



# Mid-mount Toolbar System

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

Model No. 08731—Serial No. 260000001 and Up

## Installation Instructions

**Important:** Before installing the mid-mount toolbar system, you should obtain one of the toolbars available for use with the system. For more information, contact your Authorized Toro Distributor.

# Installation

## Loose Parts

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

Procedure	Description	Qty.	Use
<b>1</b>	No parts required	—	Pre-installation setup
<b>2</b>	Scarifier lift handle assembly Bolt (1/2 x 3-1/4 inches) Thin locknut (1/2 inch) Detent plate Knob	1 2 2 1 1	Install the scarifier lift handle assembly.
<b>3</b>	Pivot tube Extension spring Spring rod Pivot tube bracket Bolt (3/8 x 3 inches) Locknut (3/8 inch) Spring bracket Bolt (3/8 x 2-3/4 inches)	1 1 1 2 4 6 1 1	Install the pivot tube and tension spring.
<b>4</b>	Adjustable rod assembly Bolt (1/2 x 1-1/2 inches) Locknut (1/2 inch)	1 1 2	Install the adjustable rod assembly.
<b>5</b>	Screen panel Pan-head screw (#10 x 1/2 inch) Locknut (#10) Right-hand saddle assembly Left-hand saddle assembly Bolt (5/16 x 1 inch) Locknut (5/16 inch)	1 2 2 1 1 4 4	Install the adjustable rod assembly.
<b>6</b>	Any toolbar, sold separately	1	Install a toolbar.

Procedure	Description	Qty.	Use
<b>7</b>	Lever assembly	1	Install the toolbar lift pedal.
	Bolt (5/16 x 2 inches)	1	
	Locknut (5/16 inch)	3	
	Pivot tab	1	
	Toolbar link	1	
	Carriage bolt (3/8 x 1-1/4 inches)	1	
	Spacer	1	
	Washer (1 inch)	1	
	Locknut (3/8 inch)	1	
	Pedal lever assembly	1	
	Retaining ring	2	
	Washer (7/8 inch)	1	
	Bolt (5/16 x 1 inch)	1	
	Eccentric bolt	1	
<b>8</b>	No parts required	–	Adjust the pivot spring tension and the adjustable rod assembly.
<b>9</b>	No parts required	–	Adjust the toolbar transport height.
<b>10</b>	Shim, Part No. 110-7379	1	Leveling the toolbar.
	Shim, Part No. 110-7380	1	
	Shim, Part No. 110-7381	1	
<b>11</b>	Installation Instructions	1	Read the documentation and store it in a safe location.
	Parts Catalog	1	

# 1

## Pre-Installation Setup

### No Parts Required

#### Procedure

- When installing a Spring Tine Toolbar refer to the notes which are listed in Step 3.  
Different pivot tube brackets are required. Refer to the Spring Tine Tool Bar installation instructions.
- When installing a Front Manual Blade in conjunction with a midmount toolbar system, install the midmount toolbar system first.

# 2

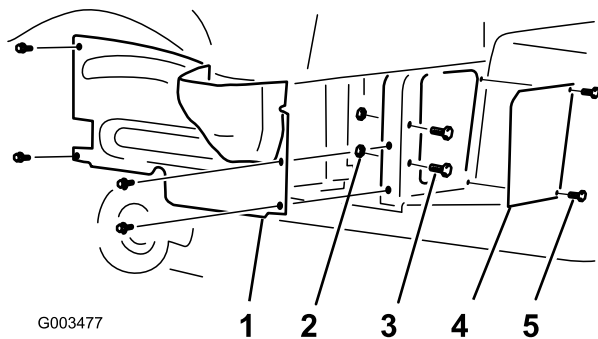
## Installing the Scarifier Lift Handle Assembly

### Parts needed for this procedure:

1	Scarifier lift handle assembly
2	Bolt (1/2 x 3-1/4 inches)
2	Thin locknut (1/2 inch)
1	Detent plate
1	Knob

#### Procedure

- Block up the rear of the machine and remove the rear tires. Position the blocks under the rear wheel motor mounts.
- Remove the 4 flange-head screws securing the right-hand wheel shroud to the frame (Figure 1). Remove and retain the shroud.



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**Figure 1**

1. Right-hand wheel shroud
2. Nut
3. Bolts
4. Screen panel
5. Screws

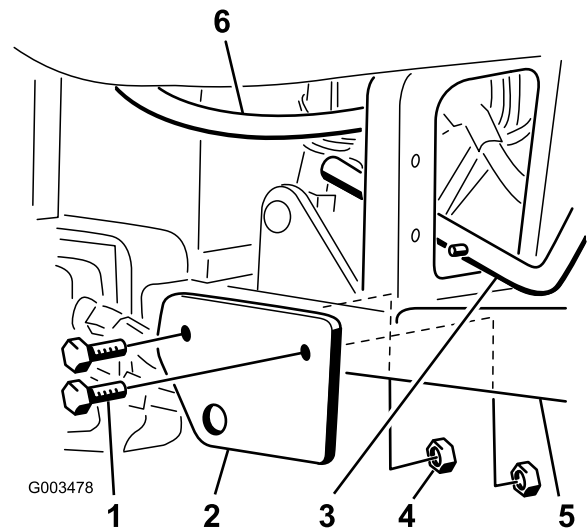
**Note:** If a Manual Blade, Model 08714, is installed on the machine, the right blade mounting bracket must be removed before the lift arm assembly can be installed.

