

#### **Blade Wing Extension Kit**

## for Super-Duty and Trip Edge Straight-Blade Plows and V-Blade Plows

Part No. MSC08042C

Installation Instructions

## **Safety**

- Always detach the wing extensions before transporting the plow.
- Installing this kit will change the weight of your plow. Ensure that your vehicle does not exceed the front gross-axel weight rating (FGAWR) at any time. You may need to weigh the vehicle and add ballast or limit the payload of the vehicle to compensate.

### Installation

Determine the left and right sides of the machine from the normal operating position.

# For 7'6" and 8' Trip Edge Straight-Blade Plows

- 1. Remove the plow if it is mounted to a vehicle; refer to your plow *Owner's Manual*.
- 2. Remove and retain the plow blade guides.
- If your plow is equipped with snow deflectors, remove and retain the outermost belting straps, and pull the belting out of the way during installation.
- 4. On the left side of the plow, drill a hole (7/16 inch) at the location shown in Figure 1.

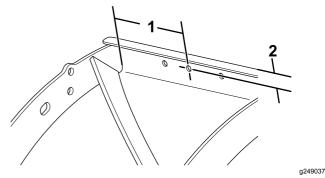
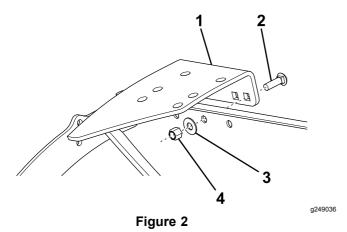


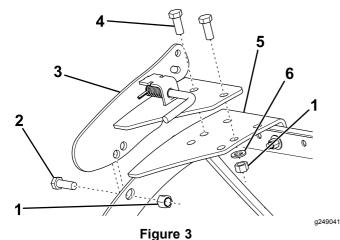
Figure 1

- 1. 10.8 cm (4-1/4 inches)
- 2. 3.6 cm (1-7/16 inches)
- 5. Loosely attach the spring bracket base-plate to the plow using a carriage bolt (3/8 inch), washer, and locknut (Figure 2).



- Spring bracket base-plate
- 3. Washer (3/8 inch)
- Carriage bolt (3/8 inch)
- Locknut (3/8 inch)
- Loosely attach the spring bracket to the spring bracket base-plate using 2 bolts (1/2 x 1-1/4 inches), washers, and locknuts (Figure 3).

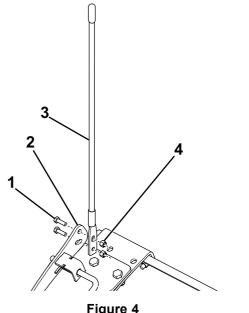
If you have a plow with serial number BC114675 or newer, use the middle set of holes on the spring bracket base-plate. For all other plows, use the top set of holes.



- 1. Locknut (1/2 inch)
- 4. Bolt (1/2 x 1-1/4 inches)
- Bolt (1/2 x 1-1/2 inches)
- Spring bracket base-plate
- 3. Spring bracket
- Washer (1/2 inch)
- 7. Loosely attach the spring bracket to the side of the plow using a bolt (1/2 x 1-1/2 inches) and locknut (Figure 3).

Note: If necessary, use additional washers (3/8 inch) to shim between the spring bracket base-plate and the blade to adjust the position of the base-plate.

Attach a previously removed plow blade guide to the spring bracket (Figure 4), and torque the bolts to 19 N·m (14 ft-lb).



- Figure 4
- Previously removed bolt
- 3. Plow blade guide
- Spring bracket
- 4. Previously removed nut

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Loosely attach a rib bracket to the outermost plow rib using 2 bolts (1/2 x 1-1/2 inches) and locknuts (Figure 5).

**Note:** Ensure that the rib bracket is mounted to the inner side of the plow rib.

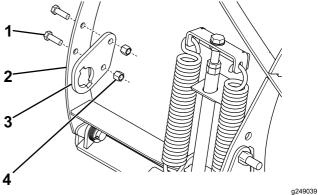
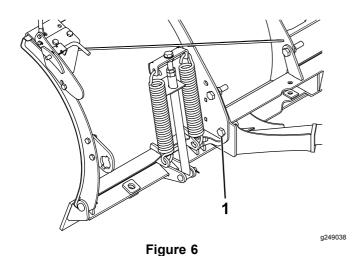


Figure 5

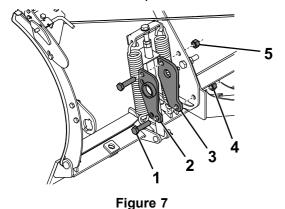
- Bolt (1/2 x 1-1/2 inches)
- Rib bracket
- Plow rib

- 4. Locknut (1/2 inch)
- Remove the bolt and locknut securing the pushbeam assembly shown in Figure 6. Discard the bolt but retain the locknut.



