



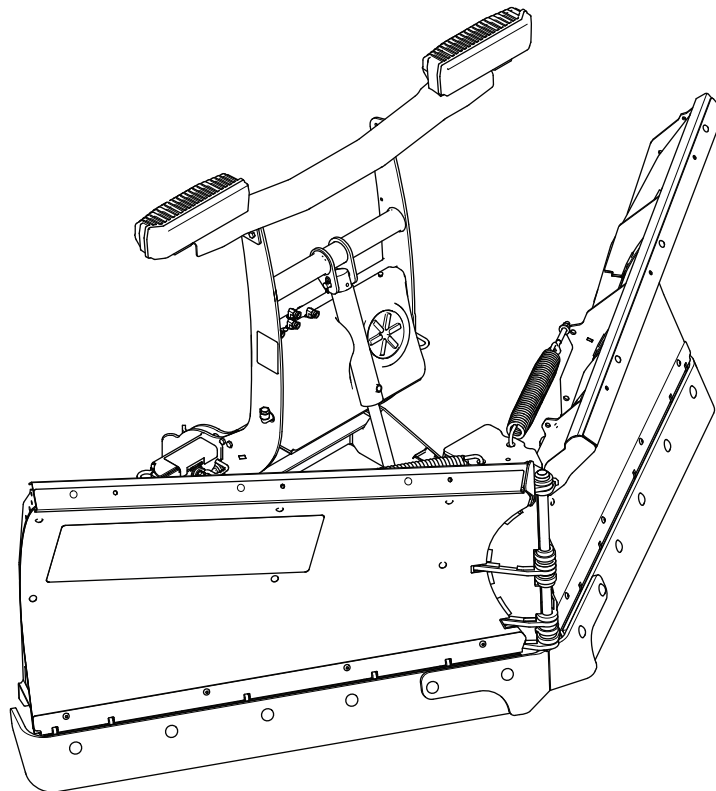
2010 The BOSS Way  
Iron Mountain, MI 49801  
United States

# Installation Instructions

## Plow Box

### V TEV Cold Front Plow

Part No. MSC23400—Serial No. 40000000 and Up



BOSS Products limited consumer warranty and BOSS Products commercial warranty policies are located at [www.BOSSPlow.com](http://www.BOSSPlow.com).

Patent [www.ttcopats.com](http://www.ttcopats.com).

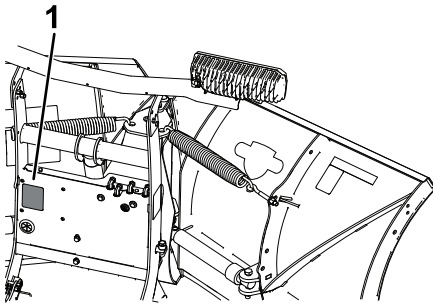
# Introduction

**Note:** This manual is used for the assembly of all BOSS TEV V-blade plows. Illustrations may vary.

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

Whenever you need service, genuine BOSS parts, or additional information, contact an Authorized BOSS Dealer or BOSS Technical Service (1-800-286-4155) 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.



**Figure 1**

g534407

1. Model and serial number location

Date Purchased	_____
Model No.	_____
Serial No.	_____
Blade Crate Serial No.	_____

## Safety-Alert Symbol

The safety-alert symbol (**Figure 2**) shown in this manual and on the machine identifies important safety messages that you must follow to prevent accidents.



g000502

**Figure 2**

Safety-alert symbol

The safety-alert symbol appears above information that alerts you to unsafe actions or situations and is followed by the word **DANGER**, **WARNING**, or **CAUTION**.

**DANGER** indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.

**WARNING** indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.

**CAUTION** indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.

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.

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# Safety

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety-alert symbol **▲**, which means **Caution, Warning, or Danger**—personal safety instruction. Failure to comply with the instruction may result in personal injury or death.

## Preparation

- Read the *Owner's Manual* before operating or servicing the plow.
- Always follow the vehicle manufacturer's recommendations relating to snowplow installation. For recommended vehicle models, refer to the BOSS product selector tool at [www.BOSSPlow.com](http://www.BOSSPlow.com).
- Ensure that only trained personnel install and perform maintenance on the equipment and hydraulic components.
- Never disable, remove, or relocate any sensors or other components related to the operation of the air bags in your vehicle.
- Keep your hands, feet, and clothing away from moving parts and mounting points.
- Ensure the plow is properly attached to the vehicle before moving it.
- Ensure that the base angle lock-out bolts are removed before using the plow.
- To comply with federal regulations and to assure a safe vehicle, do not exceed the front gross-axle-weight rating (FGAWR), rear gross-axle-weight rating (RGAWR), and the gross-vehicle-weight rating (GVWR) at any time.
- Always wear appropriate personal protective equipment when operating and servicing the machine. Wear substantial, slip-resistant footwear, and cold-weather clothing.
- Use a 500 kg (1/2 ton) minimum lifting device to move heavy plow components.
- Material safety data sheets (MSDS) are available at [www.BOSSPlow.com](http://www.BOSSPlow.com).

## Operation

- Vehicles equipped with air bags are designed so that the air bags activate in a frontal collision equivalent to hitting a solid barrier (such as a wall) at approximately 22 km/h (14 mph) or more, or a frontal perpendicular collision with a parked car or truck of similar size at approximately 45 km/h

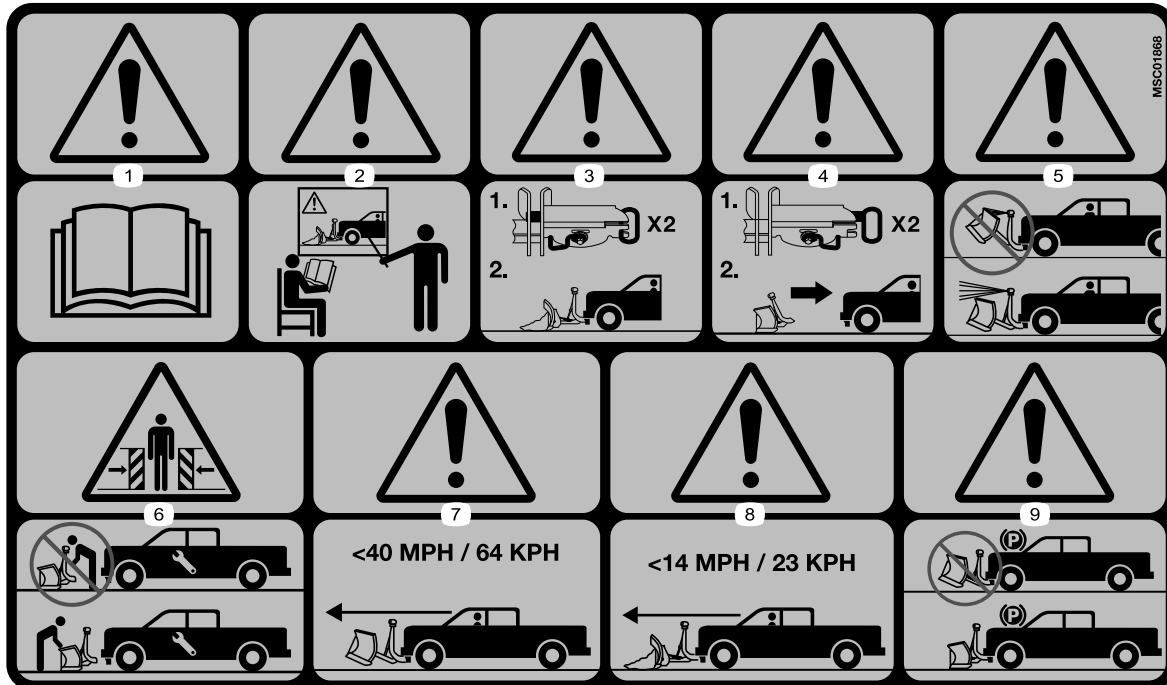
(28 mph) or more. Careless or high-speed driving while plowing snow can deploy the air bag.

- When transporting the vehicle, position the plow so as not to block your vision or the plow headlights.
- Do not change the blade position when traveling.
- Do not exceed 64 km/h (40 mph) when transporting the plow.
- Do not exceed 22 km/h (14 mph) when plowing.
- Do not exceed 8 km/h (5 mph) when D-Force is activated (if equipped).
- Always lower the blade when the vehicle is not in use.
- Never put any part of your body between the plow and the vehicle.
- Do not operate the machine while ill, tired, or under the influence of alcohol or drugs.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Always wear your seat belt while operating a motor vehicle.
- Due to the variety of equipment that you can install on the vehicle, do not exceed the front gross-axle-weight rating (FGAWR), rear gross-axle-weight rating (RGAWR), and the gross-vehicle-weight rating (GVWR) at any time. This may require weighing the vehicle and adding ballast as necessary. It may also limit the payload capacity of the vehicle.
- This machine has an operating sound level below 70 dBA.
- When transporting the machine, ensure that it is properly secured. Instructions are available at [www.BOSSPlow.com](http://www.BOSSPlow.com).