3. Remove the 2 screws and 2 bolts securing the screen panel to the frame (Figure 1). Remove and retain the screen panel.
4. Install the mounting bracket of the scarifier lift handle assembly to the right footrest tubes with 2 bolts (1/2 x 3-1/4 inch) and **thin** locknuts (1/2 inch), as shown in Figure 2. Make sure the bolt heads are positioned to the outside and that the thin locknuts are used.

**Important:** There are both thick and thin locknuts with the loose parts. You must use the **thin** locknuts for this step. If you use the thick ones, they will not lock on and will eventually fall off.

**Note:** The handle assembly is installed through the bottom of the traction unit by guiding the handle up through the opening provided by removing the screen panel.

**Note:** Do not disassemble the handle assembly to install it into the traction unit.

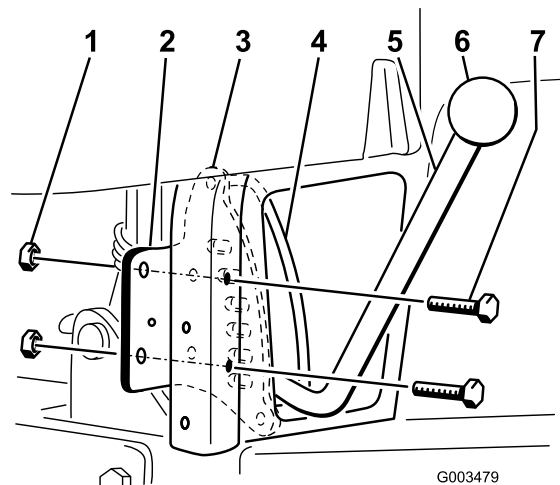


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**Figure 2**

1. Bolt (1/2 x 3-1/4 inch)
2. Mounting bracket
3. Scarifier lift handle assembly
4. Thin locknuts (1/2 inch)
5. Foot rest tube
6. Hydraulic line

5. Insert the detent plate onto the scarifier lift handle. The handle should pass between the detent plate and the handle guide (Figure 3).



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**Figure 3**

1. Locknuts (5/16 inch)
2. Right rear frame tube
3. Detent plate
4. Handle guide
5. Scarifier lift handle
6. Knob
7. Bolt (5/16 x 2-1/2 inch)

6. Install the detent plate to the back of right rear vertical frame tube with 2 bolts (5/16 x 2-1/2 inch) and 2 locknuts (5/16 inch), as shown in Figure 3. (Remove in Step 1, procedure 3.)
7. Thread the knob onto the lift handle (Figure 3).

8. Ensure that the lift handle moves the full range of motion through the detent plate and that it locks into place at each detent location.

If it is too loose or too tight, tighten or loosen the lock nuts on the handle lift pivot (Figure 4).

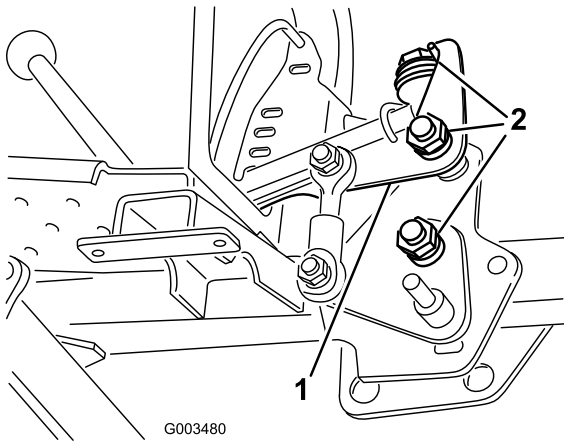


Figure 4

1. Handle lift assembly pivot
2. Locknut

9. Check the clearance between the lift handle assembly and the hydraulic line. There must be a minimum clearance of 1/8 inch between the hydraulic line and the lift handle assembly. Gently reposition the hydraulic line as required (Figure 2).

3

# Installing the Pivot Tube and Tension Spring

## Parts needed for this procedure:

1	Pivot tube
1	Extension spring
1	Spring rod
2	Pivot tube bracket
4	Bolt (3/8 x 3 inches)
6	Locknut (3/8 inch)
1	Spring bracket
1	Bolt (3/8 x 2-3/4 inches)

## Procedure

**Note:** If you will be installing the spring tine toolbar, install the pivot tube brackets supplied with the spring tine toolbar instead of the ones supplied with this

attachment. Refer to the *Spring Tine Toolbar Installation Instructions* for more information.

1. Connect the extension spring to one of the spring levers on the pivot tube and to the spring rod (Figure 5).
2. Loosely install the pivot tube bracket onto the right side (Figure 5).
3. Slide the right-hand side of the pivot tube into the right side pivot tube bracket (Figure 5).

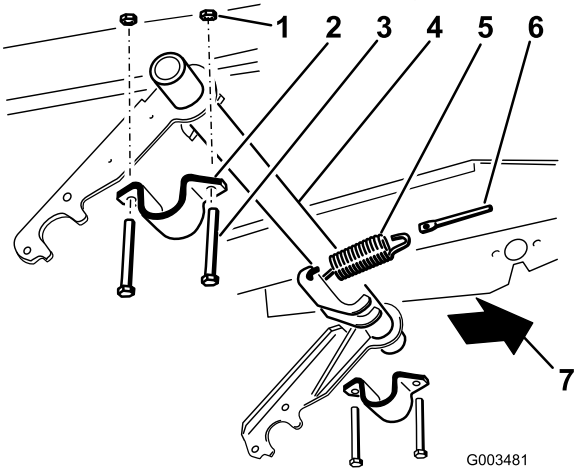
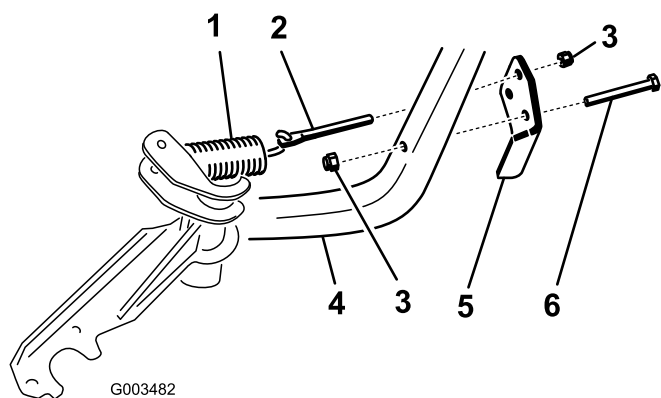


