Pro-Tech® Live Edge™ Sno Pusher Owner's Guide

LEL (Loader) and LEM (Compact Wheel Loader) Models

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ABOUT PRO-TECH

Pro-Tech offers a robust product line of containment and multi-use plows to help its customers address multiple surface conditions and applications with confidence. Through quality, price and availability, Pro-Tech delivers proven value with durable, competitively priced products that are there when customers need them.

Quality, Price and Availability

Quality: Pro-Tech's values are trust, respect and quality based on integrity. We define integrity as consistency and credibility – and this applies not only to our products, but to our people as well. Our focus on integrity ensures that everything we do goes beyond the economics of business and stays consistent with our core values.

Quality is a measurement of our values translated through our word and our product. Our quality systems measure our performance with inspection processes and is maintained by a series of checks and balances and is reinforced with training.

With over 25 years of manufacturing and design experience and over 60,000 units sold - we confidently stand behind our product warranties.

Price: Quality and availability don't mean a whole lot if your product is priced out of reach for the majority of customers. At Pro-Tech, we feel we have the very best combination of Quality, Price and Availability. Our top quality products - with the Pro-Tech name, experience, warranty and integrity behind them – are priced fairly.

Combined with our Freight policy, our legendary durability, our turnkey mindset and our commitment to building relationships, our pricing guideline is just one of the many areas where we deliver more than is expected.

Availability: We believe customer satisfaction comes when the customer knows exactly what they are getting, when they are getting it and what it will cost. Our commitment to availability means that we build our inventory levels up during the winter season so we'll have product to ship when an order is placed.

We'll call you when your order is leaving the lot and our trucking partners will call you to confirm delivery times.
Our large distributor and dealer network ensures that large volumes of Pro-Tech products are available in multiple varieties across the United States and Canada.

SAFETY PRECAUTIONS

1. NEVER get under the unit during maintenance procedures without properly securing the unit
2. ALWAYS take a few minutes to properly secure the unit using dunnage or jack stands to ensure safety during maintenance.
3. DO NOT rely solely upon the hydraulics of your machine to secure the unit during maintenance.
4. NEVER get between the prime mover and the unit while attaching.
5. ALWAYS be sure to keep hands and feet away from designated pinch points.
6. DO NOT place hands or feet under the unit or the prime mover.
7. NEVER stand in front of a unit while prime mover is in operation.

OPERATING THE UNIT

The Pro-Tech Sno Pusher® is designed with several exclusive features to ensure safe and efficient snow removal. The Live Edge™ is an industry first combining the industry leading steel edge with the industry leading chassis. This gives superior surface results. The Pro-Tech™ Floating Coupler helps to reduce potential damage to your machine by enabling the Sno Pusher® to move over raised manhole covers, low curbs and other obstructions.

To ensure your unit will provide you with years of service with minimal maintenance follow these simple instructions:

1. Once the Sno Pusher is properly attached to your machine the cutting edge may be adjusted BEFORE plowing to achieve the best surface results.
2. To level the unit set it down and adjust the curl of your bucket, making sure that BOTH wear shoes are resting squarely on your plowing surface.
3. To ensure proper contact drive your prime mover forward approximately 20', check surface area under your machine to ensure that plowing area is clean. If using the post mount option and your plowing area is not completely clear, feel free to loosen the tension of binder(s) to allow your Sno Pusher to vertically adjust for maximum surface contact.
4. IMPORTANT: Binders must not be tightened to a tension level that inhibits the floating movement of the coupler.
5. Down force is NOT necessary for proper plowing. It can be added as required to assist in scraping hard packed snow. However, extended operation of down force will considerably shorten the life of your wear shoes and cutting edge.

ASSEMBLY

Before use, the sideplate assemblies (right and left) need to be fastened to the chassis. First, make sure that the chassis is lifted off the ground and secured. Next, secure each sideplate assembly to the chassis with (8) bolts on the sideplate, (2) bolts on the rear support strut, and (2) bolts thru the moldboard.

Note:
The compact wheel loader models (M) have (7) bolts to fasten the sideplate.

