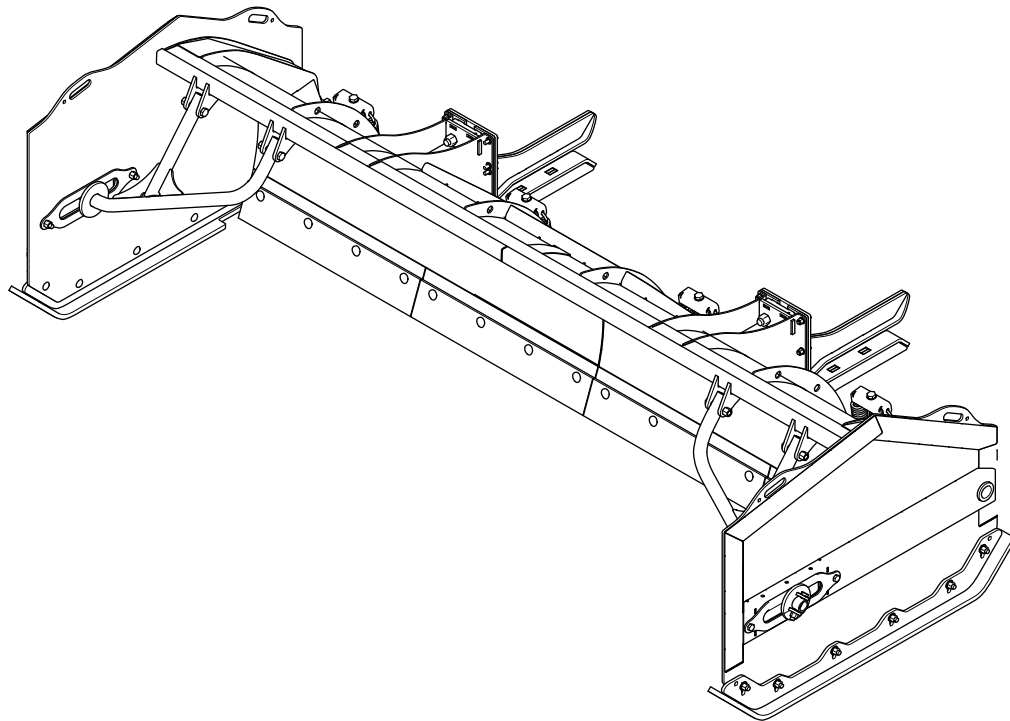




P.O. Box 787
Iron Mountain, MI 49801
United States

Owner's Manual

Box Plow for Backhoes



This product complies with all relevant European directives; for details, please see the separate product specific Declaration of Conformity (DOC) sheet.

BOSS Products limited consumer warranty and BOSS Products commercial warranty policies are located at www.bossplov.com.

Patents Pending.

Introduction

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

Visit www.bossplov.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.

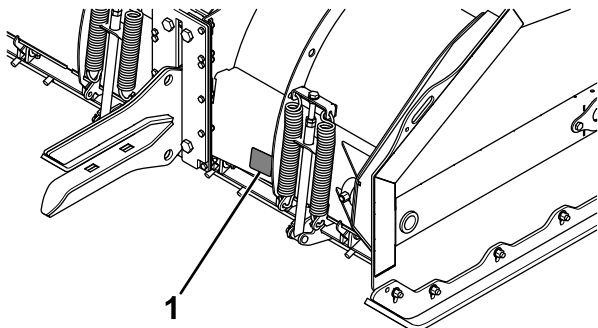


Figure 1

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1. Serial number location

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

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

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



Figure 2

g000502


1. Safety-alert symbol

This manual uses 2 words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

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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 system installation.
- Ensure that only trained personnel installs and performs maintenance on the equipment and hydraulic components.
- Always wear appropriate personal protective equipment when loading, unloading, and servicing the plow including hand and skin protection. Wear substantial, slip-resistant footwear, cold-weather clothing, hard hat, safety glasses, and respiratory protection.