Figure 5

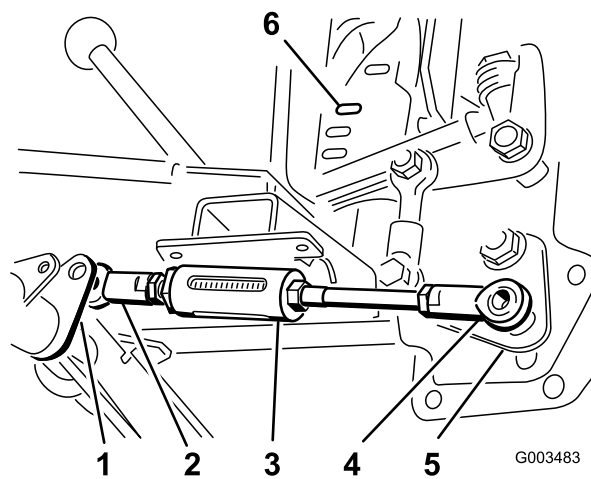
1. Locknut (3/8 inch)
2. Pivot tube bracket
3. Bolt (3/8 x 3 inch)
4. Pivot tube
5. Extension spring
6. Spring rod
7. Front of machine

4. Insert the spring rod into the hole in the spring bracket and loosely secure it with a locknut (3/8 inch). Position the spring rod as shown in Figure 6.
5. Raise the left-hand side of the pivot tube to the frame and install it with a pivot tube bracket, 2 bolts (3/8 x 3 inch) and 2 locknuts (3/8 inch) (Figure 5).
6. Mount the spring bracket to the front frame tube with a bolt (3/8 x 2-3/4 inch) and a locknut (3/8 inch). Position the spring bracket as shown in Figure 6.



**Figure 6**

1. Extension spring
2. Spring rod
3. Locknut (3/8 inch)
4. Frame
5. Spring bracket
6. Bolt (3/8 x 2-3/4 inch)



**Figure 7**

1. Adjustable rod lever on the pivot tube
2. Short end ball joint
3. Adjustable rod
4. Long end ball joint
5. Lift handle assembly
6. Second detent position

7. Tighten all fasteners, but do not tighten the locknut securing the spring rod at this time.

## 4

### Installing the Adjustable Rod Assembly

#### Parts needed for this procedure:

1	Adjustable rod assembly
1	Bolt (1/2 x 1-1/2 inches)
2	Locknut (1/2 inch)

#### Procedure

1. Position the ball joint of the short end of the adjustable rod assembly to the right of the adjustable rod lever on the pivot tube (Figure 7)

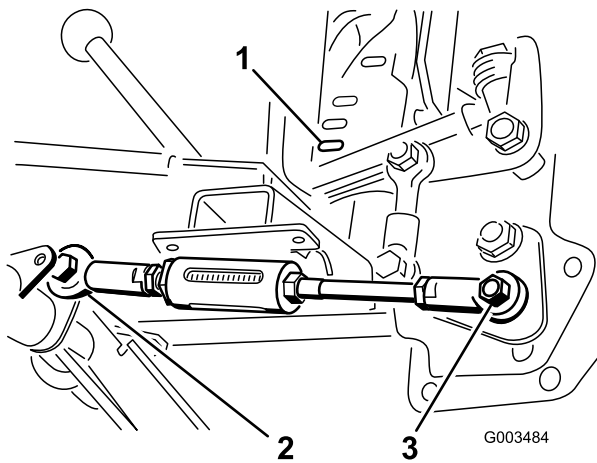
2. Move the lift handle to the second detent position from the top.
3. Place the ball joint on the long end of the adjustable rod assembly over the stud on the bottom on the lift handle assembly and loosely secure it with a locknut (1/2 inch) (Figure 7).

**Note:** You can move the pivot tube up or down in its brackets to gain clearance for mounting the adjustable rod.

4. Move the lift handle all the way downward to the bottom detent position.
5. Move the ball joint on the short end of the adjustable rod around the adjustable rod lever on the pivot tube until it is on the left side of the rod lever.

**Note:** You can move the pivot tube up or down in its brackets to gain clearance for mounting the adjustable rod.

6. Move the lift handle until the hole in the ball joint aligns with the hole on the right-side of the adjustable rod lever on the pivot tube and secure the rod to the lever with a bolt (1/2 x 1-1/2 inches) and locknut (1/2 inch), as shown in Figure 8.



**Figure 8**

Shown in the fully lowered position.

1. Lowest detent slot
2. Short end secured with a bolt and nut from the left side.
3. Long end on the stud, secured with a nut.

