



# Grass Collection System

Reelmaster® 2300/3100-D

Model No. 03227

Form No. 3380-654 Rev A

## 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.

## Installation

### Loose Parts

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

Procedure	Description	Qty.	Use
<b>1</b>	Roller bumper assembly	1	Mount the roller bumper (Reelmaster 3100D only)
	Flange head screws-M8 x 16	2	
<b>2</b>	No parts required	—	Tension the counterbalance springs
<b>3</b>	No parts required	—	Adjust the front cutting unit shields
<b>4</b>	Front basket bracket—L.H.	2	Mount the front grass baskets (Reelmaster 3100D only)
	Front basket bracket—R.H.	2	
	Capscrew—5/16 x 1 inch	8	
	Locknut	8	
	Front grass basket assemblies	2	
<b>5</b>	Front basket bracket—L.H.	2	Mount the front grass baskets (Reelmaster 2000D series only)
	Front basket bracket—R.H.	2	
	Capscrew—5/16 x 1 inch.	4	
	Locknut	4	
	Front grass basket assemblies	2	
<b>6</b>	No parts required	—	Optional basket wheel
<b>7</b>	45 degree Fitting w/O-rings	1	Change the hydraulic fitting (Reelmaster 3100D only)
<b>8</b>	No parts required	—	Adjust rear grass shield



Procedure	Description	Qty.	Use
<b>9</b>	Rear basket bracket assembly–L.H.	1	Mount the rear grass basket
	Rear basket bracket assembly–R.H.	1	
	Capscrew–5/16 x 2–1/4 inches	2	
	Locknuts	2	
	Rear grass basket assembly	1	
<b>10</b>	No parts required	–	Adjust the roller bumper(Reelmaster 3100D only)
<b>11</b>	No parts required	–	Adjusting the rear basket position(Reelmaster 3100D only)
<b>12</b>	No parts required	–	Removing the rear basket
<b>13</b>	No parts required	–	Add Rear Ballast (Reelmaster 2000D series only)

## Media and Additional Parts

Description	Qty.	Use
Installation Instructions	1	Instruction for installing the kit
Parts catalog	1	Use to reference part numbers

# 1

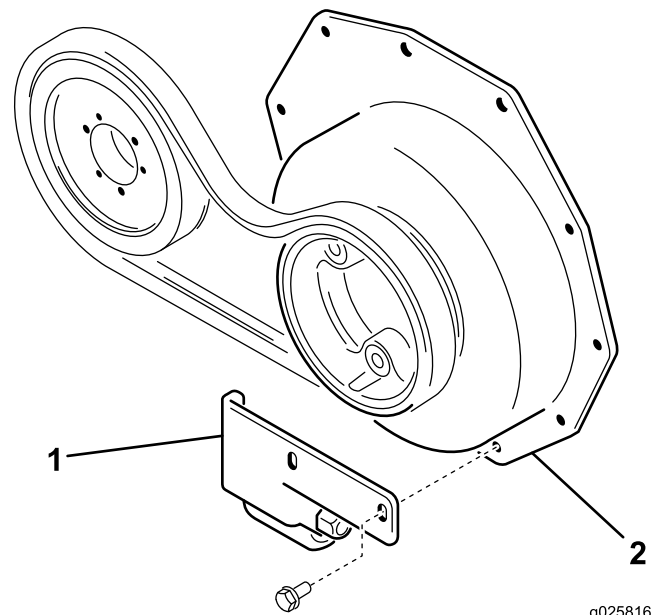
## Mounting the Roller Bumper (Reelmaster 3100D only)

### Parts needed for this procedure:

1	Roller bumper assembly
2	Flange head screws-M8 x 16

## Procedure

Mount the roller bumper to the engine flange with (2) M8 x 16 flange head screws (Figure 1).



**Figure 1**

1. Roller bumper

2. Engine

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# 2

## Tensioning the Counterbalance Springs (Reelmaster 2000D series only)

### No Parts Required

### Procedure

**Important:** The additional weight of the baskets when installed on the cutting units may require a change in counterbalance. Raise the counterbalance springs one or two holes at both ends (depending on turf conditions).

