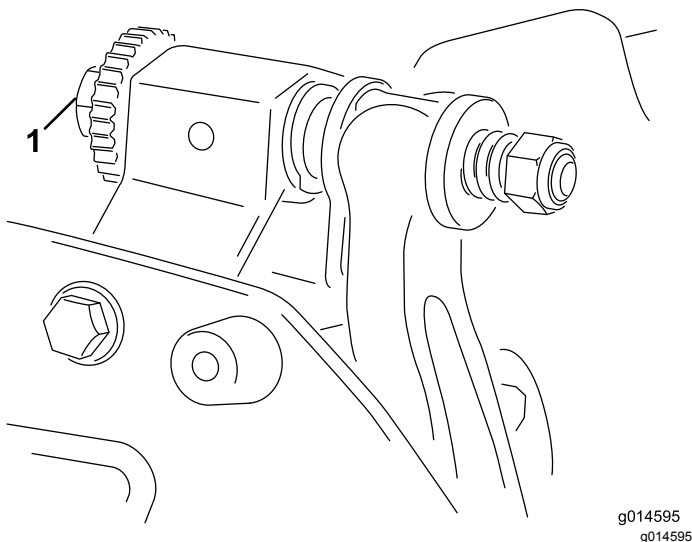


Figure 8

1. Bedbar adjusting screw

- B. Insert a long strip of cutting performance paper (Toro Part No. 125-5610) between the reel and bedknife, perpendicular to the bedknife (Figure 10), then **slowly** rotate the reel forward; it should cut the paper; if not, repeat steps A and B until it does.

- If excessive contact/reel drag is evident, backlap, reface the front of the bedknife, or grind the cutting unit to achieve the sharp edges needed for precision cutting (Refer to the *Toro Manual for Sharpening Reel and Rotary Mowers*, Form No. 09168SL).

Important: Light contact is preferred at all times. If you do not maintain light contact, the bedknife/reel edges will not sufficiently self-sharpen, and dull cutting edges will result after a period of operation. If you maintain excessive contact, bedknife/reel wear will be accelerated, uneven wear can result, and the quality of cut may decline.

Note: As the reel blades continue to run against the bedknife, a slight burr will appear on the front cutting edge surface along the full length of the bedknife. Occasionally run a file across the front edge to remove this burr to improve cutting.

After extended running, a ridge will eventually develop at both ends of the bedknife. Round off these notches or file them flush with the cutting edge of the bedknife to ensure smooth operation.

Adjusting the Bedknife to the Reel

Use this procedure during initial cutting-unit setup and after grinding, backlapping, or disassembling the reel. This **is not** a daily adjustment.

Note: This procedure can be performed with the cutting unit installed to the traction unit.

1. Shut off the traction-unit engine.
2. Access the cutting unit by lowering the traction-unit handle to the ground (Figure 9).

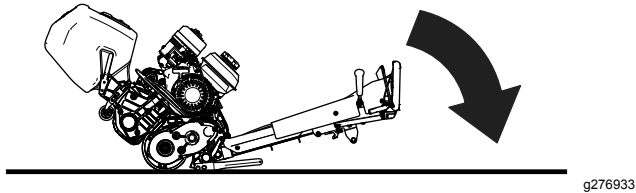


Figure 9

3. Rotate the reel so that 1 of the blades crosses the bedknife edge between the first and second bedknife screw heads located on the right side of the cutting unit.
4. Make an identifying mark on the blade where it crosses the bedknife edge.

Note: This will make later adjustments easier.

5. Insert a 0.05 mm (0.002 inch) shim between the blade and the bedknife edge at the point marked in step 4.
6. Turn the right bedbar adjusting screw (Figure 8) until you feel light pressure on the shim when sliding it side-to-side. Remove the shim.
7. For the left side of the cutting unit, slowly rotate the reel so that the closest blade crosses the bedknife edge between the first and second screw heads.
8. Repeat steps 4 through 6 for the left side of the cutting unit and left bedbar adjusting screw.
9. Repeat steps 5 and 6 until there is light pressure at the contact points on both the left and right sides of the cutting unit.
10. To obtain light contact between the reel and bedknife, turn each bedbar adjusting screw clockwise 3 clicks.

Note: Each click on the bedbar adjusting screw moves the bedknife 0.018 mm (0.0007 inches).

Do not over tighten the adjusting screws.

Turning the adjusting screw clockwise moves the bedknife edge closer to the reel. Turning the adjusting screw counterclockwise moves the bedknife edge away from the reel.

11. Insert a long strip of cutting performance paper (Toro Part No. 125-5610) between the reel and

bedknife, perpendicular to the bedknife (Figure 10), then **slowly** rotate the reel forward; it should cut the paper; if not, turn each bedbar adjusting screw clockwise 1 clicks and repeat this step until it cuts the paper.

