



## **48in Snow Blade**

### **TimeCutter™ Z Riding Mower Attachment**

**Model No. 79216—Serial No. 230000001 and Up**

## **Operator's Manual**

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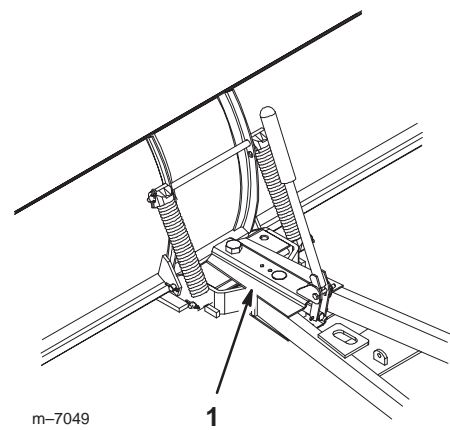


Figure 1

1. Location of the model and serial numbers

Write the product model and serial numbers in the space below:

<b>Model No.</b> _____
<b>Serial No.</b> _____

# Introduction

Read this manual carefully to learn how to operate and maintain your product properly. The information in this manual can help you and others avoid injury and product damage. Although Toro designs and produces safe products, you are responsible for operating the product properly and safely.

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 illustrates the location of the model and serial numbers on the product.

This manual identifies potential hazards and has special safety messages that help you and others avoid personal injury and even death. **Danger**, **Warning**, and **Caution** are signal words used to identify the level of hazard. However, regardless of the hazard, be extremely careful.

**Danger** signals an extreme hazard that *will* cause serious injury or death if you do not follow the recommended precautions.

**Warning** signals a hazard that *may* cause serious injury or death if you do not follow the recommended precautions.

**Caution** signals a hazard that may cause minor or moderate injury if you do not follow the recommended precautions.

This manual uses two other words to highlight information. **Important** calls attention to special mechanical information and **Note:** emphasizes general information worthy of special attention.

# Installation

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

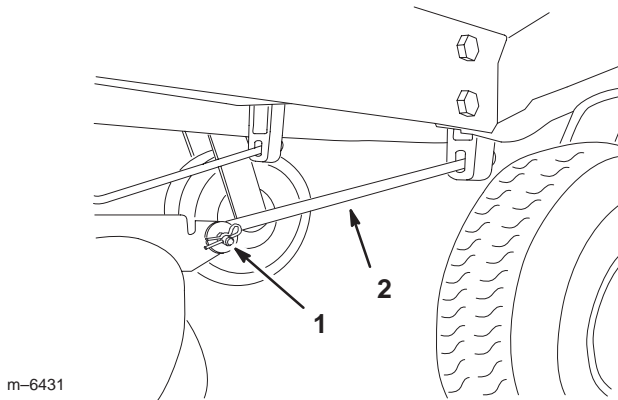
## Loose Parts

Description	Qty.	Use
Blade assembly	1	Assembling the blade
Rod	1	
Cotter pin, 1 inch	2	
Skid	2	
Carriage bolt, 3/8 x 1 inch	4	
Flat washer, 3/8 inch	4	
Locknut, 3/8 inch	4	
Frame assembly	1	
Bolt, 3/4 x 3-3/4 inch	1	
Locknut, 3/4 inch	1	
Index lever	1	
Bolt, 1/4 x 2 inch	1	
Locknut, 1/4 inch	1	
Cotter pin, 1-1/4 inch	1	
Lift arm	1	Preparing the traction unit
Bolt , 5/16 x 3/4 inch	4	
Nut, 5/16 inch	4	
Front spring mount	1	
Extension spring	1	
Rear spring mount	1	
Bolt, 1/4 x 3/4 inch	1	
Locknut, 1/4 inch	1	
Side plate	2	Installing the snow blade
Bolt, 3/8 x 1 inch	6	
Flat washer, 3/8 inch	3	
Flange nut, 3/8 inch	7	
Lift mount assembly	1	
Lift rod	1	
Clevis pin	1	
Cotter pin, 3/4 inch	2	
Shoulder bolt,	1	
Operator's manual	1	Read before installing the snow blade
Registration card	1	Fill out and return to Toro

# Removing the Mower

**Note:** Retain all parts for installing the mower on the traction unit in the future.

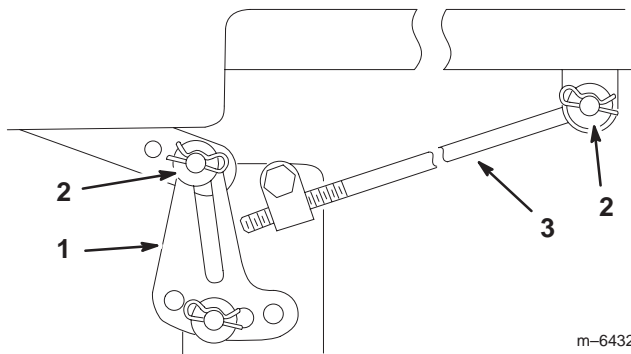
1. Park the machine on a level surface and disengage the blade control (PTO).
2. Move the motion control levers to the brake position, stop the engine, remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Lower the height-of-cut lever to the lowest position.
4. Remove the hairpin cotter and clevis pin from the front support rod on each side of the mower (Fig. 2).



