



TOBOGGAN MAINTENANCE



Maintenance should be divided into two categories:

- 1. Annual Checkup**
- 2. Daily Checkup**

ANNUAL CHECK UP - Rule of Thumb: Apply Common Sense, broken or poorly serviced equipment is a safety hazard, a Risk Management Issue and CAN ENDANGER LIVES. If it looks like it could be a problem it likely will. Don't use it.

STRAPS AND FOOTMAN LOOPS (Strap attachment point)

1. Check all straps for wear and the footman loops for looseness. If the footman loops are not securely attached to the toboggan shell they should be repaired. The proper procedure for replacing a footman loop is to grasp the rivet on the inside of the toboggan with a pair of vice-grips or similar device while drilling from the outside in with a 3/16 high speed drill bit. Care should be taken to prevent the rivet from spinning as it will burn through the toboggan shell rendering attachment point useless. The footman loops should then be re-installed using 3/16" wide flange steel rivets.



2. Check the webbing strap for fraying or tearing. Check the sewn area of the loop which is girth hitched to the footman loop. Replacement straps can be ordered on our website. Part # CRC-TRP-PRS, this includes one short and one long (one patient strap set)
3. Check the Tourniquet Buckles. If they show excessive wear or are rusty, replace them. All tourniquet buckles can be lubricated prior to being put into service each year. This helps to keep from freezing and helps the spring mechanism to be pliable.

HANDLE ATTACHMENT DEVICES

Handle Latch Pins

Also known as Bail Pins, Handle Pins, Locking Pins, Lynch Pins etc. Due to liability reasons, Bail type pins are not recommended for use on Cascade Toboggans. If you are currently using Latch Pins to secure your handles to your toboggan, we strongly recommend replacing them with 3/8" Grade 5 bolts and Nyloc nuts.

If you need to remove the handles frequently from your Cascade Toboggan, we suggest using the 3/8" Jergins Ball Lock Pin. This pin is constructed of hardened stainless steel and will release only when the release button is pushed. Replacement handle bolts can be purchased on our website. Part # CRC-TRP-M100-RHB

Check the Nyloc nuts on both the handle and handle locks to be sure the nylon is not worn out. If you can screw it on or off easily, it is worn out. Replace it.

Handle Locks

1. Check the sled handle for travel. If there is too much handle travel it will impair the patroller's ability to work (control) the sled. There should be little more than 2-3 inches of upward/downward travel at the end of the handles. If excessive travel exists, it could be due to the handle locks being worn out at the point that they intersect the handles, or at the point where they attach to the toboggan Handle Lock. In either case, the problem should be corrected by replacing the handle lock. Replacement handle locks can be purchased on our website. Part # CRC-TRP-M100-RHL
2. Remove handle locks and inspect. Handle locks should be reinstalled by using a 3/8" Grade 5 Bolt and Nyloc Nut, Handle Lock Ear, and Nylon Washers on the inside of the Handle Lock Ears but on the outside of the Handle Lock. Proper tension on the bolt will secure the handle lock preventing it from swinging off the handle when the sled is in operation with the handles in the locked position. The Handle Lock Claw should also have a nylon washer inserted between the Handle Lock and Claw mechanism to prevent it from moving when in the locked position.
3. Older Cascade Toboggan Model 100's (pre-1990) may have Handle Locks made of thinner aluminum stock. These handle locks should be replaced regardless of their condition.



CHAIN BRAKE

If the chain is not providing adequate braking power, the chain brake could be too short. If the chain is hard to disengage, with weight in the toboggan the chain could be too long. Check to see where the chain falls on the sled bottom. If it is too long or too short modify it by adding or subtracting quick links. Ensure that the Chain Brake Guards are still in place and in good condition. Replace if necessary. If the chain brake has created excessive wear on the toboggan bottom or sides, repair the damage and install a Bow Guard.

TAIL ROPE

Check for fraying or damage and replace rope if necessary. Ensure length is appropriate to the demands of the area. The standard length is 18ft. Replacement tail ropes can be purchased on our website. Part # CRC-TRP-18PTR

HANDLES

Check the handle attachment ends for cracks or other excessive wear or stress. Use common sense here. If the end of the handle that bolts to the toboggan is excessively worn, cracked, split or otherwise damaged – Replace the handles. If the handles have been bent from excessive downward pressure or from incidental damage, they may in some cases be straightened and restored to duty without hazard. Rule of thumb, if you wonder if it will be OK, it probably won't be! Replacement handles can be ordered on our website. Part # CRC-TRP-M100-RH

FINS

Check the fins for bends, gouges, and rounded edges. If bent, pound the fins so that the edges are straight and square. This can be best accomplished by backing one side of the fin with some form of anvil while pounding the other side with a hammer to straighten the bend. Straight fins track better and handle (edge) better on ice and hard pack. Gouges and rounded edges can be cleaned up with a flat file.

CARRY HANDLES

Inspect all carry handles for fraying or excessive wear at their attachment points. Inspect Lift Handle Tubing and replace as necessary.

CRACKS AND OTHER EXTENSIVE DAMAGE

Thoroughly inspect the entire toboggan and components. If the metal is cracked, the composite shell is cracked, extensive gel coat wear or otherwise perceivably damaged, **DO NOT ALLOW THE TOBOGGAN BACK ON THE HILL**. The toboggan should be repaired or replaced accordingly.

Pre 1980 Cascade Toboggans used flexible tubing as a form material in the nose and tail sections. Depending upon use, the tail and nose section of a toboggan may experience cracking around these areas. Keep in mind that repairing a 40 plus year old toboggan may not be best and the toboggan should probably be replaced.



DAILY CHECK UP - Rule of Thumb: Apply Common Sense, broken or poorly serviced equipment is a safety hazard, a Risk Management Issue and CAN ENDANGER LIVES.

At the beginning of each working day, all toboggans should undergo a visual inspection to ensure that no damage has occurred the previous day. This should include a quick scan of:

**STRAPS AND FOOTMAN LOOPS
HANDLE ATTACHMENTS
HANDLE LOCKS
CHAIN BRAKE
TAIL ROPE
FINS**

If any problems are detected during this CHECKUP, the toboggan should be removed from service until the problem can be corrected.

COMMON SENSE:

- 1. At the beginning and end of each season the sleds should be cleaned, (car wash soap), and waxed with a good grade of car wax to protect the gel coat from oxidation and UV damage.**
- 2. Toboggans that are stored inside some form of shelter will have a longer life than those left outside all season, or all year.**
- 3. NOTHING LASTS FOREVER. Cascade Toboggan has been making rescue toboggans for over 60 years. The useful life of a toboggan can vary greatly depending upon use, care and the environment it lives in. Generally, it is not reasonable to expect a rescue toboggan that experiences average use and care and is stored outdoors to last more than 7-8 years. UV damage and neglect are the primary causes of failure. The life of your equipment can be greatly extended by simply taking care of the product.**

For questions or assistance with parts ordering and repair advice feel free to contact us at SRsupport2@harken.com or TOLL FREE: 844-414-7377