# Safety and Instructional Decals



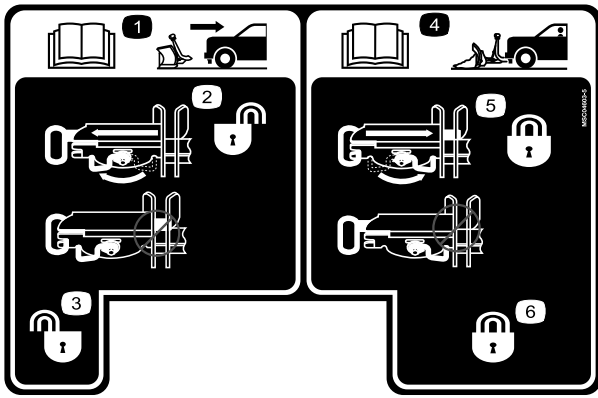
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



MSC01868

decalsc01868

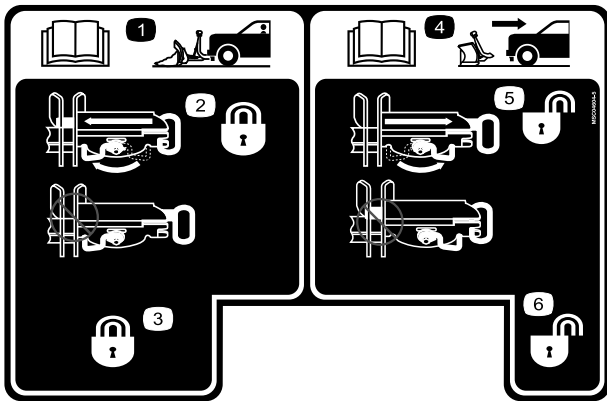
1. Warning—read the *Owner's Manual*.
2. Warning—all operators should be trained before operating the machine.
3. Warning—coupler spring pins must be locked before plowing.
4. Warning—coupler spring pins must be unlocked to remove the plow.
5. Warning—do not block the vehicle headlights with the plow.
6. Crushing hazard—do not stand between the plow and vehicle during maintenance.
7. Warning—do not exceed 64 km/h (40 mph) when transporting the plow.
8. Warning—do not exceed 22 km/h (14 mph) when plowing.
9. Warning—lower the plow when the vehicle is not in use.



decalmsc04603-5

**MSC04603-5**

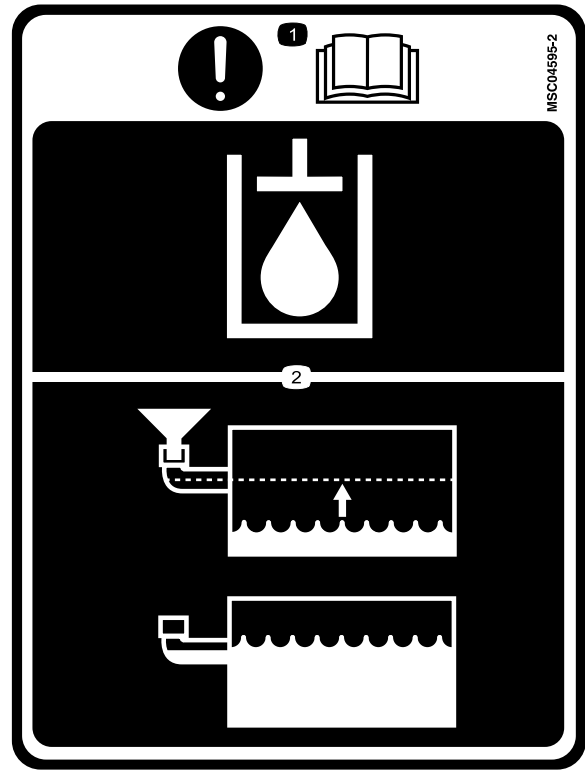
1. Read the *Owner's Manual* for information on removing the plow.
2. Rotate the release lever clockwise and pull out the spring pin handle to unlock the coupler; do not leave the spring pin pushed in.
3. Coupler spring pin unlock
4. Read the *Owner's Manual* for information on attaching the plow.
5. Rotate the release lever counterclockwise and push in the spring pin handle to lock the coupler; do not leave the spring pin pulled out.
6. Coupler spring pin lock



decalmsc04604-5

**MSC04604-5**

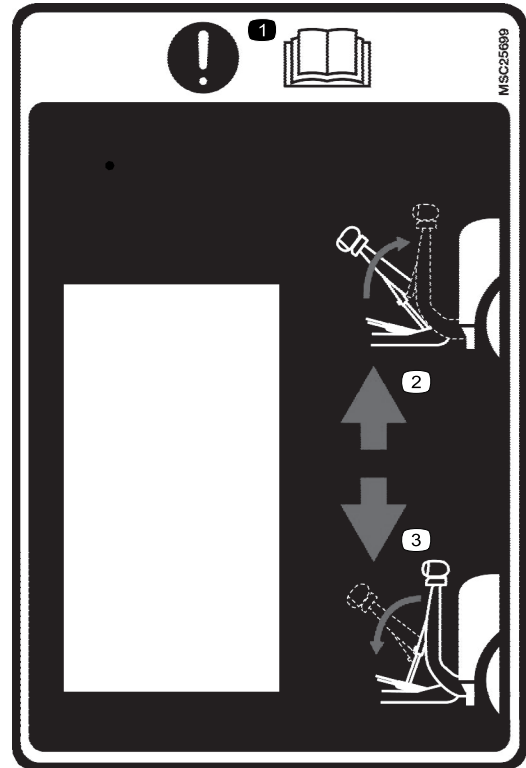
1. Read the *Owner's Manual* for information on attaching the plow.
2. Rotate the release lever clockwise and push in the spring pin handle to lock the coupler; do not leave the spring pin pulled out.
3. Coupler spring pin lock
4. Read the *Owner's Manual* for information on removing the plow.
5. Rotate the release lever counterclockwise and pull out the spring pin handle to unlock the coupler; do not leave the spring pin pushed in.
6. Coupler spring pin unlock



decalmsc04595

**MSC04595**

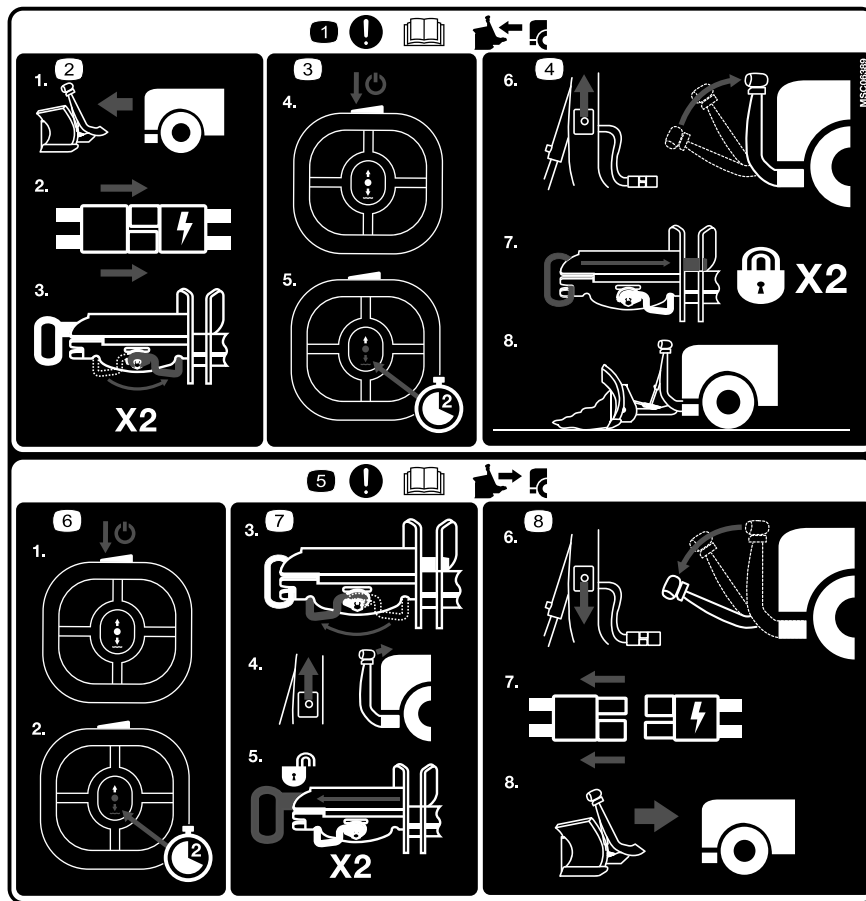
1. Important—read the *Owner's Manual*.
2. Fill the hydraulic fluid to the bottom of the fill elbow.



decalmsc25699

**MSC25699**

1. Important—read the *Owner's Manual*.
2. Raise the coupler tower.
3. Lower the coupler tower.



**MSC06389**

decalmsc06389

1. Attention—read the *Owner's Manual* before attaching the plow.
2. Slowly align the vehicle with the plow, connect the electrical plugs, and turn the coupler levers to the LOCK position.
3. Turn on the SmartTouch+ controller, and press down for 2 seconds to activate FLOAT mode.
4. Push the SmartHitch2 switch on the side of the coupler tower upward to raise the tower, ensure that both of the coupler spring pins are engaged, and the plow is ready for operation.
5. Attention—read the *Owner's Manual* before removing the plow.
6. Turn on the SmartTouch+ controller, and press down for 2 seconds to activate FLOAT mode.
7. Turn the levers on the coupler to the UNLOCK position, push the SmartHitch2 switch on the side of the coupler tower upward to raise the tower, and ensure that both of the coupler spring pins are disengaged.
8. Push the SmartHitch2 switch on the side of the coupler tower downward to disconnect the plow, disconnect the electrical plugs, and slowly back away from the plow.

