Form No. 3414-906 Rev A

Groomer Drive System

for Greensmaster® 800/1000/1010/1600/1610 Mower

Model No. 04134

Installation Instructions

⚠ WARNING

CALIFORNIA
Proposition 65 Warning

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

Important: **Read these instructions thoroughly before setting up or operating the groomer. Failure to follow the set up or operating instructions in this manual may result in damage to the machine, groomer, and the turf.**

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

Loose Parts

Use the chart below to verify that all parts have been shipped.

Procedure	Description	Qty.	Use
1	No parts required	–	Prepare the machine.
2	No parts required	–	Move the front roller.
3	Groomer-housing assembly Flat-head screw (3/8 x 2 inches) Locknut (3/8 inch) Bearing adapter Spacer O-ring Synthetic grease Slot cover Adapter ring	1 2 2 1 2 1 - 1 1	Install the groomer housing.
4	Shaft assembly Drive gear Synthetic grease	1 1 –	Install the drive gear.
5	Forward Rotation Kit-obtain separately	1	Set the groomer for forward rotation (optional).
6	Groomer-housing cover assembly Gasket Flange-head bolt (1/4 x 3/4 inch) Synthetic grease (3.0 oz)	1 1 5 1	Install the groomer-housing cover.

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CE

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3414-906 A

Procedure	Description	Qty.	Use
7	Bearing Adapter	1	Install the groomer on the right side of the machine.
	Spacer	2	
	Groomer-plate assembly	1	
	Adapter ring	1	
	Bolt (1/4 x 3-3/4 inches)	2	
	Star washer	2	
	Fastener retainer	2	
	Weight	1	
8	Groomer-shaft clamp	4	Install the grooming reel.
	Socket-head screw (1/4 x 1-1/4 inches)	4	
	Groomer reel (obtain separately)	1	

1

Preparing the Machine

No Parts Required

Procedure

1. Park the machine on a level surface.
2. Engage the parking brake.
3. Shut off the engine and remove the key from the switch.

2

Moving the Front Roller

No Parts Required

Procedure

1. Loosen the jam nuts and set screws securing each end of the front roller to the height-of-cut arms (Figure 1).

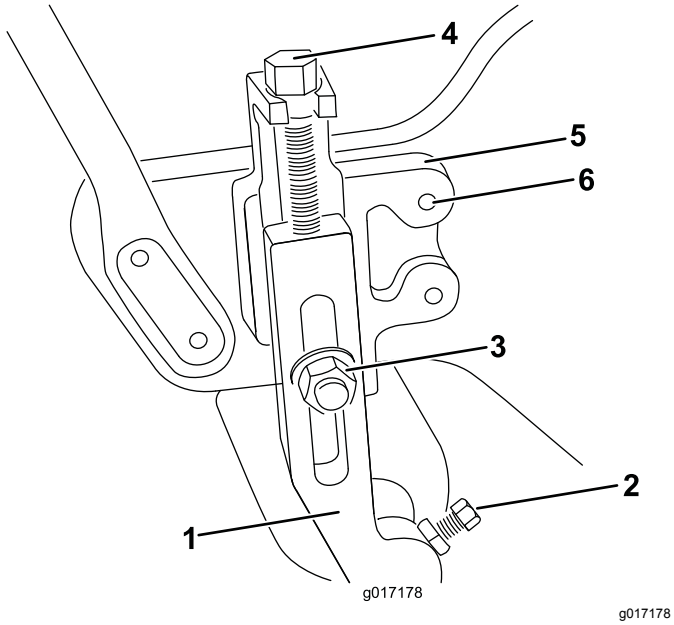

Figure 1

1. Height-of-cut arm
2. Jam nut and set screw
3. Carriage bolt, washer, and locknut
4. Height-of-cut adjusting screw
5. Height-of-cut bracket
6. Taper-face bolt (bolt head on the other side of the side plate)

2. Remove the carriage bolts and locknuts securing the height-of-cut arms to the adjusting brackets (Figure 1).
3. Remove the height-of-cut arms from the side plates and roller assembly.
4. Remove the height-of-cut hardware as follows:
   - Greensmaster 1600 mowers—remove the height-of-cut adjusting screws, jam nuts, and set screws from the height-of-cut arms (Figure 1).
   - Greensmaster 800 and 1000 mowers—remove the 2 taper-face bolts securing the right and left height-of-cut brackets to the side plates (Figure 1). Install the height-of-cut brackets to the opposite

sides of the machine with the 2 taper-face bolts, using the rear sets of mounting holes in the side plates.

5. Install the height-of-cut arms as follows:
   - Greensmaster 1600 mowers—obtain 2 new height-of-cut arms from your Authorized Toro Distributor and install them onto the roller assembly and side plates with the fasteners removed previously (Figure 2).
   - Greensmaster 800 and 1000 mowers—rotate the height-of-cut arms you removed previously to the forward position and install them onto the roller assembly and side plates with the fasteners removed previously (Figure 2).

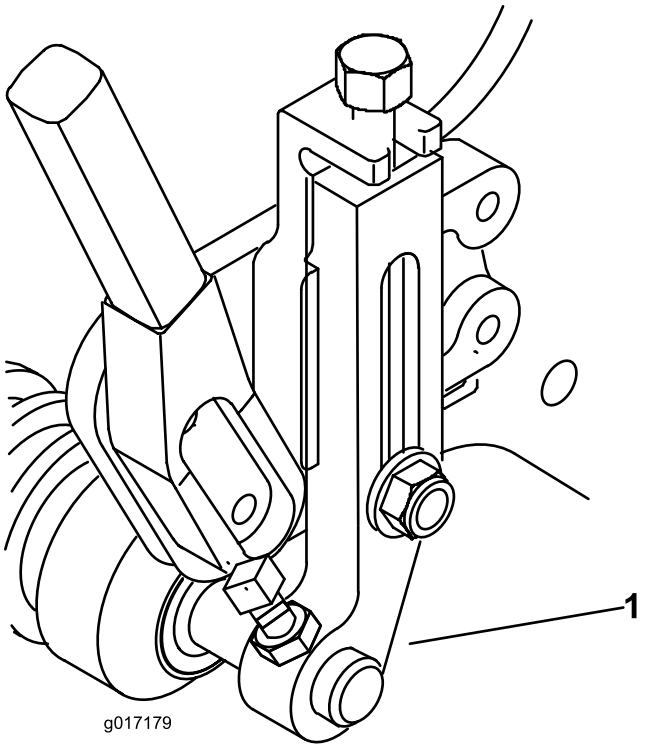

Figure 2

1. Height-of-cut arm in the forward position

3

Installing the Groomer Housing

Parts needed for this procedure:

1	Groomer-housing assembly
2	Flat-head screw (3/8 x 2 inches)
2	Locknut (3/8 inch)
1	Bearing adapter
2	Spacer
1	O-ring
-	Synthetic grease
1	Slot cover
1	Adapter ring

Procedure

1. Remove the 2 bolts and locknuts securing the end cap to the left, reel-bearing housing and the side plate.
2. Remove and retain the end cap and fasteners for use if you ever remove the groomer (Figure 3).

