



Thank you for purchasing your new Reaper Exhaust Tips.
Reapers are the “Death of Doubt” about the power of your Raider.

The instructional sheets that follow are thoroughly detailed and should be studied BEFORE picking up a tool. Take your time, work safe and you will enjoy your new exhaust within a couple hours.

These are the tools you will need:



- Safety Glasses
- Safety Gloves
- Ear Plugs
- Grinder with cutoff wheel and / or Sawzall with fine blade
 - Metric Allen Key Set
 - Metric Box Wrench, 12mm
 - Metric Sockets, 12mm & 8mm

Remove (5) bolts with 5mm Allen Key as shown below





Remove Heat Shield



Remove (2) Exhaust Support Bracket bolts with 12mm Socket wrench.



Remove Muffler Clamp Bolt (lower, right) with 5mm Allen Key and Upper Support Bracket bolt with 6mm Allen Key.



GENTLY slip the exhaust (mufflers) straight back and off the bike. You may have to use a gentle, up and down rocking motion while pulling.



Once the mufflers have been removed, place the assembly, shiny side down, on a soft clean towel. The pictures below also show the assembly flipped left to right. (The discharge of the exhaust is to the right.)

Remove (2) Allen Screws with 6mm Allen Wrench.



Remove (4) Heat Shield bolts with 8mm socket.



Remove (1) Heat Shield bolt with 5mm Allen Key.



Carefully spread the heat shield and slip it off. Take your time. You want to avoid bending it.

This is what it will look like.



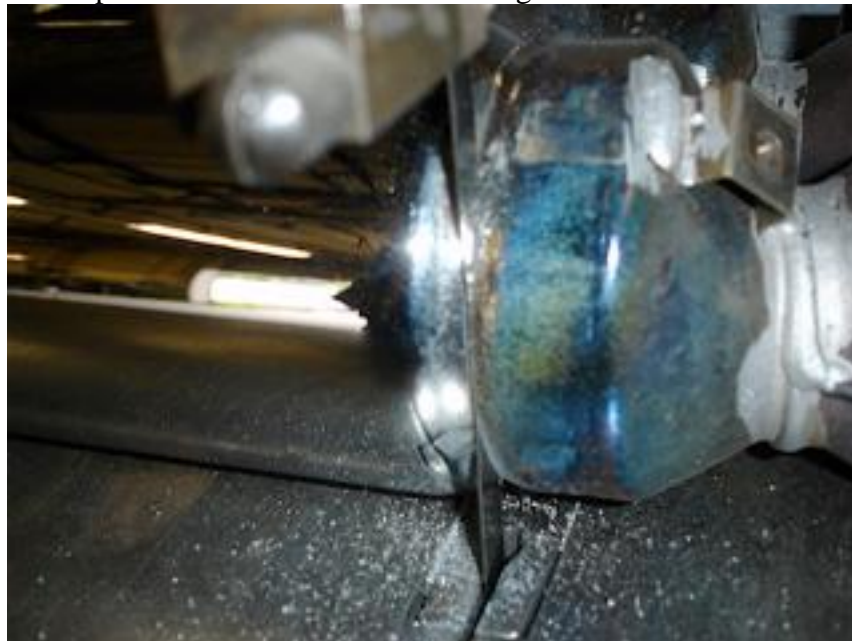
With a felt tip marker, draw a line along the muffler side of the weld shown below.
This is where you will be making your



cut.

Making the cut can be done with a Saws-all, Grinder with cut-off wheel, Band saw or even a Hacksaw if you have the wherewithal. It doesn't have to be perfectly straight, but do your best.