7. Tighten the fasteners.

## 5

### Installing the Screen Panel and Saddles

#### Parts needed for this procedure:

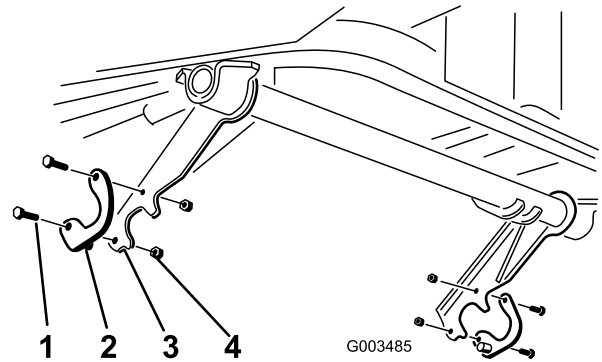
1	Screen panel
2	Pan-head screw (#10 x 1/2 inch)
2	Locknut (#10)
1	Right-hand saddle assembly
1	Left-hand saddle assembly
4	Bolt (5/16 x 1 inch)
4	Locknut (5/16 inch)

#### Procedure

**Note:** If you removed the manual plow, install it at this time.

1. Install the new screen panel to the back side of the frame opening with 2 pan head screws (#10 x 1/2 inch) and locknuts (#10)
2. Loosely attach the rear of a saddle assembly to each lift arm with a bolt (5/16 x 1 inch) and locknut (5/16 inch). The saddle stud should point inward (Figure 9).

**Important:** The saddles must be oriented as shown in Figure 9.



**Figure 9**

1. Bolt (5/16 x 1 inch)
2. Saddle
3. Lift arm
4. Locknut (5/16 inch)

## 6

### Installing a Toolbar

#### Parts needed for this procedure:

1	Any toolbar, sold separately
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#### Procedure

**Important:** If you are installing a spring tine toolbar, skip this procedure and install it using the instructions provided with the toolbar. Once installed, proceed with the next procedure in this document.

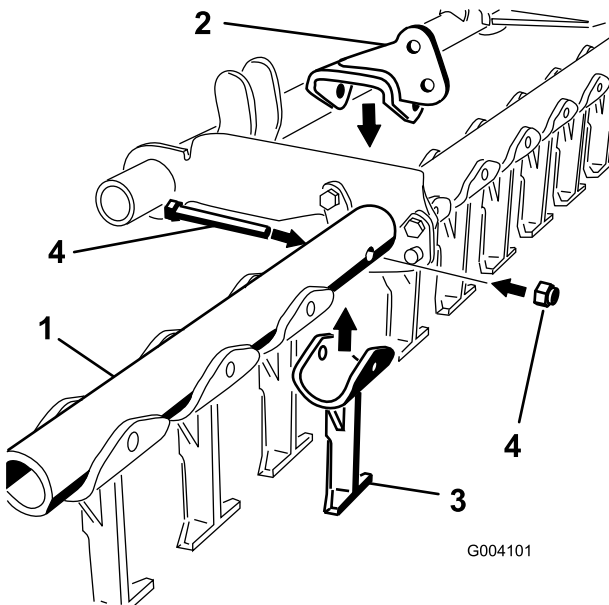
**Note:** If your toolbar comes without the pivot bracket installed, install it to the fourth tooth from the left as shown in Figure 10 and tighten the bolt and nut so that the bracket and tooth are secure before proceeding. If you are installing a spring tine toolbar, refer to the instruction provided with the toolbar to install the bracket.

# 7

## Installing the Toolbar Lift Pedal

### Parts needed for this procedure:

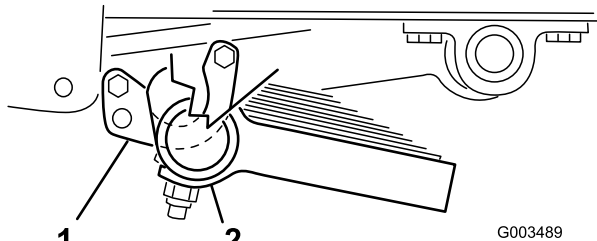
1	Lever assembly
1	Bolt (5/16 x 2 inches)
3	Locknut (5/16 inch)
1	Pivot tab
1	Toolbar link
1	Carriage bolt (3/8 x 1-1/4 inches)
1	Spacer
1	Washer (1 inch)
1	Locknut (3/8 inch)
1	Pedal lever assembly
2	Retaining ring
1	Washer (7/8 inch)
1	Bolt (5/16 x 1 inch)
1	Eccentric bolt



**Figure 10**

1. Toolbar
2. Pivot bracket
3. Fourth tooth
4. Tooth mounting hardware

1. Position each end of the attachment tube onto the saddles. The cutting edges of the tines are to be pointing forward
2. Move the lift handle to the middle position.
3. Secure the front of each saddle to the tube assembly with a bolt (5/16 x 1 inch) and locknut (5/16 inch).



