



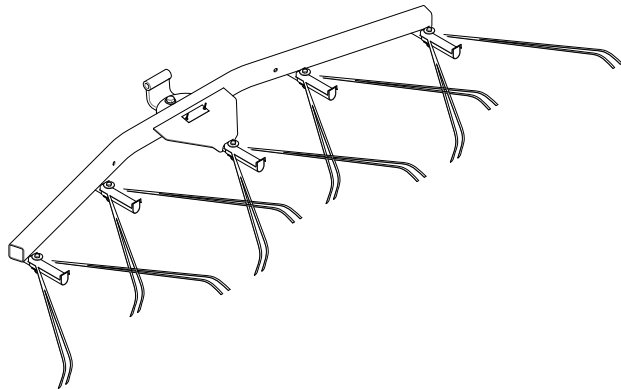
**Count on it.**

**Operator's Manual**

# Spring Rake

## Sand Pro®/Infield Pro® 3040 and 5040 Traction Units

Model No. 08752—Serial No. 403300001 and Up



serious injury or death if you do not follow the recommended precautions.



g000502

**Figure 2**

Safety-alert symbol

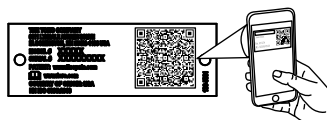
# Introduction

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

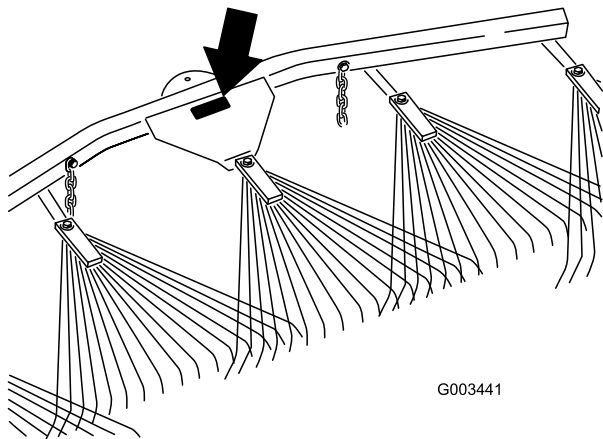
Visit [www.Toro.com](http://www.Toro.com) for product safety and operation training materials, accessory information, help finding a dealer, or to register your product.

Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready. **Figure 1** identifies the location of the model and serial numbers on the product. Write the numbers in the space provided.

**Important:** With your mobile device, you can scan the QR code (if equipped) on the serial number plate to access warranty, parts, and other product information.



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**Figure 1**

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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<p>Model No. _____</p> <p>Serial No. _____</p>
--

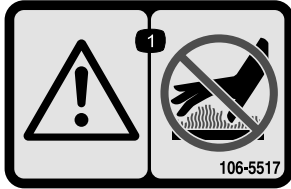
This manual identifies potential hazards and has safety messages identified by the safety-alert symbol (**Figure 2**), which signals a hazard that may cause

# Safety

## 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.



decal106-5517

**106-5517**

1. Warning—do not touch the hot surface.
-

# Setup

## Loose Parts

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

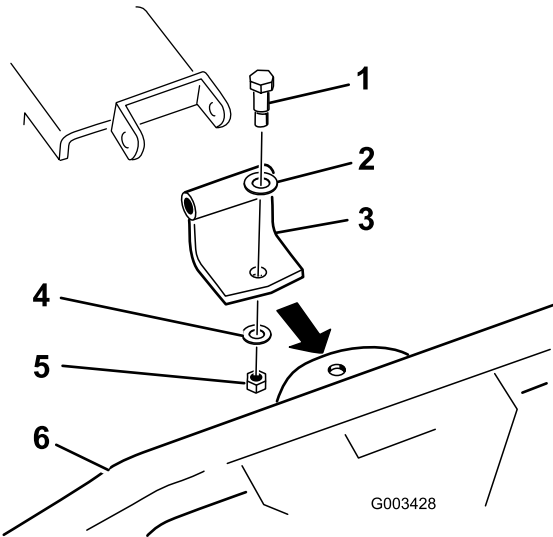
Description	Qty.	Use
Spring rake assembly	1	Install the spring rake.
Shoulder bolt	1	
Flat washer (17/32 x 1-1/16 inch)	5	
Bolt (7/16-14 x 1-3/5 inch)	1	
Flat washer (15/32 x 59/64 inch)	1	
Nut (7/16 inch)	1	
Curved pivot bracket	1	
Ball hitch assembly	1	
Flat washer (3/8 x 7/8 inch)	6	
Hex bolt (3/8-16 x 2-1/2 inches)	4	
Nut (3/8 inch)	4	
Clevis pin	2	
Cotter pin	2	
Chain	2	
Spacer (3/8 inch)	2	
Hook	2	
Bracket stop plate	2	
Hex bolt (1/2 x 5-1/2 inches)	1	
Nut (1/2 inch)	1	
Spacer (1/2 inch)	2	