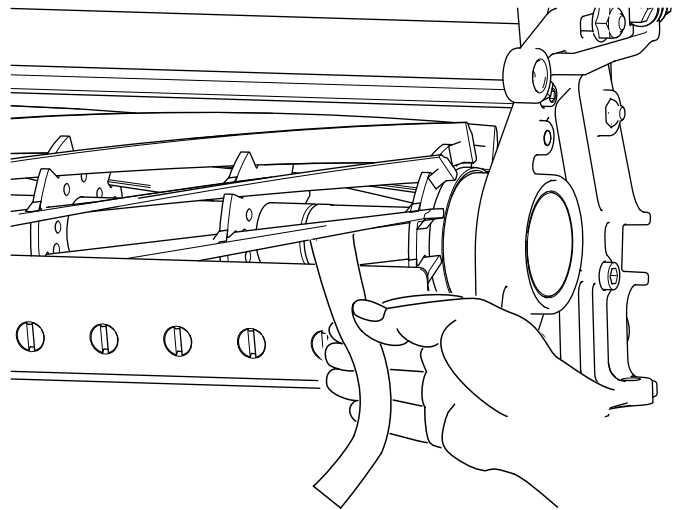


Figure 10

Note: If excessive contact/reel drag is evident, backlap, reface the front of the bedknife, or grind the cutting unit to achieve the sharp edges needed for precision cutting (Refer to the *Toro Manual for Sharpening Reel and Rotary Mowers*, Form No. 09168SL).

Setting the Cutting Unit to Match Turf Conditions

Use the following tables to determine the proper bedknife and roller that is needed to match your turf conditions. Contact your authorized Toro distributor to acquire additional bedknives and rollers.

Refer to [Adjusting the Clip Rate \(page 12\)](#) for instructions to set the appropriate clip rate for your turf conditions.

Bedknives

Part Number	Description	Traction Unit	Height-of-Cut Range	Comments
98-7261	Microcut	Greensmaster 1018	1.57–3.1 mm (0.062–0.125 inch)	Less aggressive
117-1530	EdgeMax Microcut	Greensmaster 1018	1.57–3.1 mm (0.062–0.125 inch)	Standard Greensmaster 1018
98-7260	Tournament	Greensmaster 1018	3.1–6.0 mm (0.125–0.250 inch)	Less aggressive
117-1532	EdgeMax Tournament	Greensmaster 1018	3.1–6.0 mm (0.125–0.250 inch)	Longer wearing
110-2300	Extended Microcut	Greensmaster 1018	1.57–3.1 mm (0.062–0.125 inch)	Less aggressive
110-2301	Low Cut	Greensmaster 1018	6.0 mm (0.250 inch) and up	More aggressive
139-4318	Edgemax Short Microcut	Greensmaster 1018	1.57–3.1 mm (0.062–0.125 inch)	More aggressive
139-4319	Edgemax Short Tournament	Greensmaster 1018	3.1–6.0 mm (0.125–0.250 inch)	More aggressive
93-4262	Microcut	Greensmaster 1021	1.57–3.1 mm (0.062–0.125 inch)	Less aggressive
115-1880	EdgeMax Microcut	Greensmaster 1021	1.57–3.1 mm (0.062–0.125 inch)	Standard Greensmaster 1021
93-4263	Tournament	Greensmaster 1021	3.1–6.0 mm (0.125–0.250 inch)	Less aggressive
115-1881	EdgeMax Tournament	Greensmaster 1021	3.1–6.0 mm (0.125–0.250 inch)	Longer wearing
93-4264	Low Cut	Greensmaster 1021	6.0 mm (0.250 inch) and up	More aggressive
108-4302	Extended Tournament	Greensmaster 1021	3.1–6.0 mm (0.125–0.250 inch)	Less aggressive
108-4303	Extended Microcut	Greensmaster 1021	1.57–3.1 mm (0.062–0.125 inch)	Less aggressive
139-4320	Edgemax Short Microcut	Greensmaster 1021	1.57–3.1 mm (0.062–0.125 inch)	More aggressive
139-4321	Edgemax Short Tournament	Greensmaster 1021	3.1–6.0 mm (0.125–0.250 inch)	More aggressive
94-6392	High Cut	Greensmaster 1021	6.0 mm (0.250 inch) and up	Tees
63-8610	Fairway	Greensmaster 1021	8.0 mm (0.310 inch) and up	More aggressive
112-9275	Microcut	Greensmaster 1026	Less than 3.1 mm (0.125 inch)	Less aggressive
94-5885	Tournament	Greensmaster 1026	3.1–6.0 mm (0.125–0.250 inch)	Less aggressive
104-2646	High Cut	Greensmaster 1026	6.0 mm (0.250 inch) and up	Tees

Bedknives (cont'd.)

93-9015	Low Cut	Greensmaster 1026	6.0 mm (0.250 inch) and up	Standard Greensmaster 1026
117-1548	Edgemax Tournament	Greensmaster 1026	1.52 to 3.1 mm (0.060 to 0.122)	Longer wearing
139-4322	Edgemax Short Microcut	Greensmaster 1026	1.57–3.1 mm (0.062–0.125 inch)	More aggressive
139-4323	Edgemax Short Tournament	Greensmaster 1026	3.1–6.0 mm (0.125–0.250 inch)	More aggressive
139-4324	Edgemax Microcut	Greensmaster 1026	1.57–3.1 mm (0.062–0.125 inch)	Longer wearing
107-8181	Fairway	Greensmaster 1026	8.0 mm (0.310 inch) and up	More aggressive

Rollers

Part Number	Description	Traction Unit	Material
04804	Nested Wiehle	Greensmaster 1018	Aluminum
04814	Full	Greensmaster 1018	Aluminum
04148	Long Front Narrow Wiehle	Greensmaster 1018	Aluminum
04805	Nested Wiehle	Greensmaster 1021	Aluminum
04815	Full	Greensmaster 1021	Aluminum
04825	Wide Wiehle	Greensmaster 1021	Aluminum
04141	Long Front Narrow Wiehle	Greensmaster 1021	Aluminum
04249	Split Full	Greensmaster 1021	Steel
04250	Split Narrow Wiehle	Greensmaster 1021	Aluminum
04267	Paspalum	Greensmaster 1021	Aluminum
04806	Nested Wiehle	Greensmaster 1026	Aluminum
04816	Full	Greensmaster 1026	Aluminum
04826	Wide Wiehle	Greensmaster 1026	Aluminum
04146	Long Front Narrow Wiehle	Greensmaster 1026	Aluminum
139-4345	Split Full	Greensmaster 1026	Steel
139-4350	Split Narrow Wiehle	Greensmaster 1026	Aluminum

Note: Each roller has a 63.5 mm (2.5 inch) diameter.