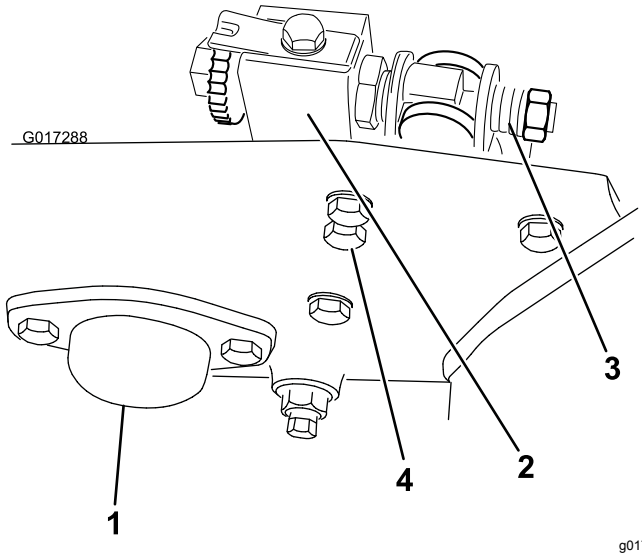

Figure 3

1. End cap
2. Bedbar-adjuster frame
3. Spring tension screw
4. Bolts and washers

3. If you are installing this kit on a **Greensmaster 800 mower** with a serial number prior to 230999999, a **Greensmaster 1000 mower** with a serial number prior to 229999999, or

a **Greensmaster 1600 mower** with a serial number prior to 260001401, complete the following:

A. Using a 7/8 inch standard wrench, loosen the spring tension screws on the right and left bedbar adjusters (Figure 4).

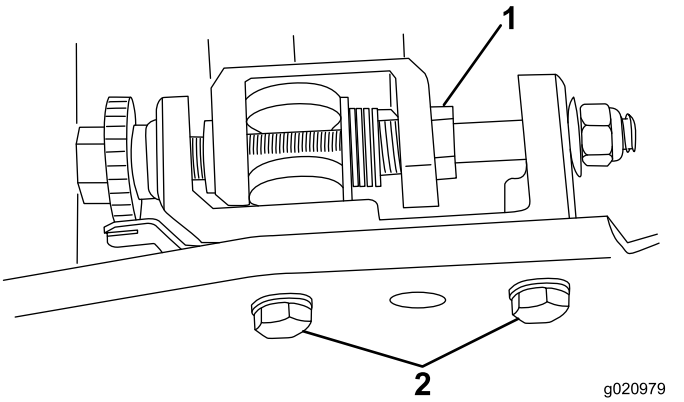

Figure 4

1. Spring tension screw—loosen
2. Bolts and washers—remove

B. Back out the screws until the thrust washers are no longer tensioned against the bedbar.

C. Remove the 2 bolts and washers securing left, bedbar-adjuster frame to the side plate (Figure 4).

4. Remove the 40 tooth idler gear.

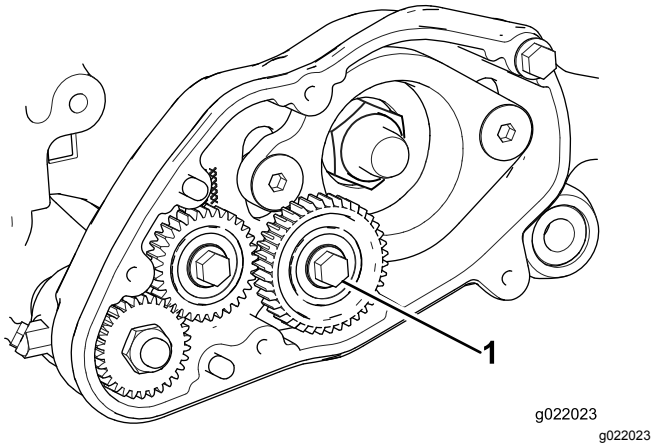

Figure 5

1. 40 tooth idler gear.

5. Remove the curved washer and the bolt (3/8 x 5/8 inch) from the adjustment-knob mounting block (Figure 6).

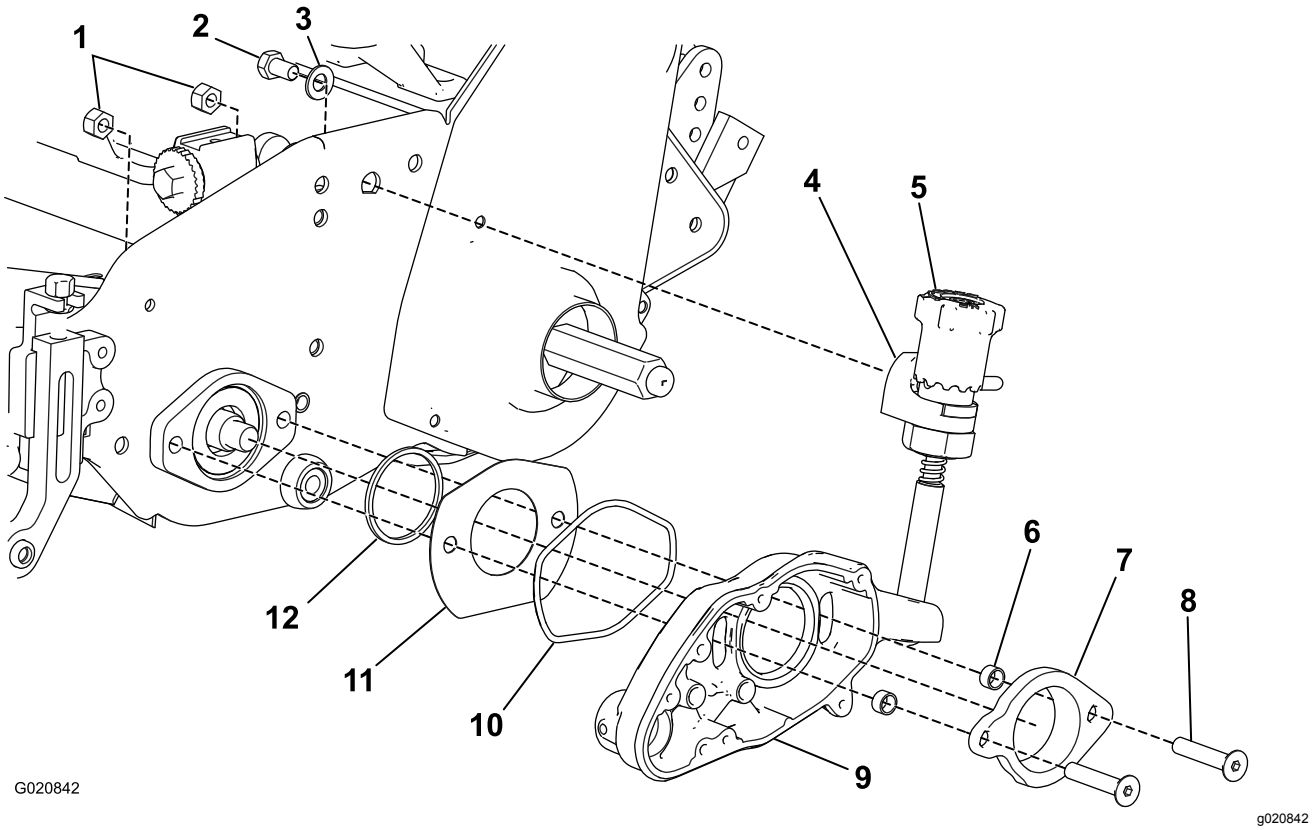

Figure 6

1. Locknut
2. Bolt (3/8 x 5/8 inch)
3. Curved washer
4. Mounting block
5. Adjustment knob assembly
6. Spacer
7. Bearing adapter
8. Flat-head screw
9. Groomer housing
10. O-ring
11. Slot cover (flat edge oriented down)
12. Adapter ring

6. Install the O-ring into the back of the groomer housing (Figure 6 and Figure 7) and lightly lubricate the exposed surfaces of the O-ring with synthetic grease (supplied with the kit).