Operation

- Use a 907 kg (1 ton) minimum lifting device to move heavy plow components.
- Never put any part of your body between the plow and the vehicle.
- When transporting the plow, ensure that it is properly secured. Instructions are available at www.bosspow.com.
- When transporting the vehicle, position the plow so as not to block your vision or headlights.
- Do not change the blade position when traveling.
- Do not exceed 16 km/h (10 mph) while plowing.
- Always lower the blade when the vehicle is not in use.
- Safety data sheets (SDS) are available at www.bosspow.com.
- Do not operate the machine while ill, tired, or under the influence of alcohol or drugs.
- Always follow the vehicle manufacturer's recommendations for proper parking procedures.
- Always wear your seatbelt and/or lap bar while operating the vehicle.
- Overloading the plow could result in an accident or damage. Never exceed the rated operating capacity for the vehicle.

- Do not exceed the gross-vehicle-weight rating (GVWR) of 13,600 kg (30,000 lb) at any time.
- Turn the vehicle and plow off before filling, servicing, or cleaning it.
- Do not operate the plow within 7.6 m (25 ft) of bystanders.
- Do not climb into or ride on the plow.
- Keep your hands, feet, and clothing away from moving parts and mounting points.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.

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.



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1. Warning—read the *Owner's Manual*.
2. Warning—all operators should be trained before operating the machine.
3. Warning—wear your seatbelt.
4. Crushing hazard—do not stand between the plow and vehicle during maintenance.
5. Falling hazard, plow blade—do not secure the plow to the top of the bucket; secure the plow horizontally to the bucket.
6. Warning—do not block your vision with the plow.
7. Warning—do not exceed 16 km/h (10 mph) while plowing.
8. Warning—lower the plow when the vehicle is not in use.

Setup

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

Important: Retain the crate hardware to use in the installation.

Removing the Fork Pocket Bracket

Remove the fork pocket bracket prior to assembling the blade.