### ⚠ WARNING

Use caution when tensioning the springs as they are under heavy load.

**Note:** Refer to the Operator's Manual for further safety instructions.

To tension the counterbalance springs, proceed as follows:

1. Raise the cutting units and stop the engine.
2. Remove the cotter pin and clevis pin securing the spring shackle to the counterbalance arm (Figure 2). Do not remove other clevis pins.

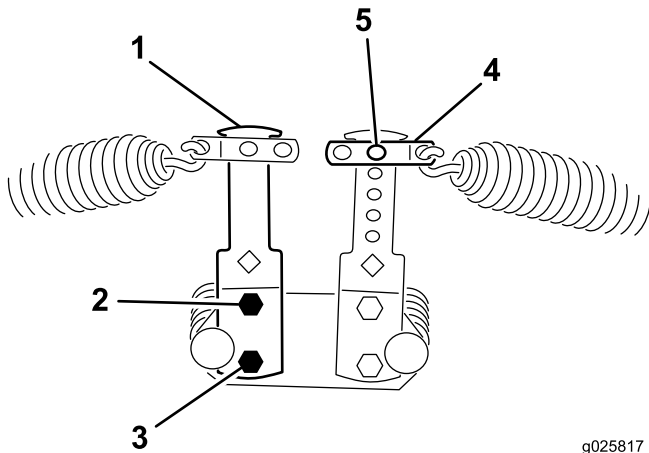


Figure 2

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- |                       |                            |
|-----------------------|----------------------------|
| 1. Counterbalance arm | 4. Spring shackle          |
| 2. Top cap screw      | 5. Clevis pin & cotter pin |
| 3. Bottom cap screw   |                            |

3. Move the shackle on the counterbalance arm until it is aligned with the top hole of the arm (Figure 2). Reinstall the clevis pin and the cotter pin.
4. Lower the cutting units.

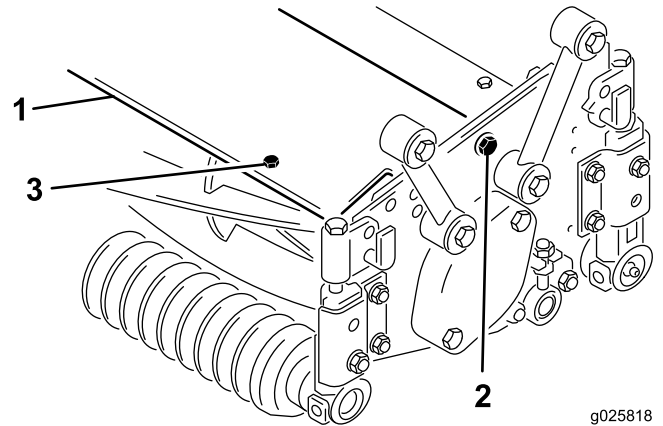
# 3

## Adjusting the Front Cutting Unit Shields

### No Parts Required

### Procedure

1. Remove the mounting screws securing the front of each front cutting unit shield to the frame (Figure 3).
2. Loosen the pivot screw securing shield to side plate (Figure 3).



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Figure 3

- |                |                   |
|----------------|-------------------|
| 1. Shield      | 3. Mounting screw |
| 2. Pivot screw |                   |

3. Pivot the front shields upward to about 30 degrees for the best direction into front baskets. Readjust the shields to grass conditions, as required.
4. Tighten the pivot screw to secure the shield.

# 4

## Mounting the Front Grass Baskets

(Reelmaster 3100D only)

### Parts needed for this procedure:

2	Front basket bracket–L.H.
2	Front basket bracket–R.H.
8	Capscrew–5/16 x 1 inch
8	Locknut
2	Front grass basket assemblies

### Procedure

**Note:** The rear basket brackets and carrier frame are different from those for the front baskets.

1. Mount a basket bracket (left or right) to each end of the front carrier frames with (2) 5/16 x 1 inch capscrews and locknuts (Figure 4).