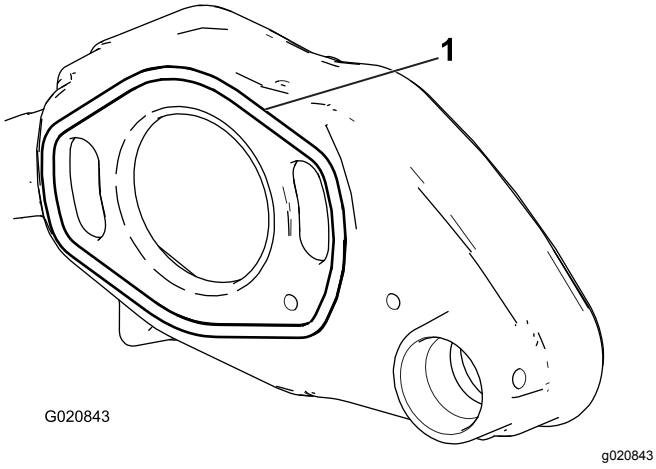

Figure 7

1. O-ring

7. Insert the adapter ring into the reel bearing housing (Figure 6 and Figure 8).

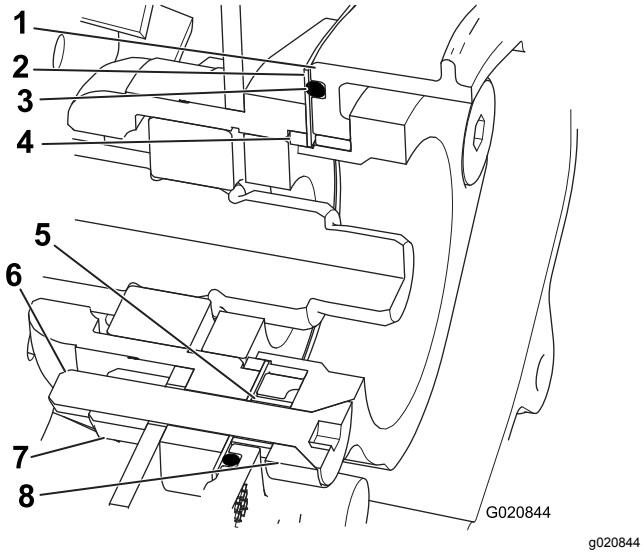

Figure 8

1. Groomer housing
2. Slot cover
3. O-ring
4. Adapter ring
5. Spacer
6. Flat-head screw
7. Locknut
8. Bearing adapter

8. Insert the 2 flat-head screws (3/8 x 2 inch) through the bearing adapter and position the spacers on the ends of the screws (Figure 6 and Figure 8).
9. Align the bearing adapter, spacers, and screws with the bronze bushing and the slots in the groomer housing.
10. Slide the bearing adapter through the bronze bushing and the screws through the slots in the groomer housing assembly (Figure 6 and Figure 8).

Important: **Ensure that the bearing adapter is oriented as shown in Figure 9.**

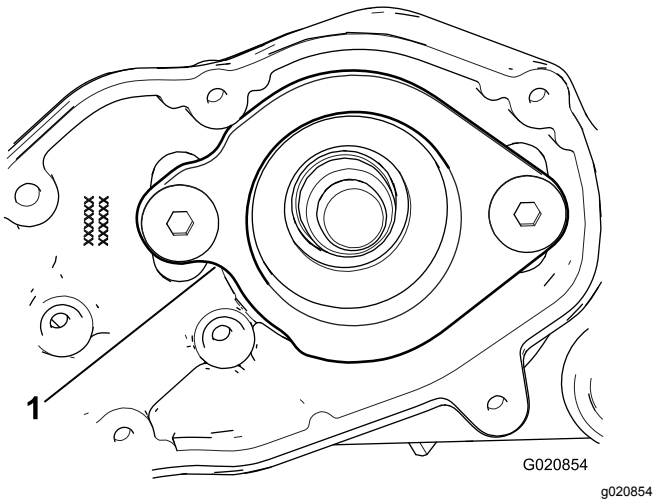

Figure 9

1. Bearing adapter

11. Place the slot cover over the screws and up against the lubricated O-ring (Figure 6).
12. Ensure that the flat edge of the slot cover is oriented at the bottom.
13. Insert the flat-head screws through the reel-bearing housing and secure them with locknuts.
14. Torque the locknuts to 31 to 37 N·m (23 to 27 ft-lb) (Figure 6 and Figure 8).

    Note: To gain access to the locknuts you may need to move or remove the bedbar.
15. Mount the adjustment knob mounting block to the left side plate with the bolt (3/8 x 5/8 inch) and curved washer you removed previously (Figure 6).
16. If you are installing this kit on a **Greensmaster 800 mower** with a serial number prior to 230999999, a **Greensmaster 1000 mower** with a serial number prior to 229999999, or a **Greensmaster 1600 mower** with a serial number prior to 260001401, install the left, bedbar-adjuster frame to the side plate with the bolts and washers you removed previously (Figure 4).

4

Installing the Drive Gear

Parts needed for this procedure:

1	Shaft assembly
1	Drive gear
–	Synthetic grease

Procedure

1. Remove the reel-bearing locknut from the reel shaft (Figure 10).

   Note: The reel-bearing locknut has right-handed threads.

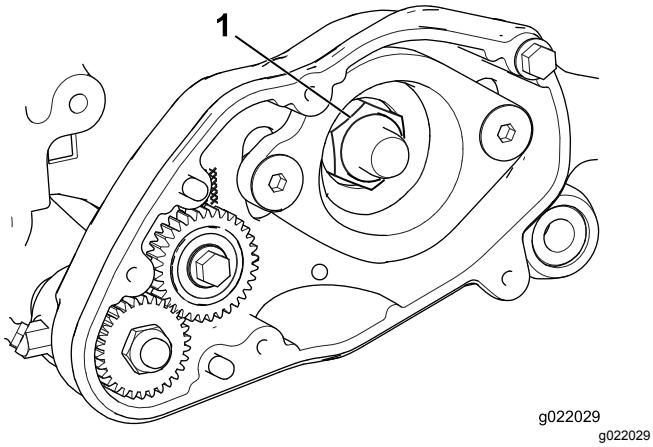

Figure 10

1. Reel-bearing locknut

2. Secure the reel from turning with a wood block.
3. Thread the shaft assembly onto the reel-shaft extension (Figure 11).

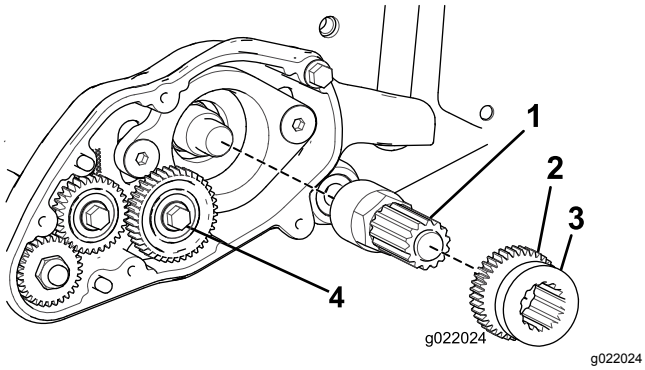

Figure 11

1. Shaft assembly
2. Drive gear
3. Groove
4. 40 tooth idler gear

4. Secure the reel from turning with a wood block and torque the shaft assembly to 54 to 81 N·m (40 to 60 ft-lb).
5. Apply synthetic grease (supplied with the kit) to the male spline of the shaft assembly (Figure 11).
6. Slide the drive gear with the groove oriented outward onto the shaft assembly (Figure 11).
7. Install the 40 tooth idler gear (Figure 11).