Performing the Height-of-Cut Adjustment

Set the height of cut to the desired height using a height-of-cut gauge, and ensure that your cutting unit is equipped with a bedknife that is best suited for your desired height of cut; refer to [Setting the Cutting Unit to Match Turf Conditions](#) (page 9).

Adjusting the Height-of-Cut Gauge

Before adjusting the height of cut, set the height-of-cut gauge as follows:

1. Loosen the nut on the gauge bar and set the adjusting screw to the desired height of cut ([Figure 11](#)).

Note: The distance between the bottom of the screw head and the face of bar is the height of cut.

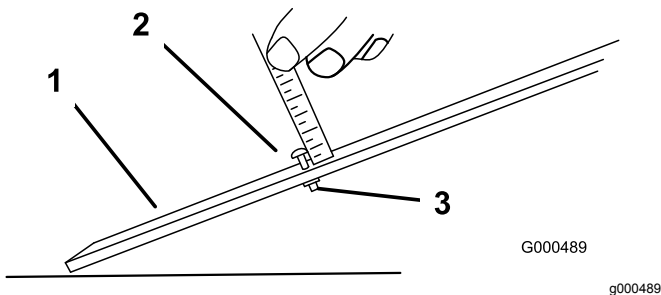


Figure 11

1. Gauge bar
2. Height-adjusting screw
3. Nut

2. Tighten the nut.

Adjusting the Height of Cut

1. Loosen the locknuts that secure the height-of-cut arms to the cutting-unit side plates ([Figure 12](#)).

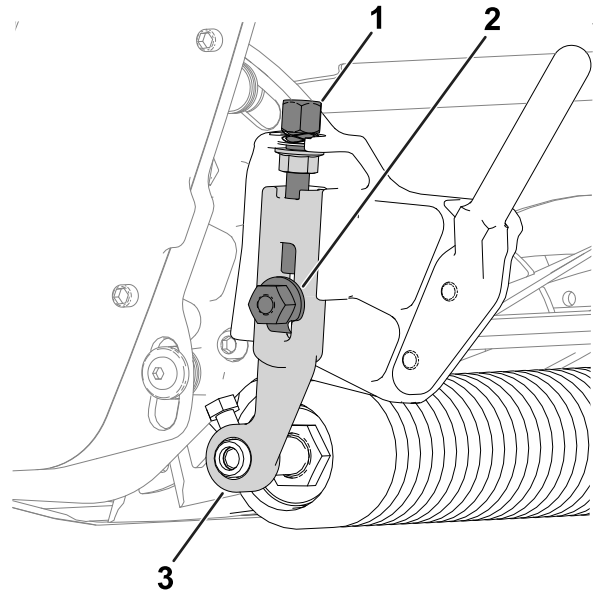


Figure 12

1. Adjusting screw
2. Locknut
3. Height-of-cut arm

2. Hook the screw head of the height-of-cut gauge onto the right side of the cutting edge of the bedknife and rest the rear end of the bar onto the traction drum ([Figure 13](#)).

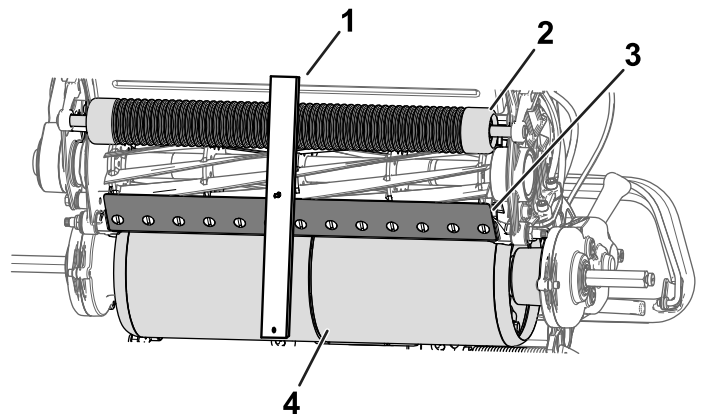


Figure 13

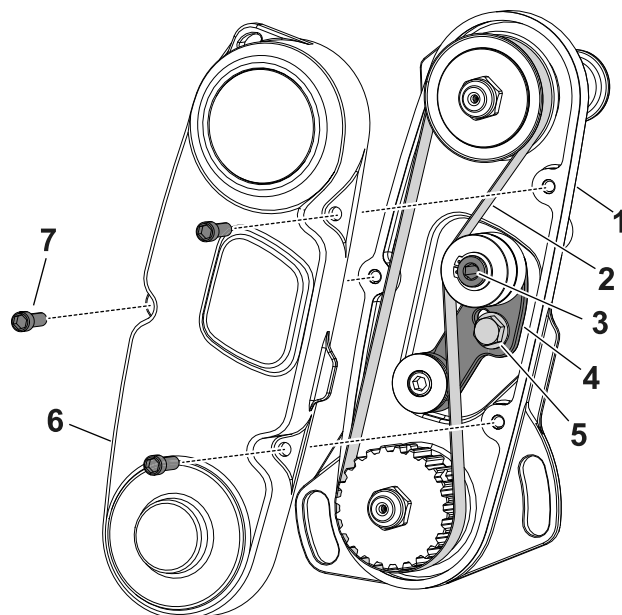
1. Gauge bar
2. Roller
3. Bedknife
4. Traction drum

