



NARROW GAUGE GROOMER

Assembly and Operation Manual



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Packing List

G2 Tracksetter

- (1) Narrow Gauge Groomer body with**
- (1) UHMW Base attached with 5/16" x 2-1/4" FHSS + LN
- (1) 24" Comb attached with 5/16" x 1" FHSS at outsides
- (1) Tracking Fin attached with (2) 3/8" x 1-1/4" CB + LN
- (1) TT decal on crossbar
- (1) Sharp tooth warning on pan

- (1) Scarifier attachment assembly with**
- (2) Sleeves for scarifier arms attached to main frame via: 3/8" x 3" HB + LN

- (2) Spring Assemblies** each consisting of:
- (1) NGSpring-16 (2.5" compression spring)
- (1) 1/2" x 4-1/2" clevis
- (1) 1/2" Fender washer
- (1) 1/2" flat washer
- (2) 1/2" hex nuts

- (1) Scarifier Assembly with**
- (1) TiddTech aluminum scarifier attached to adjustable arm via
- (3) 3/8" x 2-1/4" HB + LN
- (2) clip pins

- (1) Loop Hitch**
- (2) 1/2" x 1" CB+LN finger tight

- (1) Hitch Extension** (PN NGHitch-16) with
- (1) 3/8" x 2" HB + LN

- (2) Weight Posts - Right & Left**
- (2) clip pins (5/16 x 2-1/2") insert one in each weight post
- (2) 3/8" x 3-1/2" HB with LN

- (1) 01301-01 Manual**

SAFETY

This is the part of the manual that contains **IMPORTANT** safety information. Many products purchased in today's litigious society come with volumes of so called "safety information" complete with diagrams and intelligence insulting text that are so ridiculously obvious that most people ignore the entire section. We have left out the ridiculous and obvious in order to provide you with concise information we believe you can use. It is simply not possible for a manufacturer to anticipate all of the ways an end user can misuse a product to cause damage or injury, but below are the issues we believe a reasonable and responsible operator should pay attention to. Please read this manual completely before operating your machine. If you discover something you believe we should add to this manual, by all means call us, toll free at (877) 843-3832. We do appreciate your feedback!

1. The NG Scarifier bar is SHARP, and should be treated with respect. Never reach under the front edge to move the groomer. Before touching the groomer, please get down on your hands and knees and LOOK at the teeth (and touch them) so you are aware of where and how sharp they are.

2. Be careful lifting the groomer. Its weight is often increased by snow piled on top. Deep or icy snow makes moving the groomer even more hazardous. Be sure you have secure footing, bend your knees, and keep your back straight. In our experience, the most common injury to trail groomers is back strain from yanking implements and snow machines around, and this is completely avoidable. Keep fingers clear of the hitch when you are hooking up to the snow machine.

3. Maintain a safe distance and proceed slowly when operating near skiers or pedestrians on the trail. Grooming a trail with skiers present should be looked upon as an opportunity to offer some friendly customer service – at a minimum a wave or hello. If your customer looks like they need some assistance, shut down your stinky, noisy snow machine and offer some. Those skiers are the reason you have a job so please do not subject them to injury, intimidate them or otherwise spoil their experience.

4. You may have prior experience with Tidd Tech Trail Tenderizer or G2 products. Please note that the NG employs a spring trip on the scarifier bar and DOES NOT HAVE A BREAKAWAY SHEAR PIN! The spring trip offers many advantages over a shear pin system, enabling the machine to encounter obstructions, trip the scarifier bar and reset without interrupting operation. HOWEVER, the spring trip will not protect anything other than the teeth. If you wrap the NG frame around a tree, post or other obstruction, you will almost certainly damage the NG, the hitch, your snow machine, and most importantly, yourself (see safety issue #6, below).

5. You will not find any handles, foot rests or seat belts on the NG because it is NOT intended for riders, period. If you need to add weight, see the appropriate section in the manual.

6. Finally, please remember that normal grooming speed is somewhere between 5 and 15 mph (usually 5-10 mph, although the design innovations of the NG allow for grooming at up to 15 mph in some conditions). This implement is designed to work in that approximate speed range, and not only will this speed range yield the best grooming results, but this speed range also will give both the operator and equipment a reasonable safety margin for error. If you operate this or any other implement behind your snow machine faster than 20 mph (even when you are not grooming), you are simply an irresponsible FOOL looking for an accident to happen, and all of the ridiculous text and diagrams we left out of this safety section would have been lost on you anyway.

ASSEMBLY

1. **Scarifier.** Insert the scarifier arms into the sleeve assemblies which are already installed on the frame of the Narrow Gauge. Use the clip pins on the arms to attach them to the sleeves.

2. Insert the **hitch extension** into the NG frame with the triangle gussets facing up. Then attach the **loop hitch** to the hitch extension. Note that you can place the hitch with the channel pointing up or down, depending on the desired height needed to mate with your tow vehicle. The carriage bolts go in from the rear of the plate with the square slot.

The best grooming generally occurs when the hitch height is set so that the main frame of the NG is parallel to the surface you are grooming. The best way to achieve this is with operator seated on your snow machine and the NG attached. Place a small level on the tongue of the NG main frame and set the hitch height so that the tongue is level when the tow vehicle suspension is compressed as it will be during operation.

