



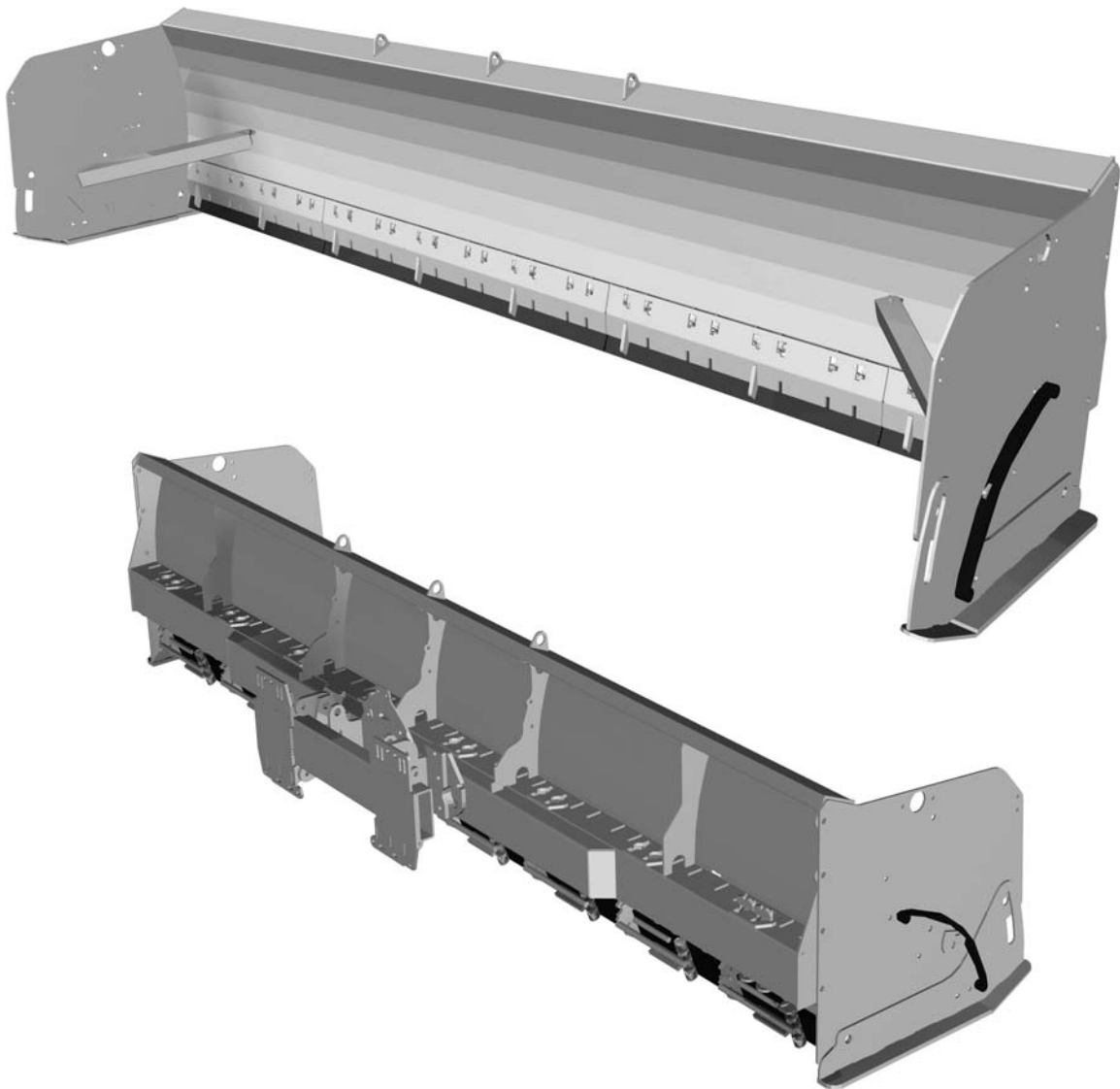
USER GUIDE

LIVEBOXXX

SNOW PLOW

LBX Models

LIVEEDGE Cutting Edge





IMPORTANT

THIS EQUIPMENT MAY BE SUBJECT TO
DIFFERENT LAWS IN SOME PROVINCES, STATES OR COUNTRIES.

THE USER MUST KNOW LAWS AND RULES
GOVERNING TRANSPORTATION
AND
USE OF THIS EQUIPMENT ON PUBLIC ROAD.

OWNERSHIP OF THIS EQUIPMENT DO NOT
CREATE SKILLS, ABILITIES, TO OPERATE THIS EQUIPMENT.

**ALL USERS
OF THIS EQUIPMENT MUST SEE
THIS GUIDE BEFORE OPERATION**



CONSTANT ATTENTION MUST BE GIVEN
WHEN USING
THIS EQUIPMENT.

THIS EQUIPMENT CAN NOT BE LEFT
UNATTENDED
FROM THE USE THEREOF.

**NEVER STAY UNDER
THIS EQUIPMENT**

MISUSE OF THIS EQUIPMENT
MAY CAUSE DAMAGE
AND SERIOUS RISK.

COMPONENTS
MUST BE VERIFIED
BEFORE USING
THIS EQUIPMENT.

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NEVER STAND OR REST BETWEEN THE EQUIPMENT AND THE GROUND IF THIS EQUIPMENT HAS NOT BEEN PREVIOUSLY RAISED AND SECURED WITH LIFTING TOOLS AND SUPPORT APPROVED FOR THIS TASK.



WARNING

SOME PARTS AND / OR COMPONENTS OF THIS EQUIPMENT ARE PATENTED AND MAY NOT BE COPIED AND / OR REPLICATED, THIS VIOLATE THE LAW.

1. INTRODUCTION

The user must take note of the following information that may change the nature of the agreement between the manufacturer and the consumer / owner of the equipment.

1.1 NO MODIFICATION

In no event shall this equipment be changed without the agreement of the manufacturer. Defects caused by alteration or modification of this equipment in its nature or vocation, voids all warranties.

1.2 USAGE

Normal usage for this equipment include depreciation or damages caused by wear due to the operations and regular operation.

1.3 MAINTENANCE

Lack of reasonable and proper maintenance, non-compliance of the operating instructions and / or the inability to manage the product according to the specifications, misuse, lack of proper protection during storage, or accident, are made by the user.

1.4 USER GUIDE

This guide should follow and be included with this equipment at all times and is considered one of the components of this equipment.