**Figure 2**

1. Hairpin cotter and clevis pin
2. Support rod

5. Remove the nuts on support rods in the front and then remove them by guiding them out of the traction unit from the back.
6. Remove the hairpin cotter and washer from the adjusting rod (Fig. 3) on each side of the mower.



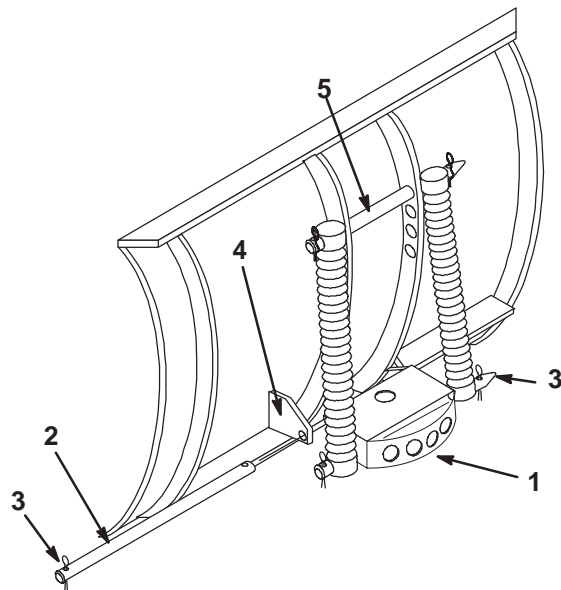
**Figure 3**

1. Leveling bracket—38 inch model shown
2. Hairpin cotter and washer
3. Adjusting rod

7. Remove the hairpin cotter and washer at the mower leveling brackets (Fig. 3) on each side of the mower.
8. Slide the brackets off of the mounting pin.
9. Slide the mower rearward and remove the mower belt from the engine pulley.
10. Slide the mower out from underneath the tractor.

## Assembling the Blade

1. Lift and rotate the channel assembly (Fig. 4) so that the holes align with the lower blade mounts.
2. Slide the rod through the holes and secure it with two cotter pins (1 inch) (Fig. 4).

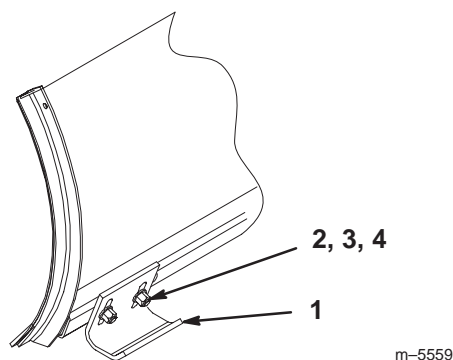


**Figure 4**

1. Channel assembly
2. Rod
3. Cotter pin, 1 inch
4. Lower blade mounts
5. Upper rod

3. Bend the ends of the cotter pins to secure the rod.

4. Attach the skids to both sides of the blade with 4 carriage bolts (3/8 x 1 inch), flat washers (3/8 inch), and locknuts (3/8 inch) (Fig. 5).



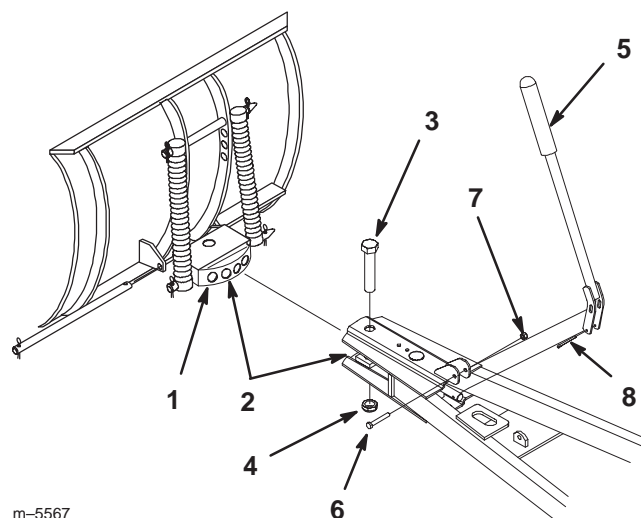
**Figure 5**

- |                                |                          |
|--------------------------------|--------------------------|
| 1. Skid                        | 3. Flat washer, 3/8 inch |
| 2. Carriage bolt, 3/8 x 1 inch | 4. Locknut, 3/8 inch     |

**Note:** Use the slotted holes to position the skid height according to what type of surface you will be plowing. Position the skids lower for plowing rough surfaces or higher for plowing smoother surfaces.

