

# Trail Paver II Operating Instructions

The Trail Paver II has our unique Hydraulic Packer Pan that gives it the ability to do many things traditional grooming equipment can't.

## Operating the Trail Paver II is Very Simple

Having a Digital Display in the cab, and always knowing the exact position of the Trail-Paver Front and Rear of the Process Section, this will make all operators pro's in no time. This is a great feature for pulling units that have limited rear visibility. As trail conditions change and hydraulic adjustments are made, the operator can see the changes on the Read-Outs and easily return to the previous settings. **(The Sweet Spot) When operating a Trail Paver II, you want to do the majority of mogul cutting with the front of the groomer and let snow flow to pan.**

## Step One: Change the Travel/Groom Pin to the Groom Position

Before starting to groom, be sure to check that the Transport/Groom Pin has been moved from the Transport Position to the Grooming Position, in the hitch. When in Transport Position, the pin goes through holes locking it to the hitch tower. When in Grooming Position, it allows limited movement (Float/Groom Position) but not allow it to "Jack Knife when backing up". This will allow the Trail Paver II raise if it encounters hard objects (rocks/stumps) in the trail. Use the Transport Position for extended road transporting, backing up with the wheels down, and to load/unload the Trail-Paver on/off a trailer.

## **Step Two:**

Check/Change the Mounting Position of Front Hydraulic Cylinder??

"IF" your Front Cutting Depth is limited by the "RETRACTED" length of the Front Cylinder!

Move the Rod End Clevis towards the front, this will allow the blades to cut deeper but sacrifice how high the front of groomer can be lifted.

Note: Turning the cylinder mount around 180 degrees moves the mount in 1" increment instead of the 2".

## **Step Three:**

Adjusting the One-Way Hydraulic Flow Valves

Adjusting these is easier with two people and should be done in cold weather, with the pulling unit at working RPM, one person in the cab operating the controls while the other adjusts the flow control valves.

The valves can be set so the hydraulic cylinders move up and down to the operator's liking, **allowing the cylinders to move in smooth and easily controlled motions.** When finished tighten the set screws in the knobs.

The Front Hitch Cylinder has 1 Flow Control Valve on it, it allows you to raise the front "Fast", but control the speed of the Front going "Down". Usually ¼ to 1 turn open.

The Packer Pan has 2 Flow Controls, located on the ends of the hydraulic hoses where they connect to the pulling unit; these cylinders can be adjusted faster one direction than the other. Usually 1 turn open or less.

If your Pulling Unit/Groomer is equipped with proportional control valves or flow controls, you may want to open the Trail Pavers 3 valves all the way.

## Step Four:

### Hydraulic Packer Pan Position - "The Third Hydraulic Circuit"

When grooming with the Trail Paver II, it is important to **ALWAYS** have **SOME DOWN PRESSURE** on the **Hydraulic Packer Pan**, this will confirm that the **Packer Pan** is **FLAT ON THE TRAIL**.

It is important to establish baseline numbers on the Hydraulic Cylinder Position Indicators.

Take the Groomer and Trail Paver II to a flat, level spot on a snow covered trail; lower the Front and Rear of the Process Section so they are sitting on the trail. Make sure the Packer Pan is flat on the trail also and has some pressure on it. Now read the numbers on Position Indicator Display, this will give you a setting that you can go back to! The Front (RED) might read 4.5 and the Rear (BLUE) might read 6.5, Your Reference Point".

Watch the "Red" or "Blue" Readouts for example as they change from 6.5 to 6.6, 6.7, and 6.8.

When the numbers change by ONE DIGIT, from 6.5 to 6.6, the Hydraulic Cylinders have extended or retracted. (Approx. .120 " or 1/8")!

You can use these settings for how deep the front will cut (19" +), backing up, carrying snow, filling a ditch, not scalping on a hill, grooming wet snow!

Only a small amount of down pressure is needed on the (Pan Cylinders) to raise the Rear of the Process Section. This gives you the ability to make fine adjustments and control the amount snow carried in front of the rear vertical baffle (Max. 24"), and this also controls the amount of snow that can flow out of the Trail-Paver to the cover the trail.

The more you cut with the front; more down pressure generally has to be applied to the Packer Pan to keep the snow "flowing" through the Process Section of the Trail Paver II.

Make SMALL adjustments and wait **5-10** seconds or more for the snow to flow normally and stabilize before making further adjustments! **ONLY** keep 24" of snow in front of the rear vertical baffle,

If the trail does not need cutting and processing, don't disturb it; just use the Packer Pan to pack it harder.

## Step Five:

### Cut and Process Section Position (The Trail Paver II can cut 19"+ Deep)

Cut as little or as much needed to remove the full mogul and memory, the snow should always be moving through the cut/process section. Watch the Front **RED Readout (2.0 to 9.9)** to determine how deep the Front of the Trail Paver is cutting, as the numbers get smaller, this indicates the front is cutting deeper, conversely as the numbers get higher this indicates the front is cutting less.