**Important:** This kit was designed to be installed on the back of the Tooth Rake or the traction unit. To mount it to the traction unit, you must obtain a lift arm/adaptor assembly; refer to [Installing the Spring Rake on the Traction Unit \(page 6\)](#).

# Installing the Spring Rake

## Installing the Spring Rake on a Tooth Rake

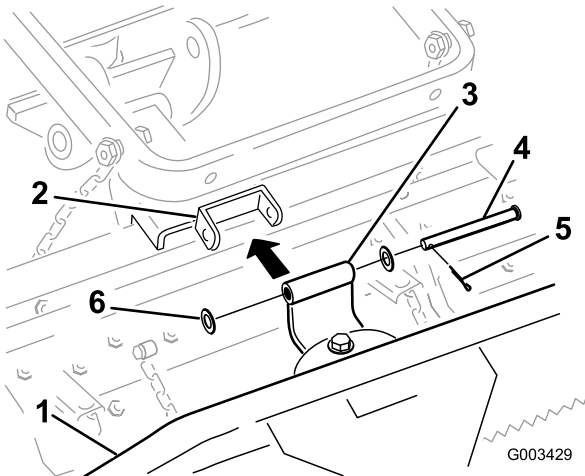
1. Install the curved pivot bracket to the spring rake as shown in [Figure 3](#).



**Figure 3**

- |                                 |                                |
|---------------------------------|--------------------------------|
| 1. Shoulder bolt                | 4. Washer (15/32 x 59/64 inch) |
| 2. Washer (17/32 x 1-1/16 inch) | 5. Nut (7/16 inch)             |
| 3. Curved pivot bracket         | 6. Spring rake                 |

2. Connect the pivot bracket to the tooth rake as show in [Figure 4](#).

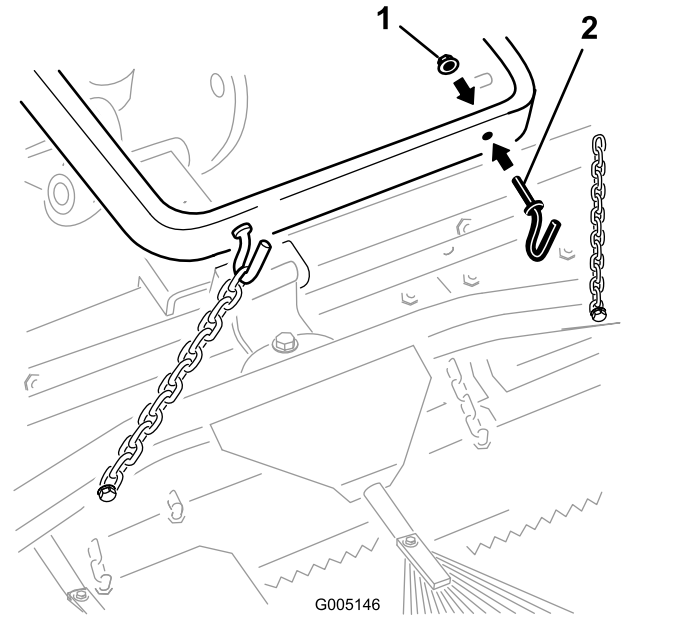


**Figure 4**

- |                         |                                 |
|-------------------------|---------------------------------|
| 1. Spring rake          | 4. Clevis pin                   |
| 2. Tooth rake bracket   | 5. Cotter pin                   |
| 3. Curved pivot bracket | 6. Washer (17/32 x 1-1/16 inch) |