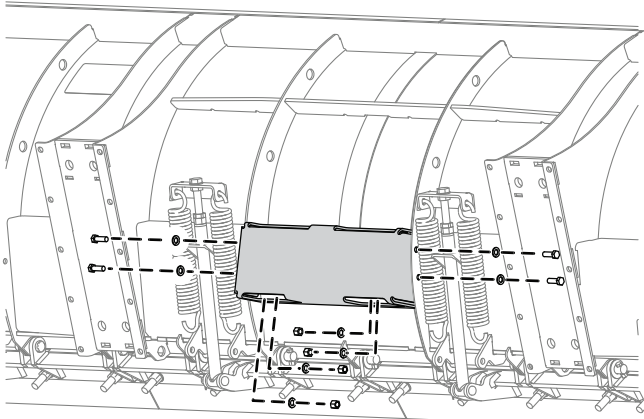


Figure 3

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Attaching the Plow Wings

1. Using the lift points, stand the plow upright (Figure 4).

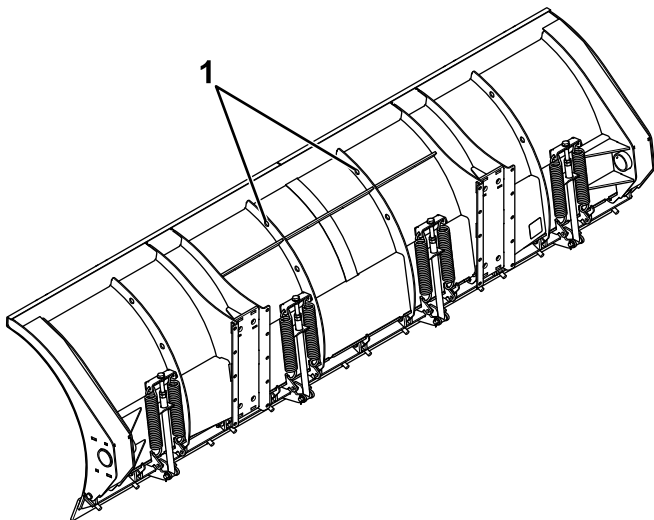


Figure 4

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1. Lift points

2. Apply grease to the pivot tubes on each of the plow wings (Figure 5).

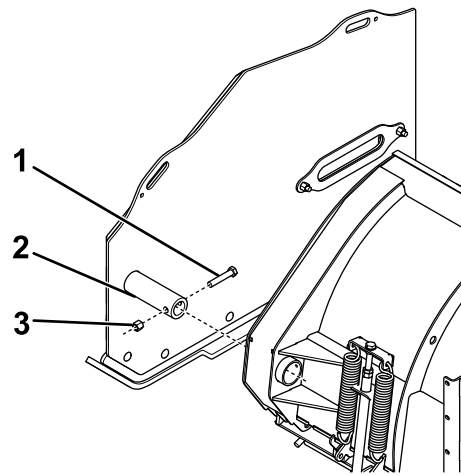


Figure 5

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1. Bolt (3/4 inch)
2. Pivot tube
3. Locknut (3/4 inch)

3. Slide the plow wing pivot tubes onto the plow and secure them with a bolt (3/4 inch) and locknut (Figure 5).
4. Slide a wing brace into the slot on the plow wing (Figure 6).

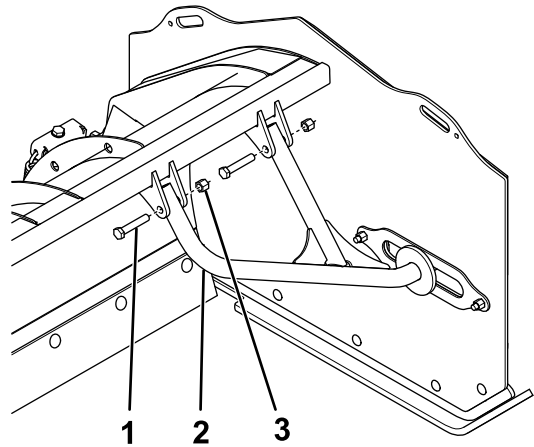


Figure 6

g269096

1. Bolt (3/4 inch)
2. Wing brace
3. Locknut (3/4 inch)

5. Secure the top of the wing brace to the tabs on the plow using 2 bolts (3/4 inch) and locknuts (Figure 6).
6. On the outside of the plow wing, secure the wing brace bushing to the wing brace using a bolt (5/8 inch) and locknut (Figure 7).

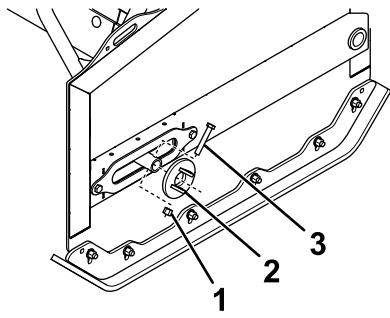


Figure 7

g269097

1. Locknut (5/8 inch)
2. Wing brace bushing
3. Bolt (5/8 inch)

7. Torque all of the fasteners to the following specifications:
 - 5/8-inch bolts to 153 N-m (113 ft-lb)
 - 3/4-inch bolts to 384 N-m (283 ft-lb)

