



**A Division of Northern Star Industries, Inc.**  
P.O. Box 787 Iron Mountain, MI 49801-0787  
ISO 9001:2008 REGISTERED  
bossplow.com

# LDR Series BOX PLOW

## INSTALLATION & OWNER'S MANUAL

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BOSS Products / Northern Star Industries, Inc. reserves the right under its continuous product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used herein.

### **WARNING**

Serious injury or death can result if you do not follow these instructions and procedures which are outlined further within your owner's manual.

- NEVER get body parts between Plow System and vehicle while servicing or operating.
- NEVER position body parts between moving parts of the Plow System while servicing or operating.
- NEVER use a loader exceeding a Gross Vehicle Weight Rating of 80,000lbs. Exceeding this GVWR could result in an accident or damage.
- Read this manual and all labels carefully. Follow the operating procedures described.
- Follow all Operator Safety instructions found in your Loader Owner's Manual.
- When transporting, position plow so as not to block vision.
- NEVER change blade position when transporting.
- NEVER exceed 14 mph when plowing snow.
- NEVER exceed 5 mph while changing blade position.
- Make sure plow is properly attached and secured before moving vehicle.
- NEVER operate plow with loose binders or chains.
- Always lower blade when vehicle is not in use.
- NEVER ride on Plow System.
- NEVER lift persons on Plow System.
- NEVER operate on steep inclines.
- Operators should always use vehicle seat belts and all other applicable personal protective equipment while operating plow.
- Always remove plow from machine before servicing.

** WARNING**

**POTENTIAL HAZARD**

Operating Plow System without proper instruction.

**WHAT CAN HAPPEN**

Loss of control, accident.

**HOW TO AVOID THE HAZARD**

The risk of an accident is greatly increased if the operator does not know how to operate the Plow System properly in different situations.

All operators must read and understand the Owner's manual and instruction labels before operating the system.

** WARNING**

**POTENTIAL HAZARD**

Operating the vehicle with the Plow System not properly attached. The plow is not fully engaged or secured.

**WHAT CAN HAPPEN**

Loss of control, accident.

**HOW TO AVOID THE HAZARD**

Never operate the vehicle when the Plow System is not properly attached.

** WARNING**

**POTENTIAL HAZARD**

Operating the vehicle with the Plow System in a position that blocks your vision.

**WHAT CAN HAPPEN**

Collision with obstacle or another vehicle.

**HOW TO AVOID THE HAZARD**

Never operate the vehicle when the Plow System is in a position that blocks your vision.

## Safety

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### **WARNING**

#### POTENTIAL HAZARD

Positioning body parts on or between Plow System while operating or servicing Plow System or the vehicle.

#### WHAT CAN HAPPEN

Severe injury or death can occur if a person gets caught between moving parts or falls while vehicle is in motion.

#### HOW TO AVOID THE HAZARD

Never ride in, ride on, or stand next to Plow System while someone is operating it or the vehicle.

### **WARNING**

#### POTENTIAL HAZARD

Exceeding recommended speed limits set for operation types.

#### WHAT CAN HAPPEN

Loss of control, accident.

#### HOW TO AVOID THE HAZARD

Do not exceed recommended speed limits. Always travel at proper speed for terrain, visibility, operating conditions, and your experience.



## A REVOLUTION AGAINST SNOW

Congratulations on purchasing the finest box plow made. The BOSS sets the standard for quality, reliability, craftsmanship, and performance. Our products are designed, built, and proven in Michigan's rugged Upper Peninsula, where winter is a way of life. And we back it all up with exceptional customer service and satisfaction. We're not just setting the standard. We're leading the way.

The BOSS SNOWFLOW has been carefully designed and built for years of carefree performance.

To keep your BOSS PLOW in top shape, take a few minutes to study this manual. It will show you how to use and service the BOSS, familiarize you with all of its parts, and give you helpful tips on plowing snow.

If you have further questions, your local BOSS DEALER is the person to talk to. They know your plow well and want your complete satisfaction.