1.5 AUTHORISED OPERATOR

Only authorized and trained personnel may proceed with the operation of this equipment, its maintenance and transportation.

1.6 LIMITED WARRANTY

This equipment comes with a limited 12 month warranty available from manufacturer.

2. NATURE & USAGE OF THE EQUIPMENT

2.1 USAGE

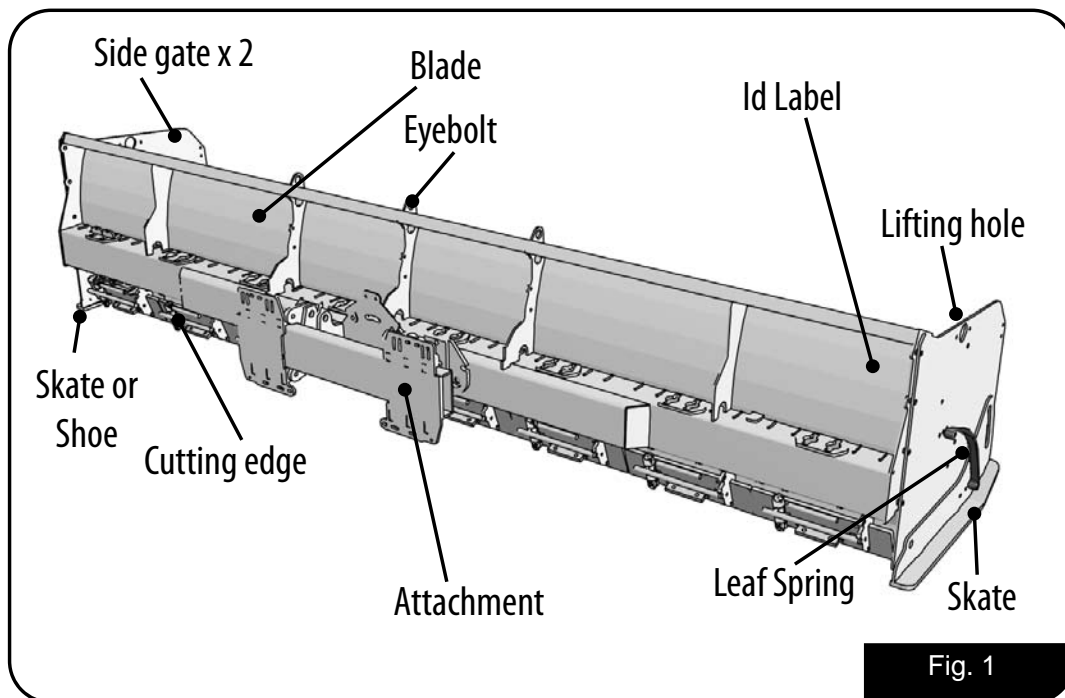
This equipment is a device intended for mounting on a vehicle, used for removing snow and ice from outdoor surfaces, typically those serving transportation purposes. Usages prescribed are :

- a) A snowplow works by using a blade to push snow to the side or straight ahead, clearing it from a surface.
- b) In an angular approach, a translation of the snow to one side;
- c) In a direct approach, pushing the snow to a chosen direction.

Any other use is a non-prescribed use for this equipment and will void any warranty or liability.

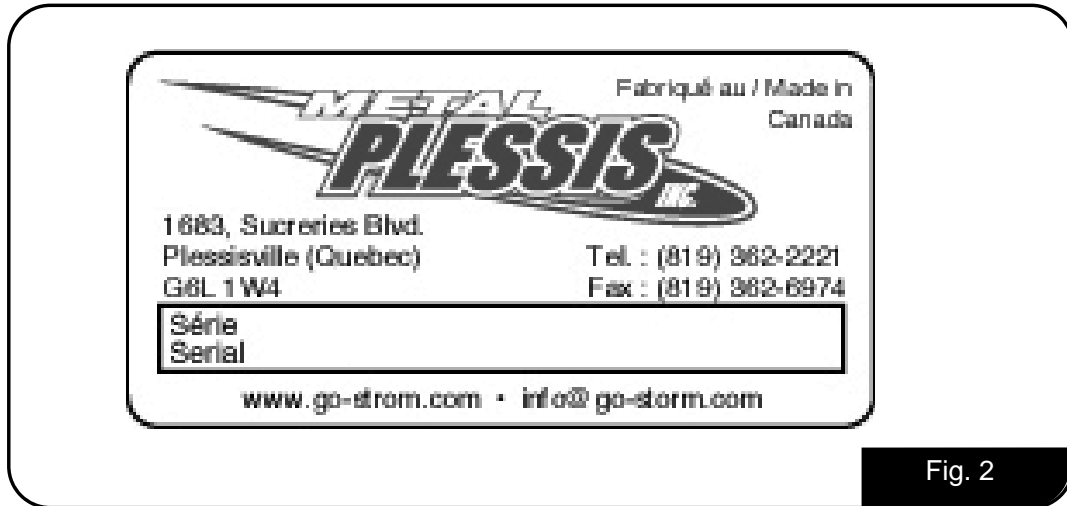
2.2 DESCRIPTION

This equipment includes the main components described above (Fig. 1). Lack of one of these components upon delivery or switching requires correction before operation of this equipment.



3. EQUIPMENT ID

To identify accurately this equipment, look on the left section of the blade as shown in figure 1, a permanent label as illustrated in Figure 2, is showing the model number and serial number.



4. INITIAL ASSEMBLY

Upon initial receipt of the equipment, an assembly may be required, check the following:

INSTALLATION OF SIDE GATES (OPTIONAL)

Usually, on transportation of this equipment on a flatbed trailer, the side side wings are positionned in a way that they will request less space. You will need to disassemble the sidewings and put them in their operational position. (Fig. 2.2)

HYDRAULIC HOSES (OPTIONAL)

The hydraulic hoses must be properly installed and located.



WARNING

IT IS THE RESPONSIBILITY OF THE OWNER OF THIS EQUIPMENT TO PERFORM THIS CHECK.

4. INITIAL ASSEMBLY

REINFORCING BRACES (if needed)

Each reinforcing braces must be assembled as shown in 2.2.

4.1 THIS EQUIPMENT IS ASSEMBLED TO FIT TRANSPORTATION NEEDS, IT WILL NEED TO BE RE-ASSEMBLED FOR OPERATION(4.2)

ONLY use the lifting holes, **C**, Figure 2.2, when the side wings are installed and bolted. ANY OTHER TIME use the eyebolts **C** Figure 2.1.