3. Rotate the adjusting screw until the roller contacts the front of the gauge bar.
4. Repeat steps 2 and 3 for the left side.
5. Adjust both ends of the roller until the entire roller is parallel to the bedknife.

Important: When set properly, the roller and traction drum will contact the gauge

bar and the screw will be snug against the bedknife. This ensures that the height of cut is identical at both ends of the bedknife.

6. Tighten the nuts to secure the adjustment enough to remove play from the washer.
 7. Verify that the height-of-cut setting is correct; repeat this procedure if necessary.
- For a height of cut greater than 8 mm (0.312 inch), position the traction-unit drum in the HIGH position; refer to your machine *Operator's Manual*.
 - For a height of cut greater than 16 mm (0.625 inch), install the High Height-of-Cut Kit. Contact your authorized Toro distributor to acquire this kit.



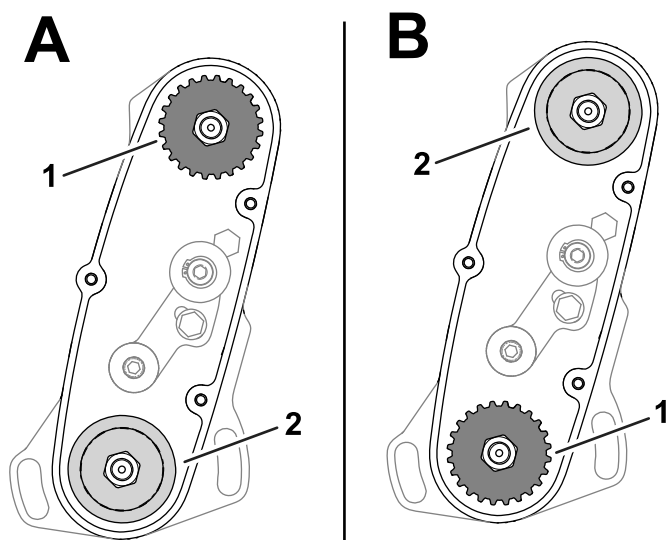
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Figure 15

The clip rate is determined by the following machine settings:

- **Reel speed:** The reel speed can be adjusted to a high or low setting; refer to your traction unit *Operator's Manual*.
- **Reel-drive-pulley position:** The reel-drive pulleys (22-tooth and 24-tooth) can be set in 2 positions:
 - **HIGH** position: "A" in [Figure 14](#)
 - **Low** position: "B" in [Figure 14](#)

Note: The pulley position is set to the Low position from the factory.



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Figure 14

1. Pulley (24 tooth)
2. Pulley (22 tooth)

To adjust the position of the pulleys, refer to the following steps:

1. Remove the belt cover to expose the belt ([Figure 15](#)).

1. Reel-drive-assembly housing
 2. Belt
 3. Idler-arm internal hex
 4. Idler arm
 5. Idler-arm bolt
 6. Belt cover
 7. Socket-head screw
2. Loosen the idler-arm bolt and rotate the idler arm ([Figure 15](#)) to release tension on the belt.
 3. Remove the belt ([Figure 15](#)).
 4. Loosen the nut on each pulley, remove the pulleys, and use the nuts to install the pulleys in your desired configuration.

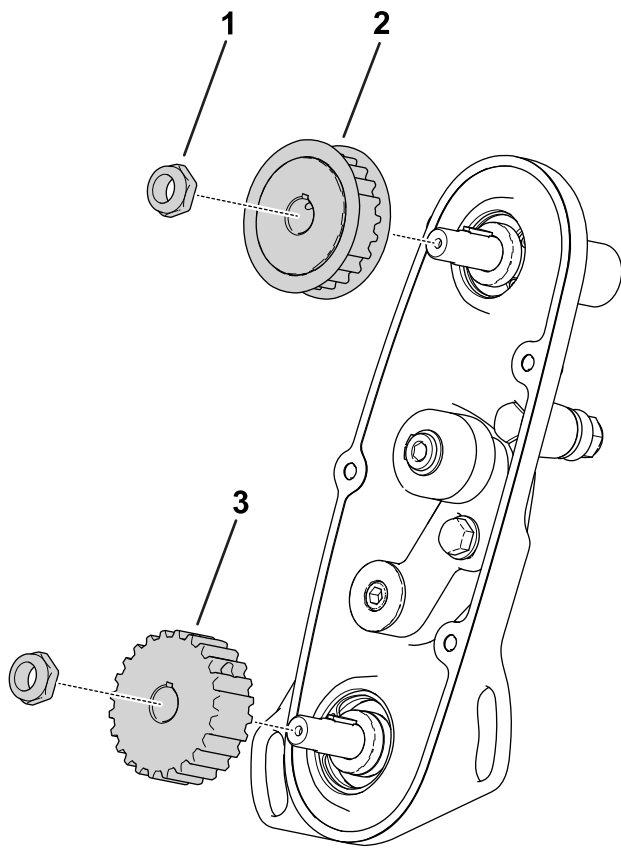


Figure 16

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1. Nut
2. Pulley (22 tooth)
3. Pulley (24 tooth)