# Installation

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

## Installing the Blade and Push Frame

If desired, install optional plow shoes before starting this installation.

1. Lay the left and right blades face down and bring them together so that the hinges interlock and the cutting edges are even (Figure 3).

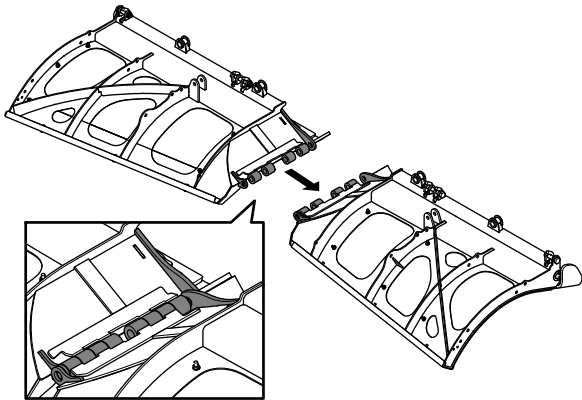


Figure 3

g271613

2. Insert the blade center between the blade hinges and secure all 3 pieces together with the center hinge pin, split lock washer (1/2 inch), and hex-head lock bolt (1/2 inch) with nylon lock patch (Figure 4).

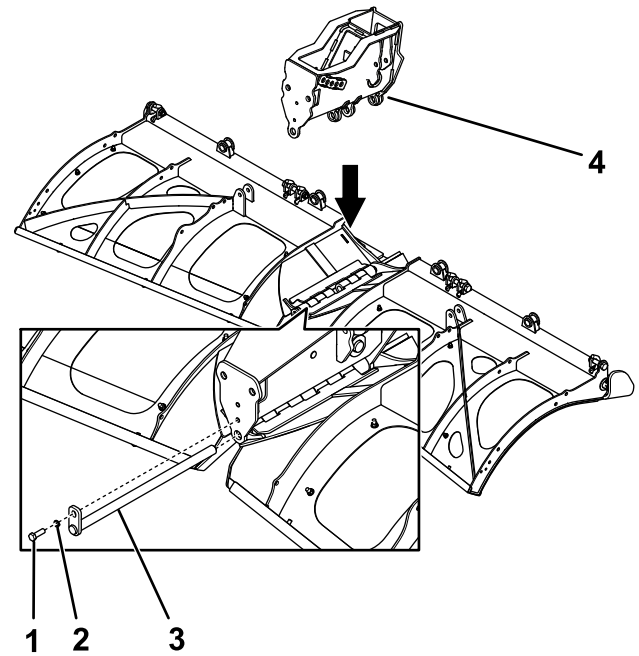


Figure 4

g535725

1. Hex head lock bolt (1/2 inch)
2. Split lock washer (1/2 inch)
3. Center hinge pin
4. Blade center

3. Torque the hex-head lock bolt to 76 N·m (56 ft-lb).
4. Remove the 6 base angle lock-out bolts and 6 nuts from the bottom of the left and right blades.

### **CAUTION**

Leaving the base angle lock-out bolts installed could injure you or damage the vehicle.

Remove the base angle lock-out bolts before operating the machine.

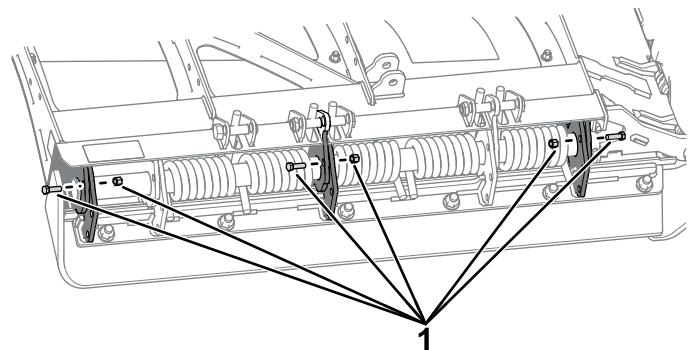


Figure 5

g534347

1. Remove
5. Stand the blade upright and position it into a scoop shape.



- Remove the horizontal hinge pin, flat washer, and top locknut from the blade center (Figure 6).

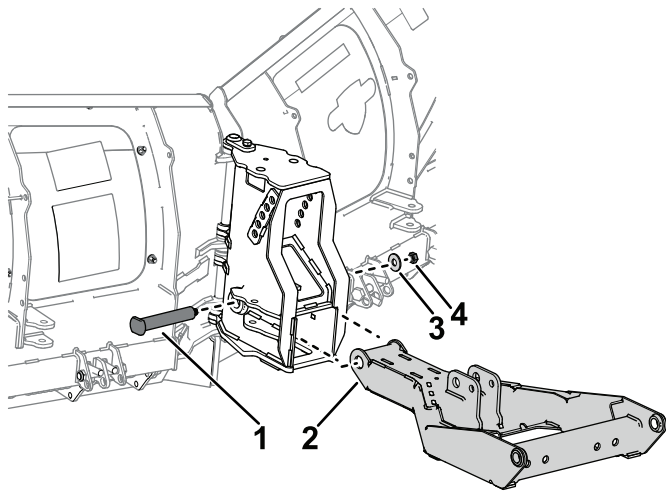


Figure 6

g534348

- |                         |                |
|-------------------------|----------------|
| 1. Horizontal hinge pin | 3. Flat washer |
| 2. Pushframe            | 4. Top locknut |

- Slide the pushframe into the blade center (Figure 6).
- Apply threadlocking compound to the previously removed horizontal hinge pin, flat washer, and top locknut, and secure the pushframe to the blade center with them (Figure 6).

**Note:** If the plow will be heavily used, weld the top locknut to the hinge pin.

- Torque the horizontal hinge pin to 153 N·m (113 ft-lb).

## Installing the Hydraulic Cylinders

- Secure the rod end of the lift cylinder to the push-frame assembly using a clevis pin (5/8 inch) and hairpin cotter.

**Note:** Ensure that the hose port on the bottom of the lift cylinder is facing up.

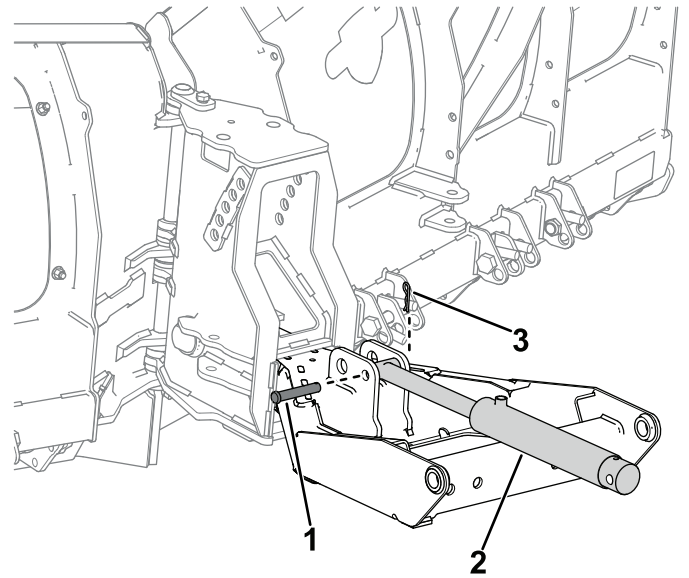


Figure 7

g534359

- |                          |                   |
|--------------------------|-------------------|
| 1. Clevis pin (5/8 inch) | 3. Hairpin cotter |
| 2. Lift cylinder         |                   |

- Secure the lower end of the link to the pushframe using the clevis pin (1 inch), washer, and locking pin.