TO MOVING THIS EQUIPMENT USE A CHAIN GRAPPLE HOOK

USE ONLY THE EYEBOLTS, C, IDENTIFIED IN FIGURE 2.1 FOR LIFTING EQUIPMENT IN ITS INITIAL ASSEMBLY.

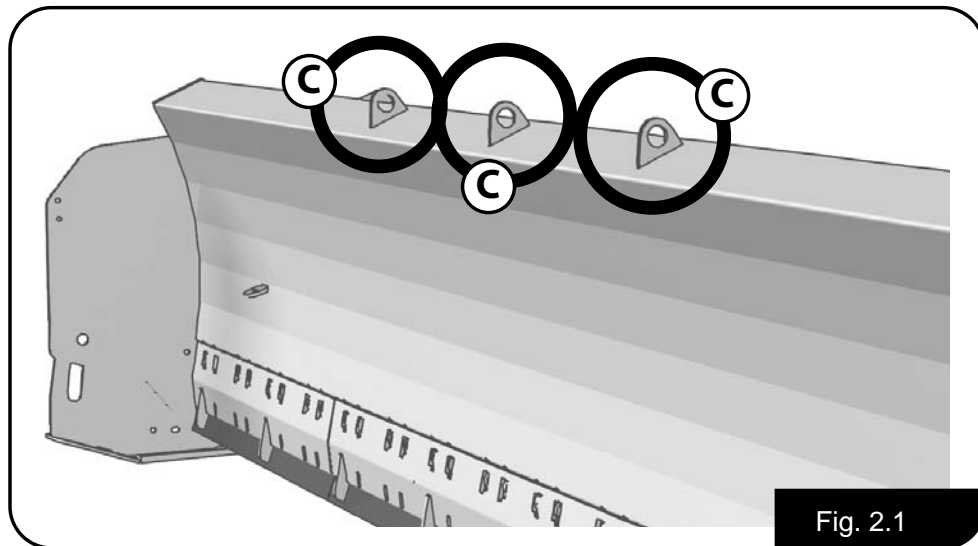


Fig. 2.1

4.2 SIDE WINGS ASSEMBLY

This equipment is shipped assembled but in non-operational way. This only for the purpose of transport. After transportation, this equipment needs to be re-assembled for operations.



THIS OPERATION MUST NOT BE PERFORMED ON THE PLATFORM OF THE CARRIER

a) Unbolt the two nuts **A** that hold each side gate, as shown in Figure 2.2.

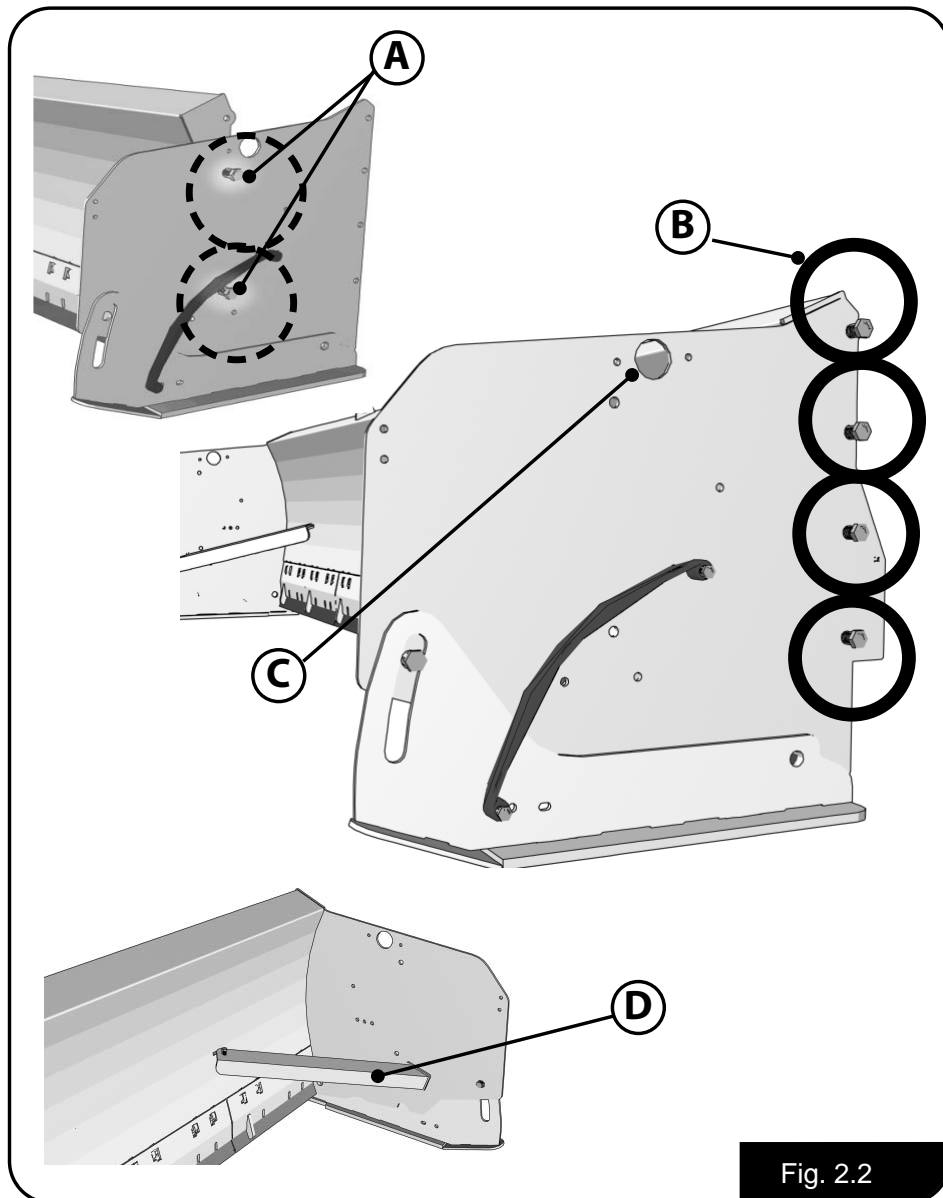
4. INITIAL ASSEMBLY

b) Align the side gate with the blade, as illustrated in Figure 2.2.

c) Then, engage each of the 4 bolts **B** as shown in Figure 2.2. Wait for the assembly to sit all in place prior to proceed to final tightening.

d) Put each reinforcing brace in place, **D**, illustration 2.2.

e) When each component is well positioned, then proceed to final tightening - 10 KNW.