5. Apply a general purpose grease to the pivot area of the frame and channel (Fig. 6).
6. Slide the blade channel assembly between the frame mount and secure it with a bolt (3/4 x 3-3/4 inch) and locknut (3/4 inch) (Fig. 6).

**Note:** Do not tighten the nut and bolt excessively; this avoids binding on the channel weldment as it pivots from side to side.



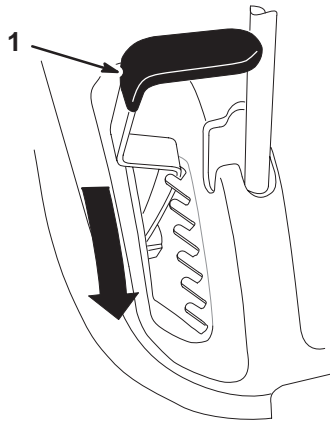
**Figure 6**

- |                           |                           |
|---------------------------|---------------------------|
| 1. Channel assembly       | 5. Index lever            |
| 2. Grease here            | 6. Bolt, 1/4 x 2 inch     |
| 3. Bolt, 3/4 x 3-3/4 inch | 7. Locknut, 1/4 inch      |
| 4. Locknut, 3/4 inch      | 8. Cotter pin, 1-1/4 inch |

7. Attach the index lever to the frame assembly with a bolt (1/4 x 2 inch) and locknut (1/4 inch) (Fig. 6).
8. Connect the index lever to the angle pin with a cotter pin (1-1/4 inch) (Fig. 6).
9. Bend the end of the cotter pin to secure the lever.

# Preparing the Traction Unit

1. Move the lift lever into the lowest position to install the lift arm (Fig. 7).

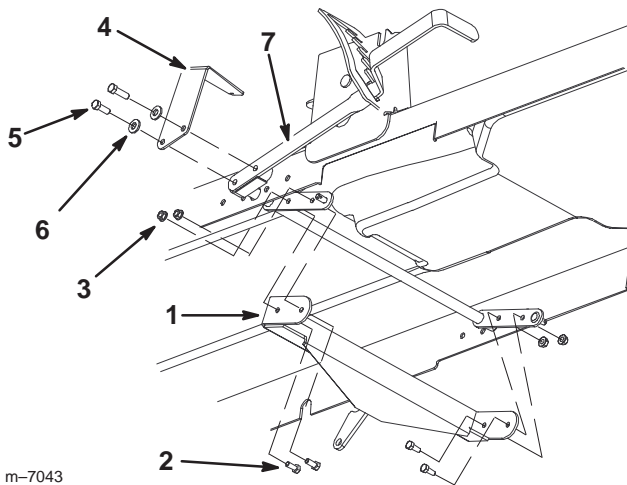


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**Figure 7**

1. Lift lever

2. Attach the lift arm to the the traction unit lift arm assembly using 4 bolts (5/16 x 3/4 inch) and 4 nuts (5/16 inch) as shown in figure 8. The nuts are to be installed on the outside to prevent interference when operating the blade.



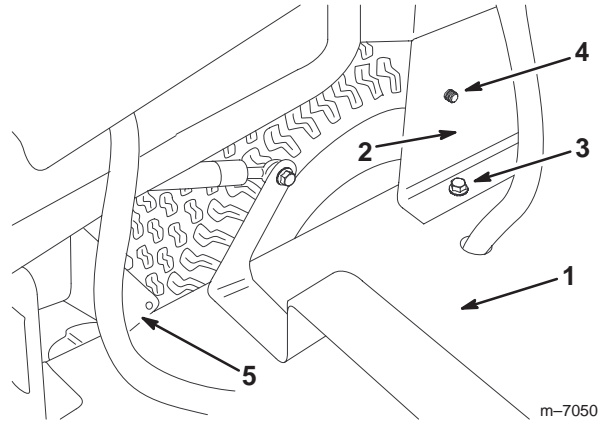
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**Figure 8**

1. Lift arm
2. Bolts, 5/16 x 3/4 inch
3. Lock nuts, 5/16 inch
4. Front spring mount
5. Bolts
6. Washers
7. Lift lever

3. Remove the 2 bolts, 2 washers, and 2 nuts connecting the lever to the lift block (Fig. 8).
4. Attach the front spring mount to the lift lever using the fasteners removed in step 3 (Fig. 8).
5. Move the seat forward to access the gas tank plate mounted to the tractor frame.

6. Remove the front bolt and nut in the base of the gas tank plate and set aside (Fig. 9).
7. Remove the upper screw in the gas tank plate and discard (Fig. 9).



