



SECTIONAL SNO-PUSHER™

OPERATIONAL PROCEDURES

SAFETY PRECAUTIONS & WARNINGS

Read and understand this Owner's Manual before installing, operating, or making adjustments to the Sectional Sno-Pusher™. Improper installation and operation could cause personal injury (to operator and bystanders) and/or equipment and property damage.

GENERAL

ALWAYS be sure to keep hands, feet, hair, and clothing away from pinch points/moving parts.

ALWAYS keep the pusher on the ground when parked or not in use.

ALWAYS inspect your pusher for wear and damage before operating.

NEVER get between the bucket/coupler of the machine and the pusher while attaching the unit.

NEVER place any part of your body under the pusher.

NEVER use the Sectional Sno-Pusher™ for ANY purpose other than plowing snow. Doing so could result in serious injury or death. It will also void your warranty.

NEVER alter the pusher in any way.

DURING OPERATION

ALWAYS operate the pusher at the recommended speed.

NEVER stand or sit on the pusher while it's in operation.

NEVER stand in front of a pusher while machine is in operation.

MAINTENANCE / SERVICING

ALWAYS use Arctic OEM replacement parts.

ALWAYS take a few minutes to properly secure your pusher using jack stands to ensure safety during maintenance/service.

NEVER attempt to service this pusher, unless you know how to do it safely and have the proper tools for the job.

NEVER service or otherwise handle a pusher in the raised position unless it is securely blocked against unexpected falling.

NEVER rely solely upon the hydraulics of your machine to secure the pusher during maintenance/service.

NEVER get under the unit during maintenance procedures without properly securing the pusher.


PROPER MACHINE TO USE WITH YOUR SECTIONAL

CD COMPACT DUTY

| MODEL | MINIMUM HORSEPOWER | MINIMUM LIFT CAPACITY |
|--------|--------------------|-----------------------|
| CD-6.5 | 35 | 1,200 lbs |
| CD-8.5 | 45 | 1,750 lbs |

Recommended for:


 Compact Skid Steers

 Skid Steers

LD LIGHT DUTY

| MODEL | MINIMUM HORSEPOWER | MINIMUM LIFT CAPACITY |
|---------|--------------------|-----------------------|
| LD-8 | 50 | 1,750 lbs |
| LD-10.5 | 70 | 2,000 lbs |
| LD-13 | 80 | 2,400 lbs |
| LD-15.5 | 80 | 2,950 lbs |


Recommended for:

 Skid Steers

 Track Loaders

 Tractors


 Backhoes


 Compact Wheel Loaders

HD HEAVY DUTY

| MODEL | MINIMUM MACHINE CLASS |
|---------|-----------------------|
| HD-11 | 1.5 YD |
| HD-14 | 2 YD |
| HD-17 | 2.5 YD |
| HD-19.5 | 3 YD |
| HD-22 | 4.5 YD |
| HD-27.5 | 5 YD |

Recommended for:

 Wheel Loaders

 **Note:** All sizing recommendations are subject to your machine's age and condition. You should always check with your dealer or an Arctic rep when determining the model that will best suit your machine.

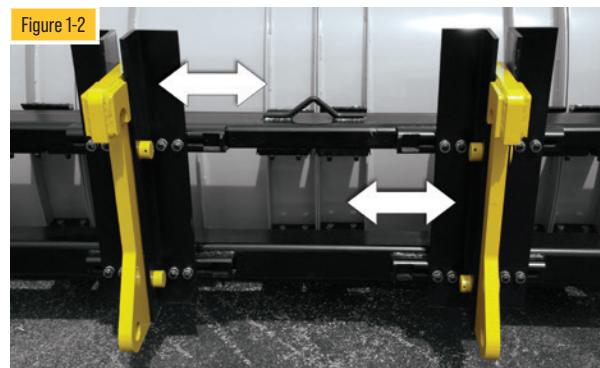
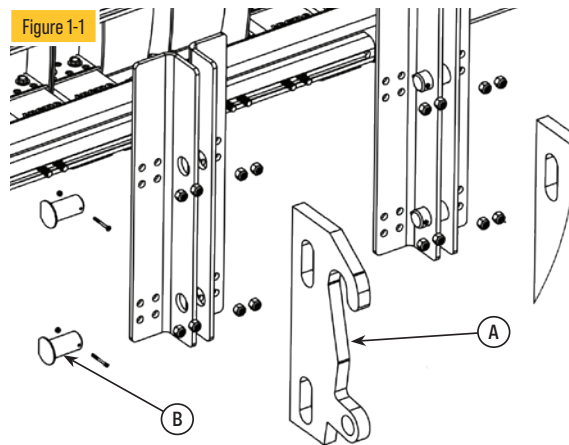
BEFORE EACH USE

- ☑ Check all loose fittings and tighten.
- ☑ Check all cutting blades. Viewed from the back, 1.5" must be visible. Otherwise, replace immediately or risk damage to pusher.
- ☑ Check for broken springs. If broken, must be replaced immediately by a qualified mechanic before operation.
- ☑ Check Polyblocks. Look for damage that signals imminent failure, such as cracks, tears, or missing chunks. If damage exists, be sure to replace immediately if possible, or before next storm at the latest

FITTING COUPLER HOOKS TO YOUR MACHINE (HD MODELS ONLY)

Note: CD and LD models do not require any adjustments to the slip-hitch/slide rail.