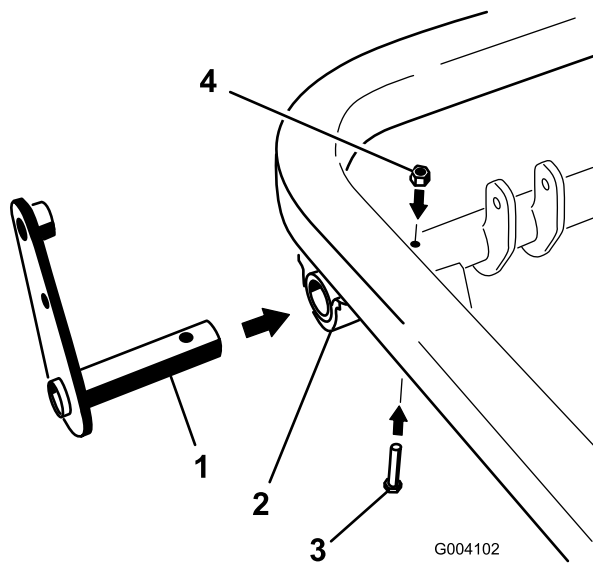
**Figure 11**

1. Saddle
2. Attachment tube

### Procedure

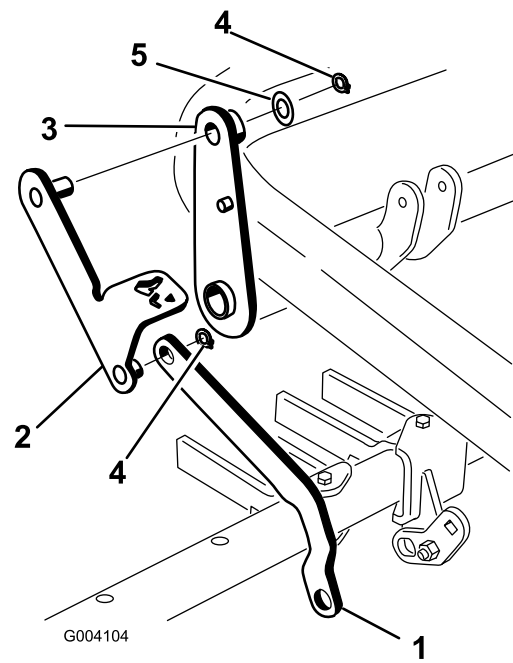
1. Slide the post on the lever assembly into the left end of the pivot tube and secure it with a bolt (5/16 x 2 inches) and locknut (5/16 inch) through the pivot tube (Figure 12).

**Note:** You may need to thread the bolt through the pivot tube and lever assembly.



**Figure 12**

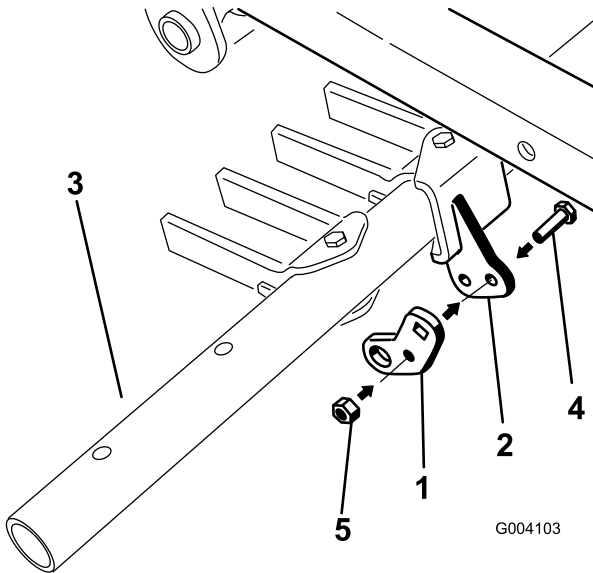
- |                   |                           |
|-------------------|---------------------------|
| 1. Lever assembly | 3. Bolt (5/16 x 2 inches) |
| 2. Pivot tube     | 4. Locknut (5/16 inch)    |



**Figure 14**

- |                         |                      |
|-------------------------|----------------------|
| 1. Toolbar link         | 4. Retaining ring    |
| 2. Pedal lever assembly | 5. Washer (7/8 inch) |
| 3. Lever assembly       |                      |

- Loosely install the center hole of the pivot tab to the pivot bracket on the toolbar using a bolt (5/16 x 1 inch) and locknut (5/16 inch) (Figure 13).



**Figure 13**

- |                  |                         |
|------------------|-------------------------|
| 1. Pivot tab     | 4. Bolt (5/16 x 1 inch) |
| 2. Pivot bracket | 5. Locknut (5/16 inch)  |
| 3. Toolbar       |                         |

- Slide the end of the toolbar link over the short post on the pedal lever assembly and secure it with a retaining ring (Figure 14).

- Install the post on the other end of the pedal lever assembly through the top of the lever assembly and secure it using a washer (7/8 inch) and retaining ring (Figure 14).
- With the lift pedal assembly knee bent upwards, install the square hole on the pivot tab to the end of the toolbar link using a carriage bolt (3/8 x 1-1/4 inches), spacer, washer (1 inch), washer (13/16 inch), and locknut (3/8 inch) as shown in Figure 15.



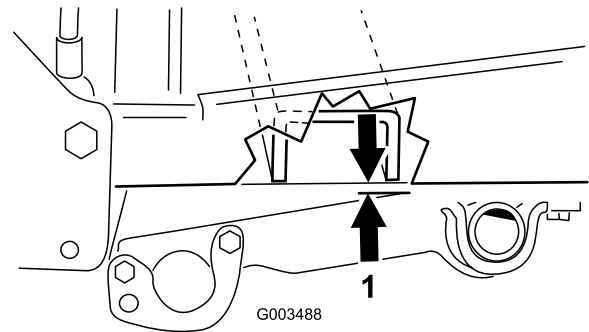
# 8

## Adjusting the Pivot Spring Tension and the Adjustable Rod Assembly

### No Parts Required

### Procedure

1. Position the lift handle in the top detent location.
2. Measure the distance between the traction unit frame and the pivot tube as shown in Figure 17. (As shown from right side of machine)