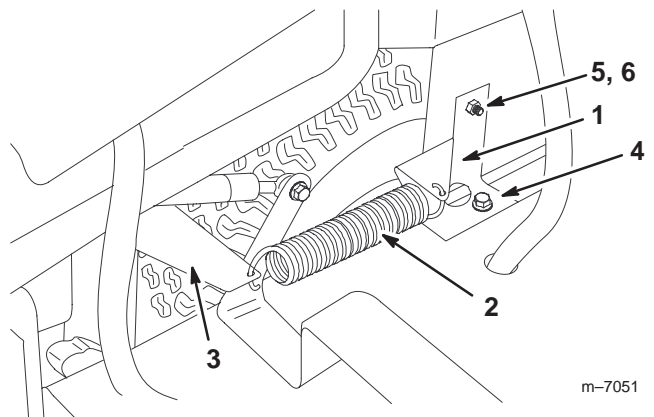
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**Figure 9**

1. Tractor frame
2. Gas tank plate
3. Front bolt
4. Upper screw
5. Front spring mount

8. Raise the lift lever to the highest possible position.
9. Attach the spring to the front spring mount.
10. Attach the loose rear spring mount to the opposite end of the spring.
11. Install the rear spring mount to the gas tank plate using the front bolt removed in step 6 (Fig. 10).

**Note:** This will require the spring to be partially extended during this step.



m-7051

**Figure 10**

1. Rear spring mount
2. Spring
3. Front spring mount
4. Front bolt
5. Bolt, 1/4 x 3/4 inch
6. Lock nut, 1/4 inch

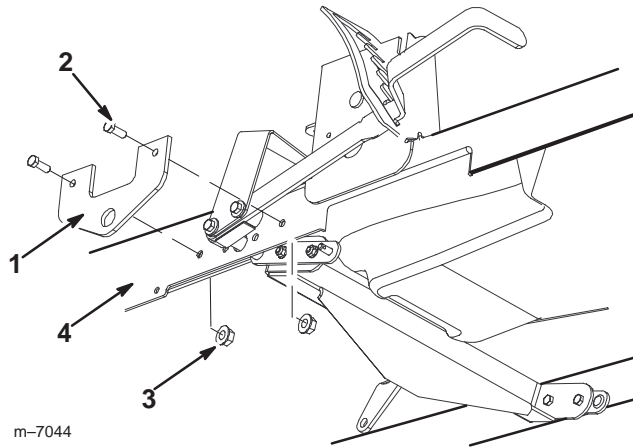
12. Secure the rear spring mount to the gas tank plate using a bolt (1/4 x 3/4 inch) and lock nut (1/4 inch) (Fig. 9).

13. Lower the seat back into position.

## Installing the Snow Blade

1. Attach a side plate to the right side of the traction unit frame using 2 bolts (3/8 x 1 inch) and 2 flange nuts (3/8 inch) (Fig. 11).

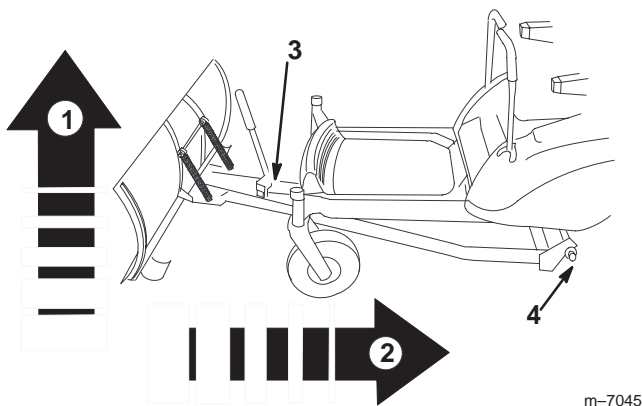
**Note:** Torque the side plate bolts to 30 ft.-lb. (41 N·m).



**Figure 11**

- |                       |                         |
|-----------------------|-------------------------|
| 1. Side plate         | 3. Flange nut, 3/8 inch |
| 2. Bolt, 3/8 x 1 inch | 4. Tractor frame        |

2. Lift the blade assembly off the ground and slide the frame assembly beneath the traction unit as depicted by the arrows shown in figure 12.

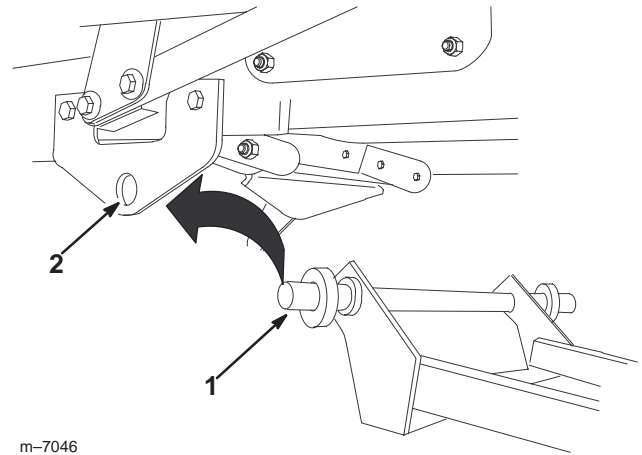


**Figure 12**

- |   |                        |
|---|------------------------|
| 1. Lift the blade assembly                    | 3. snow blade assembly |
| 2. Slide the frame assembly under the tractor | 4. Rear shaft          |

**Note:** The snow blade is in position when the rear shaft of the frame assembly has moved past the lift arm and is lined up with the hole in the side plate.