- 1. Pushbeam bolt
- 11. Loosely attach a trip edge bracket to the second outermost plow rib using 2 bolts (3/4 inch), the previously removed locknut, and 1 new locknut (Figure 7).

If you have a plow with serial number BC114675 or newer, attach the spacer as well.



- 1. Bolt (3/4 inch)
- 2. Trip edge bracket
- Spacer (serial number BC114675 or newer plows only)
- Previously removed locknut

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- 5. New locknut (3/4 inch)
- 12. If you have a plow with serial number BC114675 or newer, cut the plow wing tube to the dimensions listed below (Figure 8).
  - 7 ft 6 inch plow—50.48 cm (19-7/8 inches)
  - 8 ft plows—58.10 cm (22-7/8 inches)

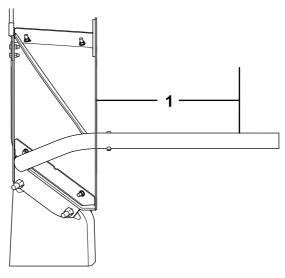


Figure 8

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- 1. Measure
- 13. Pull back on the spring pin and rotate it into the lock position (Figure 9).

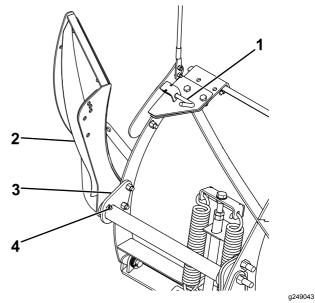


Figure 9

- 1. Spring pin
- Plow wing
- 3. Rib bracket
- 4. Attach pin
- 14. Slide the plow wing tube through the rib brackets until the attach pin passes through the outer bracket (Figure 9).
- 15. Rotate the plow wing forward and lock it in place with the spring pin (Figure 10).

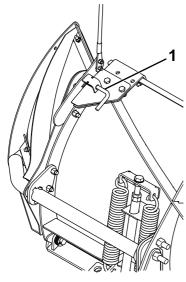
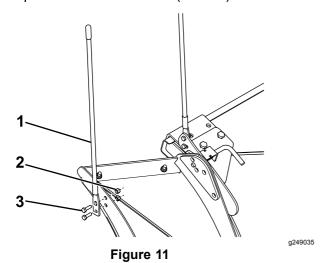


Figure 10

- 1. Spring pin
- 16. Attach a plow blade guide to the plow wing using 2 bolts (5/16 inch) and locknuts (Figure 11), and torque the bolts to 19 N·m (14 ft-lb).



- 1. Plow guide
- 3. Bolt (5/16 inch)
- 2. Locknut (5/16 inch)
- 17. Repeat steps 4 through 16 on the right side of the plow.
- 18. Loosely attach the plow wing cutting edge to the plow wing using 2 carriage bolts (5/8 inch), a mounting plate, and 2 nuts (Figure 12).

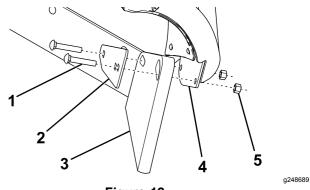
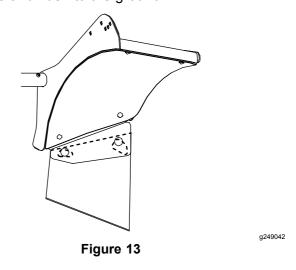


Figure 12

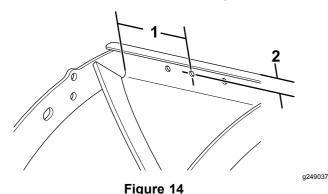
- 1. Carriage bolt (5/8 inch)
- 4. Plow wing
- 2. Mounting plate
- 5. Nut (5/8 inch)
- 3. Cutting edge
- 19. Using Figure 13 as a guide, adjust the cutting edge so that it is aligned with the plow cutting edge and flush to the ground.



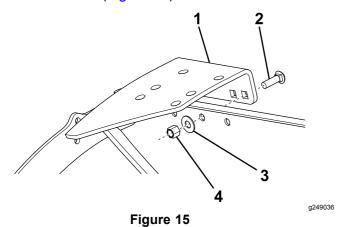
- 20. Torque the fasteners to the following specifications:
  - 3/4-inch bolts to 272 N·m (201 ft-lb)
  - 5/8-inch carriage bolts to 153 N·m (113 ft-lb)
  - 1/2-inch bolts to 76 N·m (56 ft-lb)
  - 3/8-inch carriage bolts to 31 N·m (23 ft-lb)
- 21. If your plow is equipped with snow deflectors, pull the belting back into place and secure it over the spring bracket base-plates with the previously removed belt straps and hardware.
- 22. Check the installation as follows:
  - Remove and attach the plow wings several times, making any necessary adjustments.
  - Attach the plow to the truck and ensure it sits level with all cutting edges touching the ground.

