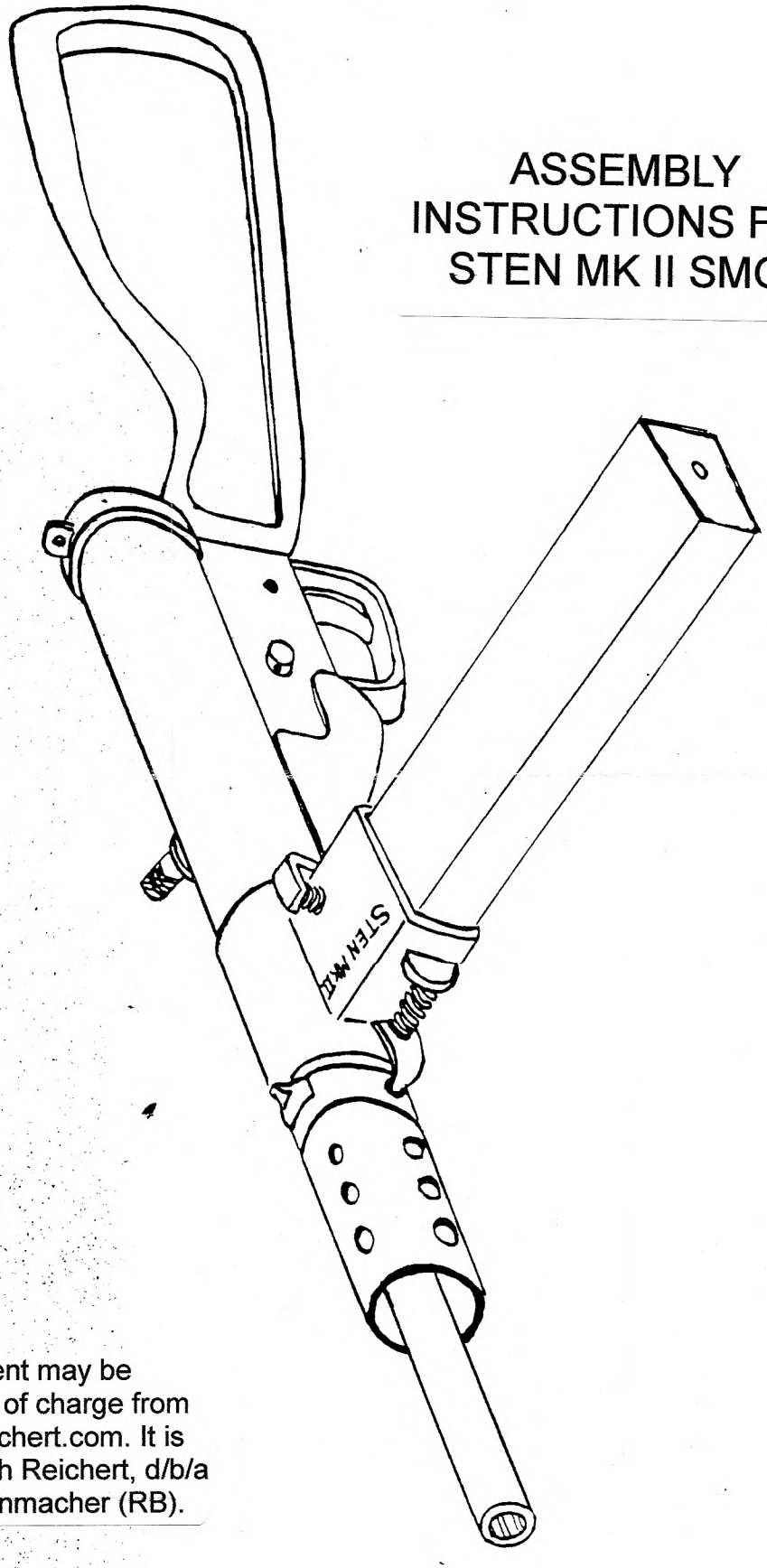
ASSEMBLY INSTRUCTIONS FOR STEN MK II SMG



ASSEMBLY INSTRUCTIONS FOR STEN MkII S.M.G.

(read through all notes before cutting any metal or welding)

STEPS

(refer to corresponding illustration number)

1. BARREL BUSHING:

   Drift out front sight. (most sights are tack welded or brazed on so some file work or cutting may be needed to remove)

   Trim old receiver tube off of barrel bushing. Leave 1/2" of receiver tube on bushing (the part with front sight dove tail slot) Leaving this 1/2" piece on bushing eliminates necessity of having to recut sight dove tail slot.

2. TRIGGER HOUSING:

   Trim off residue of old receiver tube at head casing leaving portion of tube with "J" slots intact in head casing. Also trim off residue piece of receiver tube on both front tabs leaving as much of tab as possible.

3. EJECTOR:

   Trim residue piece of tube off of ejector. (If a new blank ejector is supplied with parts set grind it to shape as per drawing #21)

4. RECEIVER TUBE:

   Cut new receiver tube to proper over-all-length & debur.
   Cut 6" long cocking slot (3/8" wide) as per illustration #22.