3. Lift the rear shaft of the frame assembly up and into the side plate hole (Fig. 13).



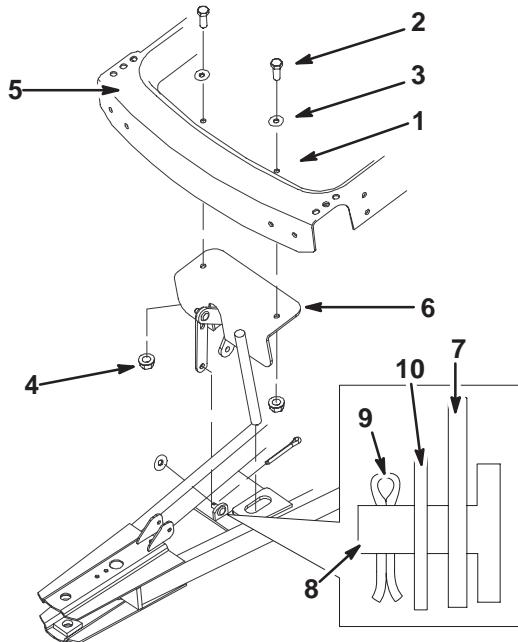
**Figure 13**

- |               |                    |
|---------------|--------------------|
| 1. Rear shaft | 2. Side plate hole |
|---------------|--------------------|

4. Install the other side plate on the left side of the unit over the rear shaft using 2 bolts (3/8 x 1 inch) and 2 flange nuts (3/8 inch).

**Note:** Torque the side plate bolts to 30 ft.-lb. (41 N·m).

5. Remove the foot plate to access the existing holes in the traction unit frame (Fig. 14).



m-7053

**Figure 14**

- |                         |                         |
|-------------------------|-------------------------|
| 1. Existing hole        | 6. Lift mount assembly  |
| 2. Bolt, 3/8 x 1 inch   | 7. Lift link            |
| 3. Washer, 3/8 inch     | 8. Frame assembly post  |
| 4. Flange nut, 3/8 inch | 9. Cotter pin, 3/4 inch |
| 5. Tractor frame        | 10. Washer, 3/8 inch    |

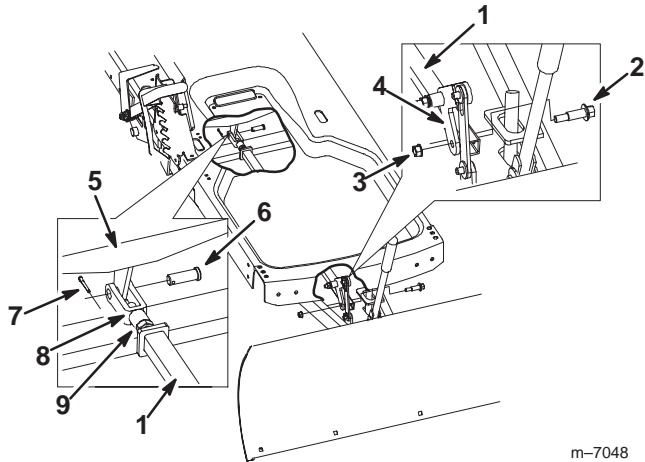
6. Install the lift mount assembly using 2 bolts (3/8 x 1 inch), 2 washers (3/8 inch) and 2 flange nuts (3/8 inch) as shown in figure 14.

**Note:** Move the lift mount assembly into position from the side of the unit in order to install it in the correct orientation.

7. Place the link lift over the frame assembly post and use a washer (3/8 inch) and cotter pin (3/4 inch) to hold it in place (Fig. 14).
8. Bend the end of the cotter pin to secure the lift link.

## Connecting the Lift Rod

1. Move the lift rod into position beneath the traction unit and above the frame assembly (Fig. 15).



m-7048

**Figure 15**

- |                  |                           |
|------------------|---------------------------|
| 1. Lift rod      | 6. Clevis pin             |
| 2. Shoulder bolt | 7. Cotter pin, (3/4 inch) |
| 3. Flange nut    | 8. Yoke                   |
| 4. Pivot arm     | 9. Jam nut                |
| 5. Lift arm      |                           |

2. Attach the lift rod to the pivot arm of the lift mount using the shoulder bolt and flange nut (3/8 inch) as shown in figure 15.

