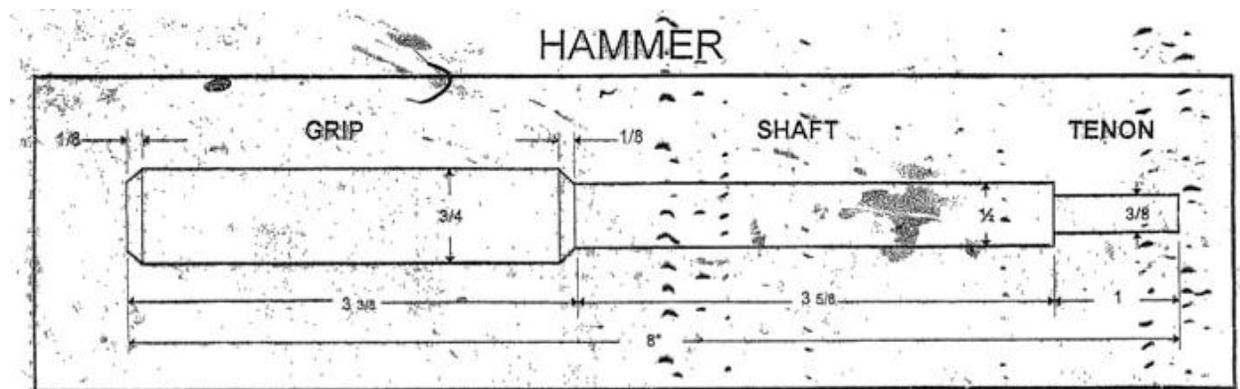


Steel Hammer Lathe Project

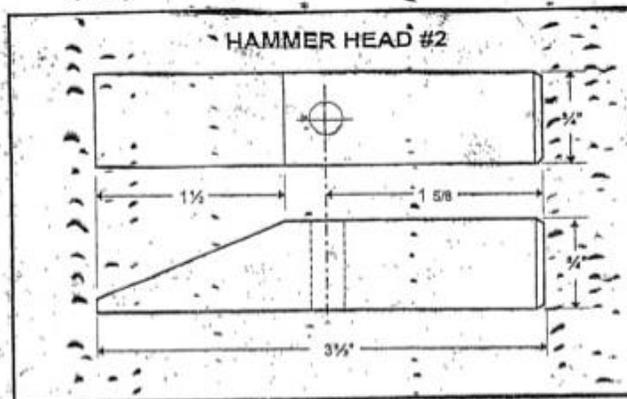
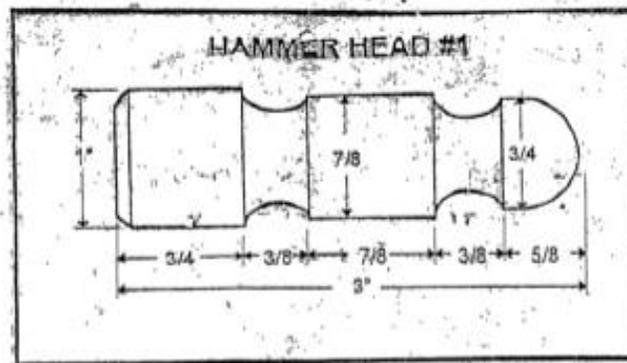
Handle Procedure

1. Cut 8 1/8" inches of 3/4 hot rolled round steel
2. Face both ends on the lathe until length is EXACTLY 8" long.
 - No more than 3/4" of material extending through the headstock
 - Ensure the cutting bit centered to you get a smooth face with no dimples or 'outies'
 - have teacher check your work before continuing
3. Center drill one end. Choose the side where shaft and tenon will be made
4. Measure 4 5/8" from one end and mark the metal to layout the shaft and tenon locations
5. Hold about 1" in the head stock and support the newly center-drilled end with the Live Center in the tailstock. Have teacher check your setup
6. Turn the 4 5/8" length to a diameter of 1/2". Use callipers and the 1/2" drill gauge hole to ensure the correct size. Have teacher check your work
7. Measure 1" from the end to create the tenon
8. Turn tenon diameter down to 3/8". Use the Callipers and 3/8" hole on the drill gauge to ensure correct measurements
 - DO NOT MAKE IT SMALLER THAN 3/8"!!
9. Flip material around turn/skim off the dirty scale from the grip. Just enough so it looks smooth and shiny. As close to 3/4" diameter as possible
10. Setup knurling tool and knurl the grip to desired pattern. Have teacher check setup BEFORE doing this!
11. Use 3/8" UNC die from the tap and die set to thread the tenon. Have teacher check setup BEFORE doing this!
12. Add chamfers to grip to match the blueprints using a file or cutting bit



Ball Peen Hammer Head Procedure

1. Cut 1" diameter hot rolled round steel to a length of 3 1/8"
2. Face one end, flip, face 2nd end until total length is 3" long
3. Mark out locations for areas of different diameters (3/4", 7/8", 1")
4. Hold the 1" end in the chuck and turn down the ball peen end to 3/4" in diameter. Don't worry we will round it out after
5. Turn down the middle area to 7/8" in diameter
6. Flip material around and skim/turn the 1" diameter down until it is smooth and shiny. Try not to go too small!
7. Use the cutting bit to rough out the "scoops" (valley shaped parts) of the head
8. Use a 3/8" round file to smooth out the scoops until they match the drawing
9. Use a cutting bit to rough out the ball peen hammer end. Finish with a lathe file until matching the blueprints
10. Flip over and add a slight chamfer to the flat end of the hammer to match the blueprints
11. File, sand, make shiny
12. Remove from lathe and put tools away
13. Center punch your hole location in the center of the hammer for the threaded tenon of the handle to go into
14. Drill an 11/32" hole all the way through
15. Use a 3/8" UNC tap to add threads to the inside of the hammer head hole
 - see demo for tap and die from teacher
16. Put your two pieces together and don't ask for a mark until it is smooth and shiny



HAMMER

