

How to Peen a Rivet

By armourkris in Workshop > Metalworking  313,637  333  105 ★ Featured

Published on March 1st, 2008 



As a start to my series of armouring Instructables i figured I'd go with something nice and easy. It also happens to be one of the most important skills you'll need if you ever want to build a suit of armour.

How to peen the humble unassuming rivet. It's a little more complicated than bashing it with a hammer a bunch, but not much.

Step 1: Supplies



Lets start with what you'll need.

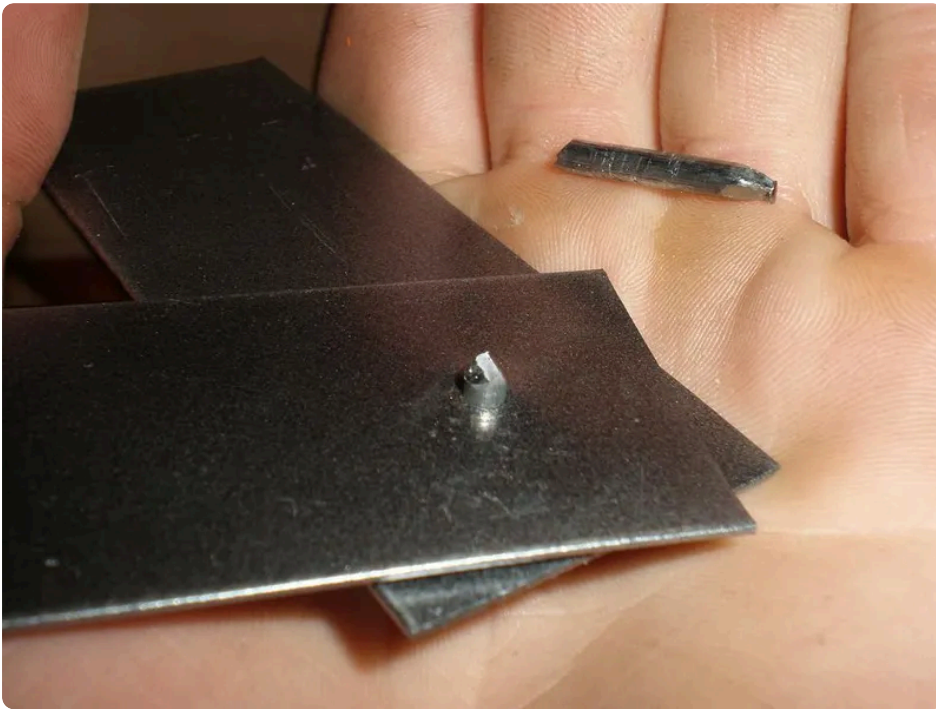
in this picture i have....

- a 5 pound anvil
- a metal punch
- side cutters
- a small ball peen hammer
- 2 pieces of metal to rivet together
- and a roofing nail.

obviously you don't need to use these tools specifically. a drill works as good as a punch, and the anvil can be replaced with any anvil like object. I regularly use

a big ass block of steel i found at the side of the road, a chunk of railroad track, a 15pound lead sinker, or in a pinch I've even used a brick. just for some ideas as for the nail, i usually use 6d nails from the hardware store if i'm riveting metal to metal and use the roofing nails when i;m attaching leather to metal.

Step 2: Preparing to Rivet



first thing you are going to need is something to rivet.

remember those 2 pieces of metal? well now is the time to punch/drill a hole in both of them. since this is practice it doesn't matter where, as long as there is 1 hole in each piece.

for a 6d nail or a standard roofing nail you'll need to make 1/8" holes. if your using a roofing nail 1/8 is a really snug fit, but you can shove it in there.

Once your nail is through both pieces of metal you'll need to cut off the extra, but how much exactly is that?

well thats easy. you'll want to have about 1/2 the width of the nail sticking out of the hole. just lok at the pictures they show it better than i can explain it.

Step 3: Moving Onwards



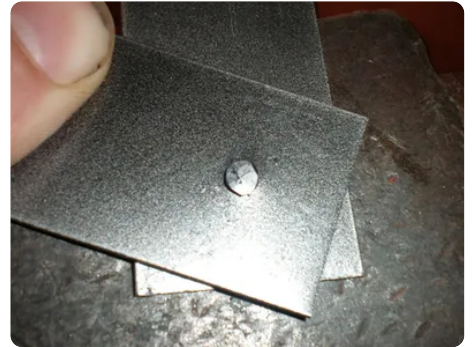
this step is an easy one.

looking at your rivet you'll see that it has a small peak. you need to use the mash the sides of that peak down so it is a bit more of a point.

it's a small thing, but it is important.

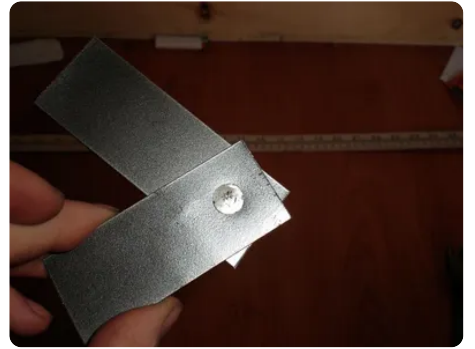
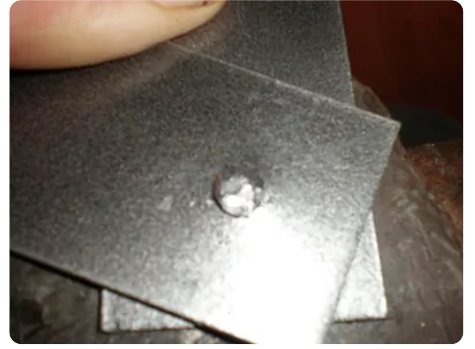
the pictures don't really show it well.

Step 4: Starting to Peen.



now that you've brought the rivet to point of a point you'll need to lightly hit it straight down from the top to flatten it out, then hitting it on a bit of a diagonal work your way in circles. this should cause the head of the rivet to begin to mushroom out.

Step 5: Finishing It Off



Now to finish the rivet off.

flip the hammer around and use the ball end of the hammer to repeat the last step. easy as that.

now you know to turn a regular old nail into a rivet, pretty simple eh?

now go and start riveting stuff together.

Step 6: Misc Stuff About Rivets

a few random notes and whatnot about rivets.

-since you only need the first 3/8 or less of a nail usually, buy them in the shortest size you can. you'll get more per pound that way.

-the large head on a roofing nail acts like a built in washer. that makes them good for riveting metal onto fabric, leather or plastic.

-duplex nails can be used for pins & posts.

-for most uses a 6d nail will work fine. but carriage bolts are handy if you ever need a rivet bigger than 1/4 inch.

-for articulating rivets use a holes a little larger than the rivet, use a washer under the end you are peening, and peen it over a rivet spacer. A rivet spacer is just a piece of pallet banding or something similar with a slot cut into the end. it makes sure that your rivet is loose enough to allow the pieces to articulate.