3. Line up the holes in the lift rod yoke and the lift arm (Fig. 15).

**Note:** If needed, adjust the length of the lift rod arm by loosening the jam nut and turn the yoke to either lengthen or shorten the lift rod.

4. Set the blade height to ensure the full range of motion with the lift lever. See *Setting the Blade Height* on page 10.
5. Install the lift rod to the lift arm using a clevis pin and cotter pin (3/4 inch) as shown in figure 15.
6. Bend the ends of the cotter pins to secure the clevis pin



# Operation

**Important** This snow blade should be used for plowing **snow only**.



## Caution



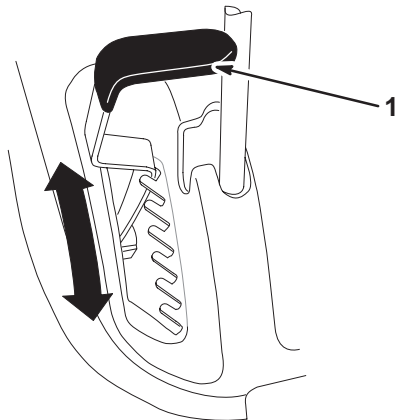
If you hit fixed objects with the blade, the traction unit could stop abruptly, causing you to lose control, sustain personal injury, and equipment damage.

- Travel at a safe, slow speed.
- Check the area to be plowed and mark all fixed objects so that you can avoid them.

## Lowering and Raising the Blade

Use the lift lever to lower and raise the blade (Fig. 16).

To rest the blade on the ground, put the lift lever in the lowest position.



m-6421

**Figure 16**

1. Lift lever

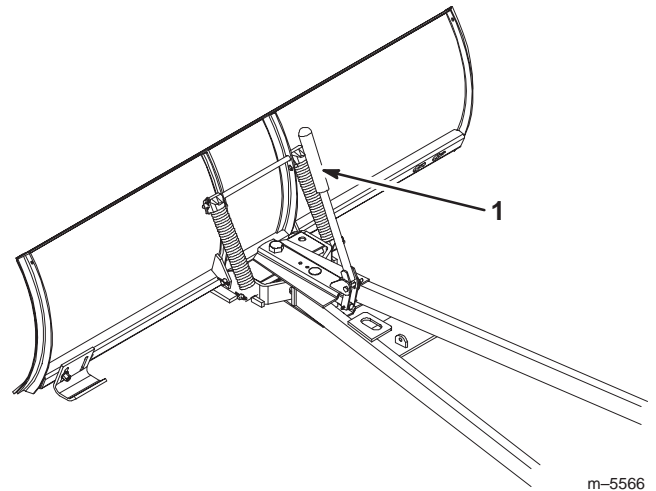
**Note:** Raise the lift lever to highest position when transporting the blade.

## Adjusting the Blade Angle

There are five positions for the side to side angle of the blade. To change the blade angle, perform the following procedure:

1. Raise the blade.
2. Push the index lever forward with one hand (Fig. 17) while positioning the blade with the other hand until you have reached the desired blade angle.
3. Release the index lever.

**Note:** The angle pin must snap into the hole in the channel to retain the blade position.



m-5566

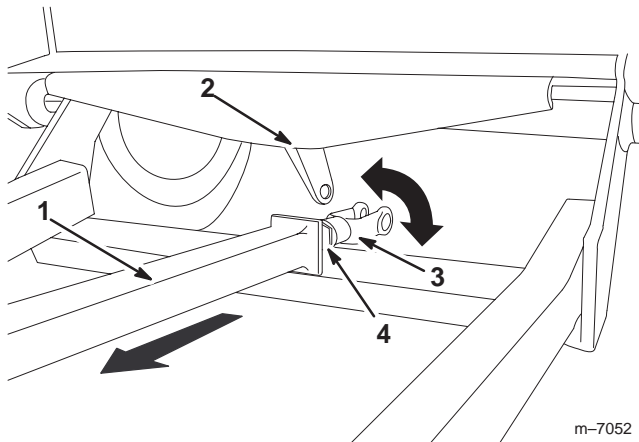
**Figure 17**

1. Index lever

## Setting the Blade Height

Set the operating height using the following procedure.

1. Move the lift lever into the second lowest position.
2. Remove the cotter pin and clevis pin attaching the lift rod to the lift arm.
3. Move the lift rod down and out of the lift arm so that the yoke can turn freely (Fig. 18) and loosen the jam nut.



