

# The Brass Hammer Kit

## Kit Features:

- Easy to turn handle.
- Minimum parts - easy to assemble.
- Available in genuine brass.
- Any comfortable length

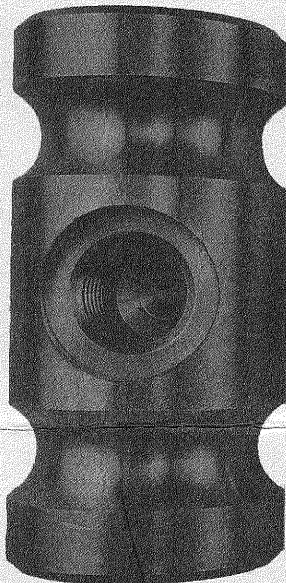
## Required Accessories:

- 7mm Pen Mandrel
- Drill Bit: 1/2" #PKDB12
- Live Tailstock Center or Any Drive Center
- 2 part Epoxy Glue
- Blank Minimum Size: 1" to 1-1/2" x 5-1/2" to 7"
- Calipers - Optional

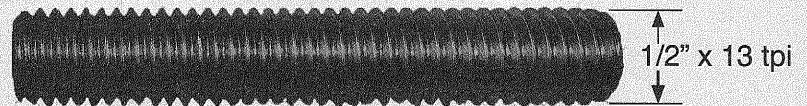


## DIAGRAM A / PARTS LAYOUT

Brass Hammer Head



Connecting Shank



This threaded rod is 3" long.

When threaded onto hammer head this will protrude into the handle 2-1/2". Give it the extra 1/4" to take up any epoxy that is pushed into the end.

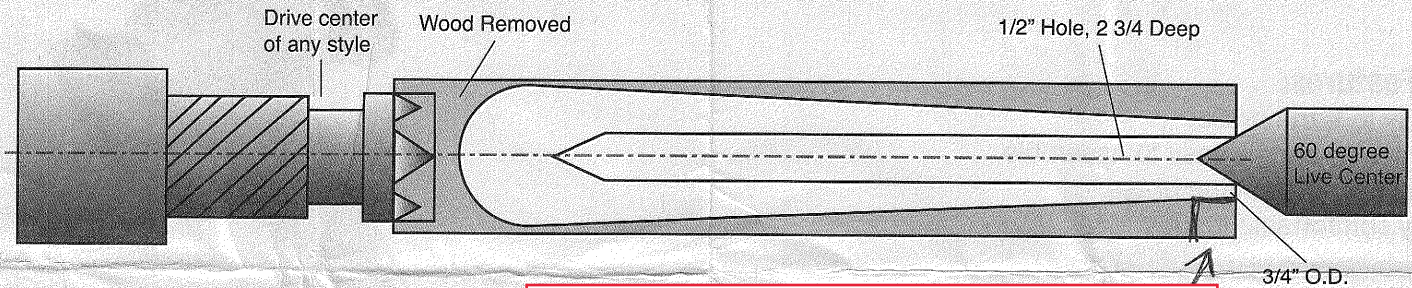
## Preparing the Blank:

- Cut a wood blank, 1" to 1-1/2" square x 5-1/2" to 7" Long.
- Mark the center on both square ends.
- Drill 1/2" hole, 2-3/4" deep at one end of the blank.

1/2" is slightly loose. 31/64" is better.  
Depth is good as described above.



## DIAGRAM B / TURNING THE BLANKS



Needs to be flat at 3/4" OD for 1/4" in from end.

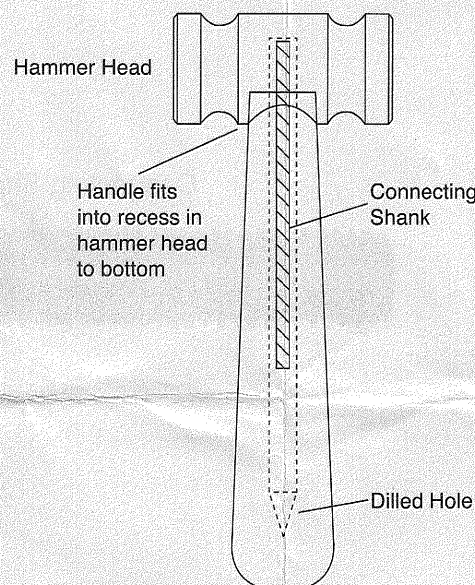
**Turning the Blank**

- Mount the blank onto the lathe between centers according to diagram B.
- Turn the wood into a handle profile. Draw a design of your choice, but turn the drilled the end down to 3/4" diameter for a snug fit into the hammer recess.
- Sand and finish the wood. Use either Aussie Oil or use Mahney's Utility Oil to finish the handle.

**Assembly**

- Screw the connecting shank into the hammer to bottom.
- Press the exposed shank into the drilled handle to check for fit - i.e. Diameter of handle and depth of hole. (See Diagram C)
- Re-machine the diameter or hole depth for a good fit.
- Once the fit is ok, remove the shank from the handle.
- Squeeze epoxy glue into the opening of the hole in the handle.
- Insert the handle assembly into the hole in a twisting motion, to spread the glue inside - push the wood into the recess in the hammer - let dry.

Clamp head of hammer and handle to hold until glue sets up.

**Diagram C / Bushings #PKBHAM**



## Steps to Make Brass Hammer by PSI

1. Obtain Kit# PKBHAM from Penn State Industries (PSI) at [www.pennstateind.com](http://www.pennstateind.com)
2. Select a spindle blank at least 1-1/2 x 1-1/2 x 5-1/2 to 7 inches long
3. Square up sides of blank if needed on jointer, planer, or hand plane. Cut off ends to square them up. This will assure the best alignment of the blank.
4. Mark centers of ends of spindle blank.
5. At drill press or lathe, drill a 1/2" (or 31/64" as I did) hole in one end to a depth of 2-3/4". On drill press using a vertical blank holder, or on lathe using a blank holder and drill chuck (see time mark 19:21).
6. Trim off corners of blank to reduce the corners while turning. That makes it a lot easier.
7. Mount blank onto lathe. Drive spur on head stock and 60 deg live center in tail stock. Put blank on so that the hole drilled is on the 60 deg live center.
8. Turn to shape. Make a 3/4" round tenon that is 1/4" long on the end with the 60 deg live center. Shape handle out from there.
9. Start parting the end of the handle near the drive head but leave enough on yet to keep it stable. About a 1/4" or more. Sand and finish.
10. Part the piece the rest of the way as shown in video.
11. Sand and finish parted end.
12. Glue hammer head, threaded rod, and handle together.