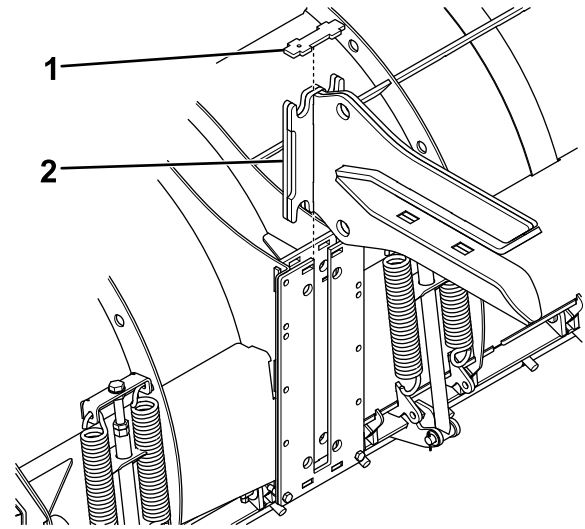


Figure 9

g269099

1. Hitch plate spacer
2. Attachment fork

Installing the Attachment Forks

1. Apply grease to the hitch plate ([Figure 8](#)).

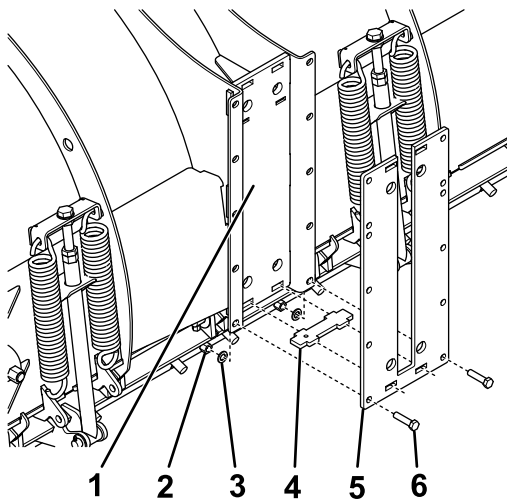


Figure 8

g269098

1. Hitch plate
2. Locknut (1/2 inch)
3. Washer (1/2 inch)
4. Hitch plate spacer
5. Bottom attachment plate
6. Bolt (1/2 x 1-1/2 inches)

2. Insert a hitch plate spacer into the notches on the bottom of the hitch plate ([Figure 8](#)).
3. Loosely secure the bottom attachment plate to the hitch plate using 2 bolts (1/2 x 1-1/2 inches), washers, and locknuts ([Figure 8](#)).
4. Slide the attachment fork between the hitch plate and bottom attachment plate ([Figure 9](#)).

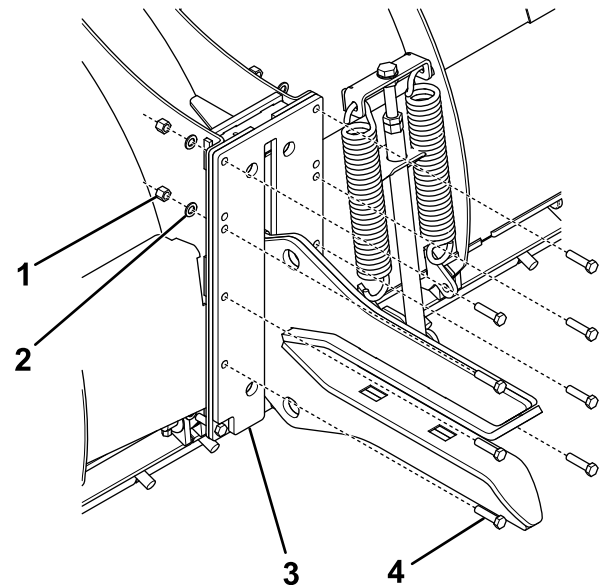
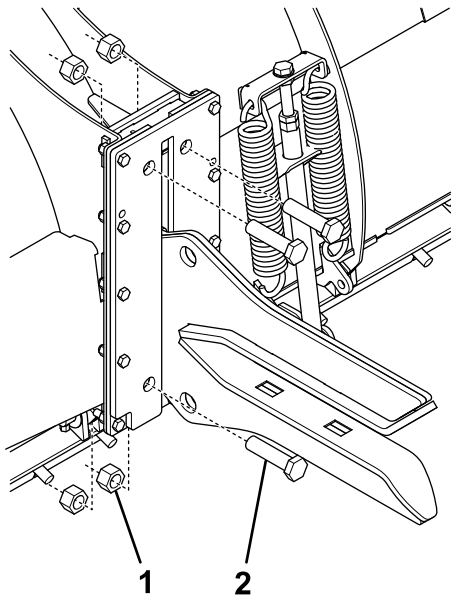


Figure 10

g269100

1. Locknut (1/2 inch)
2. Washer (1/2 inch)
3. Top attachment plate
4. Bolt (1/2 x 2 inches)

7. Secure 4 bolts (1 inch) and locknuts to the attachment assembly ([Figure 11](#)).



g269101

Figure 11

1. Locknut (1 inch) 2. Bolt (1 inch)

-
8. Torque all of the fasteners to the following specifications:
- 1/2-inch bolts to 76 N·m (56 ft-lb)
 - 1-inch bolts until snug. Do not overtighten.