**Figure 18**

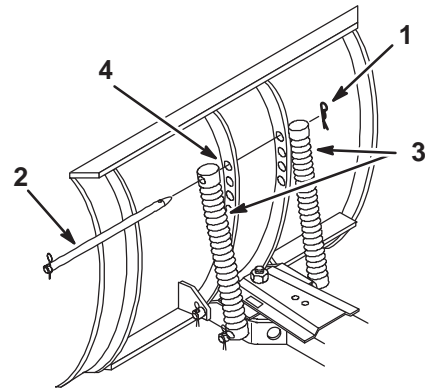
- |             |            |
|-------------|------------|
| 1. Lift rod | 3. Yoke    |
| 2. Lift arm | 4. Jam nut |

4. Move lift rod forward as far as possible and hold it in that position (Fig. 18).
5. Turn the yoke to adjust the length of the lift rod (Fig. 18). The lift rod is in position when the holes in the yoke line up with the lift arm.
6. Install the lift rod to lift arm using the clevis pin and cotter pin removed previously.
7. Bend the end of the cotter pin to secure the clevis pin.

## Adjusting the Blade Trip Springs

The blade trip springs can be mounted in four positions. The top hole provides the greatest scraping pressure and the bottom hole provides the least scraping pressure (Fig. 19).

1. Remove the hairpin cotter and slide the rod from the blade and springs (Fig. 19).
2. Slide the rod through the springs and the new hole position in the blade (Fig. 19).



**Figure 19**

- |                   |             |
|-------------------|-------------|
| 1. Hairpin cotter | 3. Spring   |
| 2. Rod            | 4. Top hole |

## Tips for Using the Blade

To obtain the best possible results with your blade, follow these tips:

- Remove snow as soon as possible after it falls.
- Remove snow from a driveway by making one pass down the center and then plowing snow to either side on successive passes.

# Maintenance

## Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
25 hours	<ul style="list-style-type: none"><li>• Grease the channel pivot.</li><li>• Oil the linkages.</li></ul>
Yearly/Storage Service	<ul style="list-style-type: none"><li>• Grease the channel pivot.</li><li>• Oil the linkages.</li><li>• Examine the scraper for wear and replace if necessary.</li><li>• Paint any chipped surfaces.</li></ul>



### Caution



**If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.**

**Remove the key from the ignition and disconnect the wire from the spark plug before you do any maintenance. Set the wire aside so that it does not accidentally contact the spark plug.**

## Greasing and Lubricating the Blade

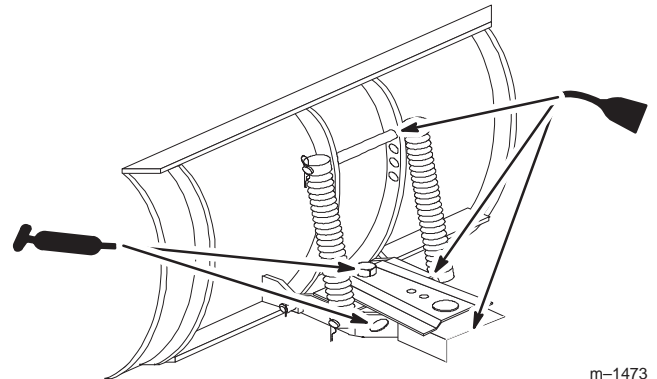
Grease and oil the blade after every 25 operating hours or once a year, whichever occurs first.

Grease type: general-purpose grease

Oil type: SAE 10W or 10W30

### Greasing the Channel Pivot

1. Lower the blade.
2. Set the parking brake, stop the engine, and remove the ignition key.
3. Clean the area around the channel pivot with a rag. Apply grease to the pivot bolt, frame, and channel indexing holes (Fig. 20).
4. Wipe off excess grease.



m-1473

**Figure 20**

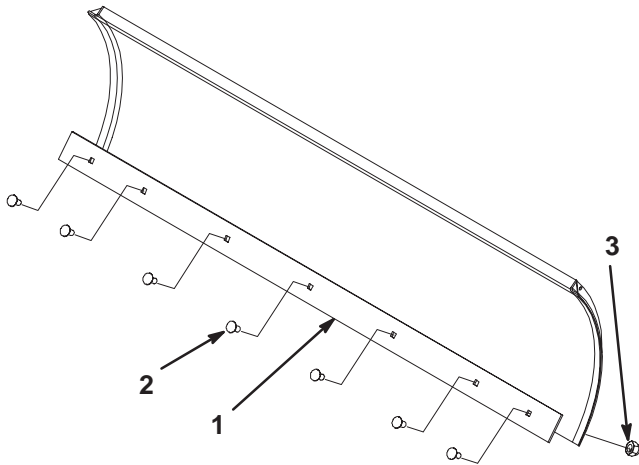
### Oiling the Linkages

1. Set the parking brake, stop the engine, and remove the ignition key.
2. Place a few drops of oil on all movable linkages (Fig. 20).
3. Wipe off excess oil.

## Reversing the Scraper

Periodically inspect the scraper blade for wear. Reverse the scraper blade when it becomes worn and before the working surface contacts the housing.

