



Abrams Tank Twist Pen Kits Assembly Instructions

Required Accessories

- 7mm pen mandrel
- 2-piece Bushing Set #11914
- 3/8" Drill Bit RZ-DB3/8
- Barrel Trimmer
- Live Tailstock Center
- Glue (Thick CA or Epoxy)



Preparing the Blank

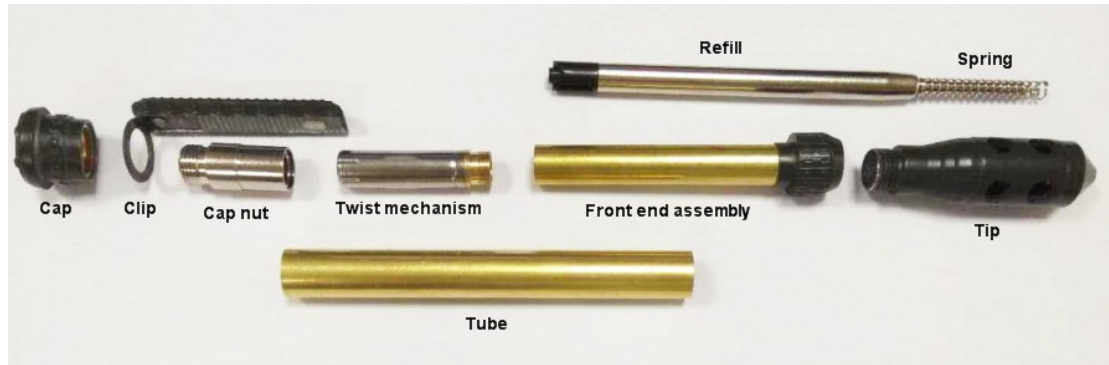
- Cut 1 blank to the length of the tube and add 1/16" for squaring off.
- Drill a 3/8" hole lengthwise through the blank.
- Spread glue over the tube, insert the blank with a twisting motion to spread the glue evenly inside.
- Center the tube lengthwise inside the blank.
- When the glue is dry, square the ends of the blank. Use a barrel trimmer, or a universal pen blank squaring jig with a power disc sander. Take the excess material down flush with the ends of the brass tube. (do not trim beyond the length of the tube since this may interfere with operation of the mechanism and assembly). Use a barrel trimmer to clean the inside of the tube.



Turning the Blank

- Mount the bushings and blank according to the diagram above.
- Thread on the knurled nut and hand tighten to hold all components in place.
- Slide the tailstock up snugly against the mandrel shaft inserting the live center point into the mandrel dimple, lock in place.
- Hand tighten the quill adjustment to firm up the mandrel. (DO NOT overtighten, it could damage the mandrel).
- Using sharp tools, turn the blank down close to the bushing diameter. Turn the barrel (straight or to a profile of your choice)
- Sand the blank down to be flush with the bushings gradually increasing the sandpaper grits.
- Finish the barrel with your choice of polish. Allow sufficient time for the polish to cure.

Diagram A



Assembly

- Arrange parts according to Diagram A. Note that Front end assembly is not a press fit. It is held in place by the twist mechanism being held by the cap nut.
- Place Clip onto Cap nut and thread Cap onto Cap nut.
- Press Cap nut/Clip assembly into the upper end of Tube.
- Thread Twist mechanism onto upper end of Front end assembly.
- Insert Refill – flat side first into open end of Front end assembly and place Spring onto Refill shaft.
- Thread tip over Refill onto Front end assembly.
- Check twist mechanism by hand by twisting it. Refill should extend and retract.
- By hand, push Front end assembly, Twist mechanism side first, into open end of Tube until it is fully seated in pen. To operate, twist tip.
- To Replace Refill, unscrew tip and remove old refill, remember to switch Spring to new refill before replacing in pen.