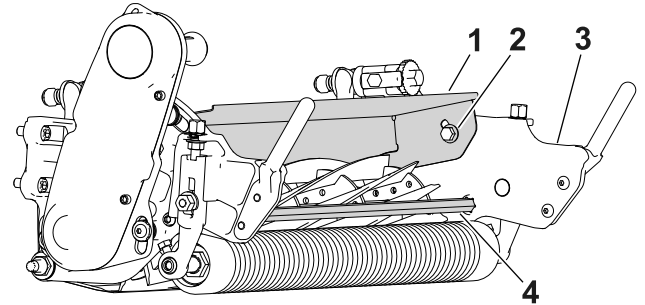
5. Torque the pulley nuts to 37 to 45 N·m (27 to 33 ft-lb)
6. Install the belt and tension the belt by applying 4 to 5 N·m (35 to 40 in-lb) to the idler-arm internal hex shown in [Figure 15](#).
7. Tighten the idler-arm bolt and install the belt cover.

Adjusting the Grass Shield

Adjust the grass shield to ensure that the clippings are cleanly discharged from the reel area, as follows:

Note: The shield is adjustable to compensate for changes in turf conditions. Adjust the shield closer to the reel when the turf is extremely dry. By contrast, adjust the shield further away from the reel when the turf conditions are wet. The shield should be parallel to the reel to ensure optimum performance. Adjust it after the reel is sharpened on a reel grinder.

1. Loosen the screws that secure the grass shield ([Figure 17](#)) to the cutting unit.



g275291

Figure 17

1. Grass shield
2. Bolt (2)
3. Side plate
4. Support rod

2. Insert a 1.5 mm (0.060 inch) feeler gauge between the top of the reel and the shield, then tighten the screws.

Important: Ensure that the shield and reel are an equal distance apart across the entire reel.

Note: Adjust the gap as needed for your turf conditions.

Servicing the Bedbar

Only a properly trained mechanic should service the bedbar and bedknife to prevent damage to the reel, bedbar, or bedknife. Ideally, take the cutting unit to your authorized Toro distributor for service. Refer to the *Service Manual* for your traction unit for complete instructions, special tools, and diagrams for servicing the bedknife. Should you ever need to remove or assemble the bedbar yourself, instructions are provided below, as are the specifications for servicing the bedknife.

Important: Always follow the bedknife procedures detailed in your *Service Manual* when servicing the bedknife. Failure to install and grind the bedknife correctly can lead to damage to the reel, bedbar, or bedknife.

Removing the Bedbar

1. Turn the bedbar adjusting-screw counterclockwise to back the bedknife away from the reel ([Figure 18](#)).

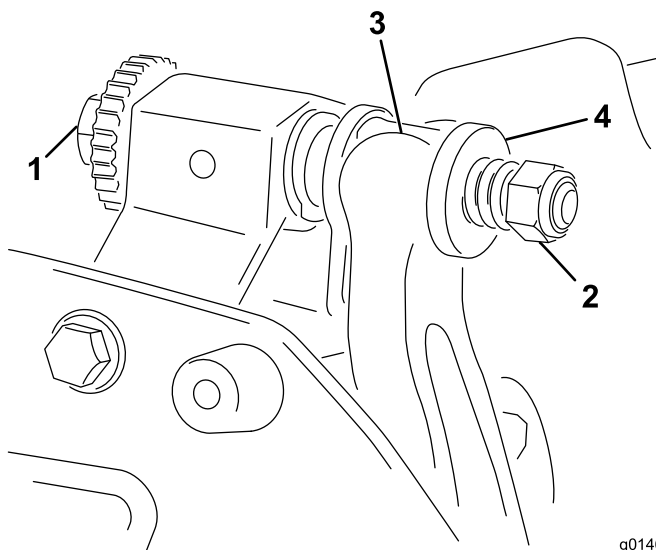


Figure 18

- | | |
|---------------------------|-----------|
| 1. Bedbar-adjusting screw | 3. Bedbar |
| 2. Spring-tension nut | 4. Washer |

2. Back out the spring-tension nut until the washer is no longer tensioned against the bedbar ([Figure 18](#)).
3. On each side of the machine, loosen the locknut shown in [Figure 19](#).

