Form No. 3359-412 Rev A

Dampening Roller Kit

DPA Cutting Units for Riding Greensmaster® Tractors

Model No. 04629

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 other reproductive harm.

Important: Use caution when handling roller assembly. Do not drop the roller assembly on the shaft ends.

Installation

Loose Parts

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

Description	Qty.	Use
Wid Wiehle roller	1	Install the front roller.
Height-of-cut arm	2	
Rear roller	1	Install the rear roller.
Roller retainer	2	
Short bolt	2	
Long bolt	2	
Roller spacer assembly	2	
Flange nut	6	
Roller shim	2	
No parts required	–	Install rear weight.

8111 Lyndale Avenue South
Bloomington, MN 55420

Register at www.Toro.com.

Original Instructions (EN)
Printed in the USA.

3359-412 A

Installing the Front Roller

1. Remove the cutting unit from the traction unit and place it on a stable work surface.
2. Remove the plow bolts, washers, and flange nuts securing the height-of-cut arms to the cutting unit side plates (Figure 1).

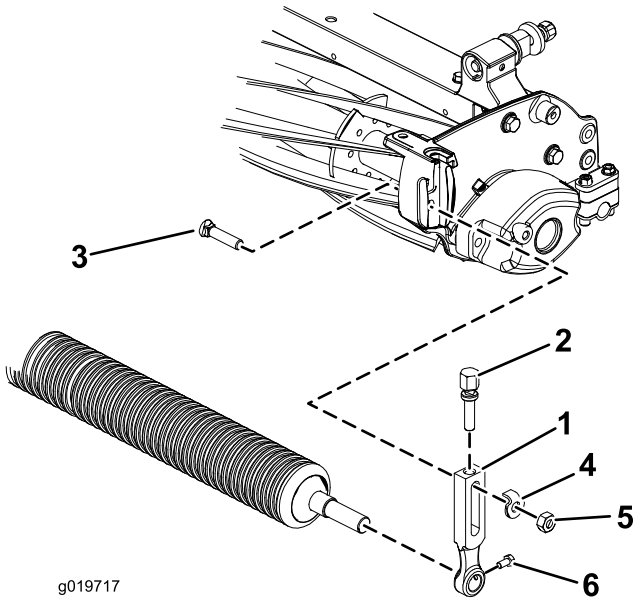


Figure 1

1. Height of cut arm
2. Adjusting screw
3. Plow bolt
4. Washer
5. Flange nut
6. Screw

3. Remove the height-of-cut arms and the front roller (Figure 1).
4. Remove the screws securing the roller shaft to the height-of-cut arms (Figure 1).
5. Remove the adjusting screws from the height-of-cut arms (Figure 1).
6. Apply an anti-seize lubricant to the threads of the adjusting screws. Thread the screws into the new height-of-cut arms.
7. Loosely install the previously removed roller shaft retaining screws into the new height-of-cut arms.
8. Install the new front roller into the new height-of-cut arms. Make sure the flats on the roller shaft align with the flats on the height-of-cut arms.

   Important: Use caution when handling roller assembly. Do not drop the roller assembly on the shaft ends.
9. Loosely mount the new height-of-cut arms to the cutting unit side plates with the plow bolts, washers, and flange nuts you previously removed.
10. Center the roller between the height-of-cut arms and tighten the screws securing the roller shaft to the height-of-cut arms.

Installing the Rear Roller

1. Raise the rear of the cutting unit and place a block under the bedknife.
2. Remove the 2 nuts securing each roller clamp, bracket, and spacer to each sideplate mounting flange (Figure 2). Remove all components but retain the shims.

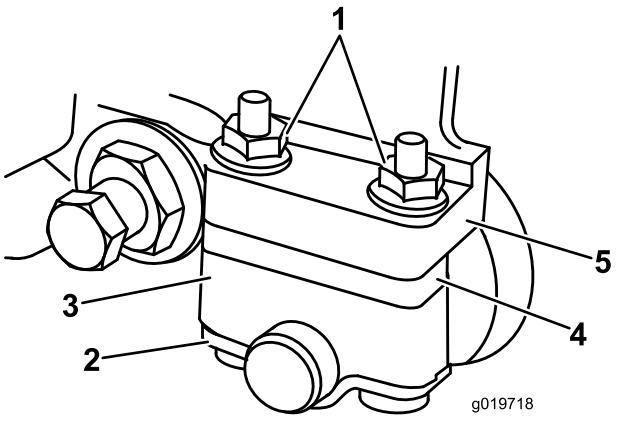


Figure 2

1. Mounting nuts
2. Roller retainer
3. Roller spacer
4. Shim
5. Side plate mounting flange

3. Install the new roller, new roller spacer assembly, new roller spacer, and existing shim to the side plate mounting flange with a new retainer and bolts. Make sure the flats on the roller shaft align with the flats on the new retainers. Refer to Figure 3 through Figure 5 to determine the position of the components to attain the desired height of cut.