5

Setting the Groomer for Forward Rotation (Optional)

Parts needed for this procedure:

1	Forward Rotation Kit-obtain separately

Procedure

The groomer comes designed to rotate in the opposite direction of the reel. Optionally, you can set it to rotate in the same direction as the reel by obtaining the Forward Rotation Kit using the following procedure:

1. Remove the 2 socket-head bolts and locknuts from the cover (Figure 12).

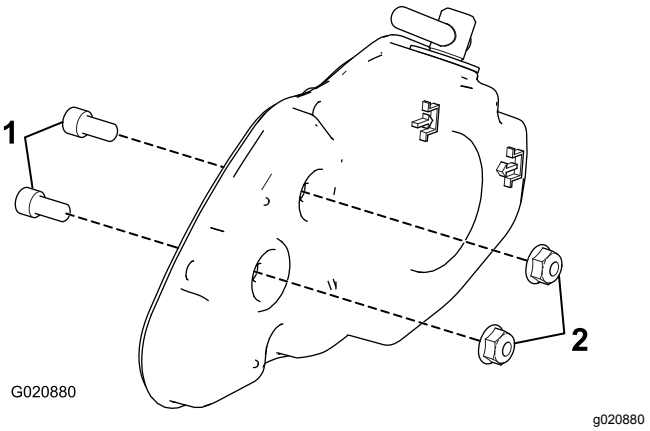

Figure 12

1. Socket-head bolts—keep one
2. Locknuts—discard

2. Keep one of the bolts and discard the rest of the fasteners.
3. Remove the center gear assembly, saving the gear and discarding the bushing and bolt (Figure 13).

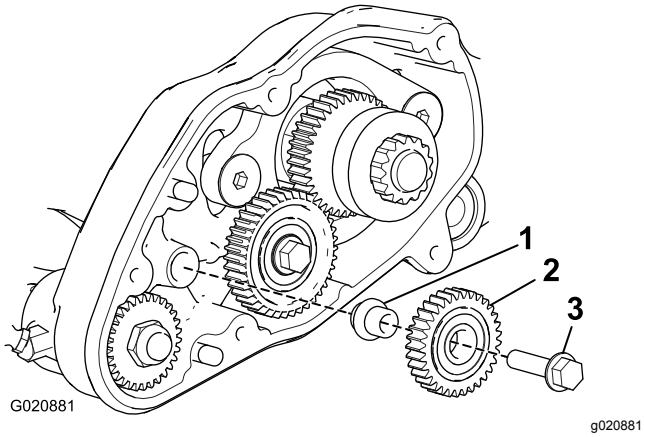

Figure 13

1. Bushing—discard
2. Center gear—keep
3. Bolt—discard

4. Install the socket-head bolt you removed from the cover into the hole where the center gear was installed (Figure 14).

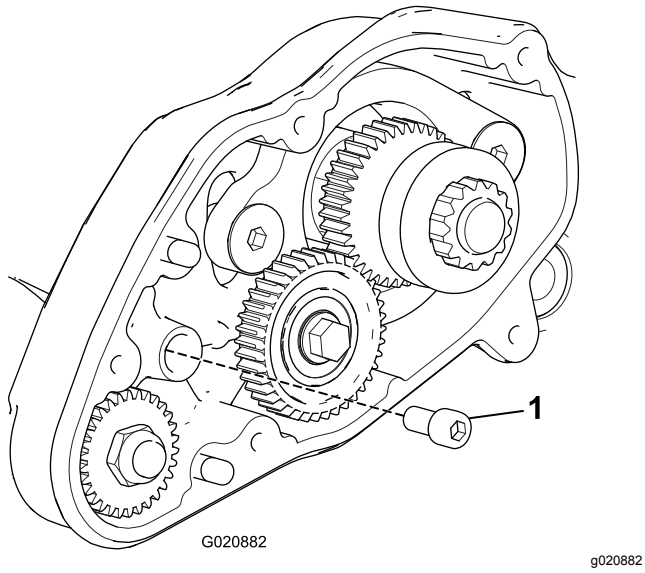

Figure 14

1. Socket-head bolt previously removed from the cover

5. Press fit the center gear removed previously onto the hub (Figure 15).

   Important: **Support the inner race of the gear bearing while pressing it onto the hub.**

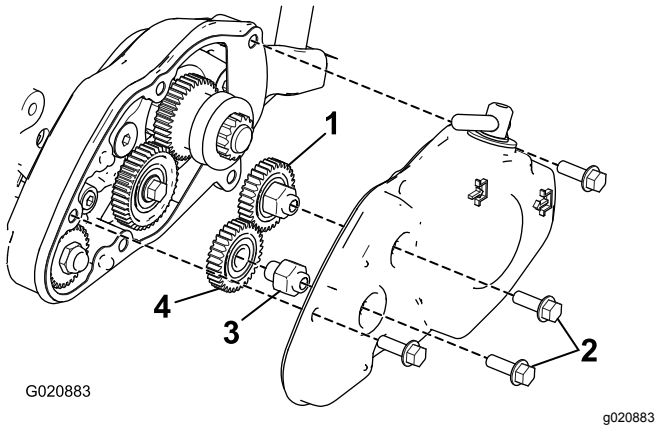

Figure 15

1. Gear assembly—from the forward rotation kit
2. Flange-head bolt—from the forward rotation kit
3. Gear hub—from the forward rotation kit
4. Center gear assembly

6. Install the center gear and hub assembly and the gear assembly, from the forward rotation kit, to the cover with 2 flange-head bolts as shown in Figure 15.

6

Installing the Groomer-Housing Cover

Parts needed for this procedure:

1	Groomer-housing cover assembly
1	Gasket
5	Flange-head bolt (1/4 x 3/4 inch)
1	Synthetic grease (3.0 oz)

Procedure

1. Coat the teeth of the gears with the synthetic grease supplied with the kit. Use the remaining grease to fill in the area around the gears.
2. Place the gasket over the dowel pins on the groomer housing (Figure 16).