#### For All Other Plows

- 1. Remove the plow if it is mounted to a vehicle; refer to your plow *Owner's Manual*.
- 2. Remove and retain the plow blade guides.
- 3. If your plow is equipped with snow deflectors, remove and retain the outermost belting straps, and pull the belting out of the way during installation.
- 4. On the left side of the plow, drill a hole (7/16 inch) at the location shown in Figure 14.



- 1. 10.8 cm (4-1/4 inches)
- 2. 3.6 cm (1-7/16 inches)
- 5. Loosely attach the spring bracket base-plate to the plow using a carriage bolt (3/8 inch), washer, and locknut (Figure 15).



- 1. Spring bracket base-plate
- 3. Washer (3/8 inch)
- 2. Carriage bolt (3/8 inch)
- 4. Locknut (3/8 inch)
- 6. Loosely attach the spring bracket to the spring bracket base-plate using 2 bolts (1/2 x 1-1/4 inches), washers, and locknuts (Figure 16).

If you have a Super Duty XT straight-blade plow, use the bottom set of holes on the spring bracket base-plate. If you have a plow with serial number BC114675 or newer, use the middle set of holes. For all other plows, use the top set of holes.

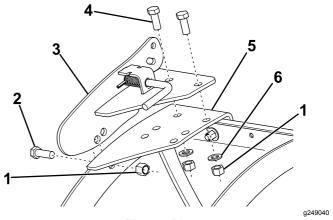
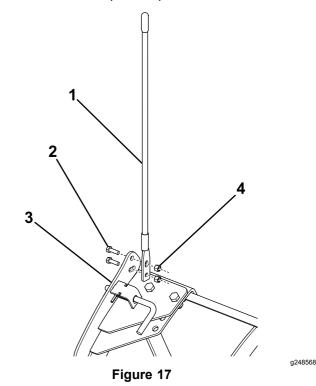


Figure 16

- 1. Locknut (1/2 inch)
- 4. Bolt (1/2 x 1-1/4 inches)
- 2. Bolt (1/2 x 1-1/2 inches)
- 5. Spring bracket base-plate
- 3. Spring bracket
- 6. Washer (1/2 inch)
- 7. Loosely attach the spring bracket to the side of the plow using a bolt (1/2 x 1-1/2 inches) and locknut (Figure 16).

**Note:** If necessary, use additional washers (3/8 inch) to shim between the spring bracket base-plate and the blade to adjust the position of the base-plate.

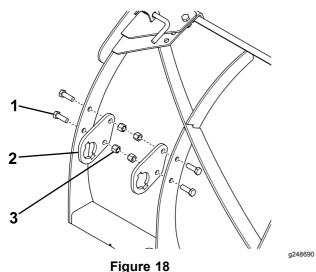
8. Attach a previously removed plow blade guide to the spring bracket (Figure 17), and torque the bolts to 19 N·m (14 ft-lb).



- Plow blade guide
- 3. Spring bracket
- 2. Previously removed bolt
- 4. Previously removed nut

Loosely attach the rib brackets to the plow using 4 bolts (1/2 x 1-1/2 inches) and locknuts (Figure 18).

**Note:** Ensure that the rib brackets are mounted to the correct side of the plow ribs.



- 1. Bolt (1/2 x 1-1/2 inches)
- 3. Locknut (1/2 inch)
- Rib bracket
- 10. Pull back on the spring pin and rotate it into the lock position (Figure 19).

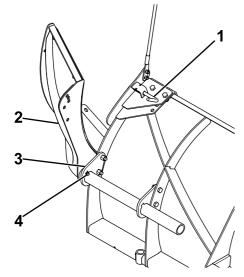


Figure 19

- Spring pin
- 3. Rib bracket
- 2. Plow wing
- 4. Attach pin
- Slide the plow wing tube through the rib brackets 11. until the attach pin passes through the outer bracket (Figure 19).
- Rotate the plow wing forward and lock it in place 12. with the spring pin (Figure 20).

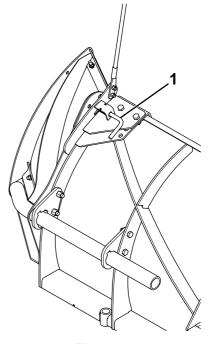
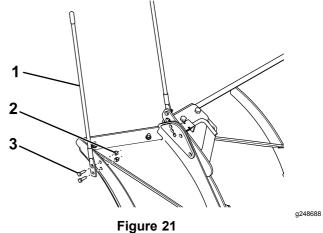


Figure 20

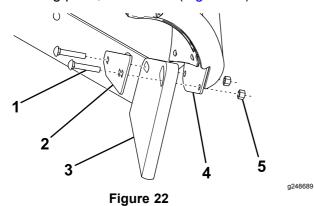
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- 1. Spring pin
- 13. Attach a plow blade guide to the plow wing using 2 bolts (5/16 inch) and locknuts (Figure 21), and torque the bolts to 19 N·m (14 ft-lb).