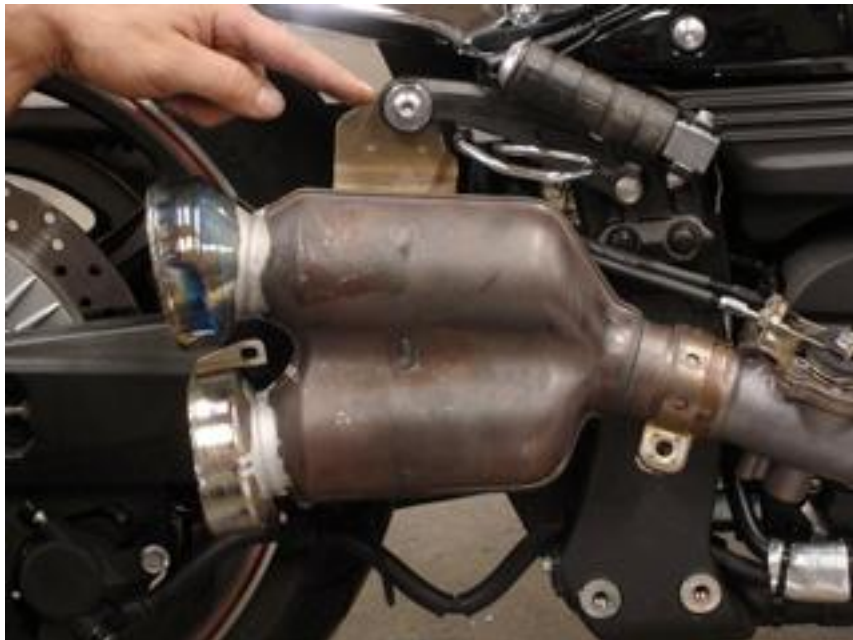
The picture below shows the cut being done with a Band saw.



It should look like this after cutting.



Place the exhaust back on the bike, and hold it temporarily in place with the top hanger bolt as shown below. You've just lost about 13 pounds by removing the mufflers.



Now take your new Reaper Tips and examine them. You will notice one is longer and the shorter one has a notch cut in it. This notch is to clear one of the exhaust mounting tabs.



The notch will allow you to mount the lower tip with a rotational adjustment of about 90 degrees. The tips can face anywhere from approximately straight down to straight out.

This next section is where you *really* have to take your time, as it is the biggest factor in the final outcome and look of your exhaust. It's not at all complicated, but it justifies a bit of time to make sure it's done correctly.

Place the longer Reaper Tip on top pipe with the angle you like.



Now before installing the lower tip, you should understand how this is going to work.

Below is a picture of the back of the lower tip and what it will look like when it is ready for welding. Notice the notch that came precut in the tip. It is there to create room for the tip to slide over the exhaust and clear the mounting tab shown on the top right. The notch will also allow you to rotate the tip to your desired position.

Notice the tab on the lower left. It will prevent the tip from sliding completely on. Once you are satisfied with the alignment of your tips, you will need to make a cut (shown already) to clear this lower tab. (See instructions to follow below).



Put the lower tip in place and rotate to the desired position. It is not going to seat completely yet, so keep this in mind when making your alignments. It's going to move forward the depth of the precut notch once you have cut the second notch. Again, take your time and make sure you understand this before moving forward.



Once you are satisfied with the alignment of you tips, mark a line on the lower tip where you will need to make the clearance notch. (If you're saying to yourself, "What clearance notch? Go back up a couple pages and read it again.) Remove the tip and cut the notch. It only needs to be the width of the sheet metal of the tab. A little wider won't hurt.



Once you have the notch cut, reinstall the tips. Make sure the alignment is what you want and there is an even gap between the upper and lower tip. If you can, tack weld the tips in place so they won't move when you remove the assembly for final welding.

If you must take them to a welder, (a muffler shop should take about 15-30 minutes.) make a shim to keep the gap between the tips and then tape them together. You can also use a felt tip pen to put an alignment mark across the pipe tips and stock flanges.



Place (3) 1" long welds around the perimeter of the pipes. They should be about 120 degrees apart from one another. Make sure they stay straight while doing this.



Reinstall the heat shield.



Put the assembly back on the bike and install the upper hanger bolt and pipe clamp bolt.



Reinstall the last heat shield.



Here are 2 examples of the final product. You can get many more variations by playing with the angle of the tips.



Recheck everything and make sure everything is tight. After several heating and cooling cycles you should check it all again.

Congratulations! You're done.
Ride Smart. Ride Safe and don't wake the neighbors



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