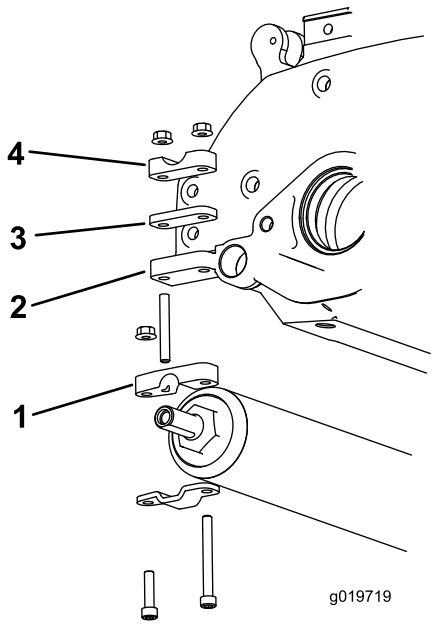


Figure 3

Up to 0.437 inch (11 mm) height of cut

1. Roller spacer assembly
2. Side plate mounting flange
3. Shim
4. Roller spacer

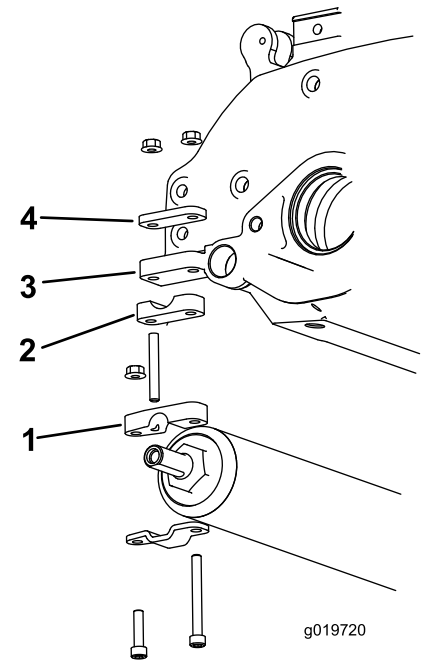


Figure 4

0.430 to 0.750 inch (11 to 19 mm) height of cut

1. Roller spacer assembly
2. Roller spacer
3. Side plate mounting flange
4. Shim

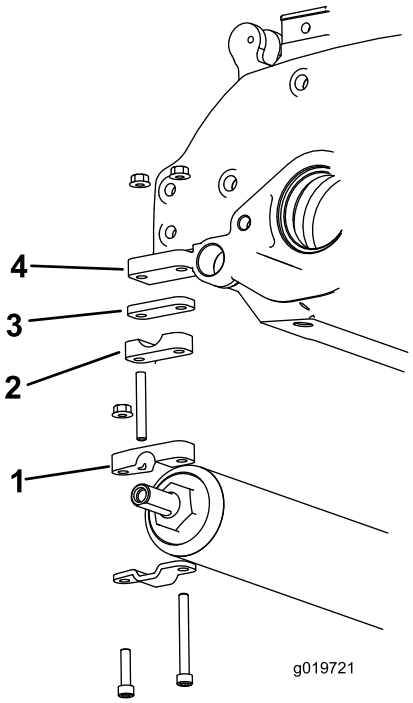


Figure 5

0.625 to 1.00 inch (15.8 to 25.4 mm) height of cut

1. Roller spacer assembly
2. Roller spacer
3. Shim
4. Side plate mounting flange

4. Adjust the cutting unit to the desired height of cut and tighten the height-of-cut arm mounting fasteners.

Installing Rear Weight

Greensmaster traction units with cutting units with this kit installed comply with ANSI B71.4–2004 and EN836:1997 standards when properly ballasted. Refer to the *Traction Unit Operator's Manual* for ballasting instructions and order the appropriate weight kit from your Authorized Toro Distributor as needed.

Maintenance

Disassembling and Assembling the Roller

If you need to clean or replace the seals and bearings on the roller, use the following procedures to disassemble and assemble the dampening rollers.