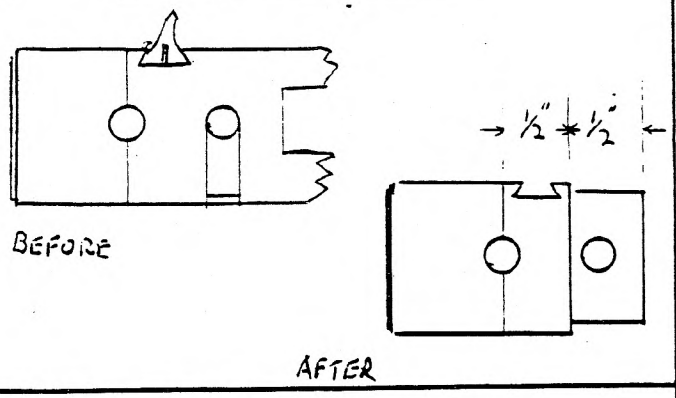
5. Measure dimension "X" on barrel bushing as per illustration and transfer this measurement to front of receiver tube. Scribe a line on side of tube opposite of cocking slot. This will be a referance for the mag housing plunger pin hole.

6. Slide bolt into receiver tube and insert cocking handle. Slide assembly forward.

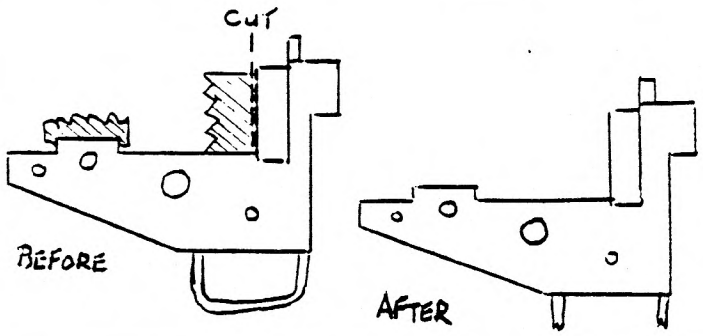
7. Slip on mag housing and align with bolt face as per illustration. Align mark from step 5 in center of plunger pin hole of mag housing. While holding mag housing in position as a temp plate mark on tube the locations for plunger pin hole, mag port, and ejection port.

8. Strip tube and drill the 1/4" plunger pin hole. Insert bushing and check alignment.

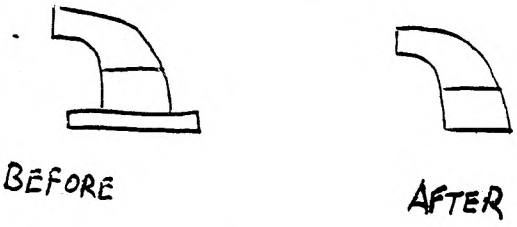
1 BARREL BUSHING



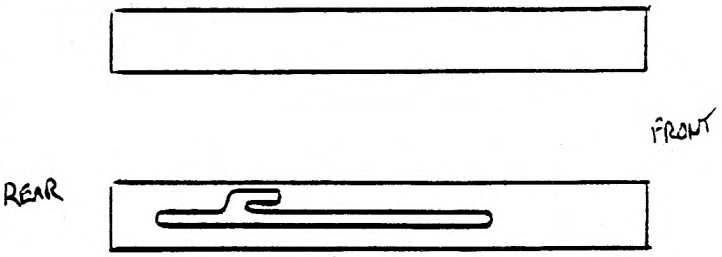
2 TRIGGER HOUSING



3 EJECTOR



4 RECEIVER TUBE



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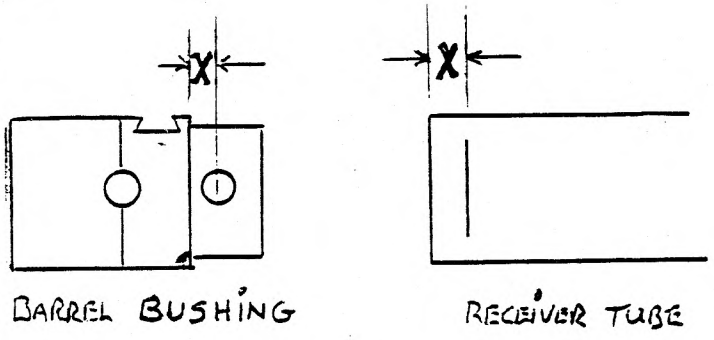

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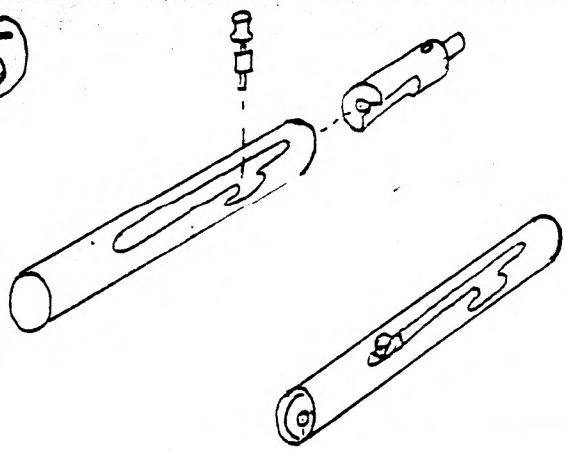