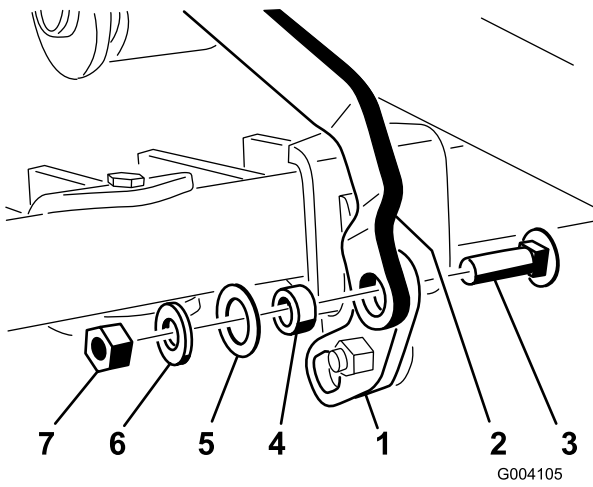


**Figure 17**

1. Measure this distance

If the clearance is not between 0.06 to 0.180 inch, adjust the adjustable rod as follows:

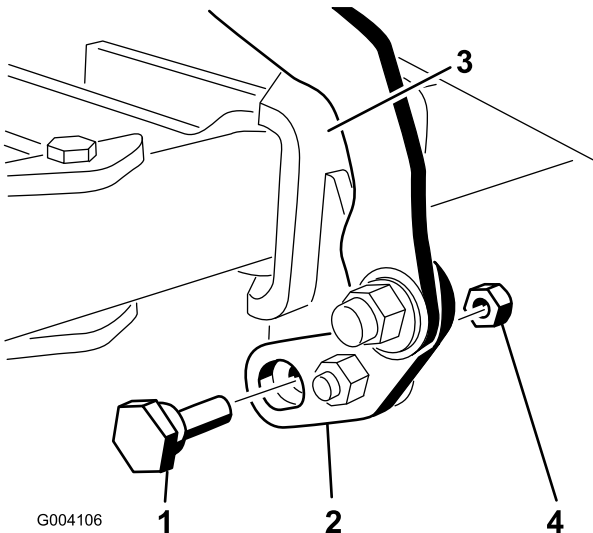
- A. Remove the bolt and nut securing the rod to the pivot tube (Figure 18).
- B. Rotate the ball joint shown in Figure 18 to change the length of the rod as follows:
  - To increase the gap, shorten the rod.
  - To decrease the gap, lengthen the rod.



**Figure 15**

1. Pivot tab
2. Toolbar link
3. Carriage bolt (3/8 x 1-1/4 inches)
4. Spacer
5. Washer (1 inch)
6. Washer (13/16 inch)
7. Locknut (3/8 inch)

6. Install the eccentric bolt through the bottom of the pivot tab and pivot bracket and secure it using a locknut (5/16 inch) (Figure 16).



**Figure 16**

1. Eccentric bolt
2. Pivot tab
3. Pivot bracket
4. Locknut (5/16 inch)

# 9

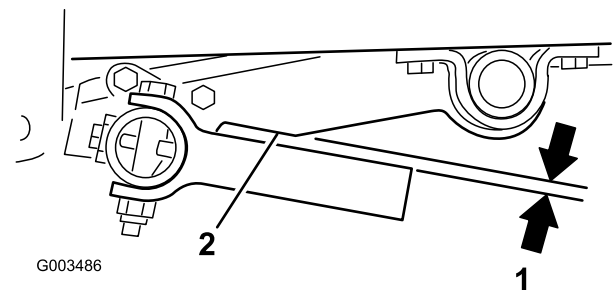
## Adjusting the Toolbar Transport Height

### No Parts Required

### Procedure

1. Position the lift handle to the transport position (upper most notch).
2. Rotate the eccentric bolt either direction until the toolbar tines are parallel to the notch in the lift arm (Figure 16 and Figure 20).

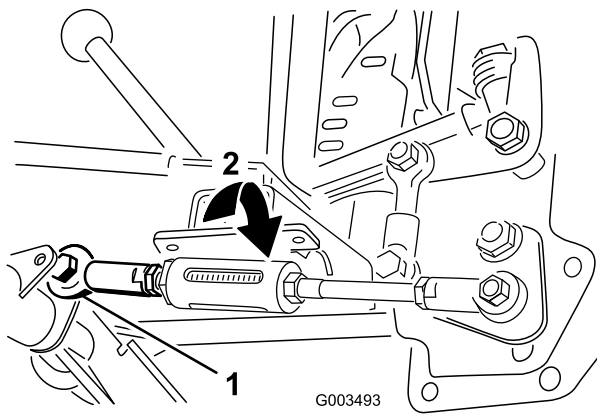
**Important:** The eccentric bolt will not rotate 360 degrees. When it stops, do not attempt to force it further or you will damage it. Instead, rotate it back the other direction.



**Figure 20**

1. Desired position, parallel to the lift arm notch
2. Lift arm notch to the lift arm notch

3. Torque the center pivot bolt (item 4 in Figure 13) to 175 to 225 inch-lb (20 to 25 N·m).
4. Tighten the nut securing the eccentric bolt until it is secure, but do not over tighten it.
5. Test the attachment operation.