1. Identify and select make and model of coupling hook that mates with your machine. (Consult machine mfr's owners manual)
2. Install hooks **(A)** using four 2" diameter pins **(B)** and secure with 1/4"-20 x 2.5in. hex head bolts and 1/4"-20 nylon lock nuts. [See Figure 1-1]
3. Adjust horizontal slide bars [See Figure 1-2]: Measuring from center, loosen the vertical angle iron bolts **(8 on each side)** and slide angle iron left or right to obtain proper boom width of your machine. After ensuring that 3/4"-10 nuts are threaded perfectly and angle irons are vertically square, tighten nuts secure to 160 ft lbs torque.



ATTACHING THE PUSHER TO YOUR MACHINE

1. Look over machine and pusher and make sure nothing looks out of order (bolts missing, bent metal, ice chucks, frozen pins, etc)
2. Disengage quick connector locking mechanism.
3. Align machine with pusher and mate coupler with pusher.
4. Engage locking pins
5. Visually confirm that locking pins are fully and securely engaged.
6. Begin operation.

IMPORTANT TIPS TO USE WHEN OPERATING SECTIONAL PUSHERS AND PLOWS

The Arctic Sectional Sno-Pusher™ is rated the number one pusher/plow on the market for efficiency, ease of operation, and cost savings. However, for individuals who are used to operating a more traditional pusher, there may be some habits that need to be broken, and so a certain learning curve is involved in order to utilize this pusher properly.

First, many of the adjustments and operating steps that experienced operators of traditional pushers need to employ (down pressure, tilting, use of float switch, pile driving) to get non-Arctic traditional pushers to work are not only unnecessary but actually counter-productive when operating the Arctic. Those old techniques not only waste the operators time and attention, but also severely limit the efficiency of both pusher and machine as well as lead to premature wear and tear of both pusher and machine. That is why we say, “Let the Arctic Sectional do the work!” It will automatically make the necessary adjustments and operate at peak performance.

By following these few simple steps below, you will enjoy the full benefits of the Arctic Sectional for many years to come and join the legions of loyal snow contractors who claim this was the best investment they ever made. You will also dramatically reduce/eliminate premature wear and tear, enjoy greatly extended longevity of the plow’s and machine’s parts, reduce your salt use, and create less property damage for your customer.

Please note that almost all premature wear of the polyblocks, cutting edges, wear shoes, and springs can usually be attributed to a failure to follow one or more of the simple operating tips listed below.

1. **Instructional Video:** It is extremely important and highly recommended that all first time Sectional users as well as veteran operators watch the instructional video, which can be found by going to arcticsnowproducts.com/support or scanning the code on the right. The short instructional video will explain and illustrate the operational tips listed below and more.
2. **Understand the key difference between an Arctic Sectional and a standard pusher:** Operators using standard pushers will often tilt the plow forward or back and continuously run it that way to get a better angle of attack for scraping. Not only does this accelerate the wear of cutting edges and shoes, but no matter how much down pressure you apply or how much you angle the plow,



it cannot get past the highest spot on the pavement, and therefore cannot get under the ice and hardpack. The Arctic Sectional's moldboards and cutting edges act like a contour gauge to conform to the pavement variations, getting underneath to shear ice and hardpack from the pavement in nearly all cases without any operator adjustments. The moldboards also have a more pronounced curve than most other pushers and plows, which not only automatically gives it an optimal attack angle for scraping, but also allows it to roll snow more effectively.

3. **Encountering a particularly rough patch of ice:** Although the Arctic will generally get under ice and hardpack with ease, there may occasionally be that require a little more effort. In that case, the Arctic is unique in its ability to provide thousands of pounds of variable down pressure directly to the cutting edges to cut through solid ice, by angling the moldboards slightly forward and thus flexing the polyblocks. However, just remember to relax the moldboards once you have cleared the patch so as not to wear out the cutting edges. See page 22 for details on the technique.
4. **Allow the Sectional to free-float:** Do not apply down pressure. Instead, allow the Sectional's patented Slip-Hitch™ Universal Coupler System its full range of motion. This will keep all four of the machine's tires on the ground and the Slip-Hitch™ will allow the Arctic Sectional to automatically self-level to the pavement and carry its own weight. Please see the instructional video for an understanding and illustration of the free-floating range of motion of the Slip-Hitch™.
5. **Turn the machine's "float-switch" off:** If your machine is equipped with a float mechanism, make sure you turn it off when using an Arctic Sectional Sno-Pusher™. A machine's float mechanism causes the boom arms to move up and down in relation to the pavement. However, this action continually lifts and lowers the pusher/plow, which interferes with the Sectional's Slip-Hitch™. The arms are then continuously alternating between forcing the plow down harder against the pavement (causing unwanted down pressure) and lifting the plow up off the ground. To prevent this, turn off the machine's float and let the Slip-Hitch™ do the work.
6. **Stack snow properly:** The Arctic Sectional will stack snow as high or higher than any other pusher in the market. However, it is not designed to be used as a bulldozer blade. You should never "slam" an Arctic Sectional into a stack pile. Again, please see the instructional video for an understanding and illustration stacking snow properly.