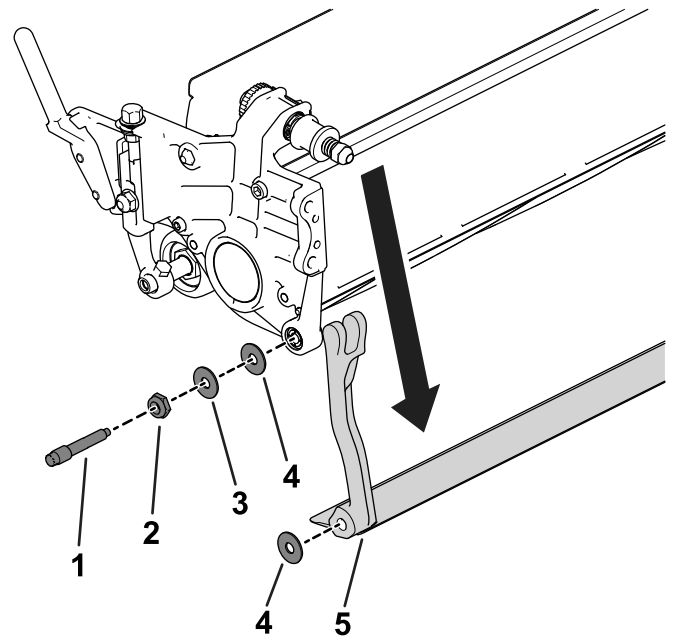


Figure 19

- | | |
|-----------------|-------------------|
| 1. Bedbar bolt | 4. Plastic washer |
| 2. Nut | 5. Bedbar |
| 3. Steel washer | |

4. Remove each bedbar bolt, allowing the bedbar to be pulled downward and removed from the cutting unit ([Figure 19](#)).

Account for the 2 steel washers and 1 plastic washer on each end of the bedbar ([Figure 19](#)).

Installing the Bedbar

1. Install the bedbar, positioning the mounting ears between the washers and the bedbar-adjusting screw (Figure 18).
2. Secure the bedbar to each side plate with the bedbar bolts (nuts on bolts) and 3 washers (6 total).
3. Position a nylon washer on each side of the side-plate boss. Place a steel washer outside each of the nylon washers (Figure 19).
4. Torque the bedbar bolts to 27 to 36 N·m (240 to 320 inch-lb).
5. Tighten the locknuts until you remove the end play from steel washers, but you are able to rotate them by hand. The washers on the inside may have a gap.

Important: Do not overtighten the locknuts or they will deflect the side plates.

6. Tighten the spring tension nut until the spring is collapsed, then back it off 1/2 turn (Figure 20).

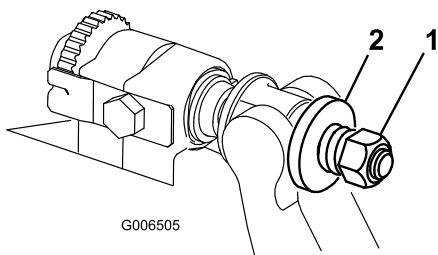


Figure 20

1. Spring-tension nut
2. Spring

7. Adjust the bedknife to the reel; refer to [Adjusting the Bedknife to the Reel](#) (page 8).

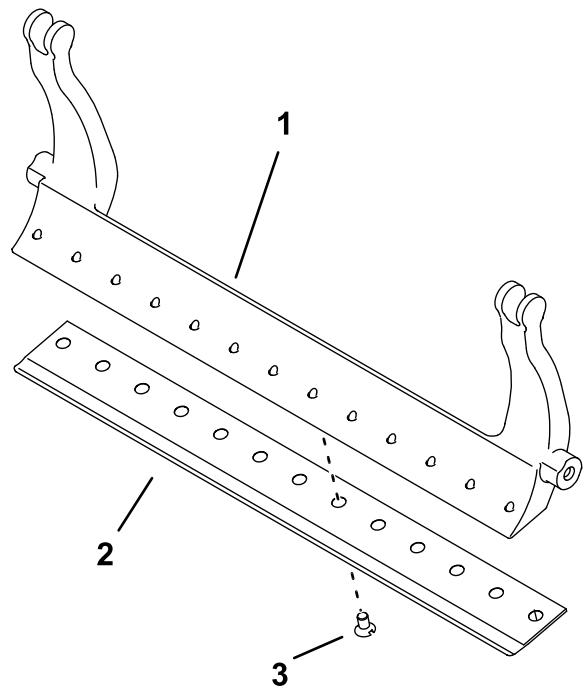


Figure 21

1. Bedbar
2. Bedknife
3. Screw

4. Torque the 2 outer screws to 1 N·m (10 in-lb).
5. Working from the center of the bedknife, torque the screws to 23 to 28 N·m (200 to 250 in-lb).

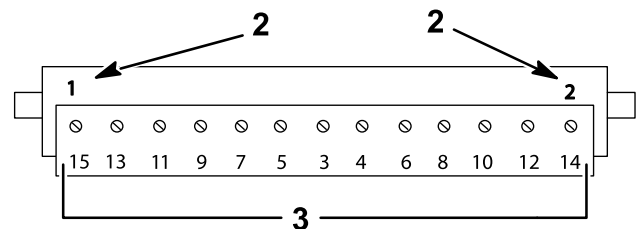
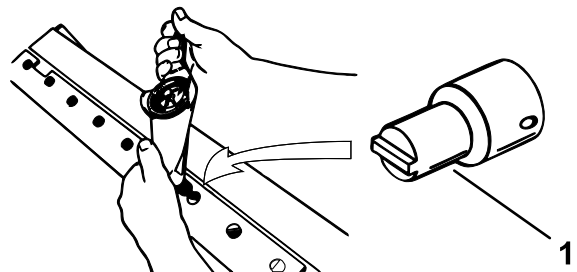


Figure 22

1. Bedknife screw tool
2. Install and torque these first to 1 N·m (10 in-lb).
3. Torque to 23 to 28 N·m (200 to 250 in-lb).