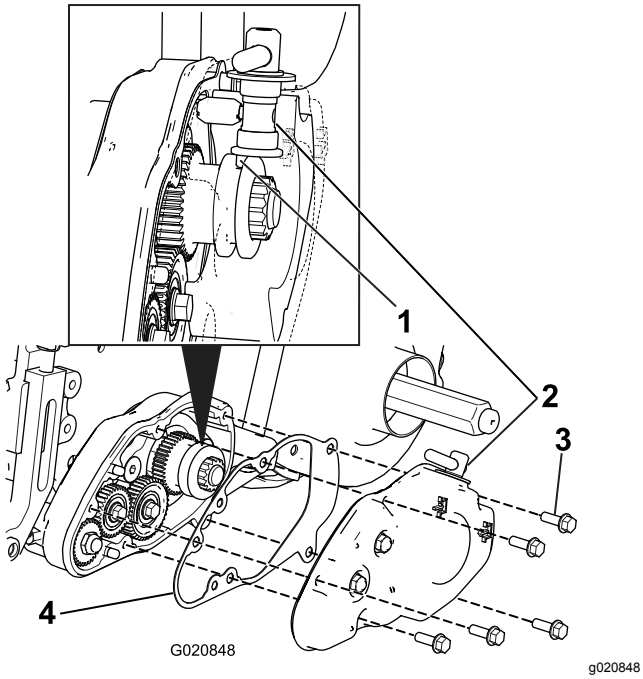

Figure 16

1. Actuator pin in the groove on the drive gear
2. Clutch assembly
3. Flange-head bolt
4. Gasket

3. Install the cover onto the groomer housing, inserting the actuator pin of the clutch assembly into the groove of the drive gear (Figure 16).
4. Secure the cover with 5 flange-head bolts (Figure 16) and torque them to 9.6 to 10.5 N·m (85 to 95 in-lb).

7

Installing the Groomer on the Right Side of the Machine

Parts needed for this procedure:

1	Bearing Adapter
2	Spacer
1	Groomer-plate assembly
1	Adapter ring
2	Bolt (1/4 x 3-3/4 inches)
2	Star washer
2	Fastener retainer
1	Weight

Procedure

1. Remove the 4 bolts securing the reel-drive-belt cover to the right, side plate and remove the cover (Figure 17).

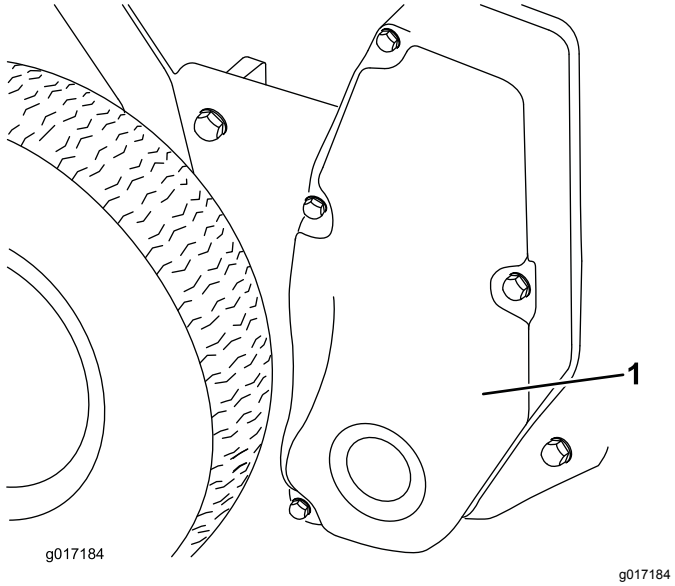

Figure 17

1. Reel-drive-belt cover

2. Loosen the idler pulley to relieve the belt tension and remove the reel-drive belt from the pulleys (Figure 18).

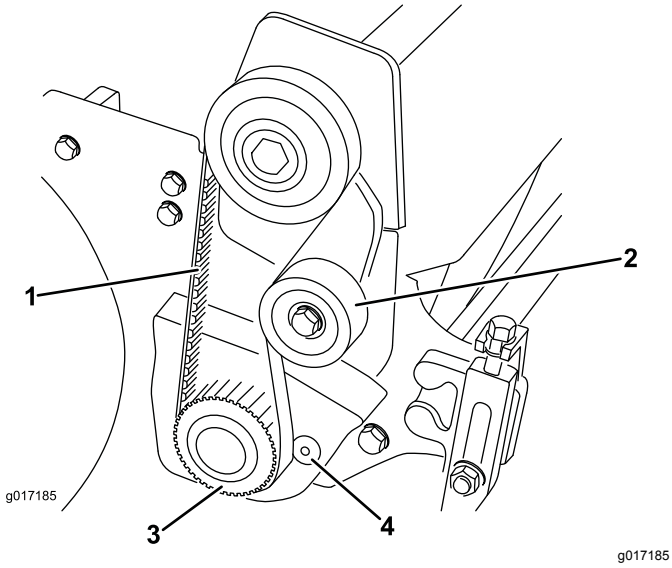

Figure 18

1. Reel drive belt
2. Idler pulley
3. Drive pulley
4. Flat-head screw

3. Using a 1/2 inch drive ratchet and extension, remove the drive pulley from the reel shaft (Figure 18).

Note: The drive pulley has right-hand threads.

4. Secure the reel from turning with a wood block.
5. Remove the 2 flat-head screws and nuts securing the groomer arm cover to the bearing housing and side plate (Figure 18).
6. Remove the groomer arm cover (Figure 19); retain the flat-head screws and discard the spacers under the cover.
7. If you are installing this kit on a **Greensmaster 800 mower** with a serial number prior to 230999999, a **Greensmaster 1000 mower** with a serial number prior to 229999999, or a **Greensmaster 1600 mower** with a serial number prior to 260001401, remove the 2 bolts and washers securing the right bedbar adjuster frame to the side plate.
8. Remove the curved washer and the bolt (3/8 x 5/8 inch) from the adjustment-knob, mounting block (Figure 19).
9. Insert an adapter ring into the reel-bearing housing (Figure 19).

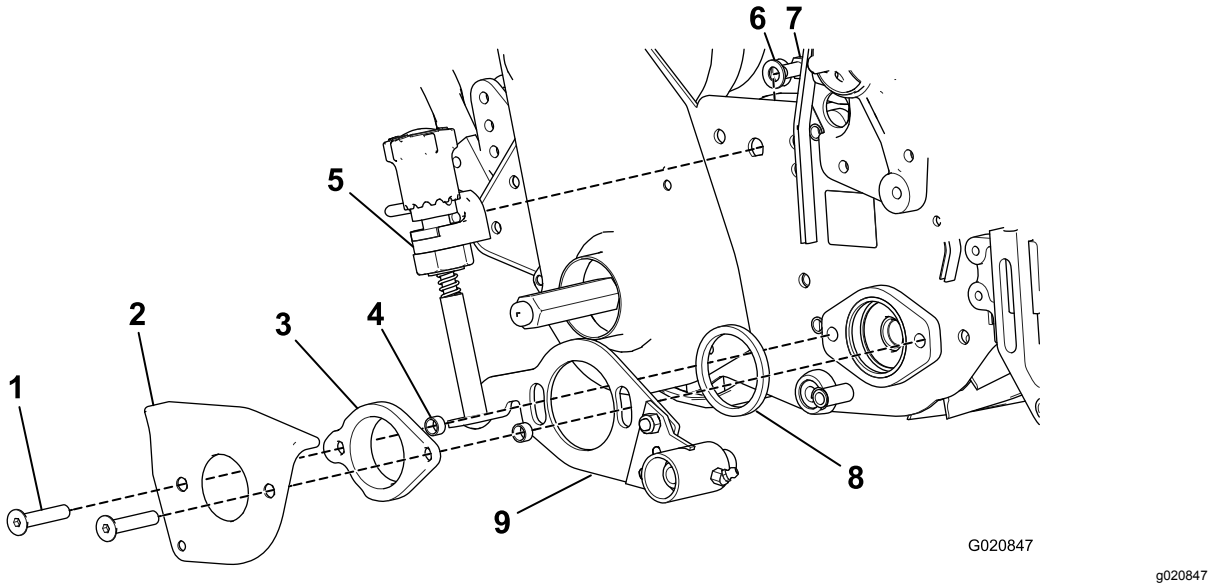

Figure 19

1. Flat-head screw
2. Groomer arm cover
3. Bearing adapter
4. Spacer
5. Adjustment-knob, mounting block
6. Curved washer
7. Bolt
8. Adapter ring
9. Groomer-plate assembly

10. Insert the 2 flat-head screws (3/8 x 2 inch) through the groomer arm cover and the bearing adapter and put a spacer over each screw (Figure 19).
11. Install the groomer arm cover, bearing adapter, spacers, and groomer-plate assembly to the reel-bearing housing, sliding the adapter through the bronze bushing in the groomer plate assembly and into the reel bearing housing (Figure 19).
12. Install the locknuts on the flat-head screws and torque them to 31 to 37 N·m (23 to 27 ft-lb).
13. Secure the mounting block of the groomer adjustment knob assembly to the right side plate with the bolt (3/8 x 5/8 inch) and curved washer removed previously (Figure 19).