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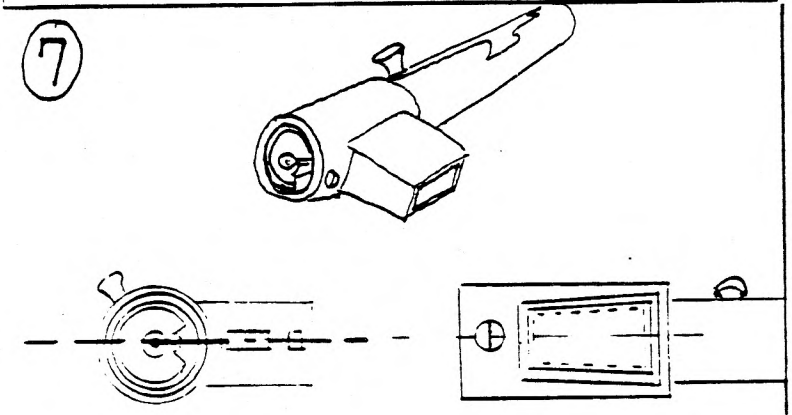


8

9. MAG. PORT:

Check scribe mark of step 7 against illustration #23. Make adjustments if necessary. Machine out the mag port. Note that front of port should be flush with rear surface of barrel bushing when it is inserted into tube.

10. EJECTION PORT:

Check other scribe mark of step 7 against illustration #22. Again make any adjustments necessary. Note that front edge of port in receiver tube is actually 3/8" back from front edge of port in mag housing. Machine out the ejection port.

11. ALTERNATE TO MILLING:

The machining of steps 9 & 10 above can best be done on a mill, but can also be done using a 1/4" drill. Drill holes all the way around the inside of the scribe marks of the port to be cut out. Carefully punch out the port and hand file or grind the rough edges smooth.

12. BARREL BUSHING WELD HOLES:

Drill three 1/4" holes at points illustrated on the front of the receiver tube. These should be about 3/16" back from front edge of tube with barrel bushing removed. These will be used to attach barrel bushing to tube.

13. EJECTOR SLOT:

Cut ejector slot (1/8" wide by 1/2" long) on back middle of mag port as per illustration.

14. WELDING EJECTOR ON:

Insert bolt with cocking handle into tube and position bolt about half way open in port to use as a guide in welding ejector in place. Ejector will be welded from outside the tube through the slot. Use long needle nose pliers to hold ejector while welding in place. Front of ejector base sits flush with rear of port.

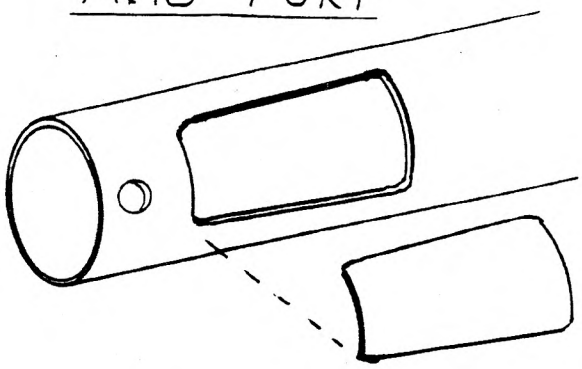
15. Immediately after welding ejector check bolt to ejector clearance. If ejector sits too close to bolt it will hang up during firing. If ejector sits too far out from bolt it will not eject the brass properly. To correct any spacing problems, while weld is still hot, tap with small hammer on hot weld to move ejector in, or tap on bolt through ejection port to drive ejector out. Remove bolt assembly and set aside.

16. WELDING BARREL BUSHING ON:

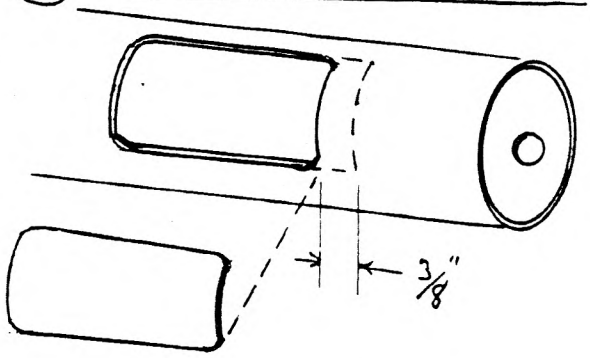
Insert barrel bushing and align mag housing plunger pin holes. While firmly holding tube to barrel bushing weld the two pieces together through the three 1/4" holes of step 12 above. Dress welds so mag housing is a tight slip fit over tube.

If you have access to a mill and a rotating fixture you can now cut mag housing plunger pin rotating slot as per illustration #25. Note that this step is an optional procedure!

9 MAG PORT



10 EJECTION PORT



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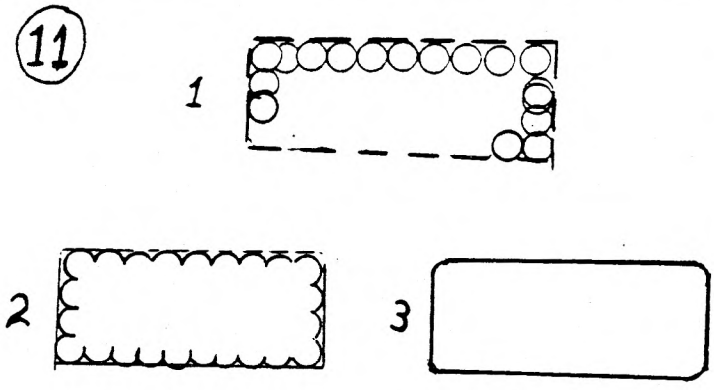