### IMPORTANT

*Keep this section for your record.*

Date Purchased: \_\_\_\_\_

Model Purchased: \_\_\_\_\_

Plow Serial Number: \_\_\_\_\_

#### PURCHASED FROM

Dealer Name: \_\_\_\_\_

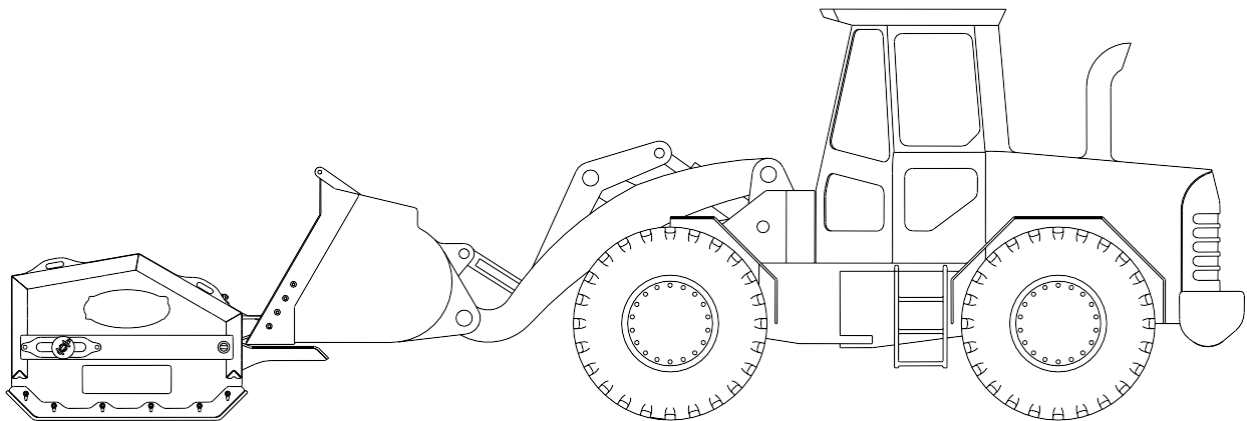
Dealer Address: \_\_\_\_\_

Dealer Phone No.: \_\_\_\_\_

## ***Tips on Plowing Snow***

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- Know the area you are plowing, hidden obstructions such as curbs, sidewalks, pipes, etc. can cause damage to your plow or vehicle.
  - Do not let the snow accumulate; always plow with the storm.
  - Always wear your seatbelt when plowing snow.
  - Always lower the blade when parking your vehicle. This reduces the load on your vehicle's hydraulic system and guards against any potential mishap caused by a falling plow.
  - Always remember to plow at a safe speed. The faster you plow the harder you will hit hidden obstructions.
  - Do not get body parts between or under the plow and vehicle when servicing or operating the plow.
  - When transporting, position plow so as not to block vision.
  - Do not change blade position while traveling.
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**Figure 1.** Proper Plowing Orientation

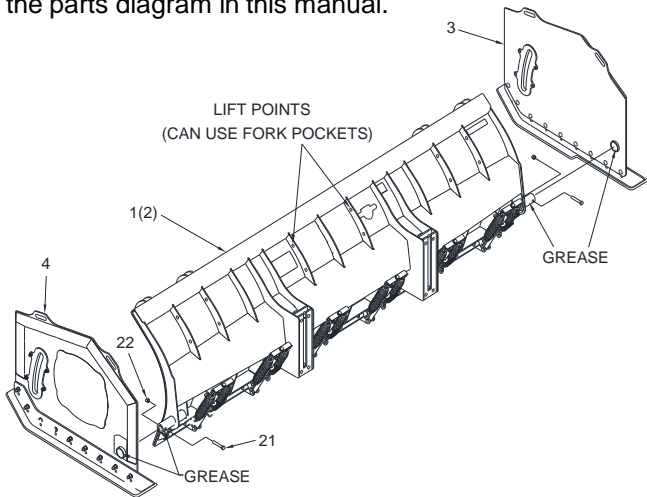
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- Maintain bucket and hitch orientation shown in Figure 1. Wing positions will vary with terrain. Starting with the slip hitch in the middle of the slot will allow the plow to float and better follow the contours of the ground.
- If plow orientation is incorrect, chattering or insufficient contact may result.
- For more plowing tips please visit [www.bossplov.com](http://www.bossplov.com).