PLOWING CONSIDERATIONS

1. Before you begin, it's important to make sure your equipment and pusher are both set for proper operation.
2. If your equipment offers a float option, disable this option when operating the Sectional Sno-Pusher™. The float option will detract from proper operation of the pusher.
3. The Sectional Sno-Pusher™ features drop and go technology for quick and efficient plowing. This on-the-go, automatic adjustment of the pusher is a result of the patented slip hitch design which enables the pusher to move up or down independently from the carrier. To maximize the slip hitch effectiveness, set the pusher in the neutral or middle position.
4. Once an operator gets a feel for the range of motion of the slip hitch, they'll be able to easily drop the pusher and go. To become familiar with that range, simply set the pusher on the ground and move the arms of the machine without lifting the pusher off the ground.
5. When you're on site, you'll have a feel for the movement of the slip hitch and you'll be able to quickly recognize the proper angle of the pusher with simple visual guides integrated in the design. Take note of the triangular holes at the top of the side panels. These holes are the reference for proper pusher angle. When you drop the pusher to begin work, the moldboard sections should be behind the holes blocking their view from the operator's platform – ensuring proper alignment of the pusher. It's a quick and simple check ensuring optimum performance of the pusher every time.
6. Proper positioning is also critical to the pusher's longevity. If the pusher is curled or tilted too much, undue pressure is placed on the bottom row of polyurethane mounting blocks, accelerating wear. Improper positioning can also inhibit efficient operation of the independent moldboard sections, reducing effectiveness and preventing proper tripping when encountering obstacles.

PROPER WAY TO STACK SNOW

In the snow removal business, the ability to stack snow is critical. But, there is a right and a wrong way to tackle the stacking job. The biggest mistake made when stacking snow is thinking of the pusher as a bulldozer.


Since it is not a solid piece of steel like a dozer or traditional box plow, but rather a unique, sectional design, the Sectional Sno-Pusher™ requires a different approach.

1. To properly stack with the pusher, lift the pusher at the same rate of speed that the machine is engaging the snow pile.
2. Begin lifting as soon as initial contact occurs on the outside edges. If you fail to lift at the same rate of advance, you will notice each section being forced back towards the frame in rapid succession. This causes premature wear on the blocks and moldboard sections. In addition, waiting to lift the pusher until you've already engaged the snow pile with the main portion of the blade causes tremendous down pressure on the polyurethane blocks. This can lead to significant damage.
3. While going up with the pusher, it is suggested to slightly tilt the pusher up (towards the sky) to maximize driving force of the machine and to maximize the height of the snow pile, if necessary.
4. To minimize left over snow attached to the pusher from falling off and creating a mess on the pavement, liberally tilt the pusher up and down above or next to the snow pile to remove stuck snow on the frame of the pusher.

SCRAPING HARDPACK AND ICE

The Sectional Sno-Pusher™ is the only pusher on the market that gives you the ability to aggressively tackle more demanding snow removal jobs. The ability to roll the pusher forward offers the aggressive force needed to tackle the most difficult hardpack snow and ice. By rolling the pusher forward slightly, operators can effortlessly get under hardpack snow and ice and clear it away – straight down to the pavement surface. In doing so, Arctic's Sectional Sno-Pusher™ significantly reduces salt usage.

1. Start by leveling the pusher out with the pavement.
2. Then tilt the pusher down towards the ground to create down force on the pusher. This allows the pusher to scrape harder. Do not add too much down force to the pusher as it will lift the front end of the machine too much and the front tires will lose contact with the ground.
3. Use the triangle shaped guides on the top of the side panels. These guides cannot be seen from the machine's cab when the moldboards are relaxed and in their normal operating angle, but will become more exposed to the operator, the further they tilt the moldboards. Please see the instructional video for an understanding and illustration of the triangle cutout guides.
4. When you are done with the patch of ice in question, it is recommended that you bring the pusher back to the neutral position ("relax the moldboards"). In the neutral position, the Arctic can clear most hardpack snow and ice and is, of course, its optimal position for overall performance. Adding the variable down pressure to the edges is certainly recommended where needed, but continual use will cause excessive wear to the cutting edges and other components.

 **Note:** Please understand that doing this process will indeed increase the wear and tear of the cutting edges and other components.