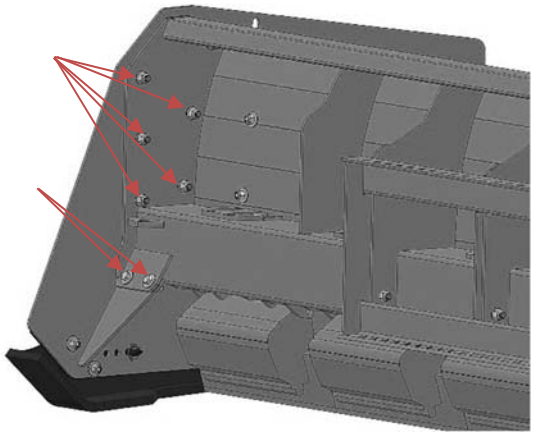


Figure 1a

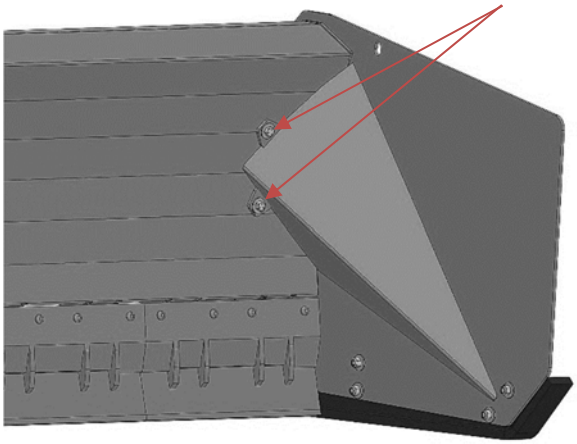


Figure 1b

ATTACHING THE UNIT: LEL and LEM models equipped with post configuration design

Attaching the Sno Pusher to your machine is made easy with Pro-Tech's Quick Change™ Design.

1. Drive the cutting edge of machine's bucket into the post receptacle on the back of the Sno Pusher. (Figure 2a and 2b)

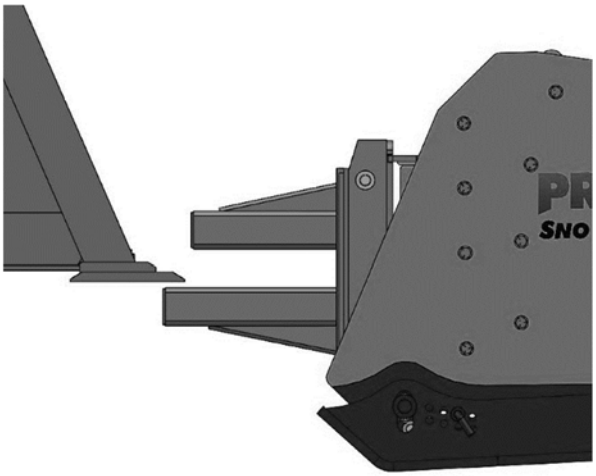


Figure 2a

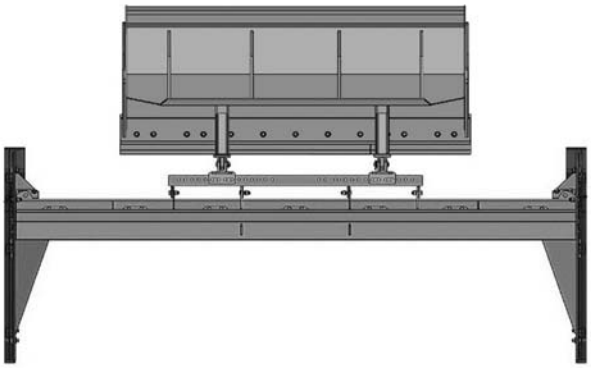


Figure 2b

The bucket will come to rest against the steel bucket stops. The upper posts will fit inside the bucket and should be centered. The lower posts will be positioned under the bucket.

2. Attach the chains and binders to secure the Sno Pusher to your machine.

INSTALLING THE BINDER KIT

1. Grab hooks are to be welded to the side or back corners of your machine's bucket.

   The location you choose MUST allow chains to be positioned parallel to the ground when attached. This will ensure level operation of the Sno Pusher to your machine.