## Box Plow Assembly Procedure

# Box Plow Assembly Procedure

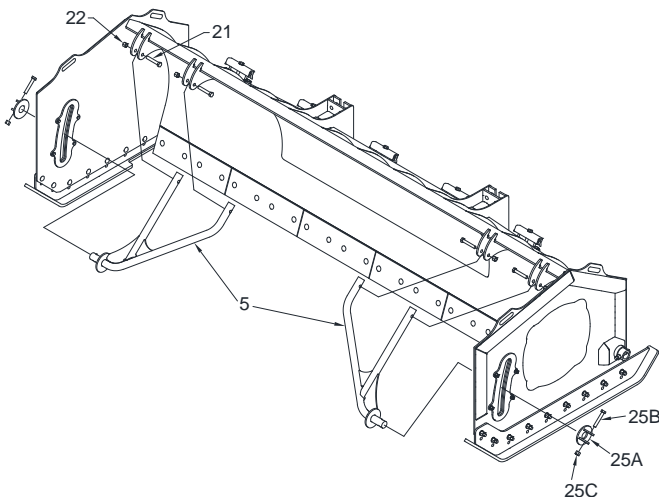
**Note:** This manual is used for the assembly of the BOSS LDR 14/16 trip-edge box plow. Part numbers for the BOSS LDR 14/16 trip-edge box plow are listed on the parts diagram in this manual.



**Figure 2. Wing Attachment**

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1. Remove the blade assembly from the blade crate using the fork pockets provided, or by removing the fork pockets and using the lift points on the blade. Keep the crate hardware as some of it will be used to assemble the blade.
2. Apply grease to wing bushing/pin tubes then insert left wing (4) and right wing (3) into their corresponding mounts on blade (1 or 2). Use lift points if necessary for alignment.
3. Secure the wings by inserting the **HDW16843** 3/4"-10x4 1/2" bolt (21) through the mounting tube. Then tighten the **HDW03037** 3/4"-10 nylon lock nut (22).



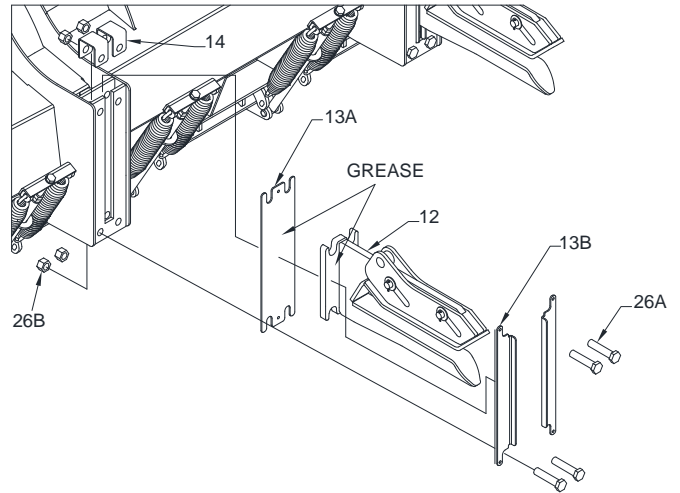
**Figure 3. Wing Brace Attachment**

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4. With the blade supported by fork pockets or lift points,

slide the wing brace (5) into the wing slot.

5. Rotate the brace to line up with the tabs on top of the blade.
6. Insert the **HDW16843** 3/4"-10x4 1/2" bolt (21) through tabs and brace (5), then tighten the **HDW03037** 3/4"-10 nylon lock nut (22).
7. Slide the wing arm bushing (25A) onto the wing brace. Insert the **HDW16843** 3/4"-10x4 1/2" bolt (25B) through the attachment bushing and brace. Tighten the **HDW03037** 3/4"-10 nylon lock nut (25C).



**Figure 4. Slip Hitch Assembly**

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8. Insert the two lower **HDW16844** 1"-8x4 1/2" (26A) bolts on each hitch and place the **HDW07704** 1"-8 top lock nuts (26B) and finger tighten.
9. Slide back shim (13A) into the hitch, then with the shim plate pushed towards the back of the hitch, slide in the fork assembly (12).
10. Slide the side shims into the hitch in front of the fork assembly (12). Apply grease in-between the fork assembly (12) and the back shim (13A) and side shims (13B).
11. Place the top caps (14) on top of the hitch and insert the top **HDW16844** 1"-8x4 1/2" (26A) bolts. Place the **HDW07704** 1"-8 top lock nuts (26B) on and finger tighten.
12. Tighten all fasteners.

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