6. Grind the bedknife.

Servicing the Bedknife

Installing the Bedknife

1. Remove the rust, scale, and corrosion from the bedbar surface and apply a thin layer of oil to the bedbar surface.
2. Clean the screw threads.
3. Apply anti-seize compound to the screws and install the bedknife to the bedbar.

Preparing the Reel for Grinding

1. Ensure that all cutting unit components are in good condition and correct any issues before grinding.
2. Follow the reel grinder manufacturer's instructions to grind the cutting reel to the following specifications.

Reel Grinding Specifications	
New Reel Diameter	128.5 mm (5.06 inches)
Reel Diameter Service Limit	114.3 mm (4.5 inches)
Blade Relief Angle	30° ± 5°
Blade Land Width	1.0 mm (0.04 inches)
Blade Land Width Range	.8 to 1.2 mm (0.03 to 0.05 inches)
Reel Diameter Taper Service Limit	0.25 mm (0.01 inch)

Relief-Grinding the Reel

The new reel has a land width of 1.3 to 1.5 mm (0.030 to 0.050 inch) and a 30° relief grind.

When the land width gets larger than 3 mm (0.120 inch) wide, do the following:

1. Apply a 30° relief grind on all reel blades until the land width is 1.3 mm (0.050 inch) wide (Figure 23).

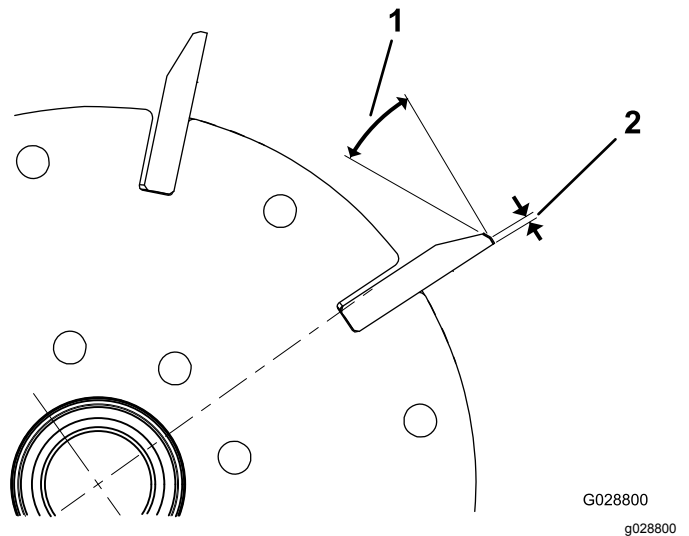


Figure 23

1. 30°
2. 1.3 mm (0.050 inch)

2. Spin grind the reel to achieve <0.025 mm (0.001 inch) reel run-out.

Note: This causes the land width to grow slightly.

3. Adjust the cutting unit; refer to your cutting unit *Operator's Manual*.

Note: To extend the longevity of the sharpness of the edge of the reel and the bedknife—after grinding the reel and/or the bedknife—check the reel to bedknife contact again after cutting 2 greens, as any burrs will be removed. Burrs may create improper reel to bedknife clearance, which can accelerate wear.

Bedknife Grinding Specifications

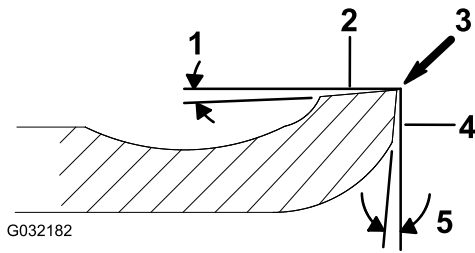


Figure 24

- | | |
|-----------------|----------------|
| 1. Relief angle | 4. Front face |
| 2. Top face | 5. Front angle |
| 3. Remove burr | |

Standard bedknife relief angle	3° minimum
Extended bedknife relief angle	7° minimum
Front Angle Range	13° to 17°

Checking the Top Grind Angle

The angle that you use to grind your bedknives is very important.

Use the angle indicator (Toro Part No. 131-6828) and the angle-indicator mount (Toro Part No. 131-6829) to check the angle that your grinder produces and then correct for any grinder inaccuracy.

1. Place the angle indicator on the bottom side of the bedknife as shown in [Figure 25](#).

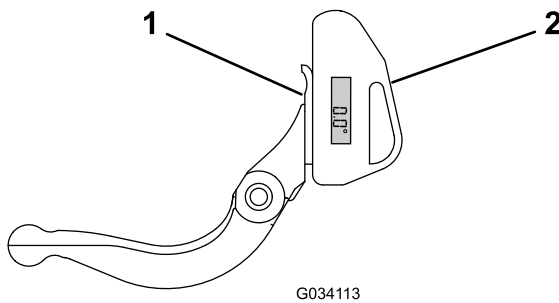


Figure 25

- | | |
|------------------------|--------------------|
| 1. Bedknife (vertical) | 2. Angle indicator |
|------------------------|--------------------|

2. Press the Alt Zero button on the angle indicator.
3. Place the angle-indicator mount on the edge of the bedknife so that the edge of the magnet mates with the edge of the bedknife ([Figure 26](#)).

Note: The digital display should be visible from the same side during this step as it was in step 1.