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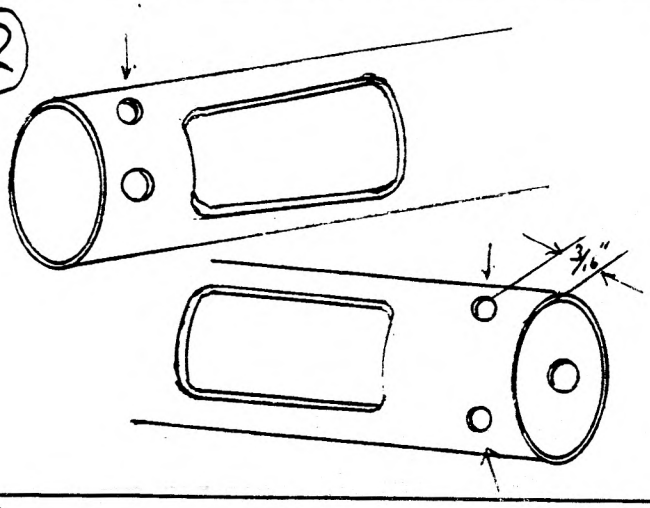
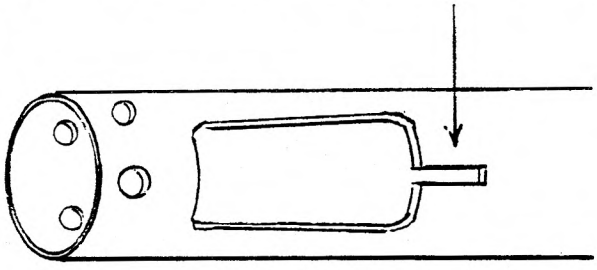
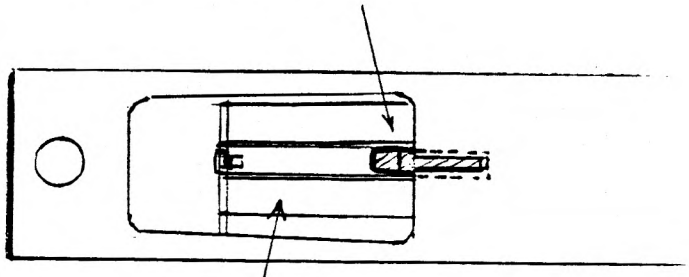


13 EJECTOR SLOT



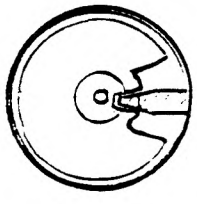
14 EJECTOR



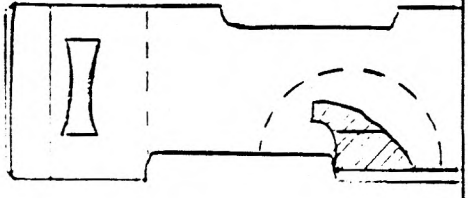
BOLT INSTALLED AS GUIDE

15

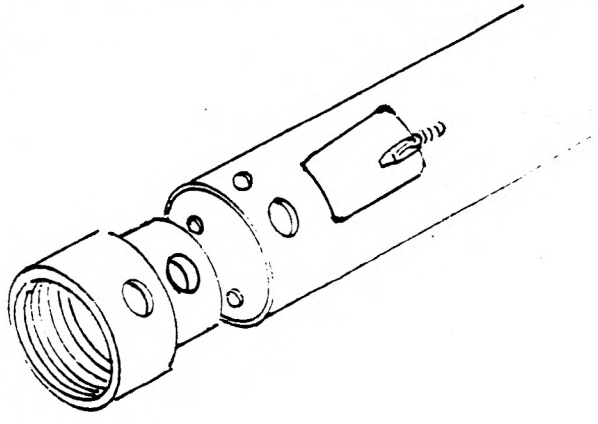
FRONT



TOP VIEW



16



17. If old piece of receiver left in head casing (of step 2) is still good then measure its length and cut that much off of the rear of the new tube. If the old piece is not usable then remove it from head casing.

Install all trigger parts into trigger housing as per #26 illustration. Hold (or insert) new receiver tube against trigger housing and head casing in position in which it is to be welded. Installing mag housing and a mag will help in making sure trigger housing is 90° to mag housing.

While firmly holding assembly together note position of sear through space at tabs on trigger housing and from under the bottom of trigger housing. Mark on tube just behind sear (RM). This will be mark indicating rear edge of sear port and should correspond closly to receiver drawing #24.

Holding trigger all the way back, note forward position of trip lever (disconnector). Mark in front of trip lever about 1/8" (FM). This will be mark indicating front edge of sear port and should also correspond closly to receiver drawing #24.

18. Strip trigger housing and reinstall on receiver tube. When aligned as before scribe along the inside of both sides of trigger housing between RM & FM marks. This will be right & left of new sear port and should correspond to receiver drawings.

Cut out sear port.

Reinstall trigger parts and check fit and operation of sear and trip lever in sear port. Rear tang of sear should catch on back edge of sear port to limit upward travel of sear. Trip lever in complete forward position should just miss front edge of sear port when pulled down. Sear should clear sides of sear port. Hand file to correct any clearance problems.

19. Assemble mag housing/mag assembly, and stripped trigger housing to receiver tube assembly. Align trigger housing 90° to mag housing. Hold or clamp complete assembly together and tack weld. Completely check aligment and finish welding.

After welding check travel of bolt. Assemble gun completely and check function of weapon manually. File or grind any weld burn thru or burrs that might cause gun not to function. Test fire gun. If all works well then gun is ready for final finish. Weld on front sight after alignment.