3. Secure the transport chains to the lift arm using one of the following procedures:

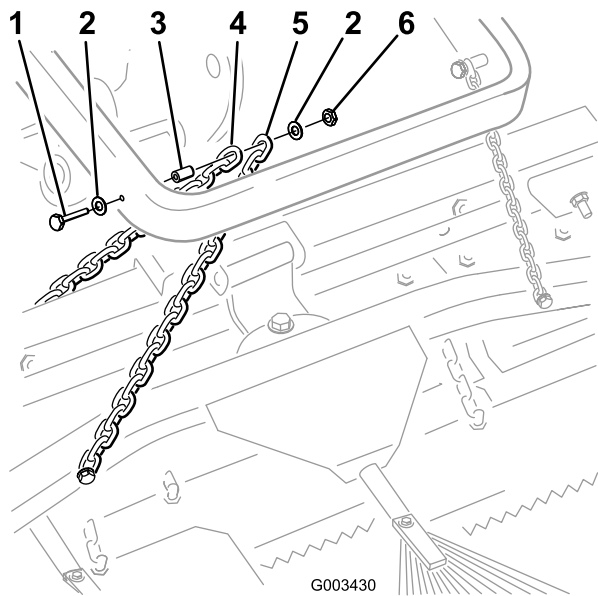
- A. Mount 2 hooks to the back of the lift arm with 2 nuts (3/8 inch) ([Figure 5](#)). Secure the chains to the hooks at the desired length.



**Figure 5**

- |                   |         |
|-------------------|---------|
| 1. Nut (3/8 inch) | 2. Hook |
|-------------------|---------|

- B. Secure each chain to the side of the lift arm with a bolt (3/8 x 2-1/2 inch), 2 washers (3/8 x 7/8 inch), a spacer, and a nut (3/8 inch) as shown in [Figure 6](#).



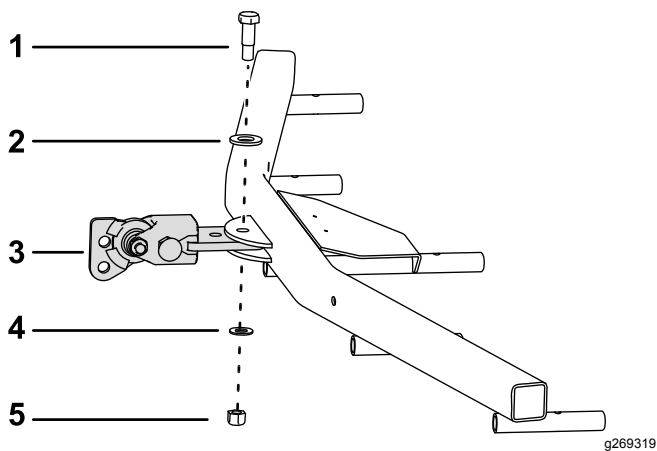
**Figure 6**

- |                              |                                |
|------------------------------|--------------------------------|
| 1. Bolt (3/8 x 2-1/2 inches) | 4. Tooth rake transport chain  |
| 2. Washer (3/8 x 7/8 inch)   | 5. Spring rake transport chain |
| 3. Spacer                    | 6. Nut (3/8 inch)              |

**Note:** You can use the fasteners from the tooth rake for this step.

## Installing the Spring Rake on the Traction Unit

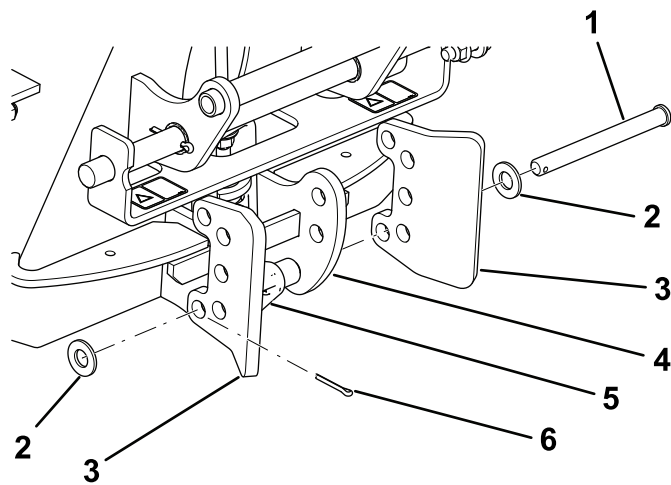
1. Install the ball hitch assembly to the spring rake as shown in [Figure 7](#).