**Figure 18**

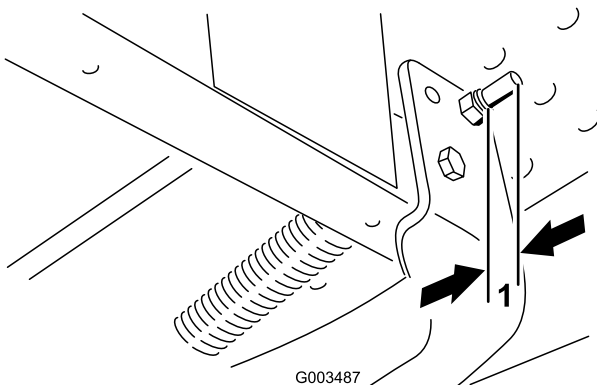
1. Ball joint
2. Decrease the gap

C. Install the rod with the bolt and locknut and test the clearance again.

D. Repeat this procedure until the gap is correct.

3. Tighten the lock nuts securing the spring rod until 1/4 to 1/2 inches (6 mm to 13 mm) of threads are showing to apply tension to the spring (Figure 19).

**Note:** Adjusting the spring rod will vary the lift effort of the system; the longer the bolt ends, the easier it will be to lift the toolbar. The springs should be adjusted so the lift force is comfortable. The greater the tension on the assist spring, the less ground pressure there will be on the toolbar.



**Figure 19**

1. 1/4 to 1/2 inches of threads showing (7 mm to 13 mm)

4. Install the right-hand wheel shroud.
5. Install the rear tires and remove the blocks from under the rear of the machine. Torque the lugs nuts to 45-55 ft-lb (61-75 N·m).

# 10

## Leveling the Toolbar

### Parts needed for this procedure:

1	Shim, Part No. 110-7379
1	Shim, Part No. 110-7380
1	Shim, Part No. 110-7381

### Procedure

Once the toolbar has been installed and fasteners tightened, use the following procedure to verify the toolbar teeth are level.

1. Park the machine on a level surface.
2. Check the pressure of all tires and make sure they are equal. Refer to the *Operator's Manual* for more information on checking the tire pressure.
3. Lower the toolbar until the teeth just begin to make contact with the ground.
4. If the teeth of the toolbar contact the ground evenly the toolbar is level.

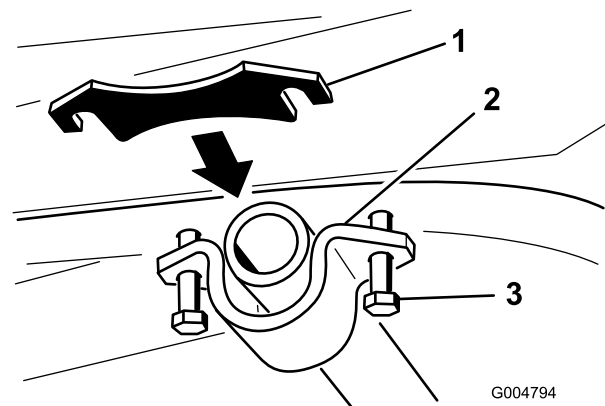
If the teeth on one side of the toolbar contacts the ground before the other side, the toolbar requires leveling. Continue leveling by following the remainder of the procedure.

5. Measure the gap from the toolbar teeth to the ground on the side that requires leveling. Use the following table to determine which shim to install based on the gap measurement.

Shim pack (Thickness in inches)	Change in Tooth height (inches) on Outside Edge
110-7379 (.0747 inches)	1/8 inch
110-7381 (0.1345 inches)	1/4 inch
110-7379 and 110-7381 (0.2094 inches)	3/8 inch
110-7380 (0.25 inches)	7/16 inch
110-7379 and 110-7380 (0.3247 inches)	9/16 inch

6. Install the necessary shim(s) as shown in Figure 21. Loosen the bolts securing the pivot tube bracket create a opening between frame and the pivot tube bracket. Install the shim(s) and tighten all fasteners.

**Note:** Installing the shim may require the removal of the lift pedal to access pivot tube bracket. Refer to Installing the Toolbar Lift Pedal.



**Figure 21**

Right side shown

1. Shim
2. Pivot tube bracket
3. Bolt

7. Verify the toolbar is now level. If not, adjust as necessary.

# 11

## Reading/Storing the Documentation

### Parts needed for this procedure:

1	<i>Installation Instructions</i>
1	<i>Parts Catalog</i>

### Procedure

1. Read the documentation.
2. Store the documentation in a safe place.

# Operation

- To lower the toolbar, move the lift handle to the left, lower it, and then slide it to the right into the desired detent position.
- To raise the toolbar, move the lift handle to the left, raise it, and then slide it to the right into the desired detent position.
- To raise and lock the toolbar into the transport position, move the lift handle to the highest position and press the toolbar lift pedal down.
- To release the toolbar from the transport position, move the lift handle to a lower position.

**Note:** If using the scarifier tool bar, the teeth can be rotated to increase the usable life of the teeth.

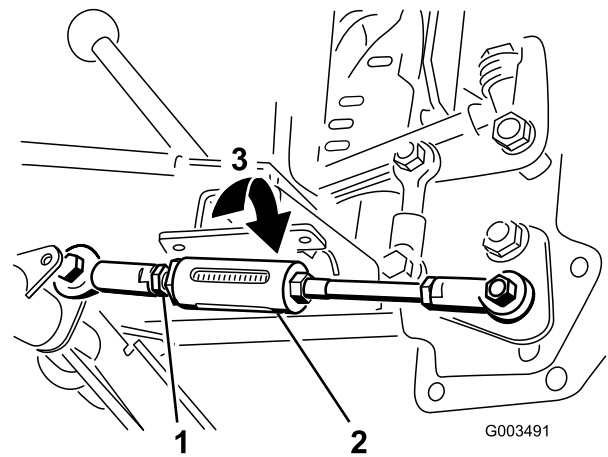
**Note:** To obtain your desired operating position, you may need to first lower the toolbar past your desired position, and then raise it back up.