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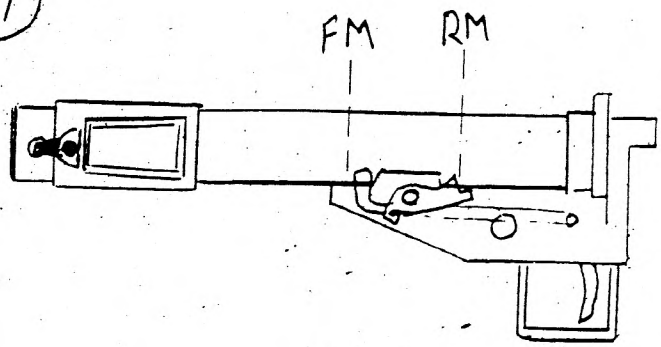
20. On compact models cut and remove 1" from bolt and weld back together as shown. On custom models that feed from the right, top, or bottom - you'll need to cut the bolt at "A" and rotate the two pieces to the proper position and weld back together. Also reposition the mag and ejection ports to the proper position on the receiver tube before cutting them out.

17



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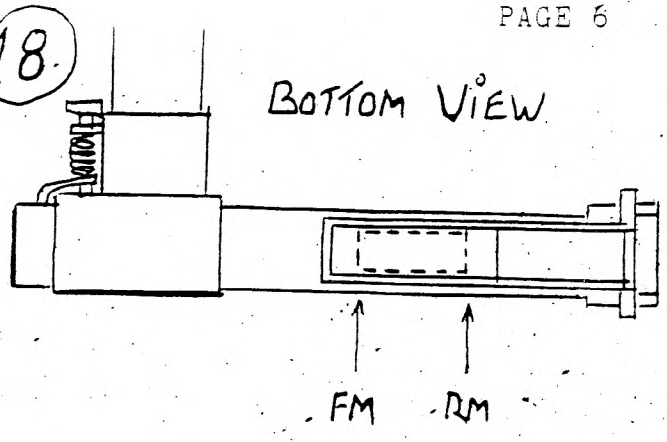

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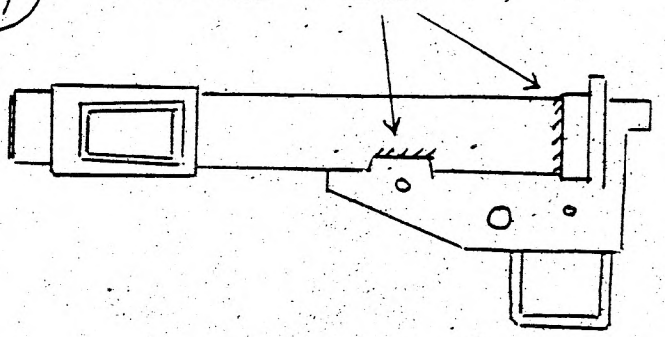

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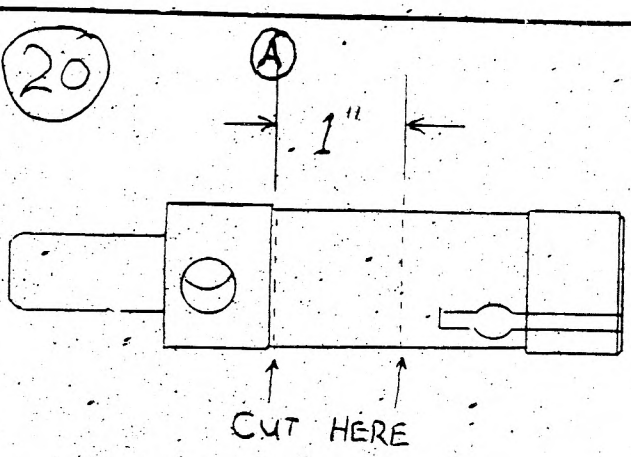
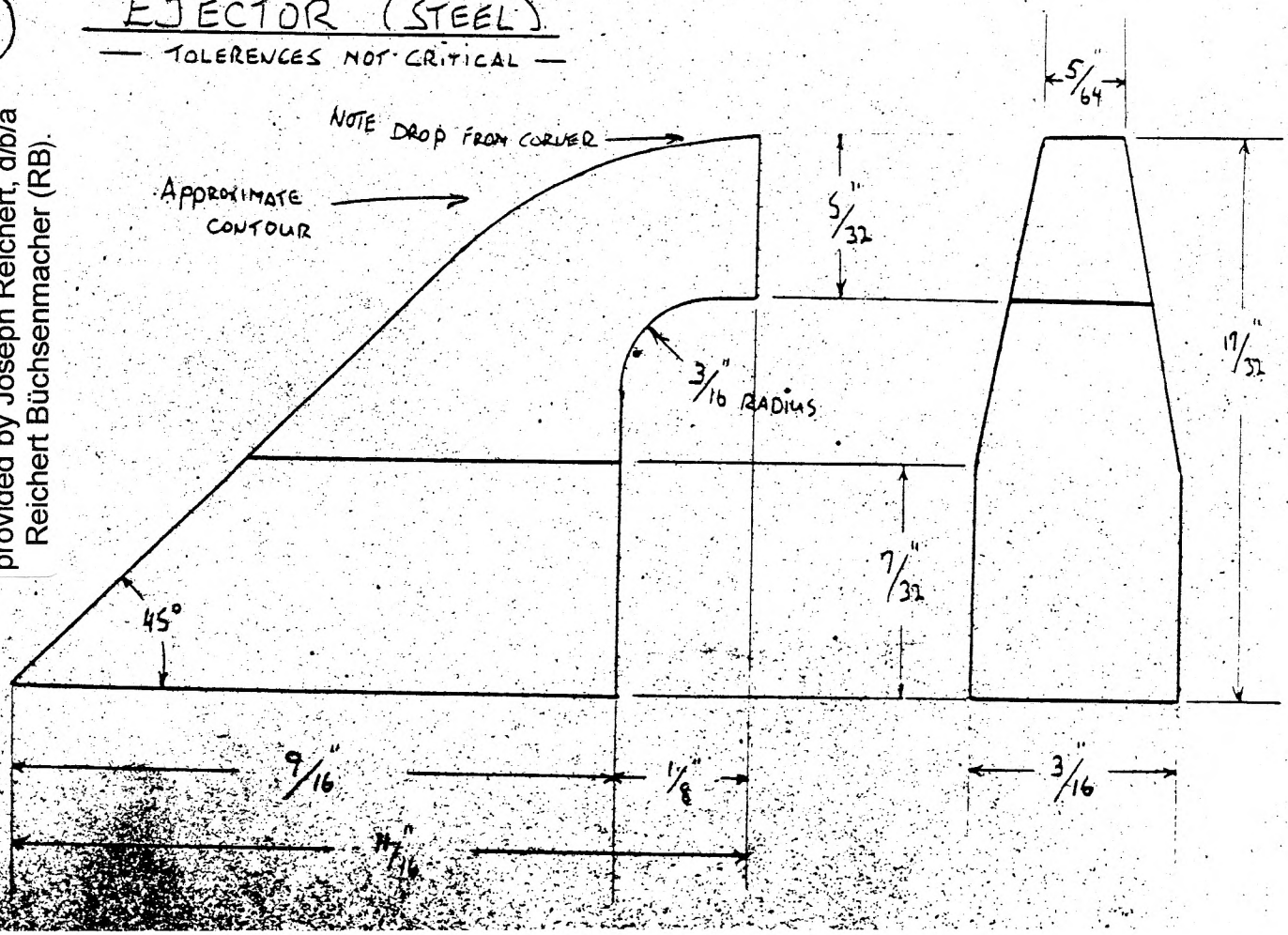