5. SAFETY

5.1 UNDERSTANDING LABELS AND INSTRUCTIONS

The user must interpret these signs in order to understand the risks associated with operations and functions of the equipment.

Some of the following labels or warning signs must be consider by all user :



a) A dangerous situation that could result in injury to the user.



b) A dangerous situation that can cause breakage of the equipment.



c) A dangerous situation that could lead to hazards in a perimeter of the equipment.



d) The handling and use of flammable, toxic and / or caustic fluid.

5.2 DANGER AND MOBILE EQUIPMENT

The user must consider the hazards associated with the use of mobile equipment. Associated risks are many and real.



WARNING

NATURE AND USE OF THIS EQUIPMENT INVOLVE RISKS RELATED TO ITS USE. EVEN IF A RISK IS NOT SPECIFICALLY IDENTIFIED, IT REMAINS THE RESPONSIBILITY OF THE USER.



WARNING

NEVER STAND OR REST BETWEEN THE EQUIPMENT AND THE GROUND IF THIS EQUIPMENT HAS NOT BEEN PREVIOUSLY RAISED AND SECURE WITH LIFTING TOOLS AND SUPPORT APPROVED FOR THIS TASK.

5. SAFETY

5.3 SAFETY PERIMETER AT REST

In the stop position, the user must ensure a safe distance between the equipment, the vehicle to which it is harnessed and other dangerous equipment or dangerous situation.

The usage of this equipment on another motorized equipment changes the behavior, conduct and balance; requiring professional expertise recognition.

In the off position, this equipment must be placed on the ground safe and inert manner.

5.3 SAFETY PERIMETER IN OPERATION

In the use of this equipment, the user must maintain a safe distance between the equipment and the environment. The higher the speed, the higher the risk is large.



WARNING

SNOW EJECTIONS ARE CROSSING GREAT DISTANCES AND CAN CREATE HARMFUL IMPACTS.

THIS OR ANY PART OF THE EQUIPMENT CAN MOVE QUICKLY UNDER IMPACT WITHOUT ANY NOTICE.

DURING OPERATIONS, THIS EQUIPMENT CAN CAUSE THE VEHICLE TO BECOME UNBALANCED AND CAUSE A LOSS OF CONTROL.

5.4 VISUAL PERIMETER

The user should consider that the use of this equipment reduced its overall vision and that he must therefore be vigilant. In addition, the user must act responsibly for vehicles on the highway, giving precedence at all times for safety.

5. SAFETY

5.5 SAFETY CHAIN

Some models, some countries, states or provinces require the use of a safety chain, this mainly for the plow of "Pusher" type; verify local laws, bylaws and rules.

5.6 LIGHTS AND SIGNALISATION

Make sure to respect the regulations in force regarding the signaling and reflective strips to be present on this equipment by country, state or province.

5.7 SAFETY PERIMETER FOR MAINTENANCE

Make sure you keep a safe distance when servicing. This equipment must always rest on the ground when it is not used. This area must be stable and horizontal, free of debris and human presence.

6. DIMENSIONS, ANGLE & CAPACITIES

6.1 DIMENSIONS ET WEIGHT

Model	Width	Height	Side Gate	Weight (lbs)	ft3
LBX0836	8'	36"	36"	1470	72
LBX1036	10'	36"	36"	1700	90
LBX1236	12'	36"	36"	1935	108
LBX1242	12'	42"	42"	2565	147
LBX1442	14'	42"	42"	2805	172
LBX1642	16'	42"	42"	3045	196
LBX1842	18'	42"	42"	3285	220
LBX2042	20'	42"	42"	3525	248

6.2 ANGLE - BLADE

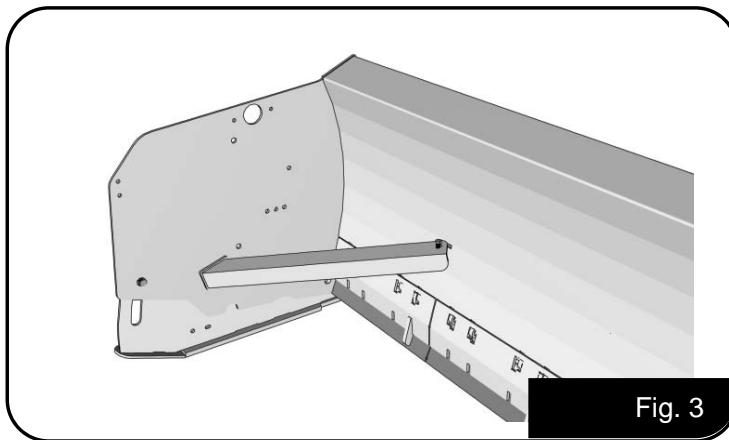
Model	Angulation	Maximum	Hydraulic
LBX	No	-	No

7. COMPONENTS AND FUNCTIONS

7.1 REINFORCING BARS

Reinforcing bars, replaceable by means of bolts, used to stabilize the opening of the jaw blade and get a better hold of the side wings.

When reinstalling the reinforcing bar, set up each piece prior to final bolting.



WARNING

DURING INSTALLATION OR REPLACEMENT OF THIS COMPONENT, EQUIPMENT MUST REST ON THE GROUND.



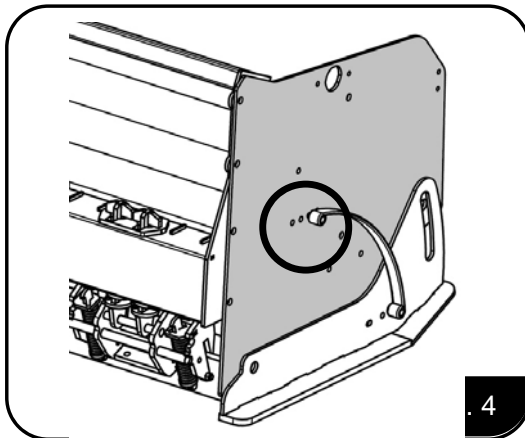
WARNING

EQUIPMENT INTENDED FOR USE WITH BRACES SHOULD NOT BE OPERATED WITHOUT THEM.

7. COMPONENTS AND FUNCTIONS

7.2 LEAF SPRINGS

Leaf springs are installed on each side wing on this equipment, as shown in Fig. 4. Such leaf springs allow limited movement of the skate/shoe while maintaining a stable distance from the side wing.



