

SAFETY AND OPERATING PROCEDURES FOR THE RENOVATING LEVELER

To achieve optimum performance from your Advance Track Setting Systems (ATS) Renovating Leveler and to ensure your personal safety and the safety of others, please follow the recommended safety and operating procedures.

SAFETY FIRST!

- **Always conduct a pre-use hazard assessment and ensure appropriate controls are considered before grooming.**
- **Always be aware and respectful of all trail users while grooming and that you may not be able to control their behaviors. Expect the unexpected.**
- **Do not allow riders on this implement while in tow.**
- This equipment is intended for grooming snow covered surfaces only.
- Be sure the surface to be groomed is free from obstacles that may interfere with the various grooming procedures such as rocks, tree trunks, tree stumps, protruding pipes, culverts, posts or any steel markers.
- Use proper body mechanics when loading, unloading or maneuvering any ATS implement.
- Always get assistance to load or unload the Renovating Leveler to/from truck or trailer.
- Reduce risk of strain or slipping when pulling on the Renovating Leveler loaded with weights manually by using two people or removing the weights or snow first.
- Do not place weights on the Renovating Leveler in a manner where one or more could fall off.
- It is recommended to use weights with a one and one quarter inch hole in them where they can easily slide over the weight pin.
- Be aware of pinch points when adding or removing weights.
- Always remove any weights before attempting to lift onto its side for storage.
- Use only the supplied flat plate or ball style hitch connector when attaching the Renovating Leveler to your towing vehicle.

ASSEMBLY

- There is very minimal assembly required after shipment. At most, installation of the Tow Bar which is typically shipped underneath the Renovating Leveler.
- Remove the 3/16" lynch pins on both the Tow Bar Pins and tap them out with a soft face hammer. Do not lose the washers.



- Set the Tow Bar in position and reinstall the Tow Bar Pins. Again, use a soft face hammer to drive the pins back in place through the Tow Bar clips. Put the washer over the pin and reinstall the 3/16" lynch pins.



TOW BAR LOCK – “New”

- The Tow Bar Lock was initially designed for use with the Wheel Kit. However, it has been determined through use to be useful in making the Renovating Leveller Tow Bar a rigid connection with the tow machine. This helps to keep the Renovating Leveller level during operation and preventing “nose diving” effect when the renovating teeth are engaged in hard packed snow. It also helps when braking through snow drifts.
- It is recommended to lock the tow bar when using the Renovating Leveller with the Tow Bar locked rigidly. It is simply pinned to the Renovating Leveller frame with a link pin the See below photo.



- The height of the Tow Bar connection that engages with the tow machine can be adjusted by loosening the locknut and rotating the center section of the Top Link (that is the actual name) clockwise or counter clockwise. Adjust the length until the Renovating Leveler is about level. Then snug up the lock nut. See below photo.



- When the Renovating Leveler is not in use, the Tow Bar Lock can be unpinned from Renovating Leveler frame and flipped back on the tow bar thus allowing the Tow Bar to float or be raised out of the way for storage. See below photo.



RENOVATING AND LEVELING

- The Renovating Leveler is designed to pack new snow or renovate the existing base by either grinding new snow into the base to add air (decrease density) or remove air (increase density).
- Pre-packing snow with the tow machine or roller is highly recommended when fresh snow is greater than 3" deep.
- **Under very deep snow conditions, great than 6" you will have to prepack the new snow with just the towing vehicle or a roller.**
- When packing fresh snow, the cutting bed should be raised as it will improve the efficiency and minimize plowing effect of the snow. This can be accomplished by using a combination of the rear jack and adjusting the front of the cutting bed. If there is too much resistance, raise the cutting bed to a height where towing is possible. Some experimentation will be required to obtain desired results as there are a number of variables at play (snow conditions, temperature, and speed being the main three).
- The Renovating Leveler has been supplied with the cutting bed and teeth raised to the highest position on the front mounting bracket. I recommend this position for leveling and grooming in new fresh snow. This will reduce a plowing effect.



- Then to mix new snow into the base or tear up an older base, (renovating), lower the cutting bed as far as needed using both front mounts and rear jack. **Multiple passes may be required and will depend on your desired results.** Some experimentation will be required to obtain desired results as there are a number of variables at play (snow conditions, temperature, and speed being the main three).
- For additional packing and grooming performance, ballast or addition weight can be added to the pan. Sandbags work great.
- Addition of supplemental weights (up to 200lbs) on the Weight Pins is recommended to apply downward force on the base for renovating.
- Maximum recommended towing speed for packing and leveling is 5 to 10 kpm. For best results, the slower the better.



- Do not be alarmed with snow build up on top of the Renovating Leveler. In fact, it adds more weight and produces better results. The build up can be significantly reduced by raising the cutting bed and pre-packing.



MAINTENANCE AND STORAGE

- Do not use sharp tools to remove any buildup of ice on the Renovating Leveler. Gently tap ice with a hammer or piece of wood.
- If you find the combed surface is irregular, check for ice buildup on the bottom of the Pan or Z-bar and carefully remove the ice or snow.
- Use a plastic shovel to remove excess snow off the Renovating Leveler to avoid damaging the painted surfaces.
- If desired, remove snow from the pan before storing the Renovating Leveler on its side or off the snow.
- Place wooden blocks under runners to prevent sticking to snow.
- Store in a dry area to help prevent rusting over time if possible.
- It is recommended that the implement be tarped for long term off-season storage.
- Ensure the polyurethane comb is protected from ultraviolet rays during long term storage.