21

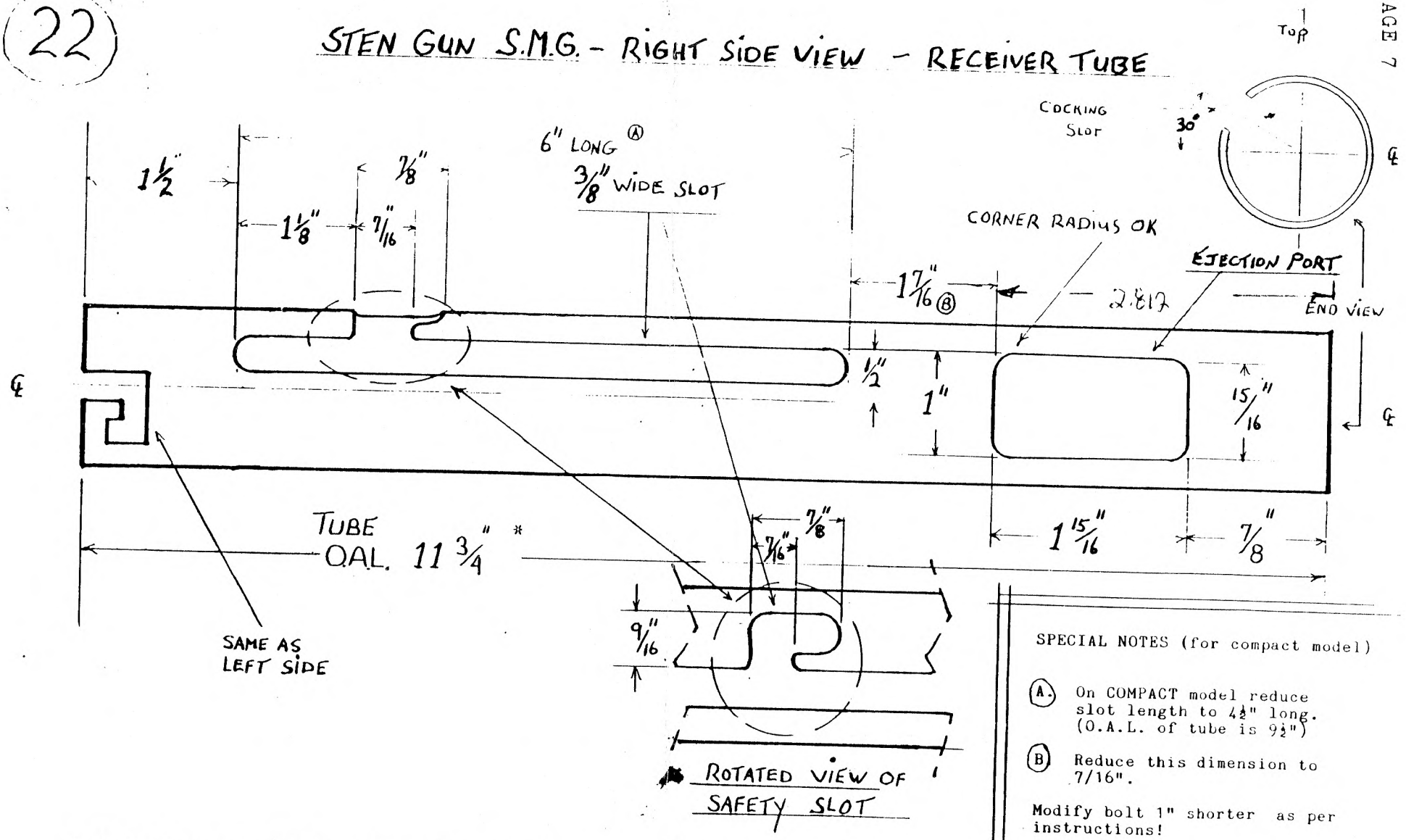
EJECTOR (STEEL)