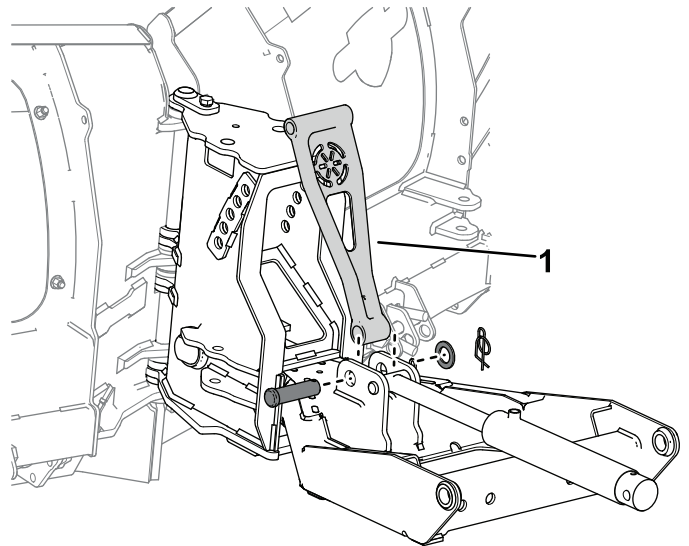
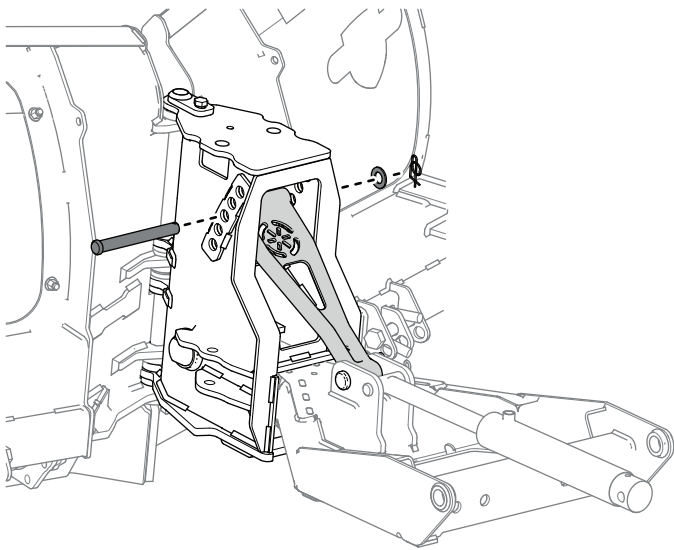


Figure 8

g534364

- |         |
|---------|
| 1. Link |
|---------|

- Secure the upper end of the link into the center section using the clevis pin (3/4 inch), washer, and locking pin.

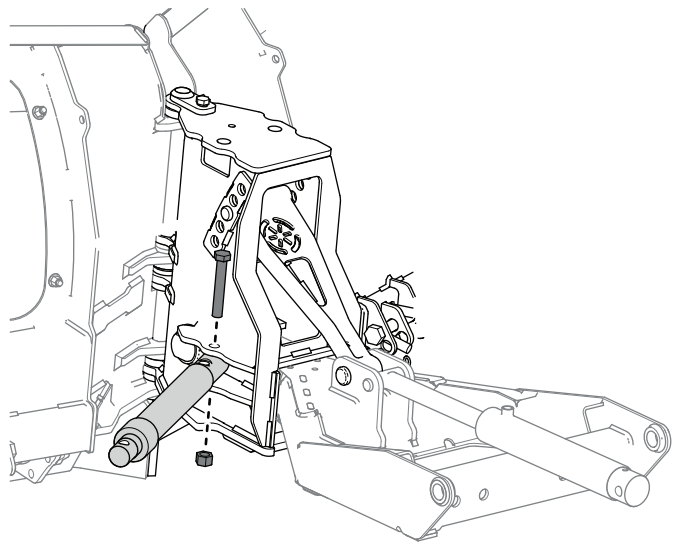


**Figure 9**

g534379

4. Secure the 2 angle cylinders to the blade center using a bolt (5/8 inch) and top locknut.

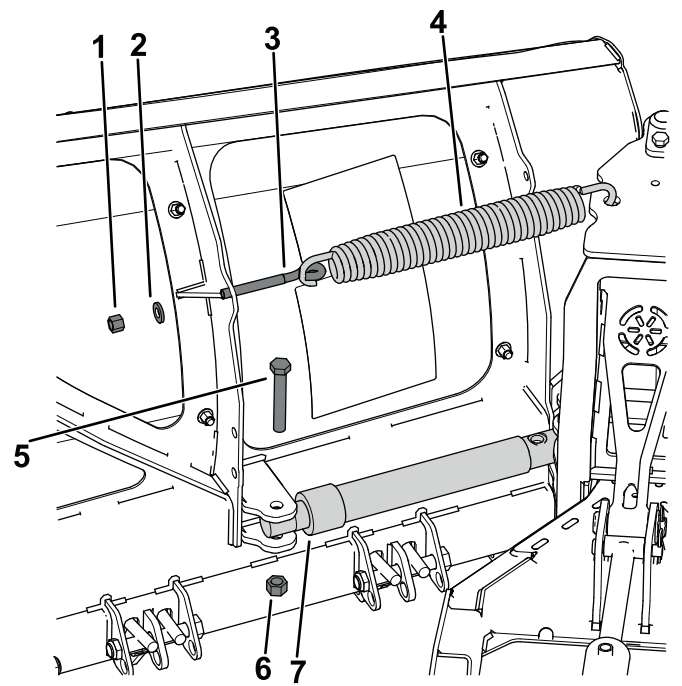
**Note:** Ensure that the hose port on the angle cylinders is facing up.



**Figure 10**

g534390

5. Position the plow blades into a “V” shape.
6. Hook the 2 return springs through the holes on the top of the blade center (Figure 11).



**Figure 11**

g534404

- |                                |                           |
|--------------------------------|---------------------------|
| 1. Self-locking nut (1/2 inch) | 5. Bolt (5/8 inch)        |
| 2. Washer (1/2 inch)           | 6. Top locknut (5/8 inch) |
| 3. Eyebolt                     | 7. Angle cylinder         |
| 4. Return spring               |                           |

7. Hook the other ends of the return springs to 2 eyebolts (Figure 11).
8. Insert the threaded end of the eyebolts through the holes on the plow blade and secure them using 2 washers (1/2 inch) and 2 self-locking nuts (Figure 11).
9. Tighten the self-locking nuts until there is a gap of 0.8 mm (1/32 inch) between the return spring coils.
10. Slide a push nut retainer onto each end of the return springs.
11. Secure the 2 angle cylinders to the blade wings using a bolt (5/8 inch) and top locknut (Figure 11).

## Installing the Coupler Tower

1. Align the pivot holes of the coupler tower with the pivot holes on the pushframe, and secure them with a clevis pin (1 inch), flat washer (1 inch), bolt (3/8 x 1-1/2 inches), washer (3/8 inch), and locknut (Figure 12).

# Installing the Hydraulic Hoses

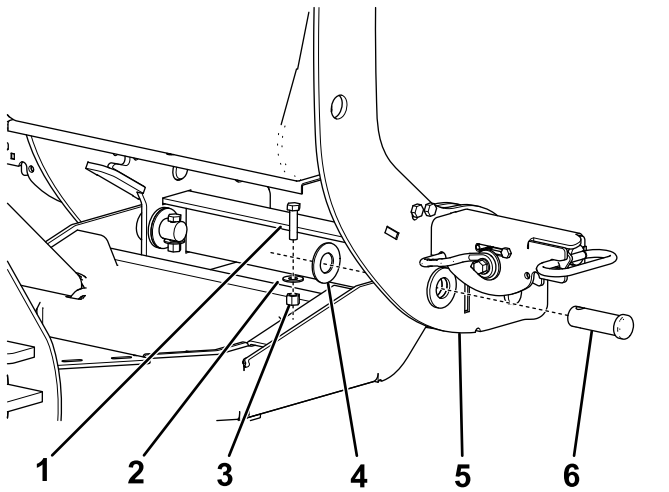


Figure 12

g534405

- |                              |                         |
|------------------------------|-------------------------|
| 1. Bolt (3/8 x 1-1/2 inches) | 4. Flat washer (1 inch) |
| 2. Washer (3/8 inch)         | 5. Coupler tower        |
| 3. Locknut (3/8 inch)        | 6. Clevis pin (1 inch)  |

- Secure the free end of the lift cylinder to the coupler tower using a clevis pin (5/8 inch) and hairpin cotter (Figure 13).

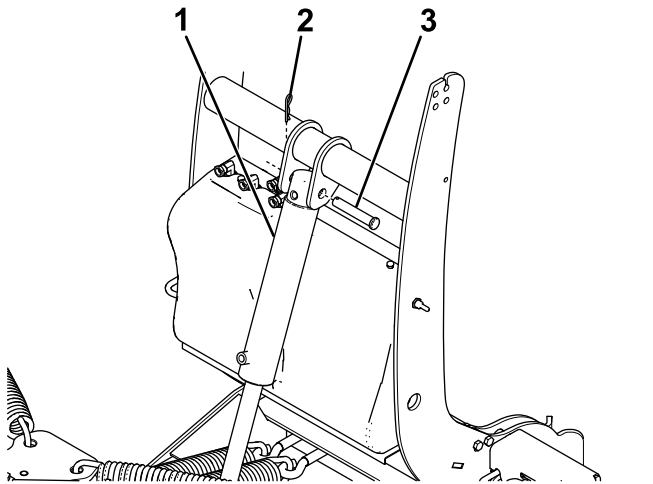


Figure 13

g271611

- |                   |                          |
|-------------------|--------------------------|
| 1. Lift cylinder  | 3. Clevis pin (5/8 inch) |
| 2. Hairpin cotter |                          |

- Remove the plug on the upper fitting on the lift cylinder (Figure 14).

