

## **Darting & Control Solution**

Adjusting ski balance with shims allows the host bar to deflect out of the ruts. The teeter-totter effect of pushing the rear down lightens the pressure on the front. It also maximizes the turning carbides function because the pressure point moves under the spindle, where it belongs.

Ski Savers clean up any remaining darting by limiting how far the host bar can fall into the ruts. 1/4" Ski Savers reduce the effort needed to turn the handlebars. FOR **BEST RESULTS USE SHIMS AND SKI SAVERS!!!** 

Excessive wear to the front of your skis requires a shim to be placed at the bottom back side of the rubber stop to level the ski.

#### IF DARTING RETURNS REPLACE THE RUBBER STOPS!

To prolong the life of the rubber stops take the weight off the skis when you are not riding

## **Contact Bergstrom Skegs for help!**

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## **Shim Installation**

**Expose the rubber stop** by removing the bolt that holds the ski to the spindle.

**Remove the stop** from the ski and turn the rubber stop upside down.

**Attach the shim** to the BACK end of the stop using the included screws.

Place the rubber stop back in the ski and attach ski to the spindle.

Bring the ski bolt hole into alignment and re-attach the ski to the spindle.

- 1. From the inside push the bolt in as far as possible by hand.
- 2. Lift the outside of the ski until the hole lines up.

#### Use groove to countersink screw

**Do not overtighten nuts –** See instructions on back of this sheet

#### If needed use these techniques to align the ski bolt holes.

- Place a 2x4 on edge under the outside edge of the ski.
- Use a C-clamp or a come-along.
- Have someone push down on the front bumper. Use a new cotter pin on bolts that require one.



Top of left stop with shim installed



Top of right stop with shim installed



Rear of left stop with shim installed



Rear of right stop with shim installed

### **DO NOT OVERTIGHTEN NUTS!**

# IF YOU DO NOT GET THE RESULTS MENTIONED check for front end damage.

If there is none go back to the OEM settings. There has to be a physical difference for you to get different results!

**To prevent cross-threading,** rotate the nut counter-clockwise until you feel the end of the nut's thread fall over the end of the bolt thread. Then, turn clockwise to tighten. The nut should go down easily until the plastic ring makes contact, if not clean the threads.

**Do not over tighten nuts!** Tighten only until firmly snug. When tightening, the nuts always have a cushioned feel against plastic, unlike steel skis which provide a dead stop to the nut.

We use 5/16" x 18 bolts because these are all that is necessary - strength-wise. Having more than one bolt only helps keep the host bar straight. Also, this allows easier installation and reduces the need to drill the skis or use a hammer. It is not the size of the bolts, but the number and location that is important.

The stretching stress on the bolts from over tightening combined with the vibration caused by the flexing of the ski can fatigue the bolts. Metallurgically a hard zone can be developed and hardness can translate into brittleness and breakage. This is the reason rivets are replaced on planes after so many hours of flight.

The norm for steel skis for decades was 3/8" bolt holes when 5/16" bolts were the norm. Even though many bolts have changed to 3/8" the holes in the skis are usually still 3/8". This tight fit increases the stress on the bolts. The increased flex and thickness of plastic skis also add to bolt stress. Enlarging the bolt holes in the ski will reduce this effect. A 5/16" bolt going through a 7/16" ski bolt hole will reduce the chance of breakage.



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For shim installation instructions, read other side.