— TOLERENCES NOT CRITICAL —



(22)

STEN GUN S.M.G. - RIGHT SIDE VIEW - RECEIVER TUBE



SPECIAL NOTES (for compact model)

(A.) On COMPACT model reduce slot length to 4½" long. (O.A.L. of tube is 9½")

(B) Reduce this dimension to 7/16".

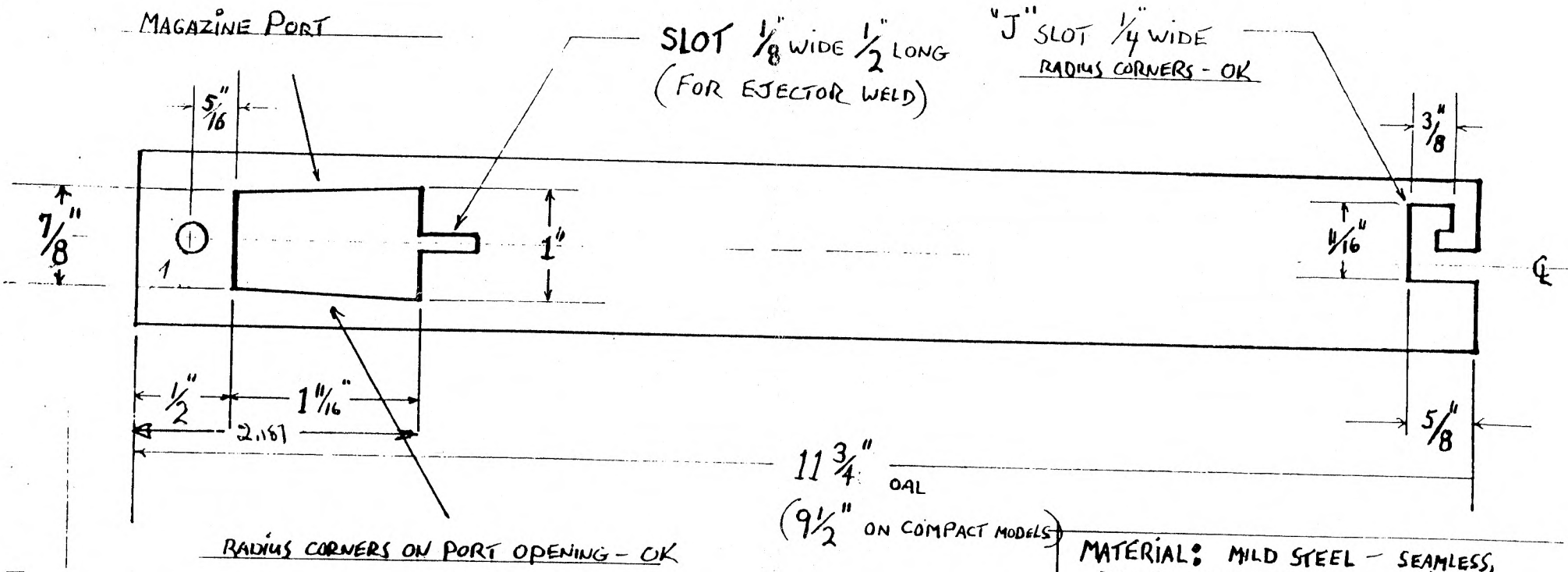
Modify bolt 1" shorter as per instructions!

* Actual over all length of standard receiver tube is 12¼". This drawing takes into account for ½" of old tube being left on the barrel bushing! See step 1.

(23)

