

Instructions

Bolt-Action Pen Kit

Tools Required

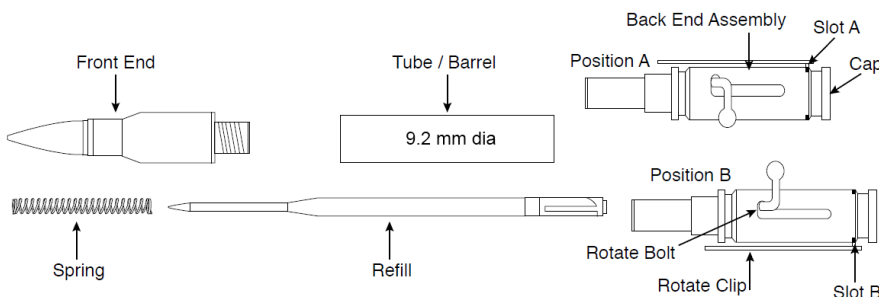
- Pen Mandrel
- Bolt-Action Bushing Set
- 9.5mm Drill Bit
- 9.15mm Barrel Trimmer (Optional)

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DIAGRAM A - Parts List



Cutting and drilling the blank

1. Cut the blank 5mm longer than the brass tube.
2. Drill a hole through the centre of the blank.
Either use a drill press with the blank secured in a vice or clamp or use your lathe with a drill bit mounted into the tailstock chuck.
Drill at medium speed penetrating about 10 mm to 20mm at a time and then clearing the swarf to prevent overheating of the drill bit.
To prevent cracking or chipping of the wood when the drill bit exits the other end of the blank, stop drilling 3mm before the bit drill reaches the end of the blank and then trim the end of the blank using a saw to expose the hole.

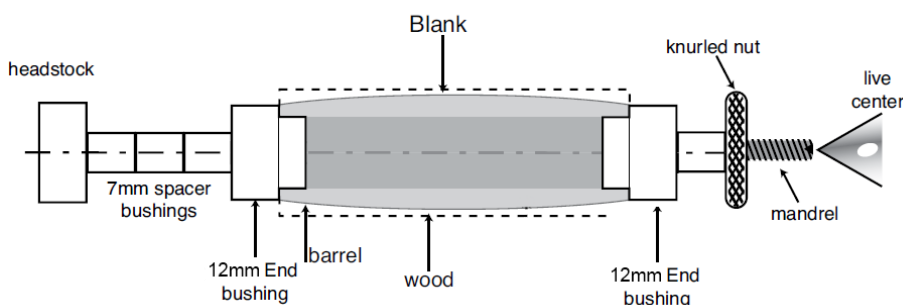
Glue the brass tube into the blank

1. Using 200 grit sandpaper, lightly scuff the exterior of the brass tube to prepare it for gluing.
2. Apply a thin layer of superglue or epoxy to the tube and insert the tube into the blank. Rotate the tube as you push it into the blank to spread the glue evenly – this must be done fairly quickly to avoid getting the barrel stuck before it's inside the blank.
3. Position the tube inside the blank so that the wood extends beyond the tube on both ends to allow for trimming.

Trimming the blank

- Square the ends of the wood blank with the tube using either a barrel trimmer or disc sander.
Alternatively, fasten the blank into the chuck and trim the barrel carefully using a parting tool.

DIAGRAM B - Turning the Blank



Mandrel setup and turning

1. Assemble the bushings and the blank onto the mandrel as shown in the diagram below.
2. Ensure that the mandrel is tight on your lathe using your live centre in the dimpled end of the mandrel. Do not over-tighten the tailstock or mandrel nut as this may cause the mandrel to flex resulting in off-centre barrels.
3. An alternative is to use a mandrel saver tool to tighten the blank into the lathe without putting strain on the mandrel shaft.
4. Turn the blank to the desired shape leaving the blank slightly larger than the bushings.
5. After turning, sand the blank using progressively finer sandpaper until the desired finish is reached.

General assembly points

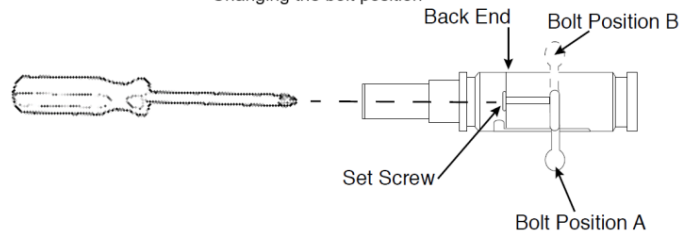
Use a press, vice or clamp with wooden or plastic jaws to prevent damaging the parts during assembly.

Setting the bolt position

1. The bolt can be set to position A or position B as shown in Diagram A.
2. To change the position of the bolt, loosen the set screw in the cap as shown in Diagram C, using a long phillips screw driver with a small head.
3. Rotate the bolt as necessary and tighten the set screw.
4. The top of the cap can be loosened to set the position of the styled rifle clip.

DIAGRAM C

Changing the bolt position



Pen assembly

Layout the parts as shown.

1. Layout the finished parts according to Diagram A
2. Press the front end into one end of the barrel.

- NOTE: DO NOT** press the front end of this kit with the tip removed. If you do so you will damage the parts. We will not replace parts damaged due to incorrect assembly.
3. Press the back end assembly into the opposite end of the barrel.
 4. Unscrew the tip and insert the refill into the opening at the front end.
 5. Insert the spring over the refill and replace the tip.
 6. Lock or unlock the bolt to extend or retract the refill tip.