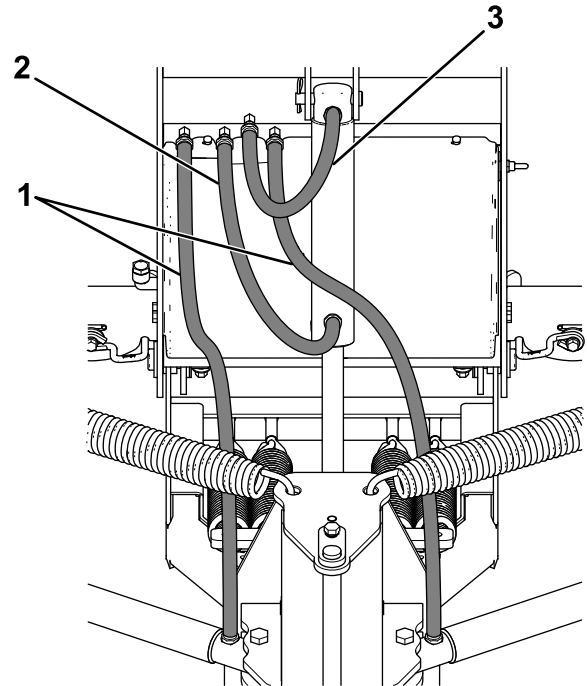


Figure 14

g271612

- |                                     |                                       |
|-------------------------------------|---------------------------------------|
| 1. 106 cm (42 inch) hydraulic hoses | 3. 39 cm (15-1/2 inch) hydraulic hose |
| 2. 45 cm (18 inch) hydraulic hose   |                                       |

- Using thread compound, install the 39 cm (15-1/2 inch) hydraulic hose to the upper fitting on the lift cylinder (Figure 14). Turn the fitting until it is finger tight, then turn it 2 to 3 more times.

**Important: Do not overtighten.**

- Connect the free end of the hydraulic hose to the rear fitting on the hydraulic shelf (Figure 14). Turn the fitting until it is finger tight, then turn it 2 to 3 more times.

**Important: Do not overtighten.**

- Install the 45 cm (18 inch) hydraulic hose to the middle fitting on the hydraulic shelf and the lower fitting on the lift cylinder (Figure 14). Turn the fitting until it is finger tight, then turn it 2 to 3 more times.

**Important: Do not overtighten.**

- Apply thread-locking compound to the threads on the O-ring end of the 106 cm (42 inch) hydraulic hoses.

**Important:** Do not get thread-locking compound on the end of the hose as it will contaminate the hydraulic system.

6. Install the O-ring end of the 106 cm (42 inch) hydraulic hose to the port on the right angle cylinder and the other end to the right fitting on the hydraulic shelf (Figure 14). Turn the fitting until it is finger tight, then turn it 2 to 3 more times.

**Important:** Do not overtighten.

7. Repeat step 6 on the left side.

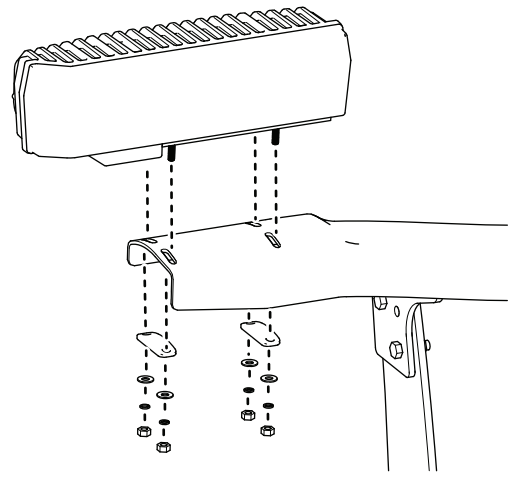


Figure 16

g511768

## Installing the Light Bar

1. Secure the light bar to the top of the coupler tower through the rear holes using 4 bolts (3/8 x 1-1/4 inches) and self-locking nuts (3/8 inch). Torque the bolts to 31 N·m (23 ft-lb).

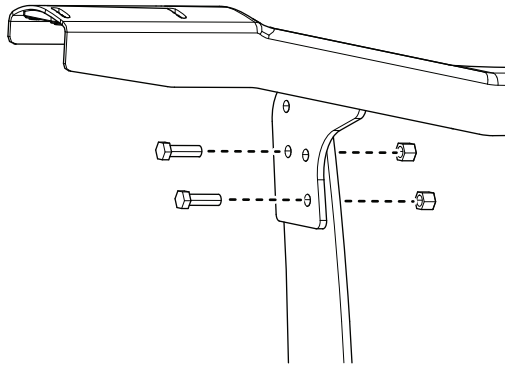


Figure 15

g511964

2. Install the headlights using the mount clamps, flat washers, split washers, and nuts as shown below. Tighten the nuts finger tight.

**Important:** Do not use thread locking compound on these bolts.

**Note:** Do not tighten the fasteners at this time.

3. Insert the headlight connectors on the wire harness to the back of the headlight housing. The short length connects to the left headlight and the long length connects to the right headlight.

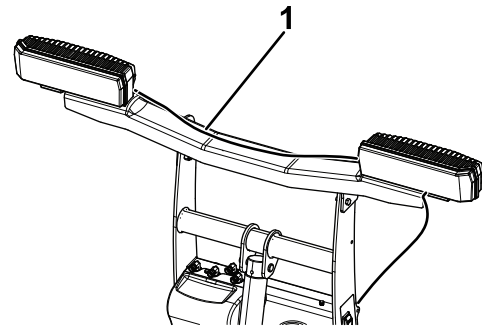


Figure 17

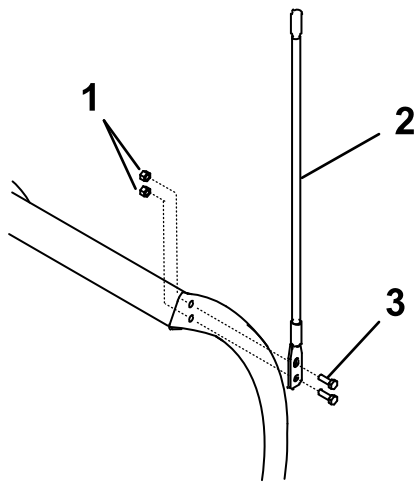
g511975

1. Short wire harness

4. Secure the wire harness to the light bar using 3 cable ties.

## Installing the Blade Guides and Filling the Hydraulic Reservoir

1. Attach the blade guides to the plow blade using 4 bolts (5/16 x 1 inch) and 4 self-locking nuts (Figure 18).



**Figure 18**

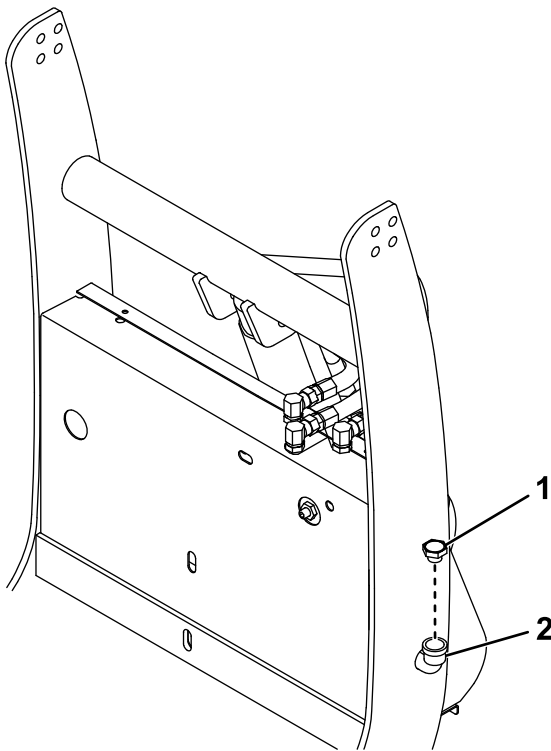
g212717

1. Self-locking nut (5/16 inch)
2. Blade guide
3. Bolt (5/16 x 1 inch)

2. Ensure that the lift cylinder is completely collapsed.

**Note:** The lights should tilt forward.

3. Remove the fill cap from the hydraulic reservoir (Figure 19).



**Figure 19**

g212210

1. Fill cap
2. Hydraulic reservoir

4. Slowly fill the reservoir with BOSS high-performance hydraulic fluid until it is even with the fill elbow.

**Note:** The reservoir holds approximately 1.9 L (2 US qt) of hydraulic fluid.

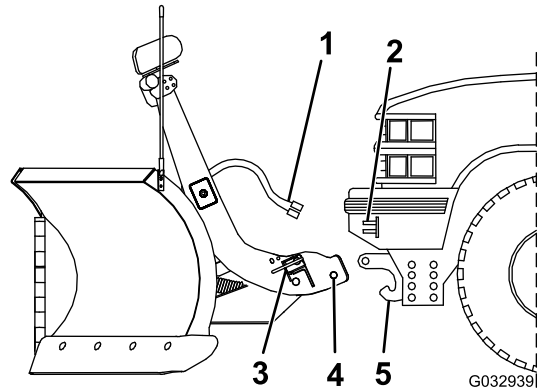
5. Install the previously removed fill cap.

