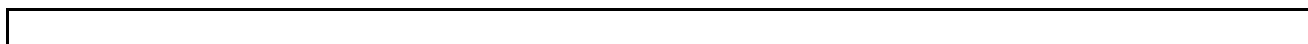


DISCLAIMER

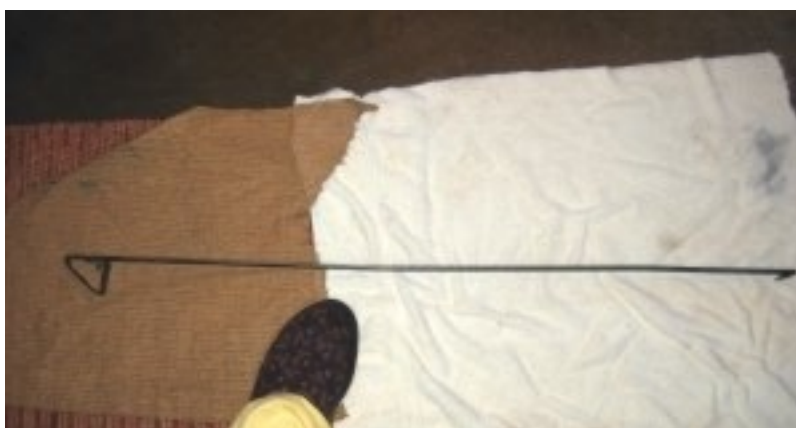
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Introduction

Many folks struggle to remove their aftermarket exhaust baffles when they want to replace or modify them. Some resort to screw drivers and vice-grip pliers which can deform or bend pipe sidewalls. While I'm all for quick and dirty methods when they work right off, but if they don't, the risk for pipe damage gets to be too great -- for me, at least.



Here's a simple and highly effective exhaust baffle extractor tool I made about 10 years (and a couple of bikes) ago. It works by hooking onto the deepest edges of the baffle, allowing you to yank strongly. It also has a hammer strike area to help dislodge baffles that have become encrusted with carbon or a bit of rust.

It's very simple to make, and has never failed me. The inserted end is bent to a flattened hook shape. The other end is fashioned so as to allow a hammer to strike the flat -- toward the rear of the bike, away from the pipe. If you wanted to get fancier, you could fabricate a weighted slide that could move in a slide-hammer motion like an axle puller.

Originally, I thought this would be a single-use tool, so I spent very little time on it. Turns out I've used it at least 4 or 6 times by now. Anyway, here's how I made it. You might even find yours making the rounds amongst all your buddies.

Important Note: *It will not work for complex muffler assemblies, as in stock pipes, or for crossover baffle systems. It is intended for straight-pipe, aftermarket exhaust pipe baffles only.*

Materials Needed

- 3/4" x 48" weldable type (mild steel) strap, 1/8" thick... or whatever similar is available. This can be purchased at most hardware stores and home improvement centers.
- 3/16" x 1" machine bolt or screw... or whatever similar is available. This can be substituted for welding, as preferred.
- 3/16" machine nut to fit bolt/screw... or whatever similar is available. This can be substituted for welding, as preferred.

Tools Needed

- You'll need any assortment of tools you have for bending the metal strap, such as a sturdy vice, and a hammer.
- You'll also need a drill and a 3/16" high speed drill bit, unless you're going to weld -- in which case you'll need a welder or weldor.
- A propane or similar torch and a bucket of water can also be used to heat-treat harden the 'hook' to make it less prone to bending during its use. This is optional.

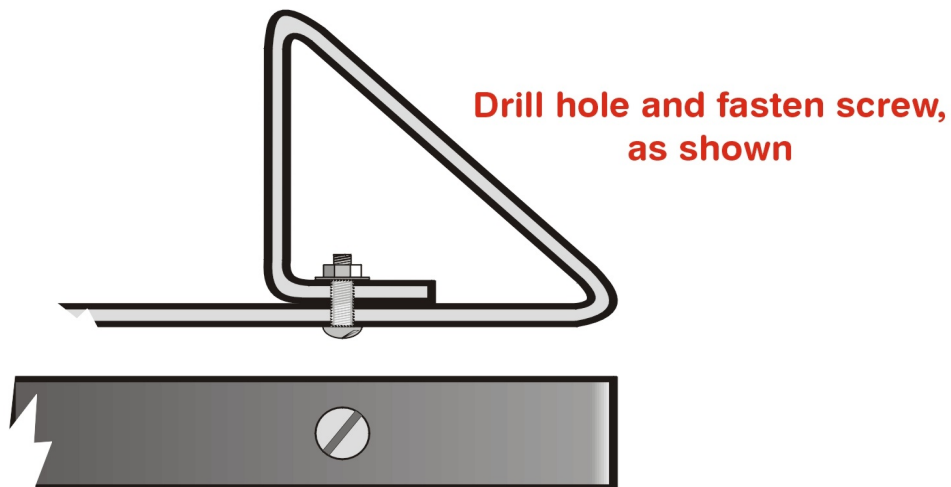
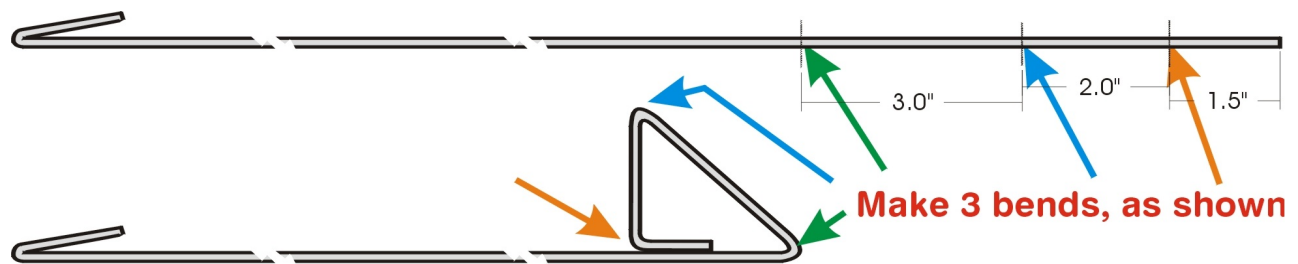
Constructing the Tool