Mounting the Plow

Mount the plow; refer to [Mounting the Plow \(page 9\)](#).

Product Overview

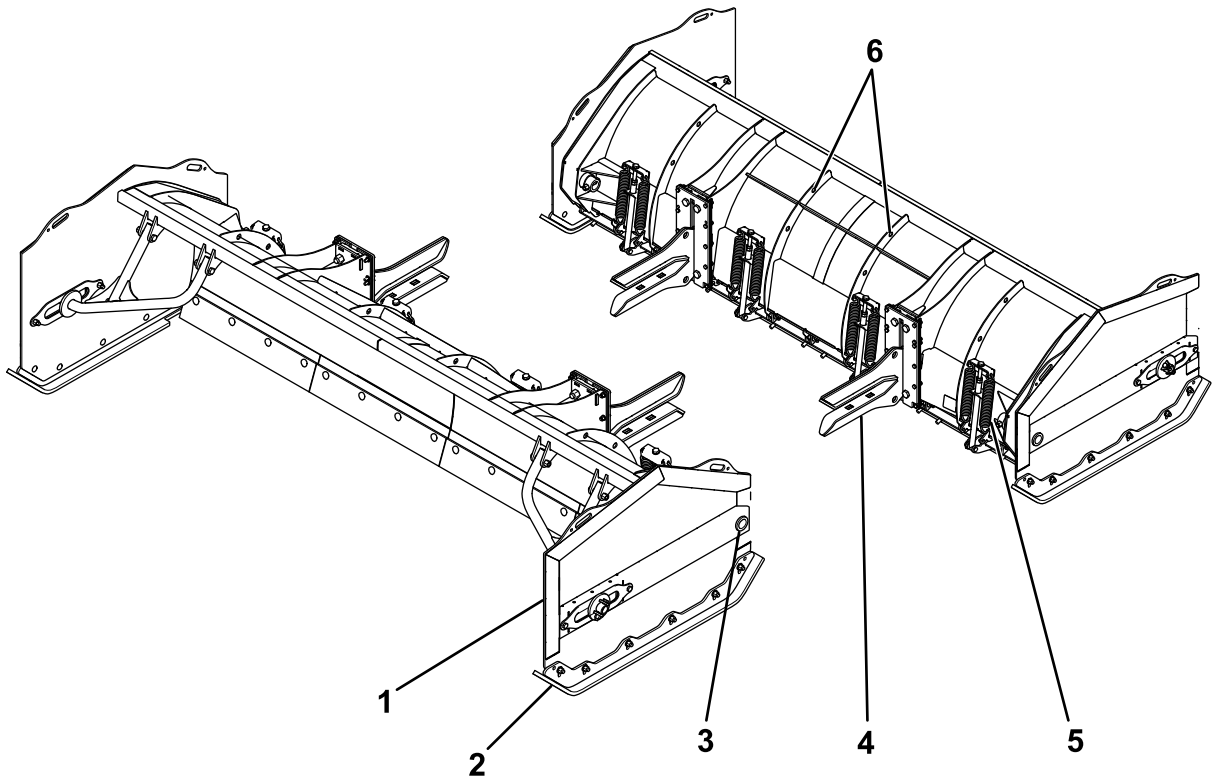


Figure 12

g269090

- 1. Plow wing
- 2. Plow shoe
- 3. Pivot tube
- 4. Attachment fork
- 5. Trip spring
- 6. Lift points

Specifications

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

Blade width	3.65 m (12 ft)
Blade height	1.24 m (49 inches)
Weight	907 kg (2,000 lb)

Operation

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

Mounting the Plow

1. Slowly drive the vehicle toward the plow, level the bucket, and adjust the bucket height (Figure 13).

Important: Refer to your vehicle *Operator's Manual* for safety and operating procedures.

