



houghton**horns**

Basic Horn Repair

Dr. Derek J. Wright, Co-owner - Houghton Horns, June 2018

Tools Needed

- Rawhide Mallet
- Metal Rod
- Wood Spool or Valve Oil Cap
- Screwdriver
- Rotor String
- Bumpers
- Razor Blade
- Small Craft Knife
- Steel Wire
- Brakleen Brake Cleaner
- Oil (Hetman Light Rotor, Light Bearing and Linkage, and Light Slide Gel recommended)

Fixing a Sticky Valve

- Remove the valve cap
- Remove the stop arm with the screwdriver
- Remove the rotor with the rawhide mallet
- Clean rotor and casing with brake cleaner
- Thoroughly rinse with lukewarm water
- Let rotor and casing air dry
- Cover rotor with light rotor oil and the bottom bearing with light bearing and linkage oil
- Place rotor back into casing
- Cover top bearing with light bearing and linkage oil and tap the top bearing plate on with the wood spool and the raw hide mallet (make sure the top bearing is not tilted to one side)
- Screw on the stop arm
- Replace the valve cap

Removing a Stuck Bell Flare/Mouthpiece Rim/Mouthpiece

- Lightly tap the side of the bell ring/mouthpiece rim with a rawhide mallet
- Penetrating oil may be needed for a bell flare or mouthpiece rim that has been stuck for a long time

Realigning a Valve

- A rotary valve can become misaligned due to the drying and cracking of the bumper, changes in the environment, oil etc.
- Identify that the valve needs to be realigned by observing the alignment of the witness marks on the top bearing plate with the witness marks on the top bearing of the rotor.
- Remove old bumpers and discard
- Using a razor blade cut two appropriate lengths of bumper material for your horn
- Using a small flat head screwdriver, squeeze the new bumper material into both sides of the stop arm plate
- Using a small craft knife slice very small slivers of material from each bumper until the witness marks on the top bearing plate align with those on the top bearing of the rotor.

Removing a Foreign Object

- Grease tubes, pencils, mouthpiece brushes, and screwdrivers are often found stuck inside of horns.
- Use Herco brand Spitballs to determine if there is a foreign object in the horn. They can also be determine the location of the blockage (usually in the bell tail or first branch).
- Use steel wire to fish out the object
- If you are very brave you can use a lead fishing sinker to knock out the object from the other side



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