The leaf springs are bolted and use pre-perforated holes



WARNING

DURING INSTALLATION OR REPLACEMENT OF THIS COMPONENT, EQUIPMENT MUST REST SAFELY ON THE GROUND.

7.2 VISUAL MARKERS

A visual marker is disposed at each front corner of the blade. The flag allows the user, the driver of the vehicle, to establish a visual cue in width, height and space before (as shown in Figure 5).

The markers serve ONLY as a guide and should in no way be taken to the exact value of its position. The markers are bolted and use pre-perforated side gate holes.

7. COMPONENTS AND FUNCTIONS



WARNING

DURING INSTALLATION OR REPLACEMENT OF THIS COMPONENT, EQUIPMENT MUST REST ON THE GROUND.

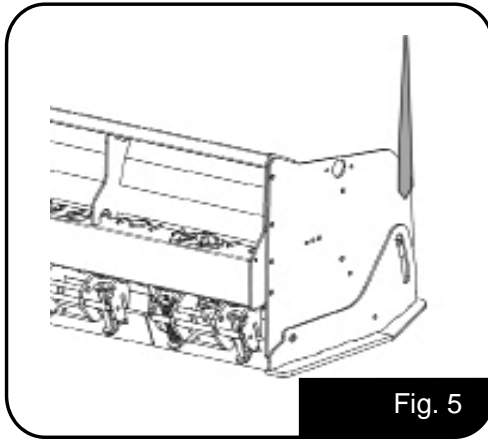


Fig. 5

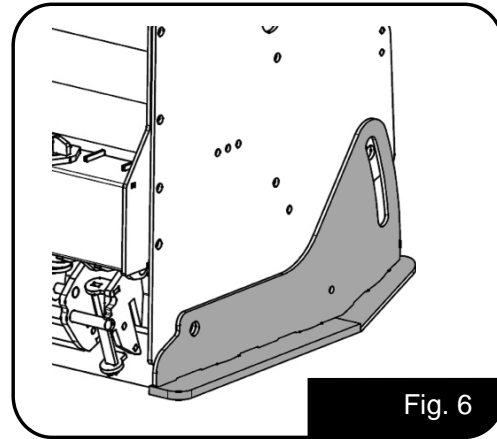


Fig. 6

7.3 SKATE / SHOE

The floating skate/shoe (Figure 6) are positioned in front of each side gate. The seat pad is bolted to the side wing. The front of the pad may struggle with a bolt / nut holding the component and guiding in the channel.

In regular use, the pads wear out and require replacement. By using this equipment with skates worn, it may can lead to significant and permanent damage of the equipment.

To replace the skate/shoe, a wedge will be placed between the ground and the blade, in order to release the shoe.

7. COMPONENTS AND FUNCTIONS

7.4 LIVEEDGE CUTTING EDGE AND TRIP SYSTEM

This equipment beneficiates from patented high performance cutting edges LIVE EDGE (7a and 7b) system, supported spring latch.

The cutting edges are wear parts. On this equipment, friction and abrasion will lead to wear to the cutting edges. A trained operator will use the appropriate amount of pressure. Too much pressure will lead to premature wear. The maximal wear point is indicated by a side-groove on the knife (figure 7b)

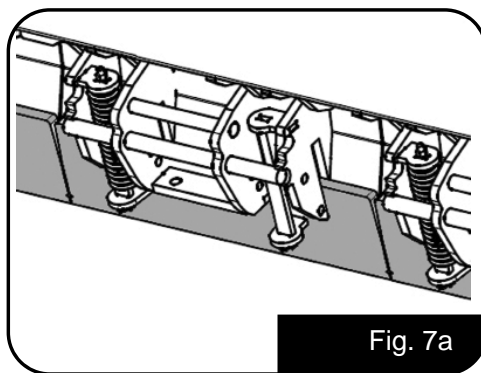


Fig. 7a

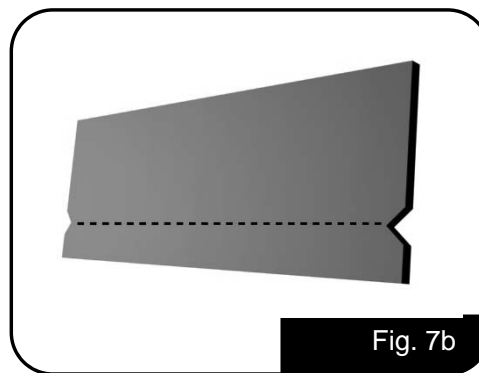


Fig. 7b

This equipment has multiple mobile cutting edges. Each one is allowed to trip independently from one to another.

Each cutting edge is mounted by two springs and attached to a trip system which it is also activated by two springs. The knife is independent from the trip system, it can float without causing the trip system to be in action (Figure 8).

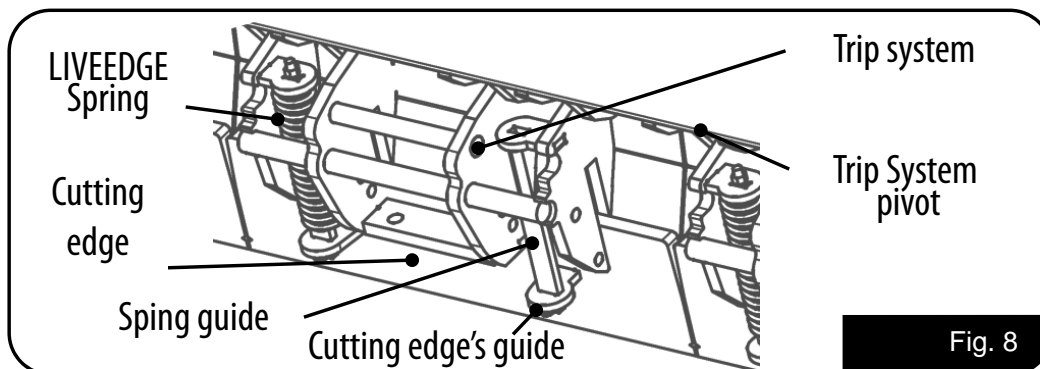


Fig. 8

7. COMPONENTS AND FUNCTIONS

7.5 ATTACH POINT WITH FIFTH WHEEL

This equipment has a system of limited central pivot attaching system (fifth wheel) allowing to install the hitch chosen by the user, as shown in Figure 9.