2. Attach one section of transport chain to the right side of the Sno Pusher using a 3/8" clevis. (Figure 3)

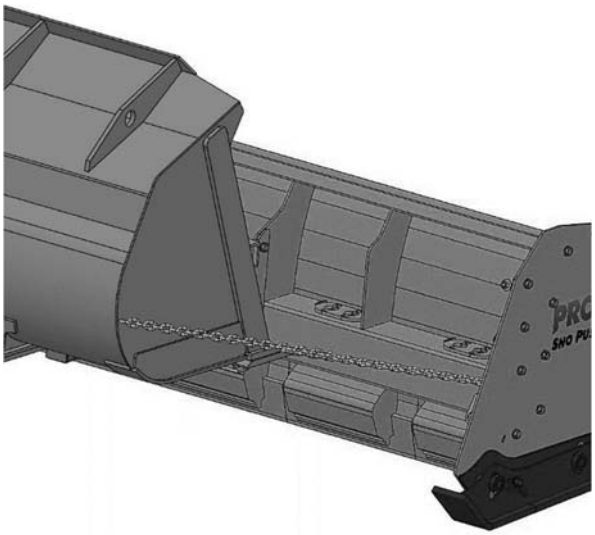


Figure 3

Drop opposite end of this chain into grab hook on the right side of the bucket. Leave enough slack (approx. 3"-4") in the chain to allow vertical centering of the unit and coupler.

3. Repeat step (2) to attach transport chain to the left side of the Sno Pusher

4. Now that both chains are in place, you need to ensure full range of motion of the floating coupler while maintaining contact between your bucket and the inside of the post receptacles.

NOTE:
If the pusher is slipping, then the chain is too loose. Never try to "catch" the pusher by "curling" the bucket. This could cause damage to the Quick Change™ posts.

CAUTION:
Do not use the lift hooks located at the top and rear of the Sno Pusher for chain attachment. These hooks are designed for lifting the unit only and not for plowing.

For LEL, Chain Kit Includes:
- 2 – 10' sections of 3/8" P-43 Transport Chain
- 2 – 5/16" Grab Hooks
- 2 – 3/8" Shackles

For LEM, Chain Kit Includes:
- 2 – 5' sections of 3/8" P-43 Transport Chain
- 2 – 5/16" Grab Hooks
- 2 – 3/8" Shackles

ATTACHING THE UNIT: LEL models equipped with a direct coupling system

Your Pro-Tech Sno Pusher® Loader Model (LEL) is equipped with the manufacturer's OEM Quick Coupler. (Reference dimensions at end of Owner's Guide)

1. Remove the bucket from your loader.
2. Drive machine into the coupler located on the back of the Sno Pusher®.
3. Engage the locking pins.

   NOTE: The coupler assembly may need to be re-positioned to remain centered and aligned with prime mover.

ATTACHING THE UNIT: LEM model

Your Pro-Tech Sno Pusher® Compact Wheel Loader Model (LEM) is equipped with the manufacturer's OEM Quick Coupler

1. Remove the bucket from your compact wheel loader.
2. Drive machine into the adapter located on the back of the Sno Pusher.
3. Engage the locking pins.

MAINTENANCE

Your Pro-Tech Sno Pusher® requires only minimal service to remain in top condition. Follow these simple guidelines to ensure proper plowing and long life:

LIVE EDGE (Height Adjustment)

The height of Live Edge Cutting Edge™ can be adjusted without any tools.

Note: Once the pusher is assembled, it will be necessary to properly adjust the shoes to the optimum cutting edge position. The shoes will need to be adjusted so that only 1" to 1-1/4" of cutting edge is below the bottom surface of the shoe. Failure to set the height properly can damage the plowing surface, the pusher, or both.

Raise unit off the ground to access the rear of the wear shoe. From the inside of the side plate locate and remove the lynch pin. (Figure 4a)

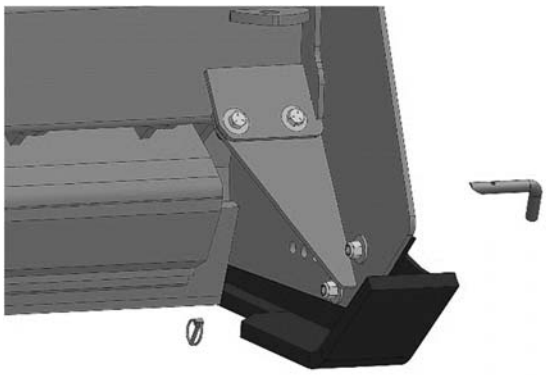


Figure 4a

Figure 4b

Slightly raise the shoe upward to remove bearing weight on the shoe pin. Remove shoe pin and select desired adjustment position. Replace shoe pin and lynch pin. Repeat on opposite side maintaining the same hole height locations for each.