To fabricate the baffle removal tool, bend one end over, about 1" to 1.5" from the end. Do not fold the tang completely flat against the long end. The tang has to stick out from the strap just enough to be able to catch the baffle's edge. However, if you don't give the tang enough bend it will be prone to unbending (deforming) during vigorous use. See photo right.



Now, if you want to harden the tang end a bit, heat it until it's deep red then thrust it into a bucket of water.

Next shape the other end of the tool. To do this, bend this end of the strap at about 1.5", 3.5", and 6.5", as shown in the diagrams and photo below.





Using the Tool

The extractor is best used with the pipes installed on the bike. I've never tried it otherwise.

Tip: *Feel free to liberally squirt penetrating oil between the inside diameter of the pipe and the outside diameter of the baffle and/or end-cap. Give the oil plenty of time to seep in -- overnight if possible. Remember however, most baffles only contact the inner wall of the exhaust pipe at a front and rear segment. In other words, there is a smaller diameter middle segment that is not in contact with the pipe, so penetrating oil will not likely reach the innermost segment unless you can direct the spray of oil through some far-back baffle-holes that might direct oil toward the inner segment.*

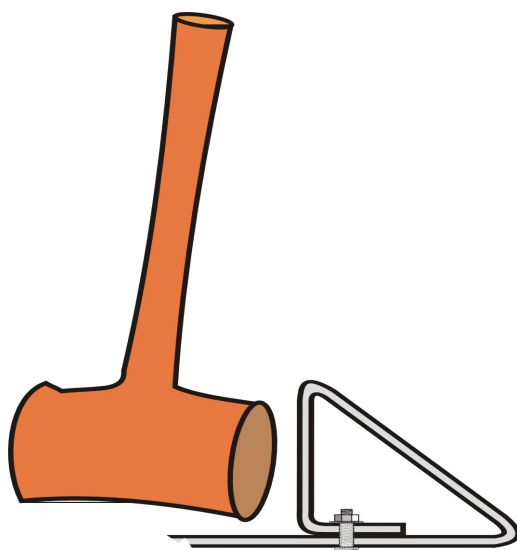
Before you can use the extractor tool, you must first remove any end-caps that may be on the tail-end of your pipes. If you have them, they are likely each held on with a single screw/nut. Look inside the pipe's tail. I've seen allen-head, phillips head, and I think flat-blade screws. Look carefully.

Sometimes these end-caps can be difficult enough to remove, too. Take your time; wiggle a bit; maybe twist a bit. You can also use the extractor tool if you're careful not to pop it off unprepared. Just be careful of the pipe's and end-cap's finish. **Note:** *These caps can be just as challenging to get back in. Take your time.*

Next, you must remove any screws holding the baffles. All the ones I've seen are held with a single screw/nut, just like an end-cap, only a little deeper in. Also be sure you remove any air-flow or back-pressure devices from within the rear section of the pipe, such as used for Thunder Monster baffles. They should be secured in a similar manner as the other pieces. If they are welded in, just do your best to work around them, so as not to bend or break anything -- unless you will be throwing the baffle way, once removed, of course.

Now the baffle is ready to come out. Insert the extractor you just made, watching the hook as you slide it in. Make sure you get the hook to grapple onto the deepest edge of the baffle, or at least some very sturdy portion. Then pull a bit to see if it might come out fairly easily. If not, read-on.

Before using strong pulling force, be sure your bike is secure from falling over. Now with the hook still grappled firmly onto the baffle deep within the pipe, try pulling harder. Then try pulling with the hook grappled to a different part of the baffle's deep edges. If all that doesn't budge it, use a hammer against the extractor's strike-plate. See diagram below. **Tip:** *I like to use a dead-blow hammer for two reasons. First, it is plastic all over, and therefore fairly non-marring if I accidentally graze the pipe or other bike parts. Second, the buck-shot or sand or whatever inside the hammer's casing makes for a solid, non-reverberating hit. Much less force is needed that way.*



Tip: *You might make a mark, using a Sharpie pen or other marker, on the inside of the pipe at the rear edge of the baffle. That way, when the mark disappears, you'll know you're making progress, albeit slow as it might be.*

Just keep working, taking your time, little by little. Keep reminding yourself, "New exhaust pipes are not cheap. Slow and steady wins the race," and any other helpful adages that keep you sane.

Hope this helps.