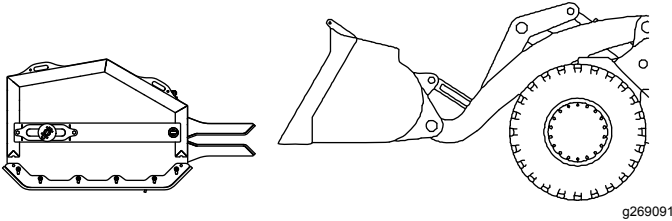


Figure 13

2. Slide the bucket between the attachment forks until it reaches the back of the forks (Figure 13).
3. Park the vehicle, shut off the engine, engage the parking brake, and remove the key, before leaving the vehicle.

Important: Refer to your vehicle *Operator's Manual* for safety and operating procedures.

4. Secure the plow to the bucket using a transport chain that is at least 3/8 inch and Grade 70 or higher, as shown in Figure 14. Positioning the chains horizontal and without crossing ensures optimal mounting; weld on tabs may be required to achieve this.

Note: Use ratcheting chain binders; lever-type binders can loosen with use.

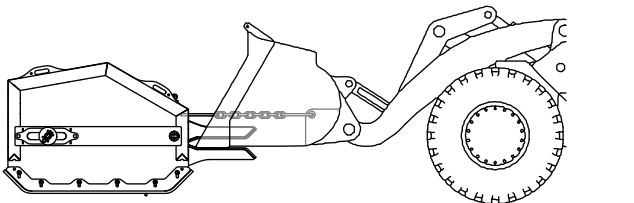


Figure 14

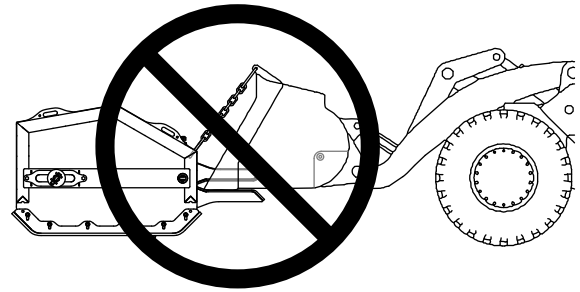


Figure 15

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Removing the Plow

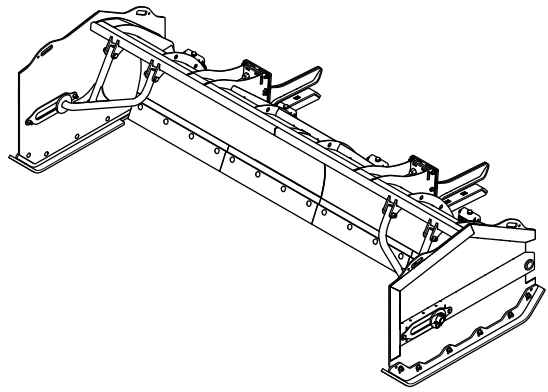
1. Park the vehicle on a level surface, lower the plow, shut off the engine, engage the parking brake, and remove the key.

Important: Refer to your vehicle *Operator's Manual* for safety and operating procedures.