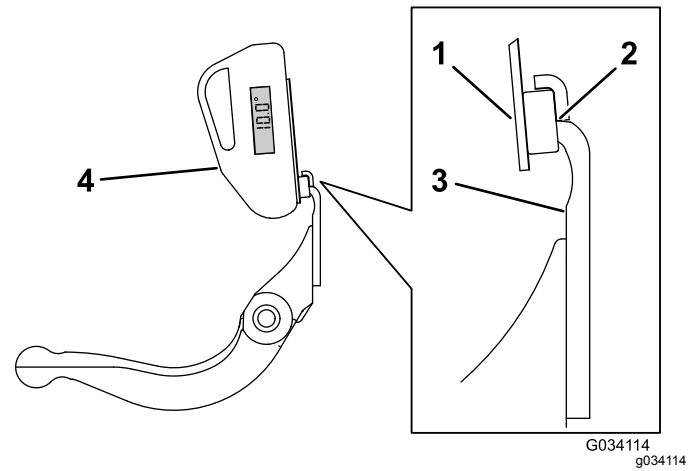


Figure 26

- | | |
|---|--------------------|
| 1. Angle-indicator mount | 3. Bedknife |
| 2. Edge of the magnet mated with the edge of the bedknife | 4. Angle indicator |

4. Place the angle indicator on the mount as shown in [Figure 26](#).

Note: This is the angle that your grinder produces, and should be within 2 degrees of the recommended top grind angle.

Backlapping the Cutting Unit

To backlap the cutting unit, use the Access Backlap Kit (Model No. 139-4342) or the Backlap Kit (Model No. 04800); refer to the operating instructions in the kit *Installation Instructions*. Contact your authorized Toro distributor to acquire one of these kits.

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
04823	400000000 and Up	18in 11-Blade Cutting Unit, Greensmaster 1018 Mower	11-BLADE 18IN FIXED CUTTING UNIT	Lawn Mower	2000/14/EC 2006/42/EC
04824	400000000 and Up	18in 14-Blade Cutting Unit, Greensmaster 1018 Mower	14-BLADE 18IN FIXED CUTTING UNIT	Lawn Mower	2000/14/EC 2006/42/EC
04832	400000000 and Up	21in 8-Blade Cutting Unit, Greensmaster 1021 Mower	8-BLADE 21IN FIXED CUTTING UNIT	Lawn Mower	2000/14/EC 2006/42/EC
04833	400000000 and Up	21in 11-Blade Cutting Unit, Greensmaster 1021 Mower	11-BLADE 21IN FIXED CUTTING UNIT	Lawn Mower	2000/14/EC 2006/42/EC
04834	400000000 and Up	21in 14-Blade Cutting Unit, Greensmaster 1021 Mower	14-BLADE 21IN FIXED CUTTING UNIT	Lawn Mower	2000/14/EC 2006/42/EC
04842	400000000 and Up	26in 8-Blade Cutting Unit, Greensmaster 1026 Mower	8-BLADE 26IN FIXED CUTTING UNIT	Lawn Mower	2000/14/EC 2006/42/EC
04843	400000000 and Up	26in 11-Blade Cutting Unit, Greensmaster 1026 Mower	11-BLADE 26IN FIXED CUTTING UNIT	Lawn Mower	2000/14/EC 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:



John Heckel
Sr. Engineering Manager
8111 Lyndale Ave. South
Bloomington, MN 55420, USA
February 15, 2019

Authorized Representative:

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

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 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.

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. 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.



The Toro Warranty

Two-Year or 1,500 Hours 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 2 years or 1,500 operational hours*, whichever occurs first. This warranty is applicable to all products with the exception of Aerators (refer to separate warranty statements for these products). Where a warrantable condition exists, we will repair the Product at no cost to you including diagnostics, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.

* Product equipped with an hour meter.

Instructions for Obtaining Warranty Service

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

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

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

Owner Responsibilities

As the product owner, you are responsible for required maintenance and adjustments stated in your *Operator's Manual*. Repairs for product issues caused by failure to perform required maintenance and adjustments are not covered under this warranty.

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.
- Product failures which result from failure to perform recommended maintenance and/or adjustments.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts consumed through use that are not defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, brake pads and linings, clutch linings, blades, reels, rollers and bearings (sealed or greasable), bed knives, spark plugs, castor wheels and bearings, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves.
- Failures caused by outside influence, including, but not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals.
- Failure or performance issues due to the use of fuels (e.g. gasoline, diesel, or biodiesel) that do not conform to their respective industry standards.
- Normal noise, vibration, wear and tear, and deterioration. Normal "wear and tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows.

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 your Authorized Toro Service Center.

Parts

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

Deep Cycle and Lithium-Ion Battery Warranty

Deep cycle and Lithium-Ion batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and maintenance techniques can extend or reduce total battery life. As the batteries in this product are consumed, the amount of useful work between charging intervals will slowly decrease until the battery is completely worn out. Replacement of worn out batteries, due to normal consumption, is the responsibility of the product owner. Note: (Lithium-Ion battery only): Pro-rated after 2 years. Refer to the battery warranty for additional information.

Lifetime Crankshaft Warranty (ProStripe 02657 Model Only)

The ProStripe which is fitted with a genuine Toro Friction Disc and Crank-Safe Blade Brake Clutch (integrated Blade Brake Clutch (BBC) + Friction Disc assembly) as original equipment and used by the original purchaser in accordance with recommended operating and maintenance procedures, are covered by a Lifetime Warranty against engine crankshaft bending. Machines fitted with friction washers, Blade Brake Clutch (BBC) units and other such devices are not covered by the Lifetime Crankshaft Warranty.

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 Emissions 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.