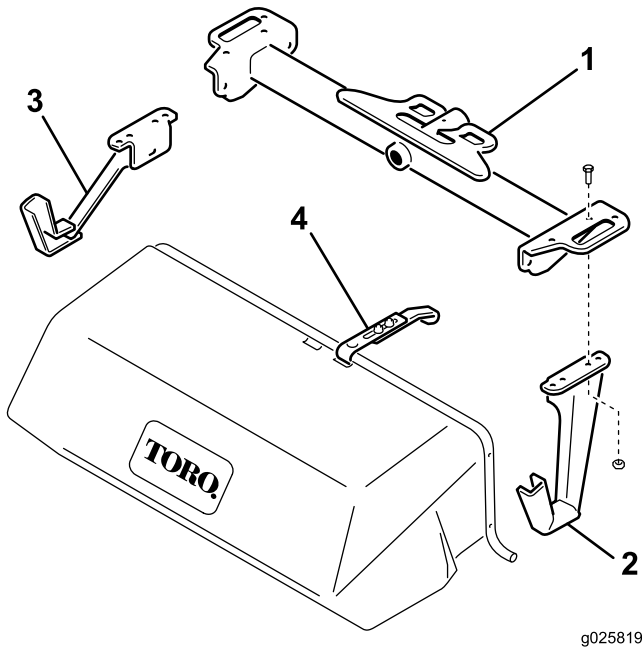


Figure 4

- |                        |                                 |
|------------------------|---------------------------------|
| 1. Carrier frame       | 3. R.H. Basket bracket          |
| 2. L.H. Basket bracket | 4. Front sliding hanger bracket |

3. Latch each hanger bracket over notch on carrier frame (Figure 4).

**Note:** Adjust the sliding hanger brackets so the bottoms of the front baskets are parallel or slightly elevated with the ground.

# 5

## Mounting the Front Grass Baskets

(Reelmaster 2000D series only)

### Parts needed for this procedure:

2	Front basket bracket–L.H.
2	Front basket bracket–R.H.
4	Capscrew–5/16 x 1 inch.
4	Locknut
2	Front grass basket assemblies

### Procedure

**Note:** The rear basket brackets and carrier frame are different from those for the front baskets.

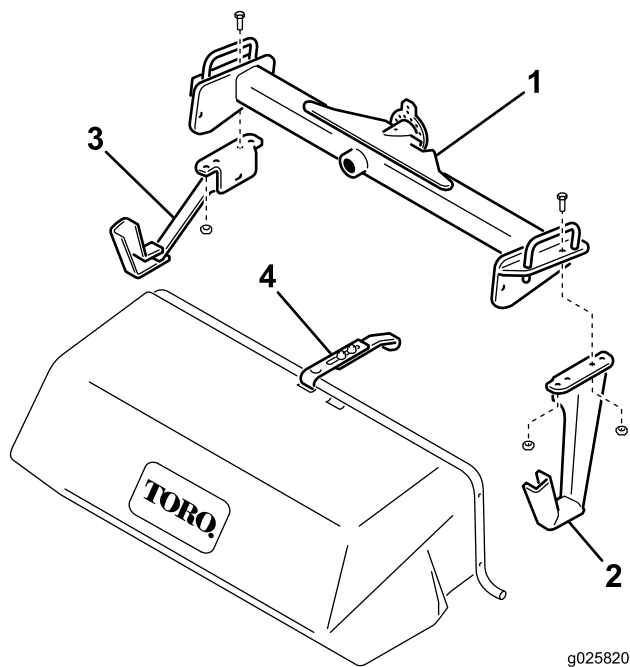
1. Remove the capscrews securing the tipper chains to the inward ends of the front cutting unit carrier frames.
2. Secure the top of the carrier frame (outward end only) to the top of the basket bracket with a 5/16 x 1 inch. capscrew and locknut (Figure 5).
3. Secure the inward end of the carrier frame basket bracket and the tipper chain together with the fasteners previously removed.

**Note:** The cutting unit hydraulic fitting(s) may have to be re-positioned to ease the installation of basket brackets.

4. Remove the carriage bolt and nut securing the sliding hanger bracket (Figure 5) to the basket. Remove the sliding hanger bracket and re-install it in the right slot.
5. Install the front basket onto basket brackets.
6. Latch each hanger bracket over notch on carrier frame (Figure 5).