**Figure 7**

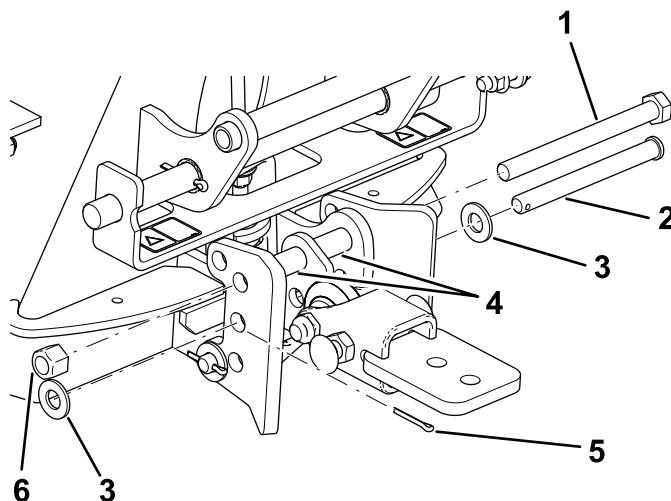
- |                                 |                                |
|---------------------------------|--------------------------------|
| 1. Shoulder bolt                | 4. Washer (15/32 x 59/64 inch) |
| 2. Washer (17/32 x 1-1/16 inch) | 5. Nut (7/16 inch)             |
| 3. Ball hitch assembly          |                                |

2. Connect the ball hitch assembly to the adapter as shown in [Figure 8](#) and [Figure 9](#).



**Figure 8**

- |                                 |                       |
|---------------------------------|-----------------------|
| 1. Clevis pin                   | 4. Attachment adapter |
| 2. Washer (17/32 x 1-1/16 inch) | 5. Latch mechanism    |
| 3. Bracket stop plate           | 6. Cotter pin         |



**Figure 9**

- |                                 |                   |
|---------------------------------|-------------------|
| 1. Bolt (1/2 x 5-1/2 inches)    | 4. Spacers        |
| 2. Clevis pin                   | 5. Cotter pin     |
| 3. Washer (17/32 x 1-1/16 inch) | 6. Nut (1/2 inch) |

3. Remove any attachment from the rear of the traction unit.
4. Back the traction unit into position in front of the attachment adapter and lower the traction unit adapter.
5. Ensure that the locking lever is pivoted to the left (unlocked position) as viewed from the rear of the machine.
6. Slide the attachment adapter onto the traction unit adapter.

## ⚠ CAUTION

Fingers can be pinched between the attachment and traction unit adapters.

Lift and move the attachment using the handle on the back of the attachment adapter.

7. Pivot the locking lever to the right to lock the adapters together.
8. Secure the third link of each chain to the outside of the lift arm (Figure 10) using a bolt (3/8 x 2-1/2 inches), 2 washers (3/8 x 7/8 inch), a spacer, and a nut (3/8 inch).