## Mounting the Snowplow

**Note:** The vehicle must be running before starting this procedure.

1. Line up the vehicle with the snowplow and slowly drive forward until the lower pin contacts the push-beam pin receiver (Figure 20).

**Note:** Ensure that the pushbeam is at the correct height for your plow. Refer to [Specifications \(page 18\)](#) for the recommended pushbeam height. Refer to [Adjusting the Pushbeam Height \(page 14\)](#) if the pushbeam is not at the correct height.



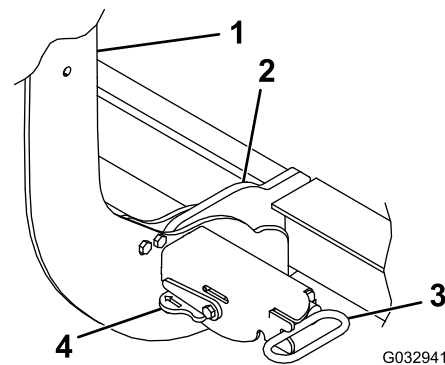
**Figure 20**

G032939

g032939

1. Plow wire harness
2. Vehicle wire harness
3. Coupler
4. Lower pin
5. Pin receiver

2. Turn the levers on the couplers to the ON position (Figure 21).



**Figure 21**

G032941

g032941

1. Coupler tower
2. Pin receiver
3. Coupler spring pin
4. Coupler lever

- Remove the electrical-plug dust-covers and connect the plow wire harness to the vehicle wire harness (Figure 20).
- Activate the FLOAT feature on your plow controller.
- Push the SmartHitch2 switch on the side of the coupler tower upward and raise the tower until the coupler spring pins snap in (Figure 22).

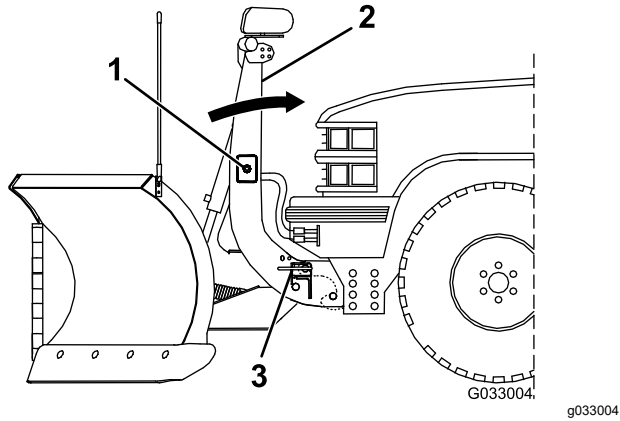


Figure 22

- SmartHitch2 switch
- Coupler tower
- Coupler spring pin

- Ensure that both coupler spring pins have fully engaged the coupler (Figure 21).

**Note:** Move the coupler tower until the spring pins engage completely.

- Switch the truck headlight switch to the PARK position.

## Adjusting the Pushbeam Height

### Optional

- Measure the distance from the ground to the coupler spring-pin holes on the undercarriage pushbeam (Figure 23). The measurement should match the height listed for your plow in Specifications (page 18).
- If the pushbeam is not at the correct height, remove the fasteners securing the pushbeam to the undercarriage (Figure 23).
- Move the pushbeam up or down and secure it with the previously removed hardware.
- Torque the fasteners to 76 N·m (56 ft-lb).

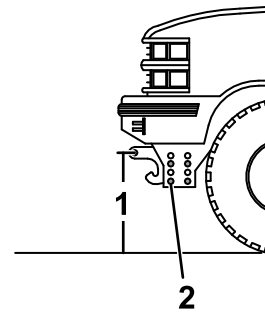


Figure 23

- Measure this distance.
- Fastener

## Leveling the Plow Blades

- Position the blades to the scoop position.
- Support the rear of the coupler with a jack or hoist.
- Remove the clevis pin (3/4 inch) from the center section and move the link, as needed, to raise or lower the rear of the coupler.

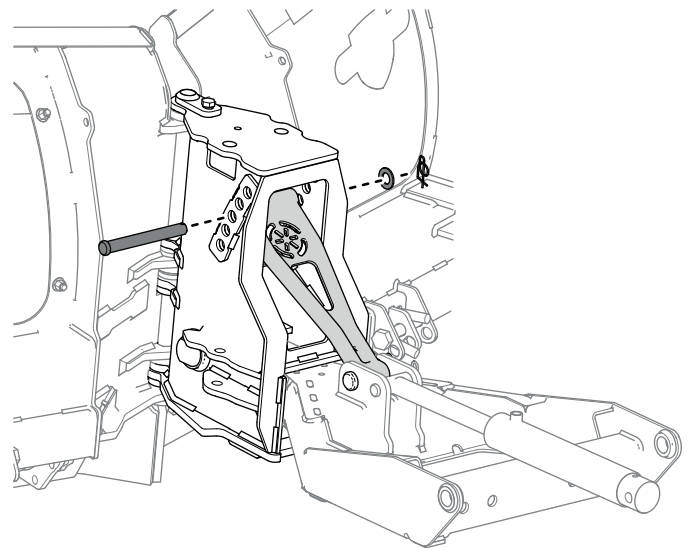


Figure 24

- Install the clevis pin (3/4 inch), washer, and locking pin.

## Aiming the Headlights

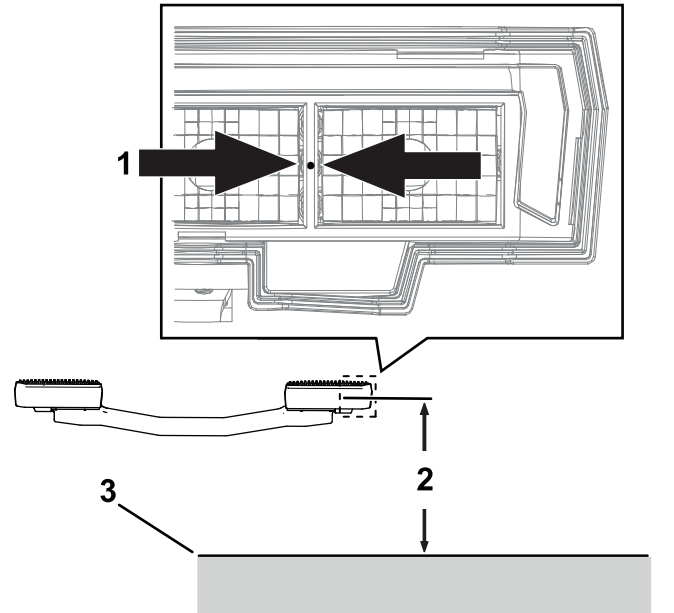
**Important:** Certify that the installation of the snowplow lights conforms to applicable federal motor vehicle safety standards.

- Park the vehicle on a level surface 7.5 m (25 ft) away from a matte white screen or garage door.

**Note:** The screen should be perpendicular to both the ground and the front of the vehicle.

2. Ensure that the vehicle is equipped for normal operation with the snowplow attached and in the raised position.
3. Perform the following actions to ensure optimal headlight alignment:
  - Remove any ice or mud from under the fenders.
  - Ensure that all tires are fully and evenly inflated.
  - Check vehicle springs for sag or broken leaves.
  - Check the function of any level ride controls.
  - Stabilize the suspension by rocking the vehicle sideways.
  - Ensure that there is no load in the vehicle other than the driver.
  - Clean the headlights and matte white screen.

4. Measure the distance between the ground and the center of the headlight. The center is indicated by a dot on the interior black housing.

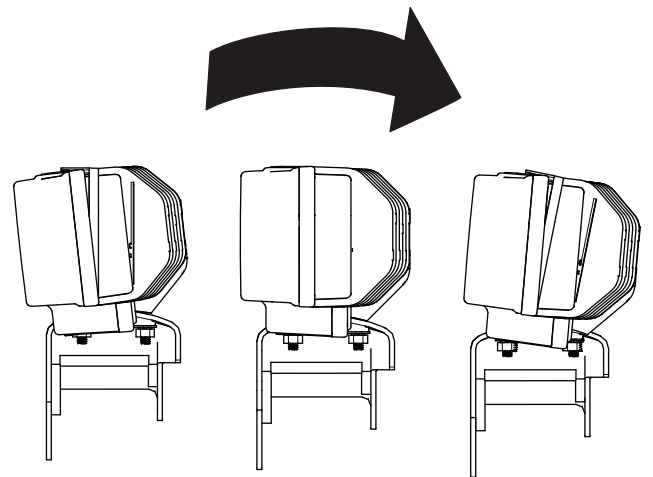


**Figure 25**

g511770

- |                        |           |
|------------------------|-----------|
| 1. Center dot location | 3. Ground |
| 2. Measurement         |           |

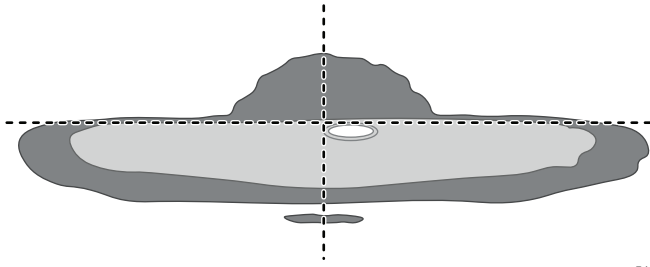
5. Using the measurement from the previous step, mark a horizontal line starting from the ground on the screen.
6. With one headlight covered and only the low beam on, adjust the position of the light on the screen by pivoting the headlight front to back.