**Note:** The cutting unit hydraulic fitting(s) may have to be re-positioned to ease the installation of basket brackets.

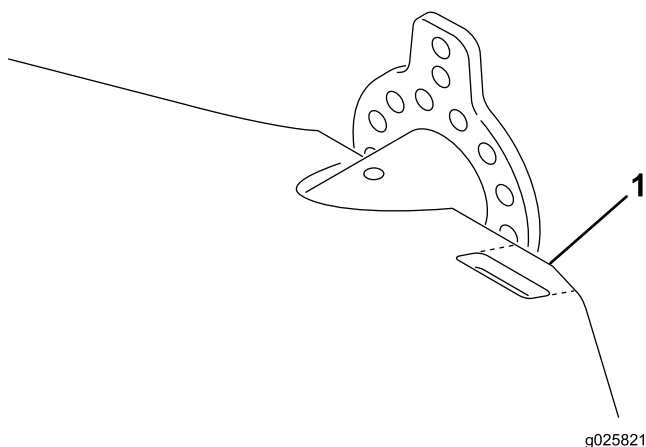
2. Install the front basket onto the basket brackets.



**Figure 5**

- |                        |                                 |
|------------------------|---------------------------------|
| 1. Carrier frame       | 3. R.H. Basket bracket          |
| 2. L.H. Basket bracket | 4. Front sliding hanger bracket |

**Note:** If the carrier frame has a slot instead of a notch in it, cut out carrier frame as shown in Figure 6. Deburr the sharp edges and the paint.



**Figure 6**

1. Cut out and deburr this area

**Note:** Adjust the sliding hanger brackets so the bottoms of the front baskets are parallel or slightly elevated with the ground.

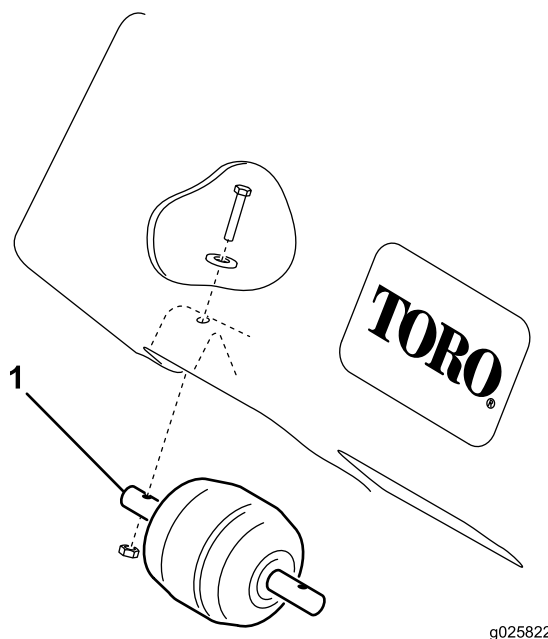
## 6

### Optional Basket Wheel

#### No Parts Required

#### Procedure

An optional Basket Wheel Kit, Part Number 5-2893 (Figure 7) is available from your local Toro Distributor. Each basket wheel is mounted to the basket bracket with (2) capscrews, flat washers and locknuts. Two rollers are required per basket. Part numbers for the required components can be found in the Parts Catalog.



**Figure 7**

1. Basket wheel

## 7

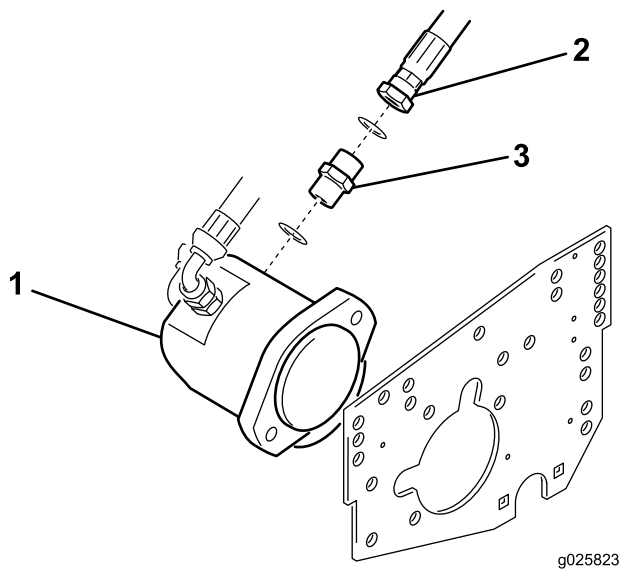
### Changing the Hydraulic Fitting (Reelmaster 3100D only)