**Note:** If the chains are secured to the hooks, reconnect at the desired length.

**Note:** The chains must be slack when the rake is in the lowered (operating) position.

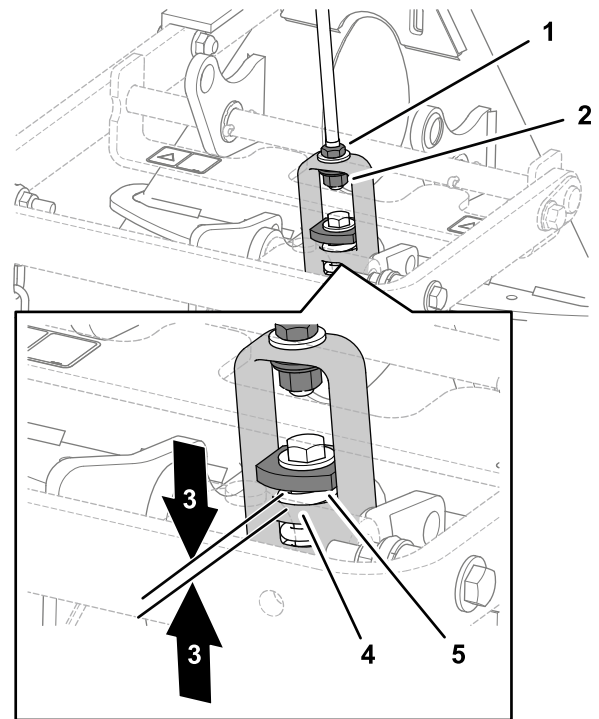


Figure 11

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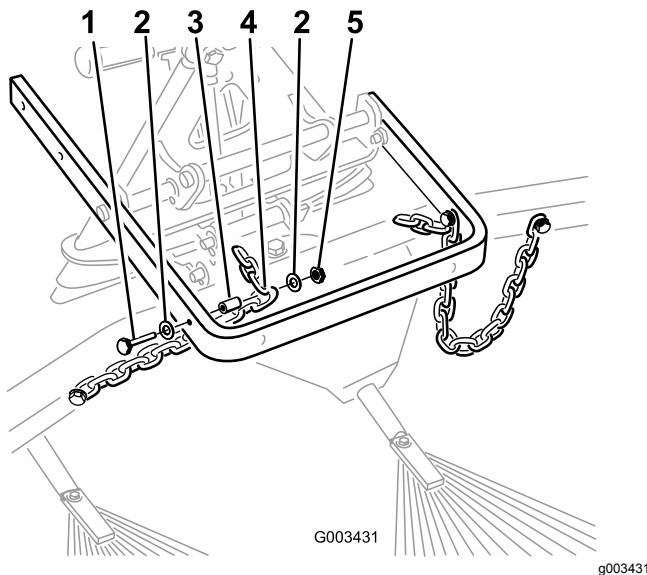


Figure 10

1. Bolt (3/8 x 2-1/2 inches)
2. Washer (3/8 x 7/8 inch)
3. Spacer
4. Third link of the chain
5. Nut (3/8 inch)

9. With the rake mounted and secured on the traction unit, measure the gap between the top washer and the spacer in the link assembly on the attachment adapter as shown in Figure 11.

1. Jam nut
2. Adjustment nut
3. 1.5 to 2 mm (0.060 to 0.080 inch)
4. Lift-yoke shoulder
5. Heavy washer

10. If the gap is not correct, loosen the jam nut and tighten or loosen the adjustment nut on the link assembly as needed to change the gap.

# Product Overview

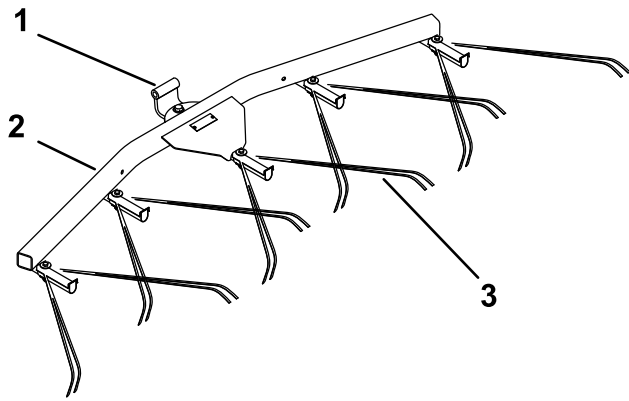


Figure 12

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- 1. Pivot
- 2. Spring rake hanger
- 3. Spring rake

# Operation

Read this section on raking before raking a trap. There are many conditions that determine the adjustments to the tooth-rake attachment. The texture and depth of the sand, moisture content, weeds, and the amount of compaction all can vary from course to course, or even from trap to trap at the same course. Make the adjustments on the rake for optimum results in your area.