14. If you are installing this kit on a **Greensmaster 800 mower** with a serial number prior to 230999999, a **Greensmaster 1000 mower** with a serial number prior to 229999999, or a **Greensmaster 1600 mower** with a serial number prior to 260001401, install the right, bedbar-adjuster frame to the side plate with the bolts and washers you removed previously.

15. Using a 1/2 inch drive ratchet and extension, install the drive pulley (right-hand threads) to the reel shaft (Figure 20).

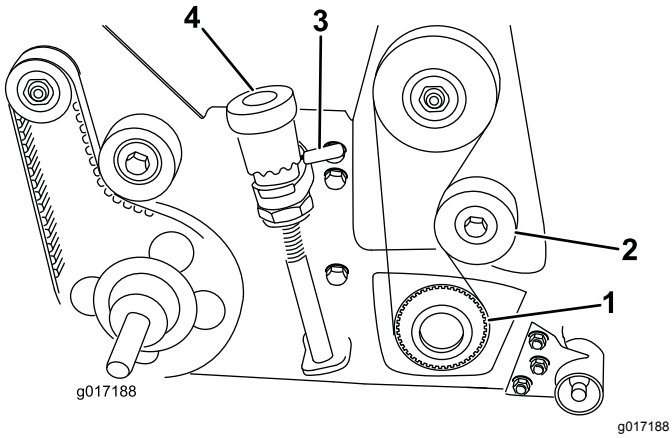

Figure 20

1. Drive pulley
2. Idler pulley
3. Quick-up lever
4. Micro adjustment knob

16. Secure the reel from turning with a wood block.

17. Torque the pulley to 54 to 81 N·m (40 to 60 ft-lb).

18. Install reel drive belt and check the belt tension by pressing the belt at the mid span of the pulleys with 1.5 to 2.5 kg (3 to 5 lb) of force.

    The belt should deflect 6 mm (1/4 inch). Reposition the idler pulley to adjust the belt tension. Tighten the screws once you achieve the proper tension.

19. Install the reel-drive-belt cover to the side plate as follows:

    - Greensmaster 800 mowers—install the reel drive cover to the side plate with the 4 bolts you removed previously.
    - Greensmaster 1000/1600 mowers—install the cover using the upper and lower bolts removed previously and the weight and new fasteners as shown in Figure 21. Use the fastener retainers as required by your local codes.

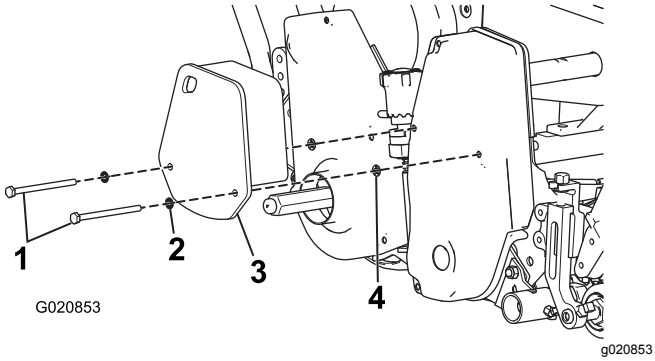

Figure 21

1. Bolt
2. Star washer
3. Weight
4. Fastener retainer

8

Installing the Grooming Reel

Parts needed for this procedure:

4	Groomer-shaft clamp
4	Socket-head screw (1/4 x 1-1/4 inches)
1	Groomer reel (obtain separately)

Procedure

1. Obtain a groomer reel appropriate for your needs and cutting unit; refer to the following table for a list of groomer reels:

Model Number	Groomer
04280	18 inch groomer, spring steel
04281	18 inch groomer, carbide
04282	18 inch groomer, brush
04283	21 inch groomer, spring steel
04284	21 inch groomer, carbide
04285	21 inch groomer, brush
04286	26 inch groomer, spring steel
04287	26 inch groomer, carbide
04288	26 inch groomer, brush
04268	18 inch soft grooming brush
04269	18 inch stiff grooming brush
04270	21 inch soft grooming brush
04271	21 inch stiff grooming brush
04276	26 inch stiff grooming brush

2. Loosely install the 2 halves of a groomer-shaft clamp to the driven shaft on the right side of the machine (Figure 22 and Figure 23).

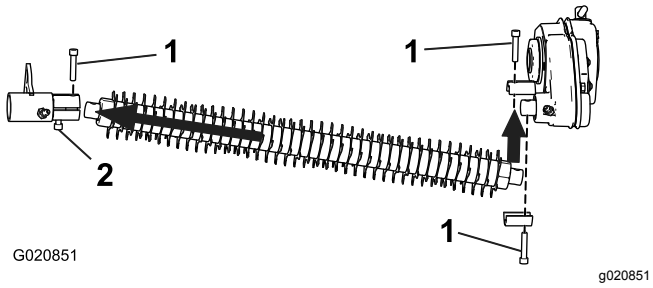

Figure 22

1. Socket-head screw
2. Socket-head screw—loosely installed in the clamp

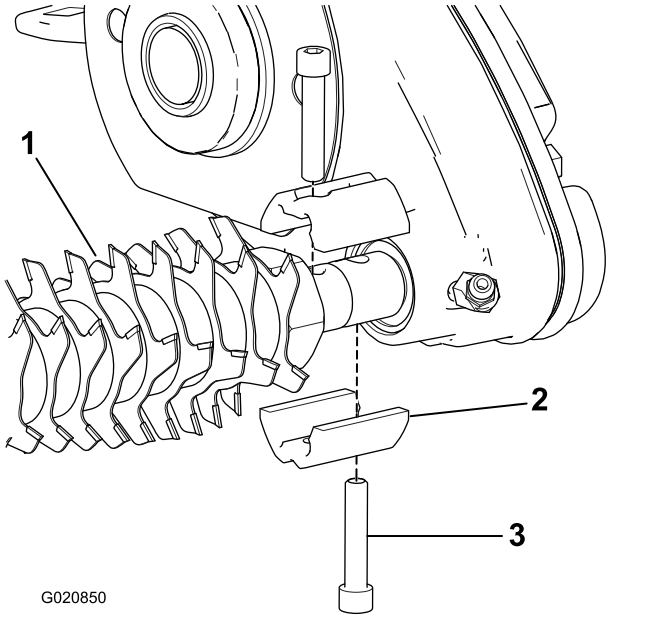

Figure 23

1. Groomer reel
2. Groomer-shaft clamp
3. Socket-head screw

3. Slide the groomer-reel shaft into the clamp on the right side and swing it up to the drive shaft on the left (Figure 22).