#### Parts needed for this procedure:

1	45 degree Fitting w/O-rings
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#### Procedure

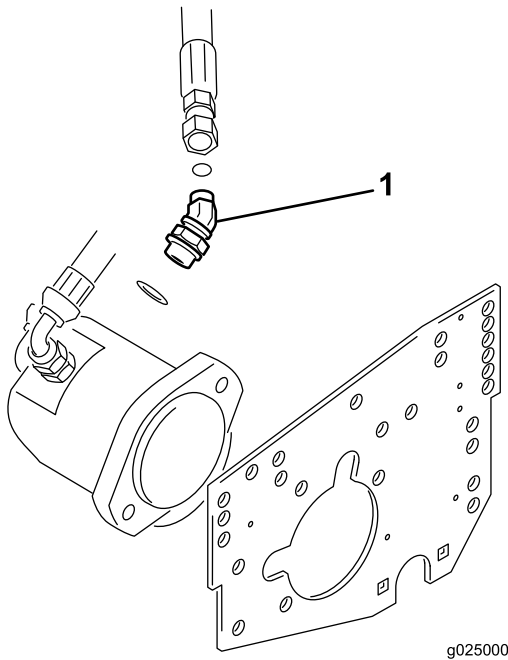
1. Disconnect the hydraulic hose secured to the straight fitting on the back side of the rear cutting unit motor (Figure 8).



**Figure 8**

1. Rear cutting unit motor
2. Rear hydraulic line
3. Straight fitting

2. Remove the straight fitting from the motor (Figure 8).
3. Install the new 45 degree fitting and the O-rings to the motor (Figure 9). The fitting is to be orientated away from the motor.



**Figure 9**

1. 45 degree fitting

4. Connect the hydraulic hose to the fitting (Figure 9).

**Important:** On the Reelmaster 2300D only, if the rear basket bracket contacts the reel motor hydraulic hose, replace with Hose Assembly, Toro Part No. 94-5129. Order the Hose Assembly from your Authorized Toro Distributor.

## 8

### Adjusting the Rear Grass Shield

#### No Parts Required

#### Procedure

- In wet conditions, adjust the rear shield all the way up.
- In dry conditions, the rear shield may need to be slightly lowered to insure clippings are thrown into the rear of basket. Adjust as required.

## 9

### Mounting the Rear Grass Basket

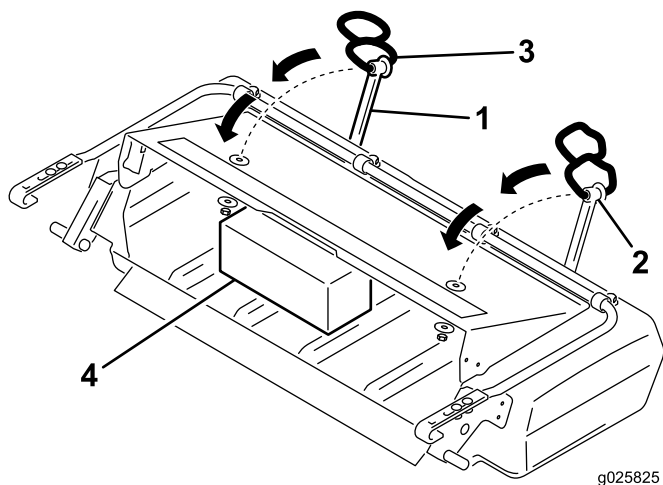
#### Parts needed for this procedure:

1	Rear basket bracket assembly–L.H.
1	Rear basket bracket assembly–R.H.
2	Capscrew–5/16 x 2–1/4 inches
2	Locknuts
1	Rear grass basket assembly

#### Procedure

1. Remove the washers and nuts shipped on the strap bolts (Figure 10).
2. Using the cable ties on the straps as handles, stretch each strap until it can be secured to the top of the basket with (2) washers and a locknut (Figure 10). Position a washer on each side of the basket top. Cut off the cable ties after the straps are installed.