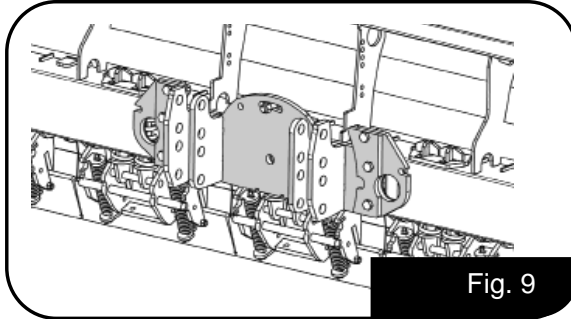


Fig. 9

7.6 HITCH

This equipment can be harnessed primarily by two (2) different types of hitch.

“QUICK ATTACH” HITCH

This type of hitch is bolted to the central mounting plate. The plate is oriented facing the motorized equipment (Figure 10a).

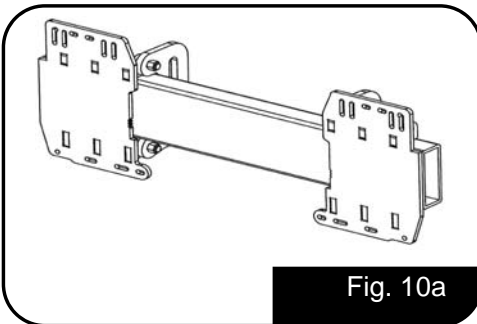


Fig. 10a

“BUCKET MOUNT” HITCH

This type of hitch is bolted to the central mounting plate. The jaw of the Bucket Mount is oriented the facing motorized equipment (Figure 10b).

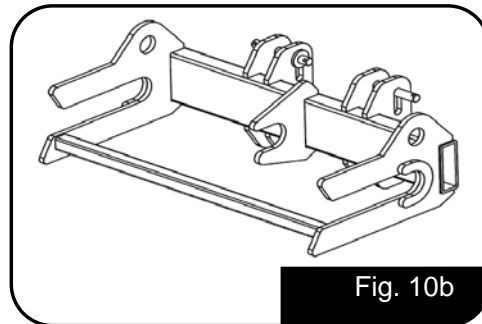


Fig. 10b



WARNING

DURING INSTALLATION OR REPLACEMENT OF THIS COMPONENT, EQUIPMENT MUST REST SAFELY ON THE GROUND.

8. OPERATING GUIDE

8.1 HYDRAULIC

This equipment is provided without any hydraulic system and does not require such a system to function.

8.2 LIFTING/TILTING OF THIS EQUIPMENT

The propulsion equipment will rely on mechanical or hydraulic system to raise and lower the snow plow.

When resting this equipment on the ground, proceed safely while ensuring nothing is placed between the equipment and the ground.



WARNING

BE CAREFUL. NO OBJECT / PERSON ON THE GROUND WHEN PERFORMING THIS TASK.

8.2 PLOW OPERATION

The snow plow is attached to the motorized vehicle and has no lateral or angular movement.

In this context, the user must guide the motorized equipment in order to obtain the desired angle.



WARNING

BE CAREFUL. NO OBJECT / PERSON ON THE GROUND WHEN PERFORMING THIS TASK.



WARNING

NEVER CARRY HUMAN OR OBJECT WITH THIS EQUIPMENT.

8. OPERATING GUIDE

8.2 OPERATION OF SNOW BLADE WHEN SCRAPING

To proceed with the scraping of snow, the user will proceed with the following steps:

- The user will position the vehicle perpendicular to the target. The user shall ensure to minimize turning or changing course during its course.
- The user must safely deposit the snow blade to the ground without undue pressure (this equipment is equipped with LIVEEDGE cutting edges that will perform the scraping).
- The user will propel the vehicle to push the snow forward vehicle, making sure not to overload the equipment.
- The user will lift the snow plow before initiating backward movement. The snow plow can remain on the ground in a slight backward movement, but not over distance exceeding 36 “.
- The user must control vehicle’s speed at all times and avoid any sudden movement likely to cause a loss of vehicle’s control and equipment.



WARNING

BE CAREFUL. NO OBJECT / PERSON ON THE GROUND WHEN PERFORMING THIS TASK.



WARNING

BE CAREFUL. DO NOT EXCEED SAFE SPEED FOR YOU, THE VEHICLE SAFETY AND IMMEDIATE ENVIRONMENT.

9. MAINTENANCE

9.1 IMPORTANT NOTICE

Unless otherwise stated, all maintenance requires that the equipment is placed on the ground. By cons, when servicing or replacing certain parts, this equipment must be kept above the ground. In this type of situation, RESPECT THE SAFETY INSTRUCTIONS AND ALWAYS USE AN APPROVED TOOL.



WARNING

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9.2 SKATE/ SHOE MAINTENANCE

As prescribed previously, USE AN APPROPRIATE TOOL TO SECURE AND LIFT EQUIPMENT 6 "ABOVE THE GROUND.

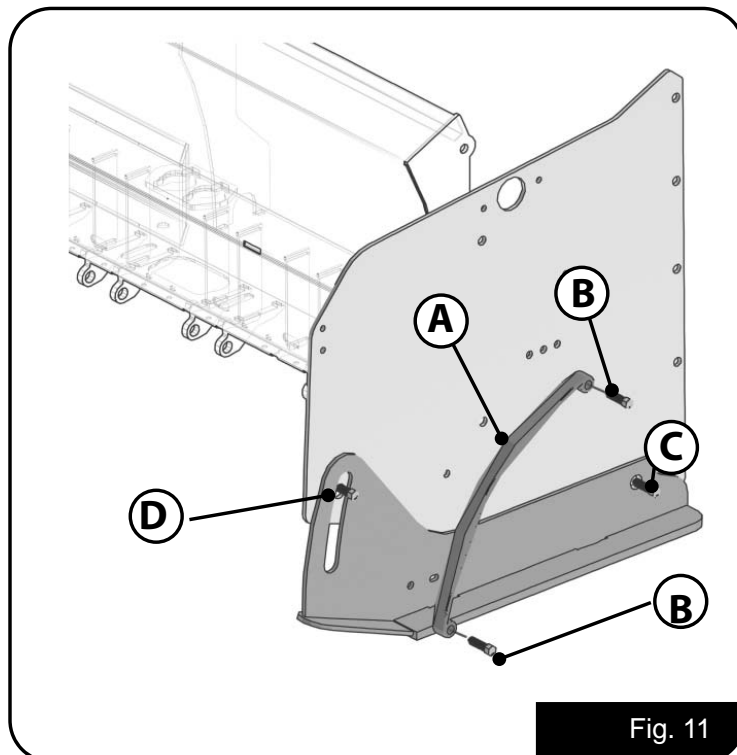


Fig. 11

9. MAINTENANCE

9.2 SKATE/SHOE REPLACEMENT

Proceed to the following steps in reference with Figure 11:

- The user will unscrew the 2 nuts (B) holding the leaf spring (A) of the skate/shoe.
- Then unscrew the bolts (C) and (D)
- Replace the old with a new skate/shoe.
- Set back the bolt (C) and (D).
- Put the compression blade back in place and screw back the bolts (B).