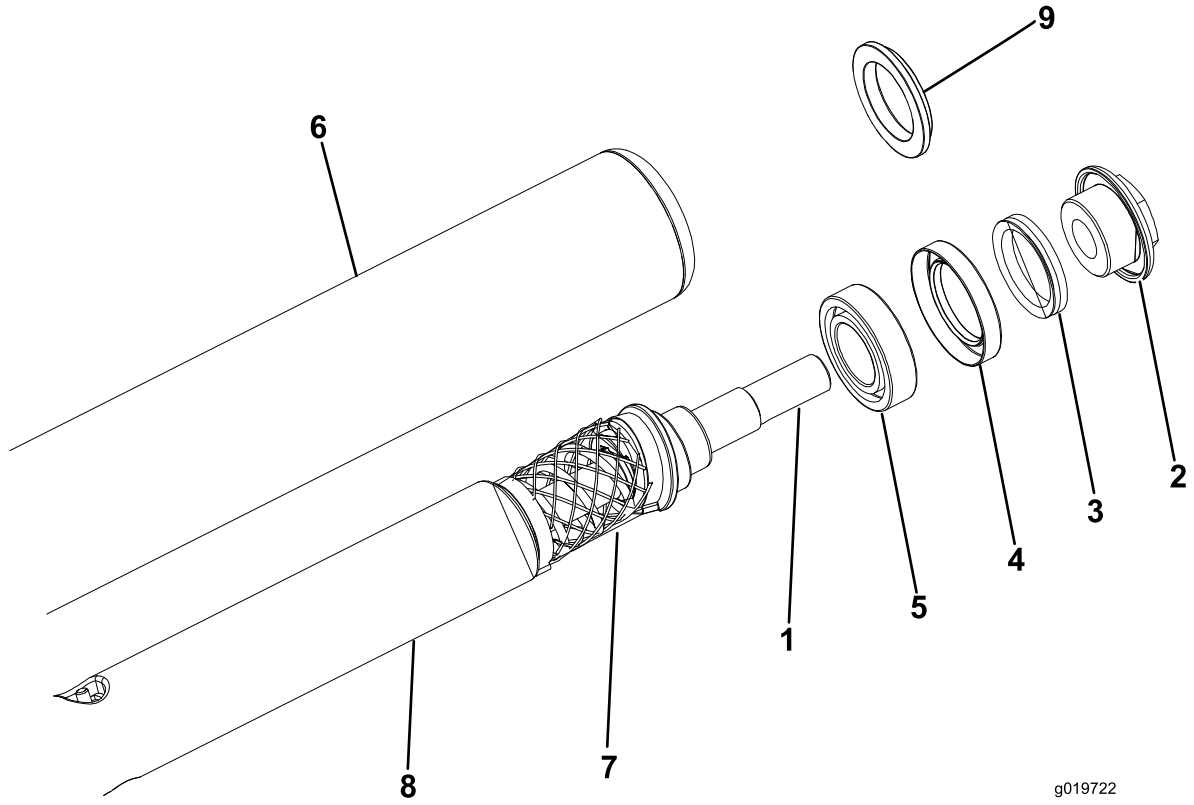


Figure 6

1. Roller shaft assembly
2. Bearing locknut
3. V-ring
4. Seal
5. Ball bearing
6. Roller tube
7. Net sleeve
8. Weight
9. Seal installation tool

Disassembling a Dampening Roller

1. To hold the roller shaft to remove the bearing locknut, install a 3/8-24 UNF 2B screw into the threaded end of the roller shaft and secure it in place with jam nut. While retaining the shaft, remove the bearing locknut from each end (Figure 6).
2. Remove v-ring from each end of the roller (Figure 6).
3. Carefully inspect the seating surface and threads of the bearing locknuts (Figure 6). Replace the locknut if you find any damage.
4. Loosely secure the roller assembly in a bench vise and lightly tap one end of the roller shaft until the seal and bearing are removed from the roller cavity. Remove the second seal and bearing from the roller cavity by tapping on the shaft (Figure 6).
5. Clean the bearing cavity in the roller and remove any rust with a crocus cloth.

Note: When servicing the roller bearings, replace the net sleeve (Figure 6).

Assembling a Dampening Roller

1. Place the roller shaft assembly into the roller (Figure 7).

   Note: If you are replacing the bearing locknuts, use the original locknuts for assembly purposes, if possible. This will preserve the patch lock feature in the new locknuts. Use the new nuts only after you have installed the new bearings.