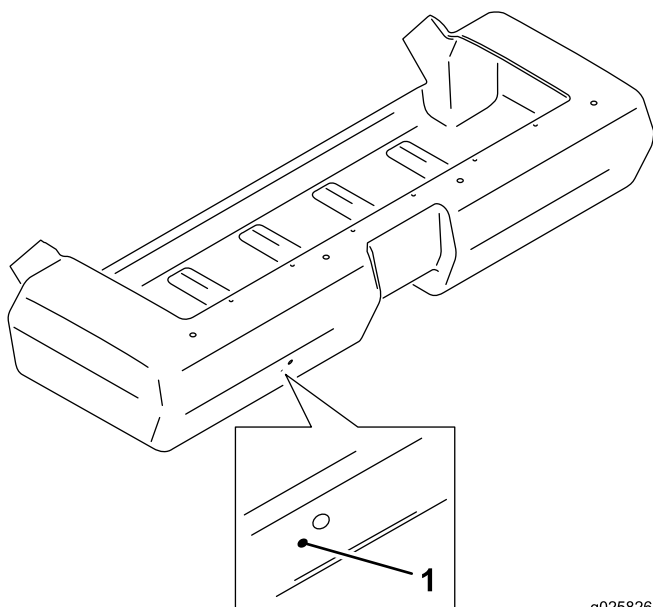
**Note:** To ease the installation of the straps, place a 8 inch x 4 inch wood block (Figure 10) inside the basket to raise and support the top of the basket.



**Figure 10**

1. Strap
2. Strap bolt
3. Cable tie
4. Wood block

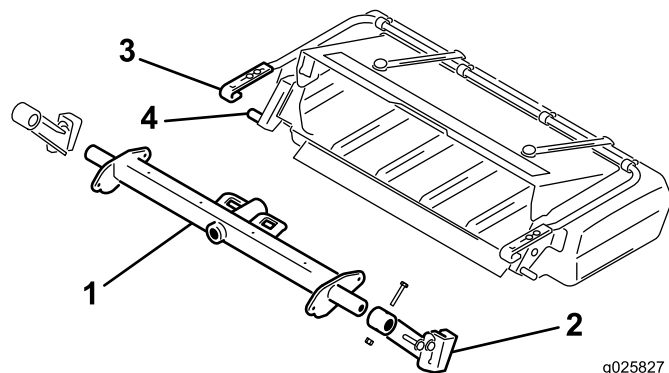
**Note:** If the straps become stretched and do not hold the top of the basket open, use the guide holes (Figure 11) in the rear of the basket to locate and drill new mounting holes for the strap bolts.



**Figure 11**

1. Guide hole(s)

3. Mount the appropriate (left or right) basket bracket assemblies to the rear carrier frame with a 5/16 x 2-1/4 inch capscrew and locknut, as shown in Figure 12.



**Figure 12**

1. Rear carrier frame
2. Basket bracket assembly (2)
3. Rear sliding hanger bracket (2)
4. Basket pins

4. Adjust the basket brackets so the bottom of the lower basket flap contacts the top of the roller.
5. Insert the basket pins into the basket brackets then hook the rear basket hanger brackets onto the shoulder bolts on the basket brackets (Figure 12).

**Important:** If the center basket contacts the engine when it is raised, especially if it is used with the sidewinder operation, adjust the basket brackets and the sliding hanger brackets to lower the rear of the basket (Figure 12).