The same applies to the Rear BLUE Readout, the higher the number indicates that leveling screed is higher off the trail and will allow more snow to flow out of the Process Section!

The deeper the front cuts, usually the more down pressure on the Packer Pan will be needed to raise the rear of the Cut/Process Section and allow more snow to escape under the rear leveling bar.

Watch the BLUE Readout (Numbers should Increase).

## Adjusting the Blade depths and Pan Skag depth!

Lower the Trail Paver on a flat, level surface. Put Shims between the Outer ½” thick side rails on each side (front & back) and the floor to the depth cut desired, loosen the blade bolts, lower the blades and tighten!

Blades; Measurements are from the “Bottom” of the ½” thick Outer Side Rails!

Front Outer = 0 to ¼” Below

Front Center V = 1/8” to 3/8” Below

Rear Outer = ½” to 7/8” Below

Rear Center V = 1” to 2” Above

2<sup>nd</sup> Rear Outer = ½” to 7/8” Below (Only 10 Blade Model)

Pan Skags; Do the adjustments on a flat, level surface. Put two stripes of Whatever thickness 1” to 3” (wood) on the floor, loosen the bolts, put the pan down on the stripes drop the skags to the floor, tighten the bolts.

## Step Six: Cutting Moguls and Removing the Memory from the Trail

To successfully cut moguls and remove memory from the trail, **try** to cut to the bottom of the moguls on the FIRST PASS. **Do your best not to cut into the trail base.** If you allow the Trail Paver II to cut only half the mogul off and fill the valleys, the trail will look like a beautiful smooth ribbon, but the moguls will return quickly. When you cut part of the mogul, it will be very difficult to make a second pass and see/ cut the rest of the mogul.

### DO YOUR BEST ON THE FIRST PASS!

The Trail Paver II can easily cut and process hard snow and ice 19”+ deep, if the pulling unit has the horse power and traction necessary to pull it. When cutting this deep, the Trail Paver II may be cutting into very hard crusted snow and/or ice, and bringing up chunks. They will leave a crumbled surface behind, not the smooth ribbon look. With the moguls and memory removed. The trail will get smoother, harder, and have the smooth ribbon look with future grooming.

### Hilltop Scalping

When you approach the crown of a sharp hill, raise the front of the Trail Paver II to build the snow base on the crown, try not to scalp it. Your trails will last longer in the late season!

### Wet Snow (32 Degrees +)

Generally, you will not be able to cut and process as much wet snow as normal. Regulate the front cutting depth with the Front Hitch Cylinder or three point hitch, so the wet snow will flow through the cut/process section, and add more down pressure on the Packer Pan so the snow does not hang up in the process section or at the rear vertical baffle of the Trail Paver II. It is a learning and balancing process, and once you get the hang of how to set the Trail Paver II **it works Great!** Also, increasing the ground speed helps move and process the wet/sticky snow, also shake the front hydraulic cylinder up and down quickly if it hangs up.

## Backing Up on a Trail

Raise the **front** and the **back** of the Trail Paver II process section about 2 inches above the trail surface, by applying down pressure on the Hydraulic Packer Pan.

**Do not put the wheels down.**

Now the operator may back-up anywhere on the trail with ease, without leaving a dangerous mound of snow in the trail.

## Removing Corner Berms and Banks

If you can straddle the berm without getting hi-centered, the Trail Paver II will do this job easy; it will cut it evenly and bring the snow back on the trail. This takes a lot of power and traction. If you didn't cut enough on the first pass thru the corner, raise the front and rear of the process section 2-3 inches. Then back-up and recut the corner again.

## Road Crossings and Banks

You shouldn't have to use the front blade of the Groomer, only if there is a bank that is difficult to get over! It is not necessary to adjust the Front Cylinder or the Packer Pan cylinders to cross a road. Just prior to the road crossing, gradually put the wheels down until the Trail Paver II process section is about 1" or 2" maximum above the trail. This will feather out the snow and not produce a mound of snow prior to crossing the road or in the road. When the front of Trail Paver II approaches the far edge/shoulder of the road, raise the wheels all the way. This will allow the Trail Paver II to make a perfect transition from the road to the trail, eliminating the big hump in the snowplow/road bank. Repeat the process on the return trip. If a return trip is not planned, and if the operator is able to turn around, he or she should do the same to the opposite side of the road.

When training a new driver, try not to use the Front Blade on their Groomer. Let Trail Paver II do all the work.

Use the Blade only when they have, fresh deep snow, high road banks, extreme corner berms or the moguls are so bad it's uncomfortable to set in the seat, and then use it as buffer to stop the oscillation of the Groomer. Bring snow onto the trail from the edges.

If these guidelines are followed, and the trail memory is removed, Our customers have seen thicker, flatter, harder, more durable trails, have seen less fuel consumed (1 to 1.5 Gallons per Hour) & less stress on your pulling unit/groomer