CUTTING EDGE (Replacement)

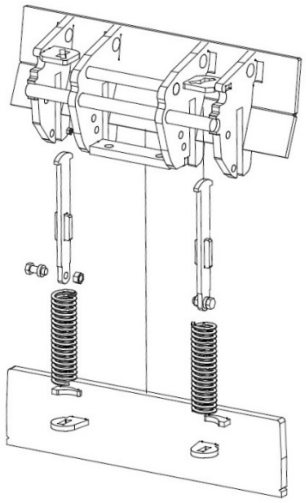


Figure 5a

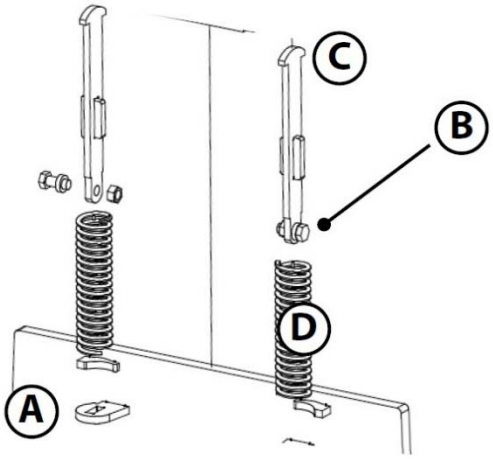


Figure 5b

- 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 disengaged by a 45° rotation.
- Replace the Live Edge cutting edge and reassemble in reverse order of dis-assembly.

WEAR SHOES

Every Pro-Tech Sno Pusher® is equipped with two hardened, abrasion resistant, bolt-on wear shoes that are replaceable to provide seasons of use by offering superior protection against wear and tear. When replacement is required, follow these guidelines:

WARNING:
Wear shoes are extremely heavy, please use caution during the removal and installation process.

1. Lift Sno Pusher slightly off ground (2”-3”) and secure before attempting any modifications.
2. Remove existing wear shoes by removing the shoe retaining bolts, lock nuts and collars. Then pull the wear shoe off the mounting pins.
3. Lubricate all sliding surfaces of the wear shoes, mounting pins, and retaining collars with grease or never-seize.
4. Re-install wear shoes by sliding them over the mounting pins and securing with the shoe retaining bolts, lock nuts and collars.

STORAGE

Store the pusher in a location out of direct sunlight and exposure to the weather to prevent premature degradation of the cutting edge.

Properly clean the unit before storage and remove dirt, debris, salt, etc. to extend paint life.

LIMITED 10 YEAR WARRANTY

We will repair or replace any Pro-Tech Sno Pusher® proven to be defective in materials or workmanship for ten years after the purchase date, in accordance with the following terms and conditions:

1. Pro-Tech reserves the right to determine whether a unit will be repaired or replaced.

2. Transfer of ownership to any party other than those mentioned on the original, returned warranty card or online registration will completely void this warranty.

3. All shipping and handling charges for returned units must be prepaid by the owner and received at the Pro-Tech facility FOB.

4. If the warranty claim can be diagnosed from photographs clearly showing the problem area and/or details of mechanical failure, the physical return along with additional shipping and handling charges may be avoided. (Note: We reserve the right to have a factory representative evaluate any problem(s) in the field.)

Pro-Tech makes no other warranty of any kind, either expressed or implied, including warranties pertaining to merchantability and fitness for a particular purpose.

This warranty is intended to provide you with specific rights, you may also have other rights which vary both internationally and domestically, as well as from state to state.

Warranty Coverage Procedure

1. Call Pro-Tech directly to discuss product information:

    - Serial #, Purchase Date, Proof of Purchase, Product Registration; product registered with Pro-Tech

2. Describe the nature of the warranty claim.

3. Provide photographs illustrating the failure.

4. Pro-Tech will determine if failure falls within the 10-year warranty. If it does, Pro-Tech will offer corrective options. If it does not, Pro-Tech will offer repair and cost options.

Exceptions to Warranty

1. Any wear associated with sacrificial parts such as but not limited to:

    - Wear Shoes, Hardware, Cutting Edge, Coupler Mounting Angles, and connection points.

    - Any additionally purchased quick coupler will have a limited (1) one-year warranty.

2. Any damage occurring as a result of:

    - Misuse, Negligence, Accidental Impact

3. Any non-factory repair or alteration deemed detrimental to the functionality of the Sno Pusher upon inspection by a Pro-Tech engineer will void all warranties specific or implied.