**Figure 26**

g511822

- The headlight is in the correct position when the transition from the brightest portion of the light to the upper dark region is centered on the horizontal line as shown.



**Figure 27**

g511833

- 
- Torque the headlight to 8.1 N·m (6 ft-lb)
  - Repeat steps 6 through 8 on the other headlight.
  - The final illumination pattern on the screen should be a continuous horizontal line with no significant difference between the left and right light patterns.



# Product Overview

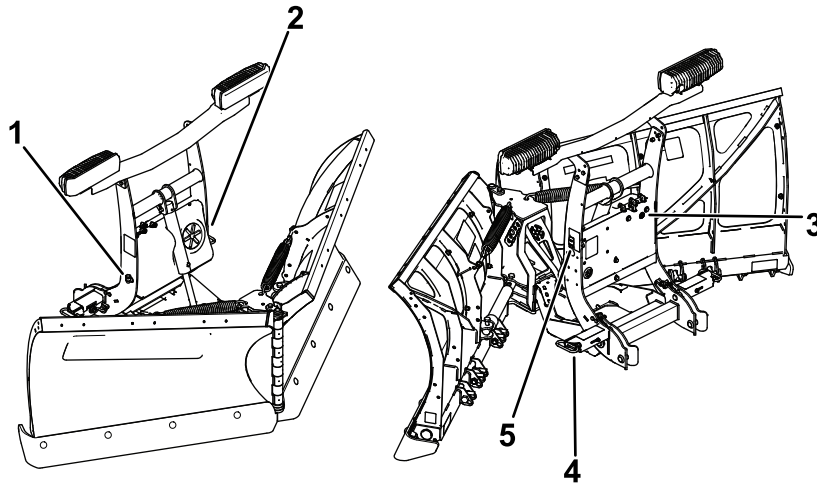


Figure 28

g534408

1. Hydraulic reservoir fill elbow
2. Coupler-tower cover
3. Hydraulic flow-control valve
4. Spring pin
5. SmartHitch2 switch

## Controls

Become familiar with all the controls before you operate the plow.

### SmartHitch2 Switch

The SmartHitch+ switch controls the movement of the coupler tower to facilitate plow attachment and removal. With the controller in the Float mode, press the switch up to raise the tower and down to lower the tower.

### Truck Headlight Switch

The SmartLight 4 (SL4) plow headlights will remain on whenever the vehicles key switch is on. Federal law requires the vehicle headlights are disabled (off) when auxiliary plow lights are enabled (on). Ensure the vehicles headlight switch is set to PARK mode whenever plow lights are enabled.

## Spring Pins

The spring pins secure the plow to the vehicle pushbeam. Turn the levers toward the coupler tower to lock the spring pins. Turn the levers away from the coupler tower to unlock the spring pins.

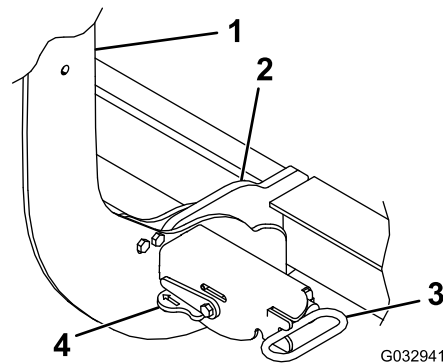


Figure 29

G032941

g032941

1. Coupler tower
2. Pin receiver
3. Spring pin
4. Lever

# SmartTouch+ Controller

The SmartTouch+ controller operates the movement of the snowplow.

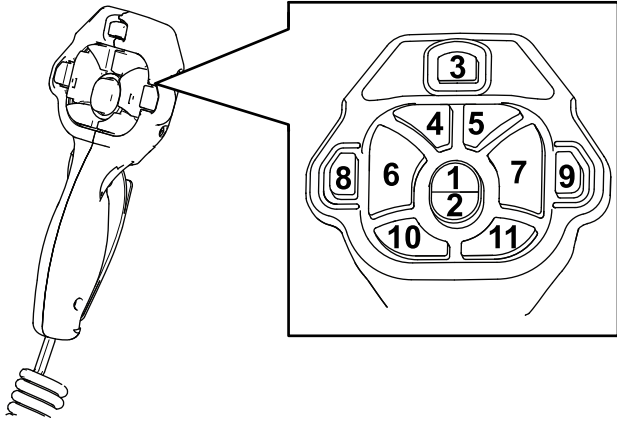


Figure 30

g506652

- 1. Raise button
- 2. Lower button
- 3. On/Off switch
- 4. Left Wing Out button
- 5. Right Wing Out button
- 6. Left angle button
- 7. Right angle button
- 8. AUX 1 button
- 9. AUX 2 button
- 10. Left Wing In button
- 11. Right Wing In button

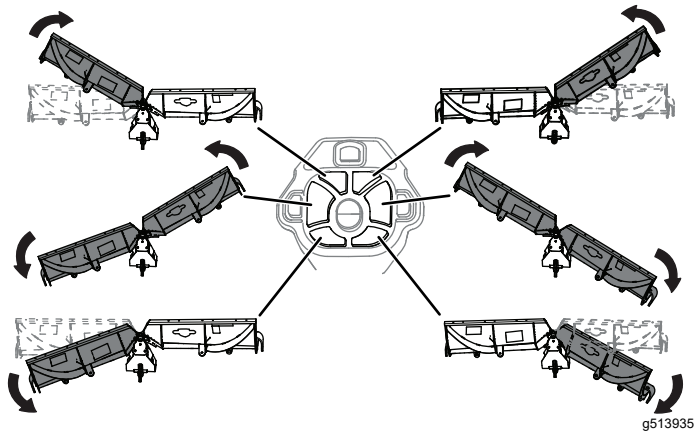


Figure 31

V-blade plow articulations

g513935

- On/Off switch—turns the plow controller on and off. The controller illuminates solid green when the controller is on.  
**Note:** Turn off the controller when not in use to prevent accidental activation of the plow.
- Raise button—raises the plow blade. Quickly pressing the raise button twice automatically

raises the blade when express raise mode is enabled. To enable or disable express raise, refer to the product *Owner's Manual*.

- Lower button—lowers the plow blade and activates the FLOAT and D-FORCE features.
  - FLOAT—double tapping the button or holding it for 2 seconds automatically lowers the blade and activates the FLOAT feature, allowing the plow blade to follow the contour of the ground. A red light illuminates when the FLOAT feature is active.
  - D-FORCE (optional)—if your plow is equipped with the D-FORCE feature, double tapping the button a second time activates it, applying a downward force on the blade to improve back blading. An orange light illuminates when the D-FORCE feature is active.

**Important:** Use the D-Force feature only while back dragging to prevent damage to the plow or vehicle.

- Left Wing Out button—moves the left wing out
- Right Wing Out button—moves the right wing out.
- Left Wing In button—moves the left wing in
- Right Wing In button—moves the right wing in
- Left angle button—moves the left wing in and the right wing out
- Right angle button—moves the right wing in and the left wing out
- AUX 1 and AUX 2 buttons—can be programmed to perform various functions; refer to the product *Owner's Manual*.
- Sleep mode—If you do not use the controller for 20 minutes, it enters sleep mode and the controller lights flash green and red. Turn the controller off and on again to deactivate the sleep mode.

To perform different tasks, you can configure the plow wings as follows:

- To make the scoop shape with the plow, press the Left Wing Out and Right Wing Out buttons simultaneously until the blades are fully extended.
- To make the “V” shape with the plow, press the Left Wing In and Right Wing In buttons simultaneously until the blades are fully retracted.