   Important: **If installing a carbide-toothed groomer, ensure that the teeth point in the direction the groomer will rotate when installed.**

4. Secure the groomer reel with the clamps as shown in Figure 22 and Figure 23, torquing the socket head screws to 9.6 to 10.5 N·m (85 to 95 in-lb).
5. Check the assembly of the groomer.
6. Rotate both quick-up levers to raise the grooming reel into the transport position (Figure 20).
7. Correct any problems and recheck the assembly.
8. Using a hand-pump grease gun, lubricate the 2 groomer-shaft bearings (one on each end).

   Note: Pump only 2 to 3 pumps maximum to avoid permanently damaging the grease seals.
9. Center the roller between the height-of-cut arms and tighten the set screws and jam nuts.

Operation

Grooming

Grooming is performed in the turf canopy above the soil level. Grooming promotes vertical growth of grass plants, reduces grain, and severs stolons producing a denser turf. Grooming produces a more uniform and tighter playing surface for faster and truer action of the golf ball.

Verticutting is a more aggressive cultivation technique designed to remove thatch by cutting through the turf canopy and into the thatch/mat layer. Grooming should not be considered a replacement for verticutting. Verticutting is generally a more rigorous and periodic treatment that can temporarily damage the playing surface, while grooming is a routine and gentler treatment designed to manicure the turf.

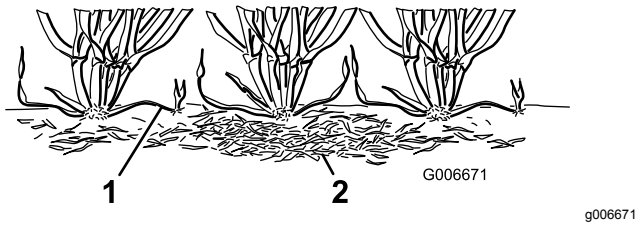

Figure 24

1. Grass runners
2. Thatch

Grooming brushes are a more recent development which are designed to be less intrusive than conventional grooming blades when adjusted to lightly contact the turf canopy. Brushing may be more beneficial for the ultra–dwarf cultivars, since these grass types have more of a upright growth pattern and do not fill in that well through horizontal growth. Brushes, however, can injure leaf tissue if they are set to penetrate too deeply into the canopy.

Grooming is similar to verticutting in its runner cutting action. Grooming blades however, should never penetrate the soil like verticutting or dethatching. Groomer blades are spaced closer together and are used more often than verticutters so that they are more effective in cutting runners and removing thatch.

Because grooming injures leaf tissue to some degree it should be avoided during periods of high stress.

Cool season species such as creeping bent grass and annual blue grass should not be groomed during high temperature (and high humidity) periods in midsummer.

It is difficult to make precise recommendations on use of grooming reels because so many variables affect the performance of grooming, including:

- The time of the year (i.e., the growing season) and weather pattern
- The general condition of each green
- The frequency of grooming/cutting—both how many cuttings per week and how many passes per cutting
- The height-of-cut setting on the main reel
- The height/depth setting on the grooming reel
- How long the grooming reel has been in use on this green
- The type of grass on the green
- The overall greens management program (i.e. irrigation, fertilizing, spraying, coring, over seeding, etc.)
- Traffic
- Stress periods (i.e., high temperatures, high humidity, unusually high traffic)

These factors can vary from golf course to golf course and from green to green. Inspect the greens frequently and vary the grooming practice in accordance with the need.

The groomer is set at the factory with 13 mm (1/2 inch) blade spacing. By removing spacers and adding blades or adding spacers and removing blades the groomer can be changed to 6 mm (1/4 inch) or 19 mm (3/4 inch) spacing.

Grooming with 6 mm (1/4 inch) blade spacing is recommended for fast growth periods (spring through early summer). Grooming with 19 mm (3/4 inch) blade spacing is recommended for slower growth periods (late summer through fall and winter). Do not use the grooming reel during high stress periods.

Note: Grooming with 6 mm (1/4 inch) blade spacing removes more grass blades and thatch and cuts more runners than grooming with 13 mm (1/2 inch) or 19 mm (3/4 inch) blade spacing. If grooming with 6 mm (1/4 inch) blade spacing, one or two groomings per week should be sufficient except during maximum growth periods.

Note: The practice of changing the direction of cut each time the green is cut should be continued when a groomer is used. This rotation will enhance the effects of the grooming.

Testing the Groomer Performance

Important: **Improper or over-aggressive use of the grooming reel (i.e., too deep or too frequent grooming) may cause unnecessary stress on the turf, leading to severe greens damage. Use the groomer cautiously.**

It is important to determine the performance of the groomer before putting it into regular use on greens. We strongly suggests that a formal test procedure be used. The following is a practical way of determining the proper height/depth setting:

1. Place the cutting unit on a flat level surface.
2. Set the cutting reel to the height of cut that would normally be used without the grooming reel. Use a Wiehle roller and scraper for the front roller.
3. Set the grooming reel 1/2 the height-of-cut setting above the ground (e.g. for 3.2 mm (1/8 inch) height-of-cut setting, set the groomer at 1.6 mm (1/16 inch) above the ground).

   Note: If using the groomer brush, set it at the height-of-cut setting above the ground (e.g. for 3.2 mm (1/8 inch) height-of-cut setting, set the groomer at 3.2 mm (1/8 inch) above the ground).
4. Make a pass over the test green, then lower the groomer flush with the ground level and make another pass over the test green.

   Note: If using the groomer brush, lower it to 1/2 the height-of-cut setting above the roller level (e.g. for 3.2 mm (1/8 inch) height-of-cut setting, set the groomer at 1.6 mm (1/16 inch) above the ground).
5. Compare the results. The first groomed area when the setting was 1/2 the height-of-cut setting above the roller level will have removed significantly less grass and thatch than the second setting.

   Check the test green 2 or 3 days after the first grooming for general condition/damage. If the groomed areas are turning yellow/brown, and the non-groomed areas are green, then the grooming was too aggressive.

   Note: The color of the grass will change when you use the grooming reel. You can observe this with the first grooming and it will continue over time. Experience will allow the greens superintendent to judge by the color of the turf (along with close examination) if the current grooming practice is appropriate for the particular green. Because the grooming reel stands up more grass and removes thatch, the

quality of the cut will not be the same as without the groomer. You will notice this effect most the first few times a groomer is used on a green.

Note: On multiple passes (i.e., double and triple cutting), the groomer will continue to penetrate deeper on each successive pass. Multiple passes are not recommended.

6. After you test the performance of the groomer on a test green and obtain satisfactory results, you can begin grooming on the playing greens. It is important to realize, however, that each green may respond differently to grooming. In addition, growing conditions are constantly changing. Inspect the groomed greens frequently and make adjustments to the grooming procedure as often as necessary.

Setting the Height/Depth of the Groomer

Set the groomer blade height/depth using the following procedure:

1. Make sure that the rollers are clean and the main reel is set to the desired height of cut. Park the machine on a flat, level work surface.
2. Use the quick-up levers (both sides) to lower the grooming reel into the grooming position (Figure 25).