    THE USE OF ANY NON-PRO-TECH REPLACEMENT PARTS, SUCH AS CUTTING EDGES OR WEAR SHOES, WILL VOID ALL WARRANTIES.

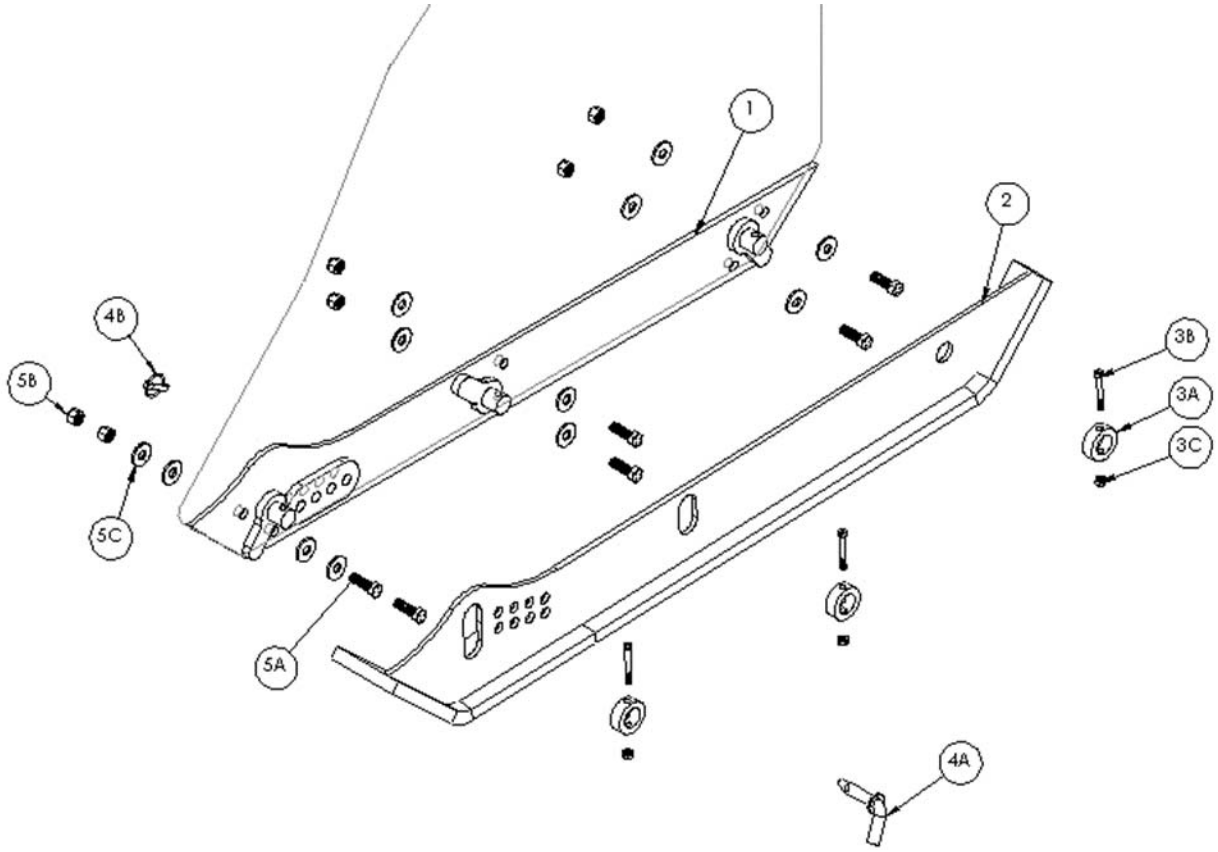
4. Pro-Tech will not be held liable for any personal damage that occurs as a result of use. This includes, but is not limited to:

    - Injury, Death, Loss of Use, Income or Profit Loss, Property Loss/Damage

PRODUCT REGISTRATION

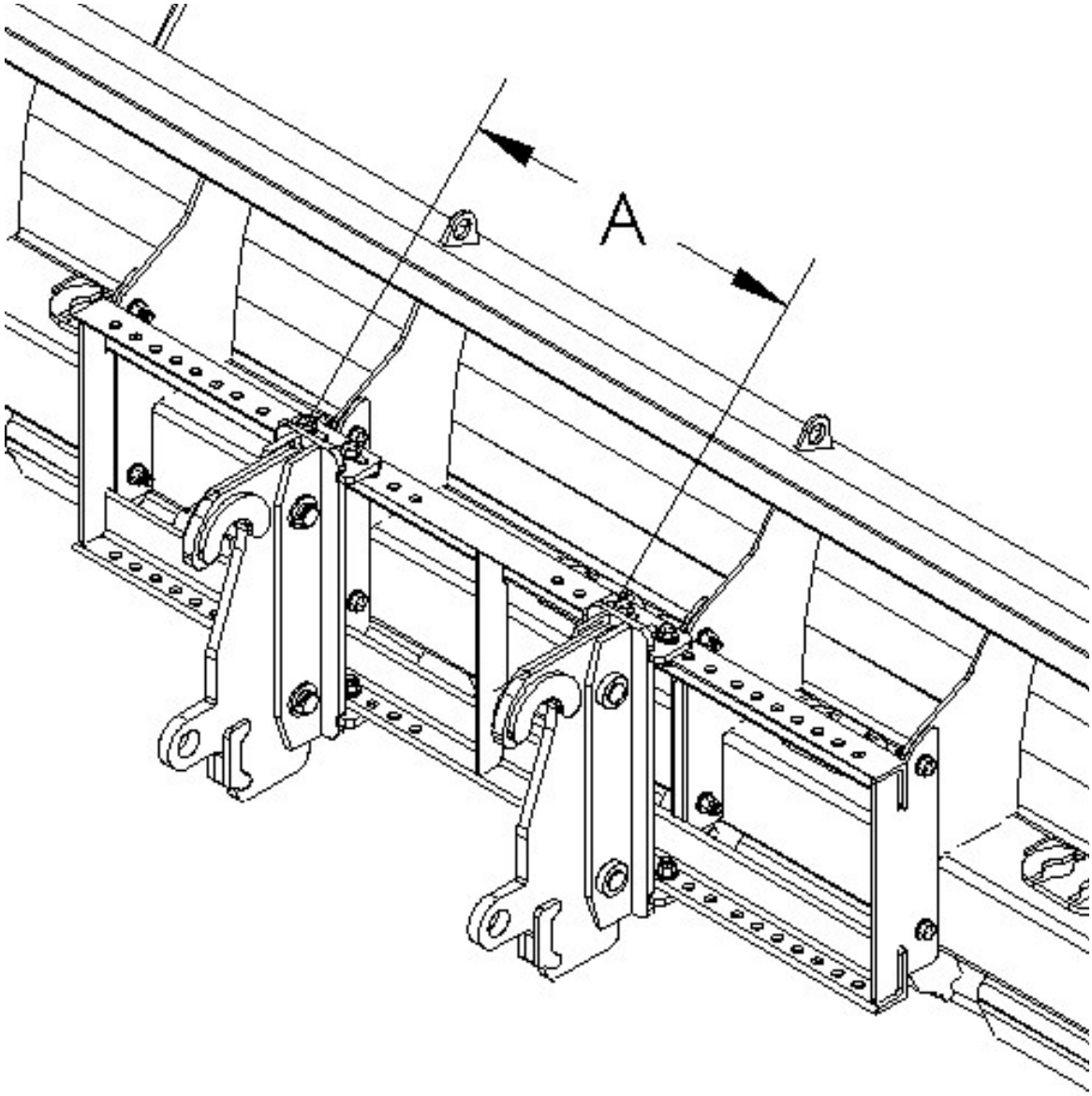
In order for your new Sno Pusher to be covered under warranty you must register it with Pro-Tech. To register:

1. Please visit www.protechcorp.com to register your unit online.



REPLACEMENT SHOES

ITEM	DESCRIPTION	QTY./UNIT
1	Mounting Web Assembly	2
2	Wear Shoe Assembly	2
3	Wear Shoe Retainer Assy	6
3A	Retaining Collar	6
3B	Bolt	6
3C	Nut	6
4	Shoe Pin Assy	2
4A	Shoe Pin	2
4B	Lynch Pin	2
5	Mounting Web Hardware	12
5A	Bolt	12
5B	Nut	12
5C	Washer	24



Connection	Model	A (in)
JRB-416	LEL	30.625
CAT-IT 12-28	LEL	22.44
Volvo L50-L120	LEL	39.375
Post Mount	LEL	*
Post Mount	LEM	*
Universal Coupler	LEM	-

* SET POST HUBS TO MAX USEABLE SPREAD

EST. 1993

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BUILT TO HUMBLE MOTHER NATURE ™

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