

Plane Iron and Tool Making

Plane Iron

1. Cut a 3 7/16 blank from the 3/16 x 1 1/2 O1 tool steel. Clean up saw cuts if needed.
2. Put your initials on the blank.
3. Drill the two 5/16 holes for the slot and then drill out the remaining material in between.
4. Clean up the slot with a round file.
5. Mark the radius for the corners using a penny.
6. Grind the radius using the belt grinder.
7. Grind the bevel using the grinding jig and belt grinder. The angle should be 30 degrees. Leave 1/32 flat on the bevel as not to burn the edge during heat treating.

Chip Beaker

1. Cut a 2 3/4 blank from the 1/8 x 1 1/2 cold rolled steel. Clean up saw cuts if needed.
2. Put your initials on the blank.
3. Drill 13/64 and tap the screw hole.
4. Mark the radius for the corners using a dime.
5. Grind the radius using the belt grinder.
6. Grind the bevel using the grinding jig and belt grinder. The angle should be 45 degrees.
7. Put the blank in a vise and hit with a hammer to put a bend in the chip breaker.

Marking Knife

1. Cut a 5 7/8 blank from the 1/16 x 3/4 O1 tool steel. Clean up saw cuts if needed.
2. Put your initials on the blank.
3. Drill two 1/8 holes for rivets.
4. Make two 60 degree cuts for the V.
5. Grind the bevels using the grinding jig and belt grinder. The angle should be 60 degrees. If you are heat treating the knife, leave a 1/32 flat otherwise grind to a point.
6. Cut two 7/8 rivets from the 1/8 brass round stock.

Skew Chisel

1. Cut two 5 7/8 blanks from the 1/8 x 1/4 O1 tool steel. Clean up saw cuts if needed.
2. Put your initials on the blanks.
3. Grind the left bevel on one blank and the right bevel on the other using the grinding jig and belt grinder. The angle should be 60 degrees. Leave 1/32 flat on the bevel as not to burn the edge during heat treating.
4. Relieve the side nearest the point of the chisel using the belt grinder.

General Notes:

1. Use safety glasses and good shop practices.
2. Grinding steel generate heat, you may want to use gloves
3. Oil hack saw blade when cutting steel and use long stokes.