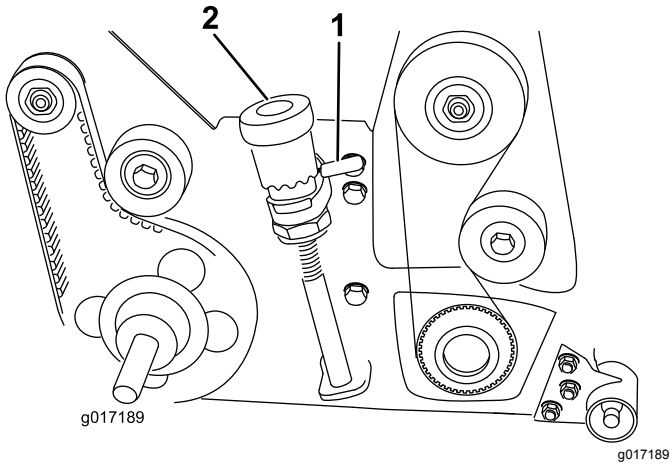

Figure 25

1. Quick-up lever
2. Micro adjustment knob

3. On one end of the groomer shaft, measure the distance from the lowest tip of a groomer blade to the work surface (Figure 26).

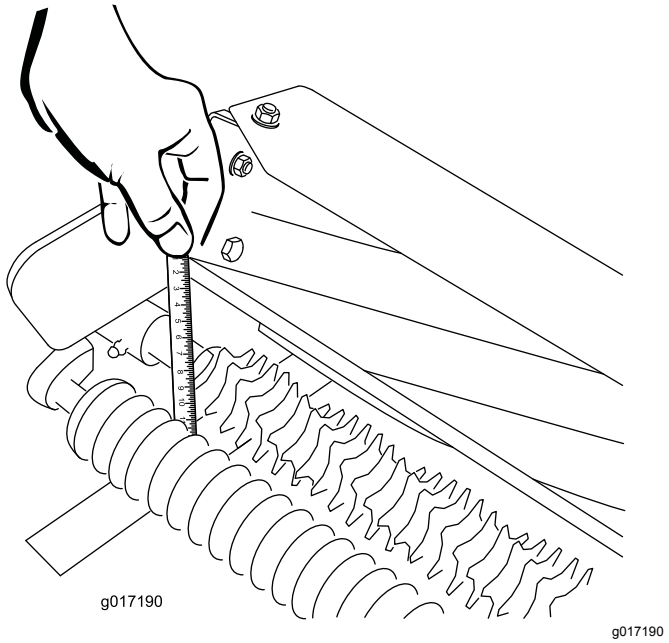

Figure 26

4. Lift and turn the micro adjustment knob (Figure 25) to raise or lower blade tip.

   Note: Each notch on the micro adjustment knob is approximately equal to 0.17 mm (0.007 inch) of groomer depth.
5. Repeat this procedure on the opposite end of the groomer, then recheck the setting on the first side.
6. Put the grooming reel into the transport position.

Turning the Groomer On and Off

You can turn the groomer on or off by rotating the groomer-drive clutch as shown in Figure 27.

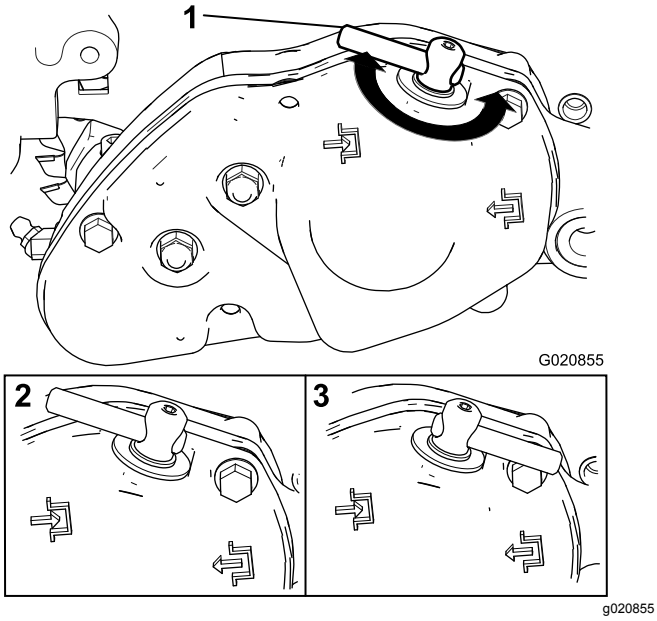

Figure 27

1. Groomer-drive clutch
2. On
3. Off

Transporting the Groomer

When transporting machine be sure to raise the grooming reel into its transport (raised) position. To raise the grooming reel, rotate the right and left quick-up levers so they face to the rear (Figure 25). To lower the grooming reel, turn the quick-up levers forward.

Maintenance

Cleaning

Hose off the grooming reel after use. Do not direct the water stream directly at the groomer bearing seals. Do not permit the grooming reel to stand in water so that the components rust.

Lubrication

Using a hand-pump grease gun, lubricate the 2 groomer-shaft bearings (one on each end). Pump only 2 to 3 pumps maximum to avoid permanently damaging the grease seals.

Note: When lubricating the main reel bearings, do not over grease because excess grease can work its way into the groomer-drive box or drip onto the turf.

Every 500 operating hours, remove the cover from the groomer-drive box. Clean out all of the old grease and pack it with 85 g (3.0 oz) of synthetic grease (Toro part number 125-3511 or equivalent synthetic grease meeting ISO VG 220, NLGI 2 standards).

Inspecting the Blades

Inspect the grooming-reel blades frequently for damage and wear. Straighten bent blades with a pliers. Replace worn blades. When inspecting the blades, check to see that the right and left blade shaft end nuts are tight.

Note: If using spring steel blades, when one side of the blades become worn, remove the grooming reel, rotate it 180 degrees, and install it so that the unworn side is facing the direction of rotation.

Note: Because the groomer may introduce more debris (i.e., dirt and sand) into the cutting unit than what the reel would normally be exposed to, the bedknife and main reel should be checked for wear more frequently. This is especially important in sandy soil and/or when the groomer is set for penetration.

Replacing the Grooming Reel

Remove and replace the grooming reel using the following procedure:

1. Remove both socket-head screws and shaft clamps from one side of the groomer reel (Figure 23).
2. Remove the inner socket-head screw from the clamp on the other side and loosen the outer screw.

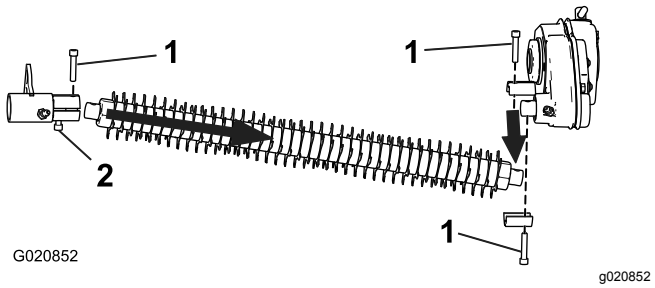

Figure 28

1. Socket-head screw
2. Socket-head screw—loosely installed in the clamp

3. Slide the reel assembly out of the clamp.
4. Refer to 8 Installing the Grooming Reel (page 10) to install the reel as needed.
5. Check the grooming reel height/depth setting.

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
04134	—	Groomer Drive System, Greensmaster 800/1000/1010/1600/1610 Mower	GROOMER DRIVE, FIXED HEAD	Lawn Mower	2006/42/EC, 2000/14/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
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March 7, 2017

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