The leaf spring of the skate/shoe should be able to perform its pivot without too much stress. It should not unduly press the shoe and the gate, but rather allow a permissive and safe movement.

The leaf spring must be bolted to the ends. The center bolt is intended to limit the travel of the blade. This is the bolt that will be implemented first, serving as a pivot to secure both ends.

9.3 REPLACEMENT OF THE LIVE EDGE KNIVE

This equipment has patented LiveEdge cutting edges. To proceed with to the replacement of cutting edges, RESPECT AT ALL TIMES THE SAFETY REQUIEREMENTS WHEN RAISING AND LIFTING THIS EQUIPMENT.

Referring to Figure 12, the must may identify one of the two (2) types of cutting edges and trip system used by this model/equipment. The user must identify this system before performing maintenance.

The main difference between these two (2) systems:

- The shaft inserted within the coil spring (a)

9. MAINTENANCE

9.3 REPLACEMENT OF THE LIVE EDGE KNIFE

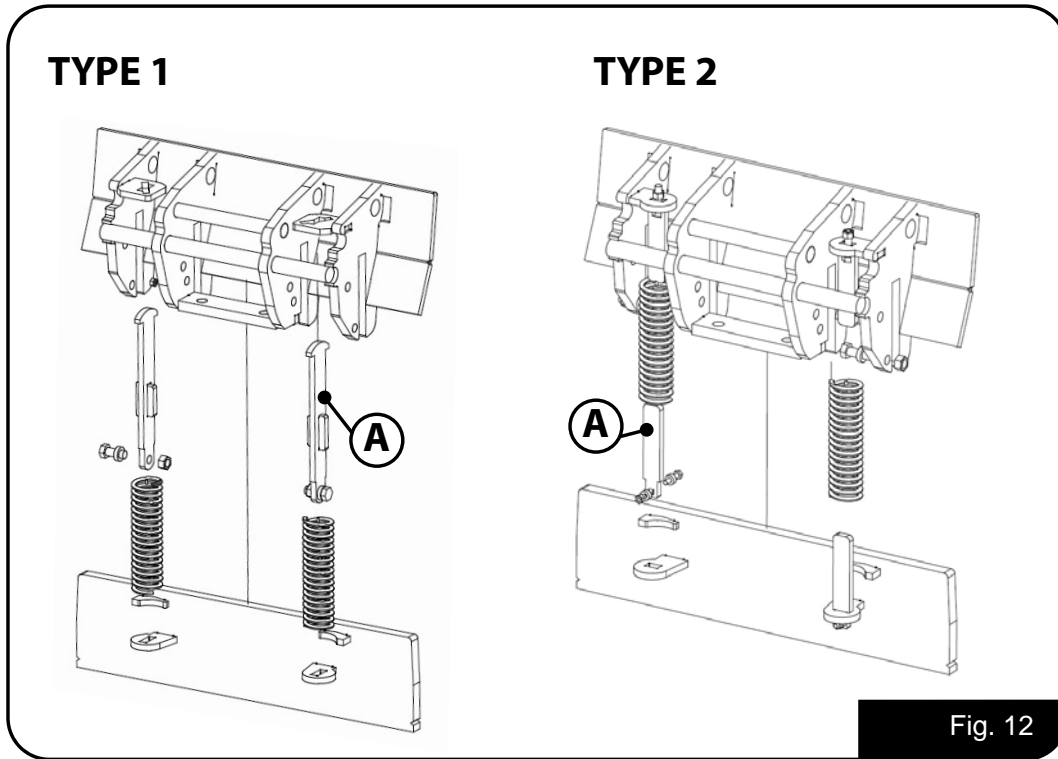


Fig. 12

9.4 REPLACEMENT OF THE LIVE EDGE KNIFE TYPE 1

LIVE EDGE cutting edges type 1 can be replaced by following these steps and using Figure 13.