1. Raise the blade and support the housing off of the ground.
2. Remove the carriage bolts and locknuts securing the scraper (Fig. 21).
3. Reverse the scraper and install it with the previously removed hardware (Fig. 21).



m-5568

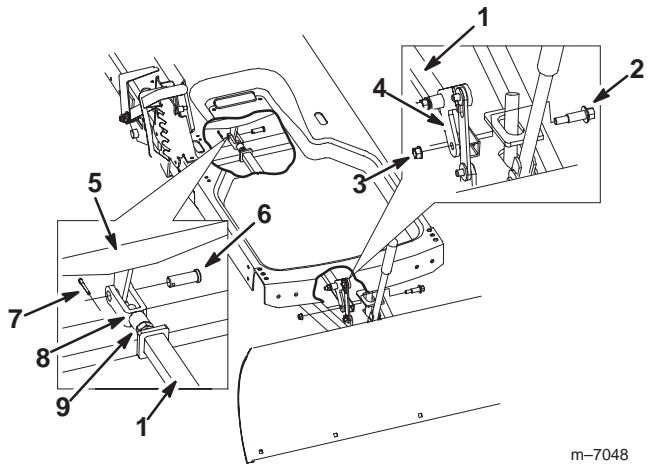
**Figure 21**

- |                  |             |
|------------------|-------------|
| 1. Scraper       | 3. Locknuts |
| 2. Carriage bolt |             |

## Removing the Blade

**Note:** Retain all parts for installing the snow blade on the traction unit in the future.

1. Move the lift lever into the lowest position to remove the blade.
2. Remove the foot plate to access the tractor frame.
3. Remove the shoulder bolt and flange nut (3/8 inch) attaching the lift rod to the pivot arm of the lift mount as shown in figure 22.



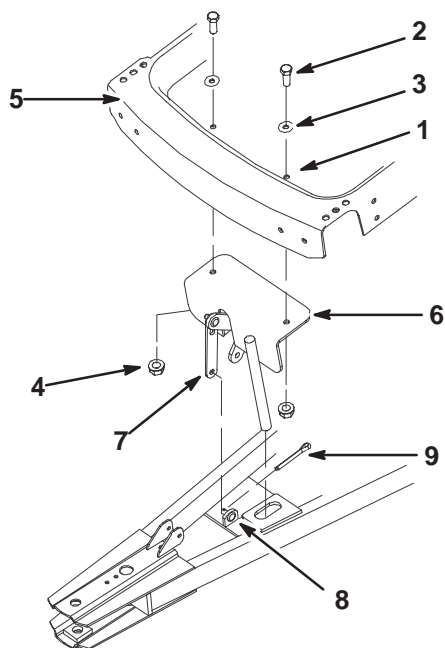
m-7048

**Figure 22**

- |                  |                           |
|------------------|---------------------------|
| 1. Lift rod      | 6. Clevis pin             |
| 2. Shoulder bolt | 7. Cotter pin, (3/4 inch) |
| 3. Flange nut    | 8. Yoke                   |
| 4. Pivot arm     | 9. Jam nut                |
| 5. Lift arm      |                           |

4. Remove the cotter pin (3/4 inch) and washer (3/8 inch) securing the lift mount to the frame assembly (Fig. 23).
5. Remove the clevis pin and cotter pin (3/4 inch) securing the lift rod to the lift arm (Fig. 22).
6. Remove the lift rod from the traction unit.

7. Remove the 2 bolts (3/8 x 1 inch), 2 washers (3/8 inch) and 2 flange nuts (3/8 inch) securing the lift mount assembly to the tractor frame (Fig. 23).



m-7047

**Figure 23**

- |                         |                         |
|-------------------------|-------------------------|
| 1. Existing hole        | 6. Lift mount assembly  |
| 2. Bolt, 3/8 x 1 inch   | 7. Lift link            |
| 3. Washer, 3/8 inch     | 8. Frame assembly post  |
| 4. Flange nut, 3/8 inch | 9. Cotter pin, 3/4 inch |
| 5. Tractor frame        |                         |

8. Remove the lift mount from the traction unit.

**Note:** Move the lift mount assembly out of position from the side of the traction unit.

9. Remove the 4 bolts (3/8 x 1 inch) and 4 flange nuts (3/8 inch) securing side plates to the tractor frame.
10. Remove the side plates and lower the frame assembly to the ground.
11. Remove the 4 bolts (5/16 x 3/4 inch) and 4 nuts (5/16 inch) securing the lift arm to traction unit.
12. Remove the lift arm.
13. Slide the snow blade assembly out from under neath the traction unit.
14. Replace the foot plate.

## Storing the Blade

1. Before long-term storage, wash the entire blade assembly with mild detergent and water to remove dirt and grime.
2. Check the condition of the scraper; refer to Reversing the Scraper Blade, page 12.
3. Grease and oil the blade; refer to Greasing and Lubricating the Blade, page 11.
4. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged.
5. Paint all scratched or bare metal surfaces. Paint is available from your Authorized Toro Dealer.
6. Store the blade in a clean, dry garage or storage area.
7. Cover the machine to protect it and keep it clean.