3. Attach the **weight post** to the square tool bar on the rear of the groomer using the 3/8" x 3-1/2" hex bolt and lock nut. Tighten to secure the post in place but be careful not to over tighten.

4. If you have purchased the optional **Side Flaps**, they can be installed at this time. Please refer to the manual for appropriate installation and usage information.



OPERATION

The Narrow Gauge Groomer (NG) is a super lightweight implement that can be used for grooming trails for a variety of users; Fat Bikes, Classic Nordic Skiing, Snowshoeing, Walking Trails. The NG is a 24" wide, multi-purpose snow grooming tool that can meet the needs of almost any skinny trail user.

Encountering Obstacles

The scarifier on the NG operates using a spring loaded system that allows the scarifier to pivot back and out of the way when incurring obstacles on the trail. Depending on the size of the obstacle and the height of the scarifier blade, such an occurrence will still likely result in the NG bouncing around a bit behind your tow vehicle. **BE CAREFUL and BE AWARE!** Knowing where obstacles will likely be and pulling the NG at speeds less than 10 mph will go a long way towards insuring your own safety.

Also note that the hitch on the NG is a bolted system rather than a sheer pin system. Thus, if the NG hits an obstacle, it will not break away from the tow vehicle but rather will bounce around behind it and in **EXTREME** cases may cause the tow vehicle to come to a dead stop. Again, **BE CAREFUL, BE AWARE and keep your speed in check!**

Scarifier Adjustment

In new snow conditions, scarifier height should have the "teeth" just tickling the base layer or 1 inch lower dependent upon snow density, water content and new snow depth. This will allow for you to somewhat mix together your old snow and new snow.

For old snow conditions, scarifier height will be very dependent on snow moisture content. Dry, hard snow moves well having the scarifier 2" below neutral. In wetter areas, the scarifier will need to be set just low enough to allow for scratching of the trail surface.

Adding Weight to the NG

The NG comes equipped with adjustable weight posts. These posts can accommodate up to (3) 25 lb round Olympic weight lifting plates. In our experience, we have never needed more than (2) 25 lb plates. You may purchase these plates locally at a fitness store (much cheaper than us shipping them to you). The clip pin on the round weight post is to hold the weight plates in place. In theory, you get better compaction with more weight, but the trade off is the increased pulling power needed to get up hills.

Side Flaps

Optional side flaps are available for use with the NG. The most important thing to keep in mind about the side flaps is that because they extend beyond the width of the NG frame, they will not be protected by the frame should you hit a tree or other obstacle on the side of the trail. Because many NG users will be using the implement in narrow quarters, we cannot emphasize enough to pay attention and go slow in order to avoid obstacles. The most common way that people destroy their side flaps is thinking that they will push down a small tree as the flap passes over it. What ends up happening is the tree becomes stuck in the space between the flap and the groomer and then something has got to give and this usually ends up being the side flap top and bottom plates. Show you equipment some love and try to prevent this from occurring.



The side flaps can be positioned in three ways: level, 45 degrees and all the way up.

When grooming for classic skiing or snowshoeing, you will probably want to have the flaps pinned in the level position to add an additional 24" of combed width to your trail. This is especially valuable to classic skiers in creating a firm, stable pole plant zone.

For Fat Bikes, many people like to position the flaps at 45 degrees. This allows the flaps to create a sort of outside berm which is helpful in curves as well as for keeping those wobbly riders towards the center of your trail.

The fully up position is for when you want to groom the narrowest of trails. When doing so, keep in mind that you will be more likely to be limited by the combined length of the NG and your tow vehicle. Pay careful attention to your turn radius and try not to let your single track fever put you in a position that you end up in toothpick tree jail in a dog hair forest.

Get creative! One flap up, one flap down. One flap down, the other at 45 degrees. Whatever the edge of your trail needs, the side flaps can probably make it happen.

CARE AND MAINTENANCE

The Narrow Gauge Groomer (NG) will last many years with very simple maintenance procedures. First of all, protect it from ultraviolet light (sun) whenever you are not using it. Keeping your groomer under a tarp both during the winter season and while stored in the off season is good practice. The tarp will allow the operator to quickly shake off snow that has accumulated. Clean off any snow or slush after each use, before it freezes. Clean any debris including snow and ice out of the scarifier. A Nordic ski scraping tool is handy for this. Block up the rear of the machine enough so that the comb is out of the snow, and clean off the comb with a brush. Go over the machine often (at least monthly) and check for loose or missing bolts and nuts.

Red getting dull? Ace Hardware's spray enamel color "Banner Red" is an almost exact match to your groomer's original powdercoat coloring.

LIMITED WARRANTY FOR TIDD TECH PRODUCTS BY TIDD TECH

Products from Tidd Tech carry a one year warranty. If the equipment fails due to a defect in materials or workmanship within one year from the date of purchase, Tidd Tech will repair or replace the part free of charge.

This warranty is not transferable and does not cover damage resulting from anything other than defects in material or workmanship. This warranty does not cover damage caused by unreasonable use, nor replacement of non-defective parts that may wear and need to be replaced within the warranty period.

For warranty service you must, at your own expense, arrange to deliver or ship the product or part(s) for warranty repairs to Tidd Tech at the address below.

This limited warranty is in lieu of all other express warranties. Tidd Tech shall not be liable for any special, incidental or consequential damages.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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