## Specifications

**Note:** Specifications and design are subject to change without notice.

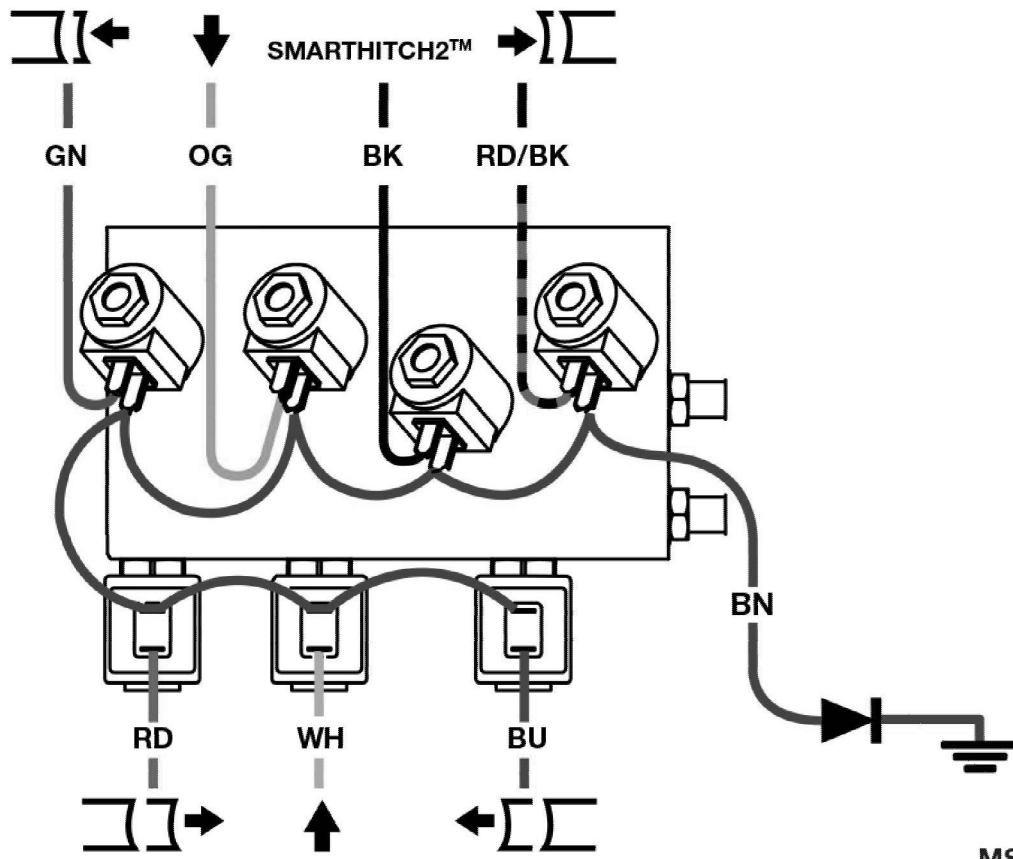
Blade width	Material	Blade height	Recommended push beam height	Weight
2.49 m (98 inches)	Stainless Steel	95 cm (37-1/2 inches)	39.3 cm (15-1/2 inches)	449 kg (987 lb)

# Troubleshooting

Problem	Possible Cause	Corrective Action
Fluid leaks from the lift cylinders.	<ol style="list-style-type: none"> <li>1. The fittings are loose or the O-rings are damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten loose fittings.</li> </ol>
The SmartHitch2 does not attach to the plow.	<ol style="list-style-type: none"> <li>1. The controller is not in the FLOAT position.</li> <li>2. The controller is malfunctioning.</li> <li>3. The valve block and SmartHitch2 switch are not properly connected.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn the vehicle on and put the controller in the FLOAT position.</li> <li>2. Replace the controller.</li> <li>3. Check valve block and the SmartHitch2 switch for proper connections; refer to the manifold wiring diagram included with your <i>Owner's Manual</i>.</li> </ol>
The blade digs into the ground in the V position.	<ol style="list-style-type: none"> <li>1. The bumper stop is not in the correct position.</li> <li>2. The pushbeam is installed too high.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust the bumper-stop position.</li> <li>2. Lower the pushbeam.</li> </ol>
The blade does not lay flat on the ground in the scoop position.	<ol style="list-style-type: none"> <li>1. The bumper stop is not in the correct position.</li> <li>2. The pushbeam is installed too low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust the bumper-stop position.</li> <li>2. Raise the pushbeam. If the pushbeam is at the highest setting, adjust the bumper stop further into the center section.</li> </ol>

# Schematics

## BOSS SNOWPLOW | RT3 V-BLADE WITH SMARTHITCH2™

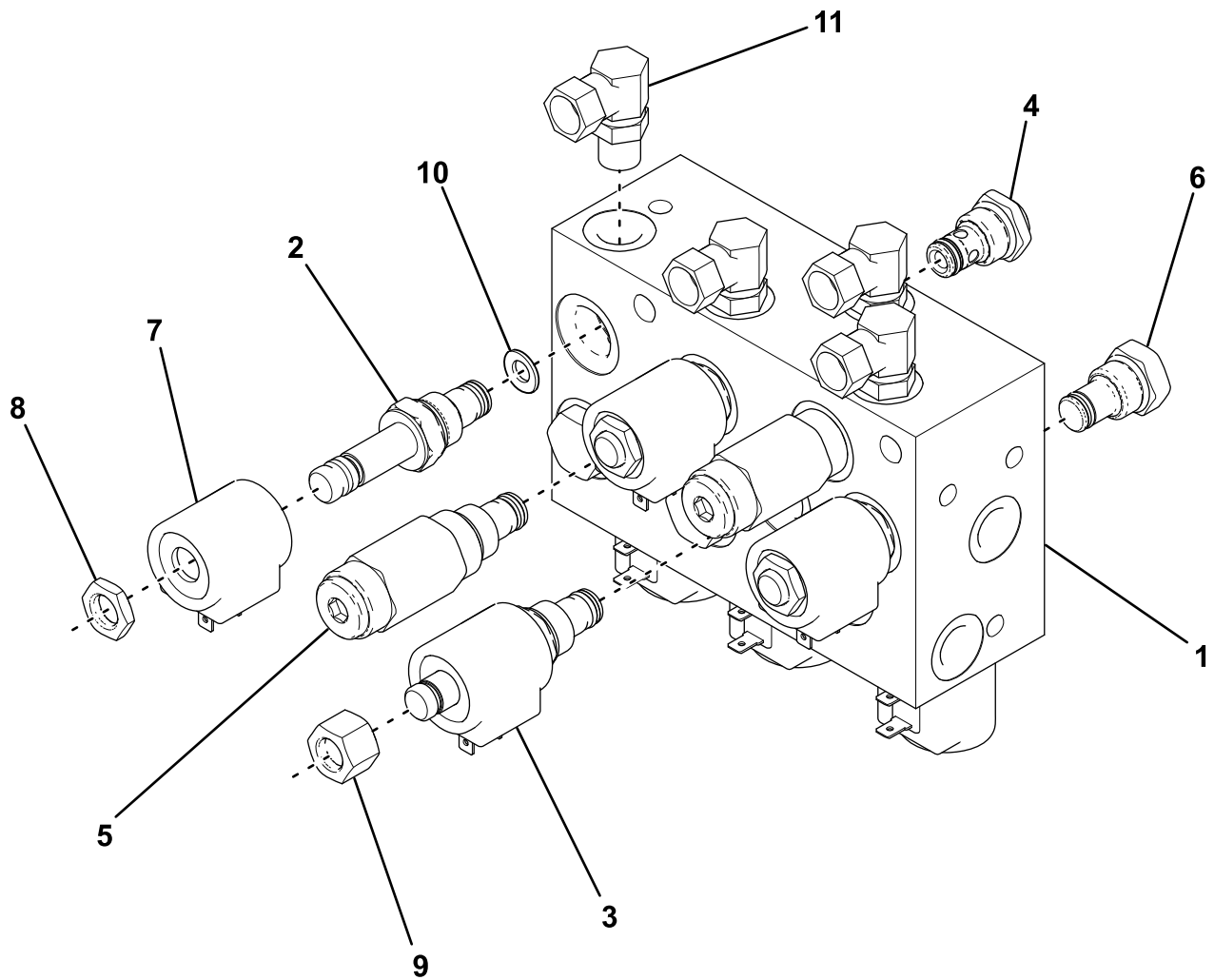


MSC25672

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Wire Color	Function
Green	Right Wing In
Red	Right Wing Out
White	Raise
Orange	Lower
Red/Black	Left Wing In
Blue	Left Wing Out
Black	Smarthitch2
White/Black	Pump Solenoid
Brown	Ground

Non-D-Force Plow Hydraulic Manifold Wiring (Rev. 0)



g286022

Ref.	Part Number	Qty.	Description
1	HYD07123	1	VALVE ASM, RT3, V-BL, W/ SH2, 16
	HYD07124		WALVE ASM, RT3, V-BL, W/SH2 10', 16
2	HYD01637	6	VALVE, LIFT/ANGLE
3	HYD07047	1	VALVE, SMARTHITCH2 TM ATTACH
4	HYD07048	1	VALVE, FLOW CONTROL
5	HYD01639	2	VALVE, RELIEF V-BLADE (2800 PSI)
6	HYD01640	4	VALVE, CHECK
7	HYD01638	7	VALVE, COIL
8	HYD07059	6	COIL NUT
9	HYD07060	1	COIL NUT (SMART HITCH2 TM VALVE)
10	HYD07108	2	ORIFICE DISC, 0.08" ID (for HYD07123 only)
11	HYD01620	4	HYDRAULIC 90 DEG SWIVEL FITTING

**Non-D-Force Plow Hydraulic Manifold Parts List (Rev. 0)**

**Notes:**

**Notes:**

**BOSS**  
S N O W P L O W