## Training Period

Practice raking in a large, level trap on the course. Practice starting, stopping, turning, raising, and lowering the rake; entering and leaving the trap; etc. Practice at a moderate engine speed and a slow ground speed. This training period will help you to gain confidence operating the machine.

**Note:** Do not back up the traction unit with the attachment lowered. Damage to the attachment will occur.

## Raking Tips

If the sand is deep enough, you can rake right up to the edge of the trap in level areas.

If the sand feathers out to the turf, stay far enough away from the edge to avoid disturbing the underlying soil.

Do not rake too close to a short, steep bank. The sand will merely flow down into the bottom of the trap.

Some touchup with a hand rake may be necessary on steep banks, small pockets, etc.

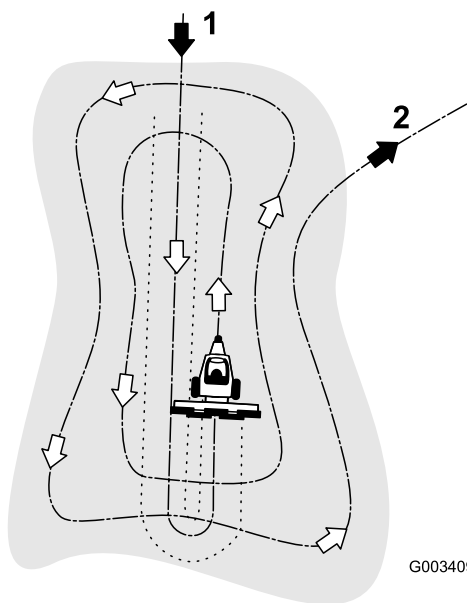
## Raking Pattern

Rake the trap according to the pattern shown in [Figure 13](#). This pattern avoids unnecessary overlap, holds compaction to a minimum, and leaves a neat, attractive pattern in the sand.

Enter the trap straight into the long dimension, where the bank is the least severe. Drive through the center of the trap almost to the end, turn to either direction as sharp as you can, and come right back next to the first pass. Spiral outward as shown in the drawing, and leave the trap at a right angle in a level area.

Leave steep, short banks and small pockets for touch-up with a hand rake.





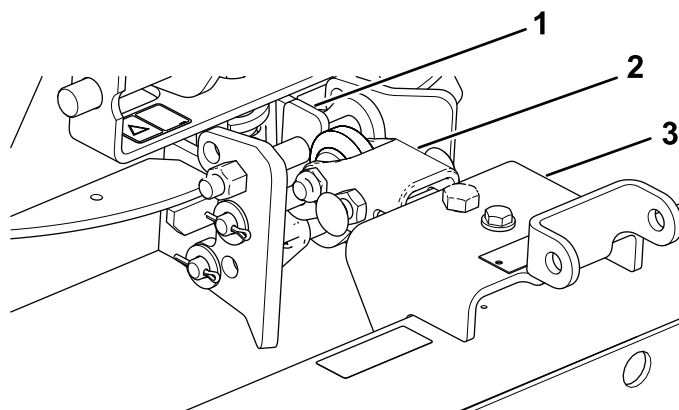
G003409

**Figure 13**

1. Enter a trap straight into the long dimension in a level area.
2. Exit a trap at a right angle in a level area.

g003409

## Setting the Least Amount of Tine Engagement



g262217

**Figure 14**

1. Flat on top
2. Drawbar
3. Rake

1. Mount the hitch assembly so that the flat side is on top (Figure 14).
2. Assemble the drawbar to the underside of the hanger assembly (Figure 14).

## Entering and Leaving the Trap

When entering the trap, do not lower the rake until the rake is over the sand. This avoids cutting the turf or dragging grass clippings or other debris into the trap. Lower the rake while the machine is moving.