2. Remove the transport chains securing the plow.
3. Slowly back the vehicle away from the plow.

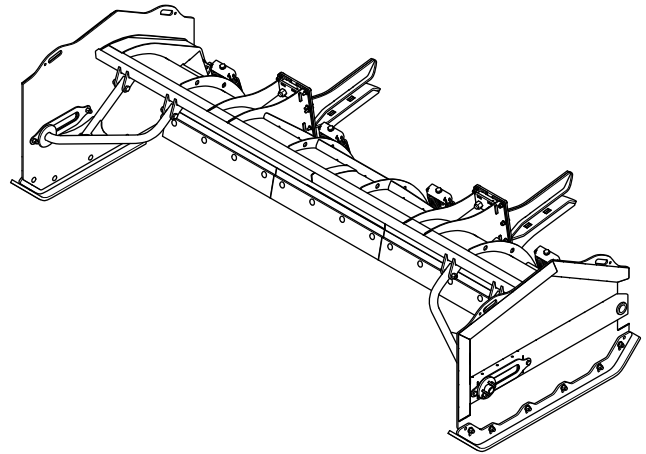
Operating Tips

- Become familiar with the area you are plowing; hidden obstructions such as curbs and pipes can damage your plow or machine.
- Do not let snow accumulate; always plow with the storm.
- Lower the plow when not in use to prevent possible injury.
- Always plow at a safe speed in case you hit hidden obstructions.
- When transporting the machine, do not block your vision with the plow.
- Do not change the plow position while plowing.
- To eliminate plow chatter, start by raising the plow and rotating it back ([Figure 16](#)). Lower the plow to the ground and rotate it forward until there is sufficient contact between the cutting edge and the ground. As the cutting edge wears, you will need to rotate the plow further forward. When you can no longer rotate the plow because of the plow wings ([Figure 17](#)), adjust the plow wing shoes upward to expose more of the plow cutting edge; refer to [Adjusting the Plow Wing Shoes \(page 11\)](#).



g269093

Figure 16
Plow rotated back



g272785

Figure 17
Plow rotated forward

Maintenance

⚠ WARNING

Failure to properly maintain the machine could result in premature failure of machine systems causing possible harm to you or bystanders.

Keep the machine well maintained and in good working order as indicated in these instructions.

⚠ CAUTION

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

Remove the key from the switch before you perform any maintenance.

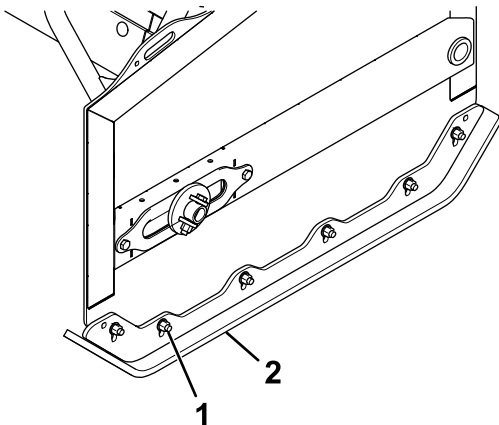
Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
Before each use or daily	<ul style="list-style-type: none">• Check the torque of all fasteners, pins, retainers, nuts, and bolts.• Check the cutting edge.• Check the plow wing shoes.• Apply grease to the slip hitch.

Adjusting the Plow Wing Shoes

1. Loosen the fasteners securing the shoe to the plow wing ([Figure 18](#)).



g269094

Figure 18

1. Fasteners
2. Plow shoe

2. Slide the shoe up to the desired position ([Figure 18](#)).
3. Torque the fasteners to 272 N·m (201 ft-lb).

Storage

Storing the Plow

1. Drive the snowplow to your storage location and remove the plow; refer to [Removing the Plow \(page 9\)](#).
2. Lightly sand and use touch-up paint on painted areas that are scratched, chipped, or rusted.
3. Loosen the trip springs.
4. Grease the slip hitch and wing pivot tubes.

Removing the Plow from Storage

1. Check the plow for cracked welds.
2. Check the torque of all fasteners, pins, retainers, nuts, and bolts; tighten as necessary.
3. Check the cutting edge for wear.
4. Check the wing shoes for wear.
5. Lightly sand and use touch-up paint on painted areas that are scratched, chipped, or rusted.
6. Tighten the trip springs.
7. Grease the slip hitch and wing pivot tubes.
8. Attach the plow to the vehicle; refer to [Mounting the Plow \(page 9\)](#).