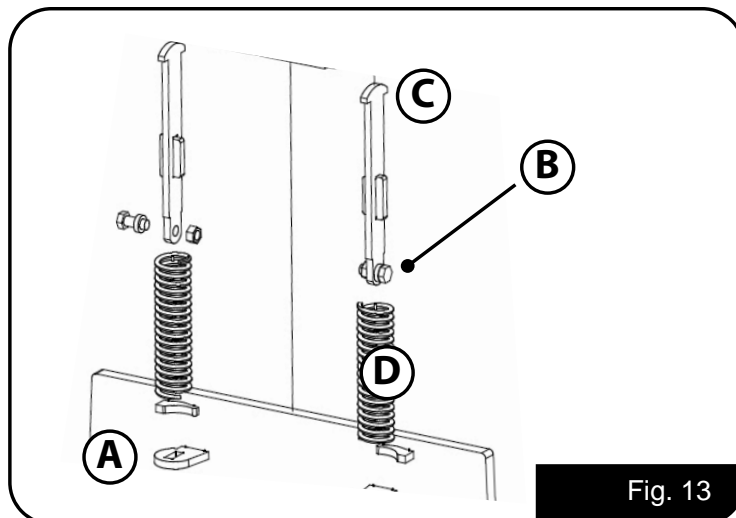


Fig. 13

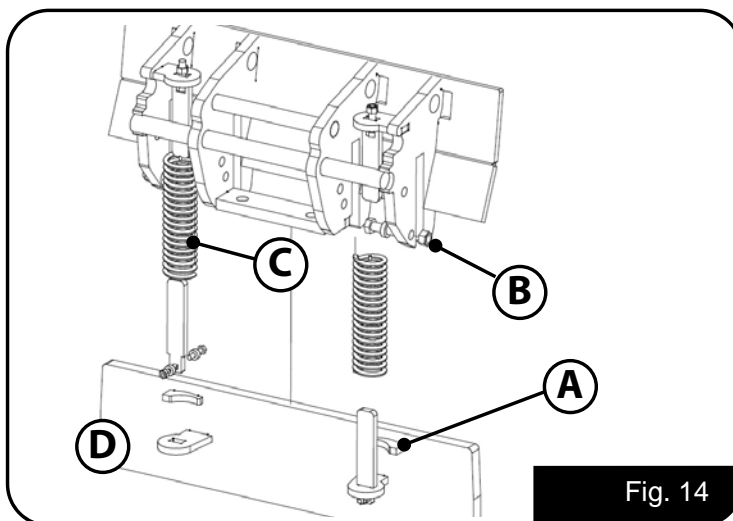
9. MAINTENANCE

9.4 LIVE EDGE CUTTING EDGE TYPE 1

- Unscrew the bolt, **B**, located at the bottom part of the shaft, at the **A** location on the LIVE EDGE cutting edge.
- Take the bolt off the shaft inserted in the spring, part **C**.
- Disengage the spring, **D**, from the shaft **C**.
- The shaft, **C**, that was inserted in the spring, can now be disengage by a 45 degree rotation.
- Replace the LEVE cutting edge and the the procedure opposite way.

9.5 LIVE EDGE CUTTING EDGE TYPE 2

LIVE EDGE Cutting edges type 2 can be replaced by following these steps and using Figure 14.



WARNING

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9. MAINTENANCE

9.5 LIVE EDGE CUTTING EDGE - TYPE 2 (SUITE)

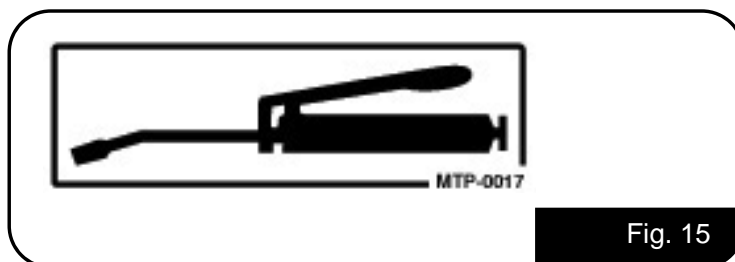
- Unscrew the bolt **B** that is holding the cutting edge **D**, the bolts limit the movement of the cutting edge, acting as stopper, and also because of the limit of the **A** part located under the cutting edge **D**.
- Once the bolts **B** unscrewed, the spring **C** will be free.
- Then, replace the LIVE EDGE cutting edge **D**.
- Follow the procedure opposite way.

9.6 GREASING

This equipment is designed to operate without lubrication or periodic lubrication EXCEPT attach point.

9.7 ATTACH POINT GREASING

Lubrication points on this equipment are identified by stickers as illustrated in Figure 15.



APPLICATION

The lubrication should be performed with a grease gun.

GREASE TYPE

Use a high-performance industrial grease for wet and low temperature environment.

9. MAINTENANCE

9.7 ATTACH POINT GREASING

! WARNING

DO NOT PROCEED TO GREASE WHEN THIS EQUIPMENT IS OPERATING.

! WARNING

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The central attachment point (Figure 16) for this equipment requires periodic greasing every 50 hours of use.

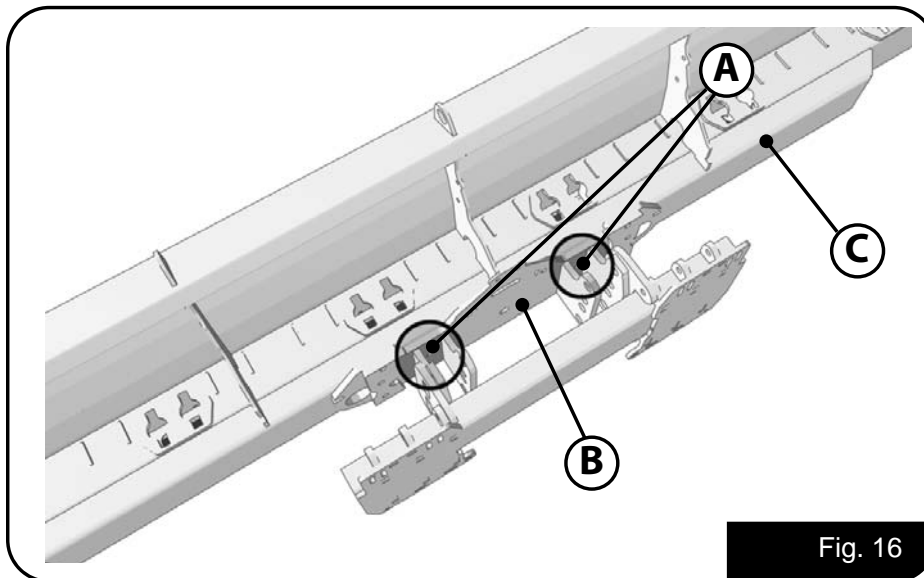


Fig. 16

Find the two(2) greasing points **A** located behind the blade/plow, the two(2) greasing points are located on the plate **B**, itself bonded to the main beam **C**, as shown Fig. 16.

10. INFORMATIONS ON LIMITED WARRANTY

10.1 LIMITED WARRANTY

- This new equipment is delivered free from defects in manufacturing and / or assembly.
- This equipment comes with a limited warranty of 12 months from the manufacturer. Some parts or components may have an inferior warranty time limitation.
- Any unauthorized modification of this equipment leads to a loss of warranty.

HITCH

Only original MetalPless hitch and MetalPless snow plow installed by the manufacturer or one of its authorized retailers will benefit from the manufacturer's limited warranty.

ERRORS, OMISSIONS OR NEGLIGENCE

Only the owner and / or operator of this equipment is liable for any damage caused by error, omission or negligence, and are not eligible to any warranty.

REPAIR UNDER WARRANTY

If this equipment requires to be repaired, or needs replacement parts UNDER WARRANTY, a request for Service Under Warranty should be directed to the manufacturer BEFORE STARTING ANY TASK, using the coordinates listed in this guide.

Requests for Warranty Service must be accompanied by the following data elements:

- a) Name of the owner
- b) Address where the equipment is located
- c) Contact
- d) Date of purchase
- e) Date of failure
- f) Proof of Purchase

In all cases, the manufacturer's liability is solely limited to the replacement of the defective part(s) after diagnosis by the manufacturer or an authorized dealer.



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