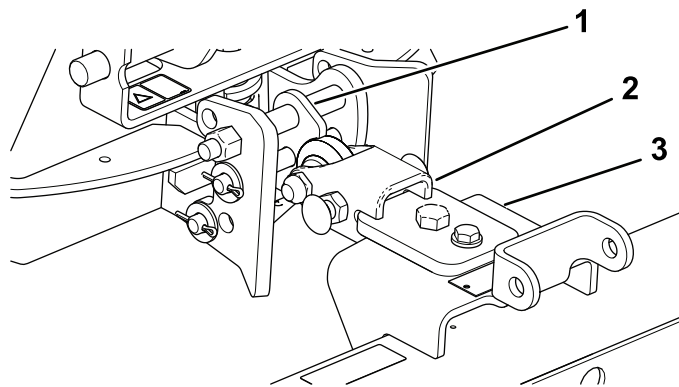
When leaving the trap, start raising the rake when the front wheel leaves the trap. As the machine moves out, the rake lifts and does not drag sand out onto the grass.

You will soon gain, through experience and practice, the required timing for entering and leaving the trap properly.

## Adjusting the Rake Angle

You can change the position of the rake to increase or decrease its aggressiveness in the sand. Mount the drawbar and the rake as shown in the following figures to attain the desired aggressiveness.

## Setting the Maximum Amount of Tine Engagement



g262218

**Figure 15**

1. Angled on top
2. Drawbar
3. Rake

1. Mount the hitch assembly so that the angled side is on top (Figure 15).
2. Assemble the drawbar to the top side of the hanger assembly (Figure 15).

# Setting the Transport Position

Complete the following procedure to increase the height of the rake when transporting:

1. Lower the rake and lift assembly as low as possible.
2. Disconnect the chains from the lift arms and reconnect them higher.

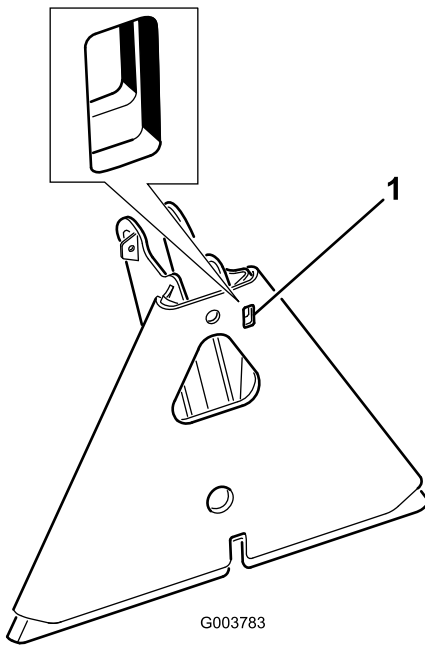
**Note:** To ensure proper operation of rake, return the chains to the original slack position before operating the rake.

# Maintenance

## Inspecting and Cleaning the Rake and Traction Unit

After raking, clean the machine thoroughly. Because you use this machine primarily in sand and sand is extremely abrasive, wash off the sand after each use. If you clean the machine frequently (before the sand has a chance to cake), clean it with a stream of water from a hose with the nozzle removed. A high-pressure stream could drive the sand into wear areas, where it could act as a grinding compound.

**Note:** If the attachment adapter sticks to the traction unit adapter, insert a pry bar or screwdriver into the pry slot to disengage the parts ([Figure 16](#)).

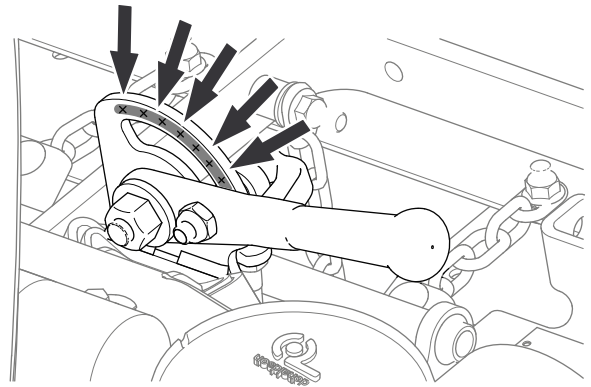


**Figure 16**

1. Pry slot

## Greasing the Attachment Adapter

If the locking lever on the attachment adapter does not pivot freely and easily, apply a light coat of grease to the area shown in [Figure 17](#).



**Figure 17**



**Count on it.**