

Restoring A Bolt Cutter, Version 1.0

By R. G. Sparber

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I've never owned a bolt cutter before but it seemed like a useful tool. Recently I received this very nice used H.K. Porter "New Easy" as a door prize. The joints were dry making it difficult to open and close. More serious was that the jaws had a large dent in them.

Freeing up the joints just took a bit of oil and a little time for it to soak in. The jaws were another story. I found a YouTube video showing a guy using an angle grinder plus a "light touch". He claimed the jaws were made from High Speed Steel and too much heat would soften them. Both claims seemed suspicious to me. Anyway, I tried my angle grinder and quickly discovered the jaws were soft steel. It didn't take long to realize that a file was a far more controlled way to dress the jaws.



On the sides of the joints at the jaws are 4 screws.

The smaller screws jack the jaws together while the larger screws lock the levers in place.

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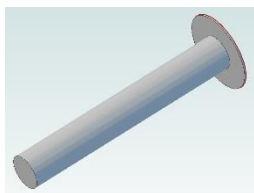
I first backed the large screws all the way out and then tightened the small screws until the jaws met when the handles were pushed almost all the way together. It was then possible to see what metal had to be filed away to return the jaws to parallel. I filed away around 0.05 inches of metal from the damaged area. A few cycles of filing, checking, and filing some more and this is the result. The jaws have about a 0.01-inch uniform gap.

The edges of the jaws were left slightly rounded and about 0.01 inches wide.

I'm guessing that the bolt cutter is really not cutting the metal. It is deforming it or, in some cases, shattering, the stock.



The last repair was to the rubber bumpers. It took me a while to realize how they work.



A fastener that looks like this secures plugs of rubber to the handles. It is a snug fit to the handles. As far as I can figure, when the handles slam together with sufficient force, these fasteners are driven into the handles. The rubber plugs absorb the energy.



Both rubber plugs were dried out and cracked. Not to worry, I cut new ones with my hole saw and my ready supply of hockey pucks. I misjudged the height of one of the pucks so I had to make up for it on the other puck. This should not affect the operation of the bolt cutter.

This picture is rather misleading. Cutting these plugs generated a lot of rubber crumbs coated with carbon black. The hole saw also got rather warm. I ended up drilling about halfway through on one side, drilling through with a 1/4 inch drill, flipping the puck over, and running the hole saw down to finish the puck.



This tool can cut some serious stock! I'm sure my strength will give out way before I damage it.

Acknowledgment

Thanks to Marty Escarcega for bringing this bolt cutter as a door prize. Thanks to Gregg Kricorissian for consulting on the proper way to restore it.

I welcome your comments and questions.

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Rick Sparber

Rgsparber.ha@gmail.com

Rick.Sparber.org