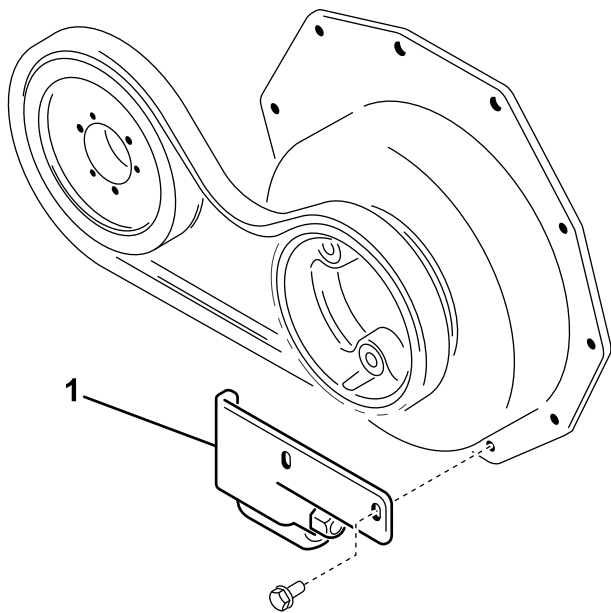
# 10

## Adjusting the Roller Bumper (Reelmaster 3100D only)

### No Parts Required

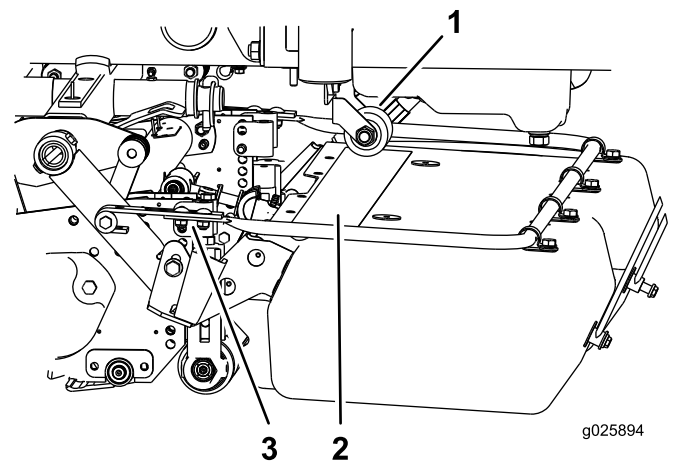
### Procedure

Adjust the roller bumper (Figure 13) so the roller is parallel with the top of the shield on the center basket on contact. If the basket is not parallel, the rear of the basket may contact the engine when it is raised.



**Figure 13**

1. Roller bumper



**Figure 14**

1. Roller bumper
2. Wear strip
3. Sliding hanger bracket carriage bolt nuts

2. Rotate the basket until the roller contacts the middle of the wear strip (Figure 14).
3. Tighten the carriage bolt nuts to secure the basket position.

Verify that the roller bumper contacts the wear strip when raising the cutting unit and when the cutting unit is fully raised.

# 11

## Adjusting the Rear Basket Position (Reelmaster 3100D only)

### No Parts Required

#### Procedure

When the rear basket is installed on the cutting unit, the grass basket should be level or slightly raised in the rear.

When the cutting unit is being raised, the roller bumper should always contact the wear strip on the top shield of the grass basket (Figure 14).

When the cutting unit is fully raised, the roller bumper should contact the wear strip on the top shield of the grass basket (Figure 14).

If the roller bumper does not contact the wear strip when the cutting unit is fully raised, complete the following adjustment:

1. On each end of the basket, loosen the carriage bolt nuts securing the sliding hanger brackets (Figure 14).

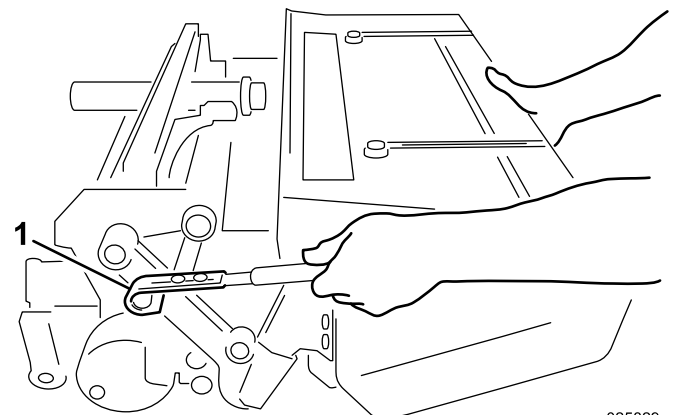
# 12

## Removing the Rear Basket

### No Parts Required

#### Procedure

1. Rotate the rear of the basket upward to unlatch the basket hanger brackets (Figure 15).



**Figure 15**

1. Basket hanger bracket



2. Rock the basket backward to lift the basket pins out of the basket brackets (Figure 16).

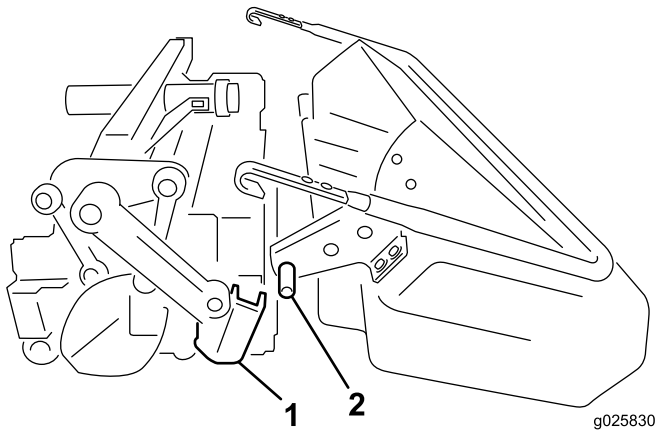


Figure 16

1. Basket bracket
2. Basket pin

3. Grasp the center of the basket and slide it outward (Figure 17).

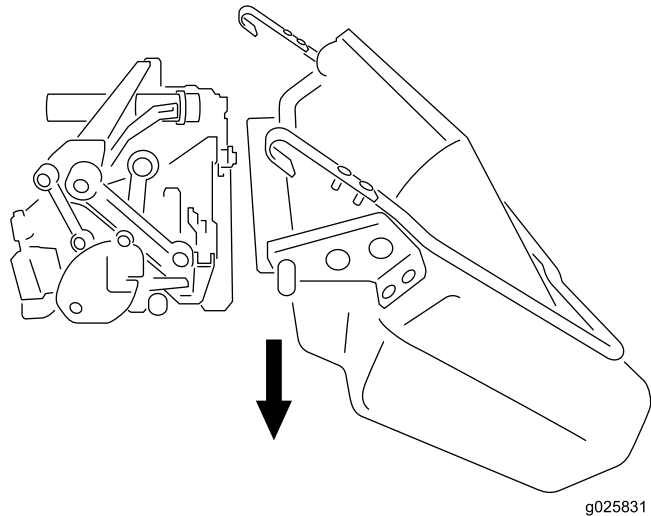


Figure 17

**Note:** On the Reelmaster 3100 w/sidewinder, move the cutting units to the left before basket removal.

ballast. Use the following chart to determine the weight or combinations of weights needed.

Cutting Unit Configuration	Weight Kits Required
Standard machine with 27 inch cutting units & baskets	(1) 83-9370 (3) 83-9390 (2) 94-3698
Standard machine with three wheel drive kit & 27 inch cutting units	(1) 83-9390 (1) 83-9370

**Note:** All configurations require calcium chloride in the rear tire. Tires should be filled to approximately 75% capacity (valve level with valve at the top) (60 lb. fluid or 74 lb. tire and fluid).

**Important:** If a puncture occurs in a tire with calcium chloride, remove the unit from the turf area as quickly as possible. To prevent possible damage to the turf, immediately soak the affected area with water.

Either Type 1 (77%) or Type 2 (94%) commercial calcium chloride flake may be used.

Plain water freezes solid at 0 degrees C (32 degrees F). The 1.6 kg (3-1/2 lb) calcium chloride to 3.8 liter (1 gallon) of water solution is slush free to -24 degrees C (-12 degrees F) and will freeze solid at -46 degrees C (-52 degrees F). The 2.3 kg (5 lb) per gallon (liter) solution is slush free to -50 degrees F (-45 degrees C) and will freeze solid at -62 degrees F (-52 degrees C).

# 13

## Adding Rear Ballast (Reelmaster 2000D series only)

### No Parts Required

### Procedure

This unit complies with ANSI B71.4-1999 Standard and all applicable European requirements when equipped with rear

**Notes:**

**Notes:**



**Count on it.**