- Plow blade guide
- 3. Bolt (5/16 inch)
- Locknut (5/16 inch)
- Repeat steps 4 through 13 on the right side of the plow.

15. Loosely attach the plow wing cutting edge to the plow wing using 2 carriage bolts (5/8 inch), a mounting plate, and 2 nuts (Figure 22).



- 1. Carriage bolt (5/8 inch)
- 4. Plow wing
- 2. Mounting plate
- 5. Nut (5/8 inch)
- 3. Cutting edge

- 16. Using Figure 23 as a guide, adjust the cutting edge so that it is aligned with the plow cutting edge and flush to the ground.
- 17. Torque the fasteners to the following specifications:
  - 1/2-inch bolts to 76 N·m (56 ft-lb)
  - 3/8-inch carriage bolts to 31 N·m (23 ft-lb)
  - 5/8-inch carriage bolts to 153 N·m (113 ft-lb)
- 18. If your plow is equipped with snow deflectors, pull the belting back into place and secure it over the spring bracket base-plates with the previously removed belt straps and hardware.

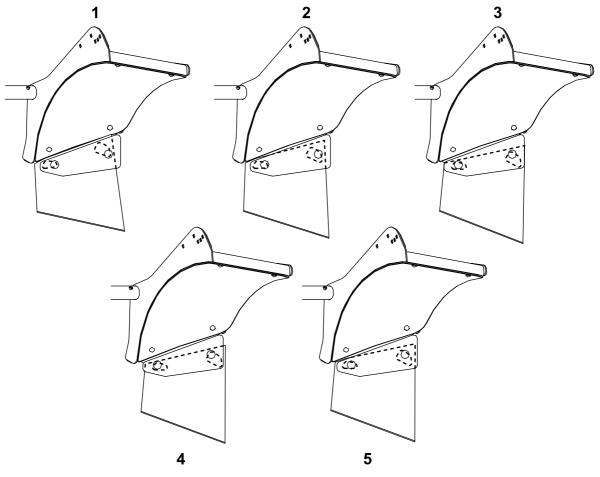


Figure 23

- 1. Non-XT straight-blade plows
- 2. XT straight-blade plows
- 3. Trip edge plows

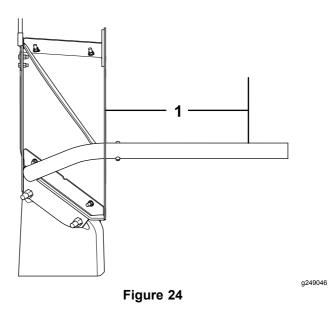
- 4. V-blade plows with a formed cutting edge
- 5. V-blade plows without a formed cutting edge

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- 19. Check the installation as follows:
  - Remove and attach the plow wings several times, making any necessary adjustments.
  - Attach the plow to the truck and ensure it sits level with all cutting edges touching the ground.
- 20. If desired, cut the plow wing tube to the dimensions listed for your plow in the following table, and insert the tube plug in the end.

**Note:** The tube plug helps prevent corrosion.

Plow	Tube Length (Figure 24)
7 ft 6 inch steel V-blade plow	38.73 cm (15-3/4 inches)
7 ft 6 inch standard duty straight-blade plow	36.83 cm (14-1/2 inches)
7 ft 6 inch super duty straight-blade plow	30.95 cm (12-3/16 inches)
2013 and older 7 ft 6 inch super duty trip edge	51.43 cm (20-1/4 inches)
7 ft 6 inch poly straight-blade plow	38.41 cm (15-1/8 inches)
8 ft steel straight-blade plow	
8 ft XT straight-blade plow	
8 ft poly straight-blade plow	35.24 cm (13-7/8 inches)
8 ft 2 inch steel V-blade plow	50.16 cm (19-3/4 inches)
8 ft 2 inch poly V-blade plow	56.67 cm (22-5/16 inches)
8 ft 6 inch super duty straight-blade plow	46.19 cm (18-3/16 inches)
8 ft 6 inch XT straight-blade plow	
9 ft 2 inch poly V-blade plow	37.46 cm (14-3/4 inches)
9 ft 2 inch steel V-blade plow	33.97 cm (13-3/8 inches)
9 ft super duty trip edge plow	48.26 cm (19 inches)
9 ft super duty straight-blade plow	53.81 cm (21-3/16 inches)
9 ft XT straight-blade plow	



1. Measure