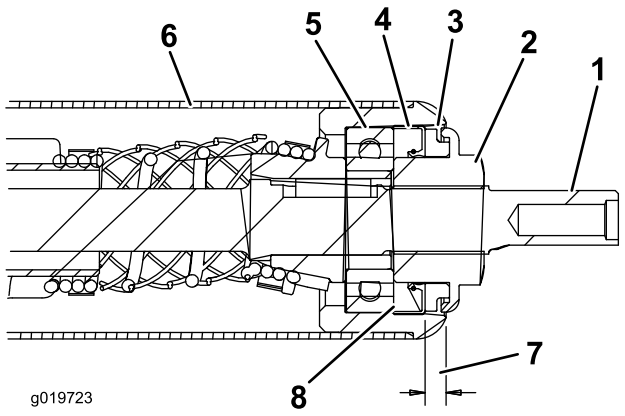


Figure 7

1. Roller shaft assembly
2. Bearing locknut
3. Seal installation tool
4. Seal
5. Ball bearing
6. Roller tube
7. 0.210 inch (5.3 mm) both ends
8. 2x press flush

2. Position a new bearing onto each end of the roller shaft and push until the bearings are seated into each end of the roller (Figure 7).

   Note: To ease the installation of the seal, a Seal Installation Tool, Toro Part No 107-9793, is available from the Toro Parts Department.

3. Apply a coating of grease to the nut surface to prevent damage during seal installation.

   Important: If you do not grease the bearing locknut before installing the seal you may damage the components.

4. Position a seal installation tool on the bearing locknuts (Figure 7).
5. Carefully install the seals onto the bearing locknuts. Pack the back of the seal 75 to 90% full with #2 grease (Figure 7).
6. Install a nut with a seal and the installation tool onto each end of the roller shaft. Tighten the nuts until they bottom against the bearings (Figure 7). Remove the nuts and installation tool from the roller shaft. Remove the installation tool from the bearing nut.

   Note: If the original bearing locknuts are being used, apply Loctite #242 (or equivalent to the threads of the locknuts.

7. Insert a V-ring onto each bearing locknut (Figure 8).

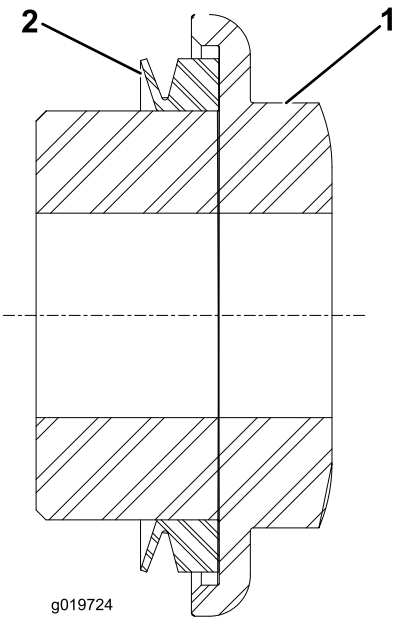
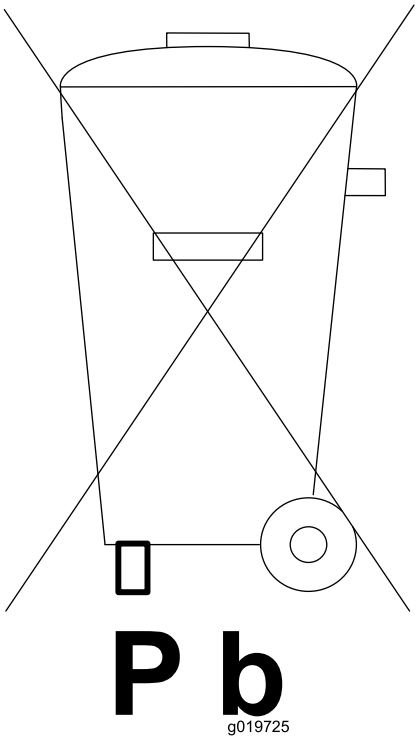


Figure 8

1. Bearing locknut
2. V-ring

8. Lubricate the lips of the installed seals with #2 grease.
9. Install a bearing locknut with a V-ring onto each end of the roller shaft. Torque the locknuts to 25 to 30 ft-lb (34 to 41 N-m).

Note: If you are disposing of the roller, the roller weight (Figure 6) contains lead, dispose of the roller shaft assembly properly.



Notes:

Notes:

Count on it.