During operation, lowering the toolbar into position can be facilitated by backing up slowly while setting the toolbar to the desired depth. Once in the desired position, drive forward and the teeth will make contact with the ground, pulling the toolbar into the engaged position.

## Adjusting the Downward Toolbar Pressure

To adjust the amount of downward pressure exerted on the ground by the tool, adjust the spring tension of the adjustable rod. Using a 3/4 inch wrench, rotate the spring sleeve casting on the adjustable rod in the right-hand thread direction to increase downward pressure or the opposite to decrease it (Figure 22)

**Note:** This does not change the adjustable rod setting performed in the Adjusting the Pivot Spring Tension and the Adjustable Rod Assembly procedure.

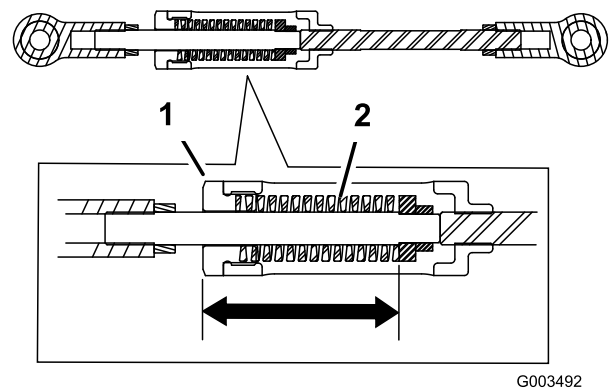


**Figure 22**

1. Adjustable rod assembly
2. Spring sleeve casting
3. Decrease downward pressure

Use the following table and figure as a guide for adjusting the downward toolbar pressure (Figure 23).

Spring Force Chart	
Dimension - inch	Force - lb
3.00	238
2.88	335
2.75	430
2.62	526
2.50	623



**Figure 23**

1. Spring sleeve casting
2. Spring

# Troubleshooting

Problem	Possible Cause	Corrective Action
Lifting the attachment requires excessive force.	<ol style="list-style-type: none"> <li>1. The extension springs are too loose.</li> <li>2. The bell crank or handle assembly is too tight.</li> <li>3. The adjustable rod is installed on the outside (right) edge of the lift arms on the pivot rod.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten the nuts securing the spring rods to tension the extension springs and level the toolbar if necessary.</li> <li>2. Loosen the two nuts that secure the bell crank and handle assembly to the scarifier mount assembly (refer to the <i>Parts Catalog</i> for parts illustration). Tighten them until they are snug and then back them off slightly to allow for free rotation.</li> <li>3. Ensure that the adjustable rod is installed on the left side of the lift arms on the pivot rod; refer to Installing the Adjustable Rod Assembly.</li> </ol>
The handle will not lock into the detent slots on the detent plate.	<ol style="list-style-type: none"> <li>1. The nut that secures the handle onto scarifier mount assembly is too tight.</li> </ol>	<ol style="list-style-type: none"> <li>1. Loosen the nut that secures the handle assembly to the scarifier mount assembly (refer to the <i>Parts Catalog</i> for parts illustration). Tighten it until it is snug and then back them off slightly to allow for free rotation.</li> </ol>
The toolbar does not rotate high enough when in the transport position.	<ol style="list-style-type: none"> <li>1. The eccentric bolt needs to be adjusted.</li> <li>2. The adjustable rod is too long.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to Adjusting the Transport Height.</li> <li>2. Shorten the adjustable rod; refer to Adjusting the Pivot Spring Tension and the Adjustable Rod Assembly.</li> </ol>
The downward pressure of the attachment is too light.	<ol style="list-style-type: none"> <li>1. The spring tension in the adjustable rod is insufficient.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to Adjusting the Downward Tool Pressure.</li> </ol>
Uneven ground contact when turning	<ol style="list-style-type: none"> <li>1. The traction unit tilts when turning tight corners or circles.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install the optional stiffer sidewall tires available from your Authorized Toro Distributor.</li> </ol>
The machine stops when an obstacle is hit.	<ol style="list-style-type: none"> <li>1. The adjuster rod is installed incorrectly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to Installing the Adjustable Rod Assembly.</li> </ol>
The toolbar teeth are not level.	<ol style="list-style-type: none"> <li>1. Incorrect shim pack installed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to Installing the Shim Pack.</li> </ol>

**Notes:**

**Notes:**



## Toro General Commercial Products Warranty

### A Two-Year 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 two years or 1500 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 diagnosis, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.

\* Product equipped with 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  
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*. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

#### 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. A separate warranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recommended maintenance and/or adjustments. Failure to properly maintain your Toro product per the Recommended Maintenance listed in the *Operator's Manual* can result in claims for warranty being denied.
- Product failures which result from operating the Product in an abusive, negligent or reckless manner.
- Parts subject to consumption through use unless found to be defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, brakes pads and linings, clutch linings, blades, reels, bed knives, tines, spark plugs, castor wheels, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- Failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants,

lubricants, additives, fertilizers, water, or chemicals, etc.

- 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, etc.

#### 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.

#### Note Regarding Deep Cycle Battery Warranty:

Deep cycle 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. Battery replacement may be required during the normal product warranty period at owner's expense.

#### 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 engine 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 printed in your *Operator's Manual* or contained in the engine manufacturer's documentation for details.

#### 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 the Toro importer.