STEN GUN SMG. - LEFT SIDE VIEW

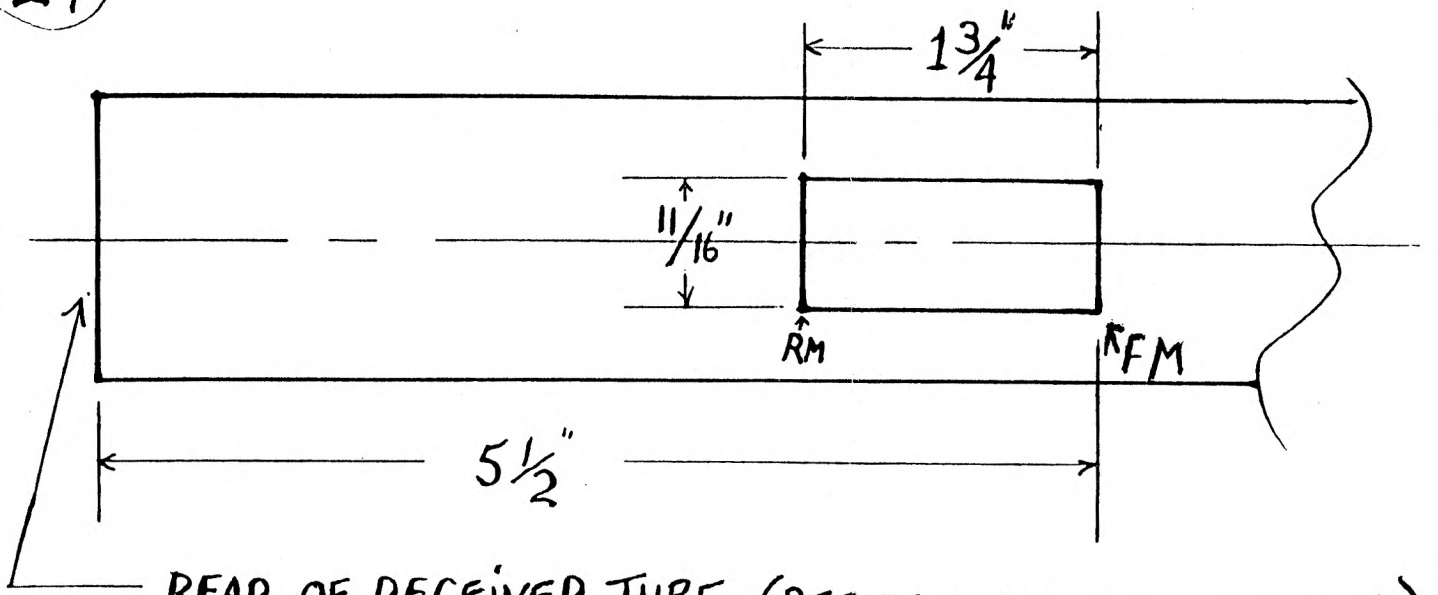
RECEIVER TUBE



MATERIAL: MILD STEEL - SEAMLESS, DRAWN OVER MANDREL - 1½" O.D. .058-.062 WALL (1⅜" I.D.)

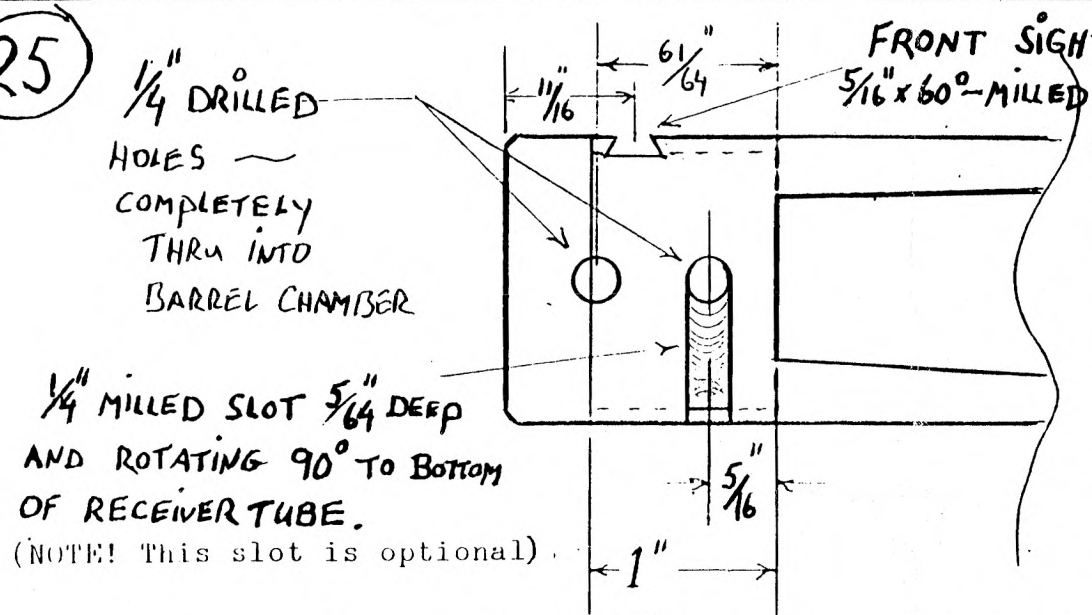
¼" DIA. PLUNGER PIN HOLE

(24) BOTTOM VIEW — SEAR PORT



REAR OF RECEIVER TUBE (BEFORE CUTTING OFF PER STEP 17)

(25)



NOTE! Most all Sten MkII SMGs had the front sight tack welded on as the small dovetail slot proved to not be strong enough to hold sight securely. If the dovetail slot is still good on the kit barrel bushing we suggest you use it rather than machine a new one. (see step #1 instructions). Also the proper mill is very difficult to find (see Brownells catalog however). A small tack weld on the front sight will hold it in place.

LEFT FRONT OF RECEIVER TUBE AFTER BARREL BUSHING IS INSTALLED

STEN MK II S.M.G.
TRIGGER ASSEMBLY

NOTES ON BUILDING CUSTOM MODELS OF THE STEN MkII

SINGLE SHOT:

Eliminate the following steps of ASSEMBLY INSTRUCTIONS:

5, 6, 7, 8, 9,

Do not install the mag housing assembly.

Install the Safety Block of step #27

If single shot is to be a pistol install the optional pistol grip stock & do not use the standard buttstock. If single shot is to be a rifle then a 16" barrel will have to be made and installed unless the single shot is registered as a Title II weapon.

REPLICA:

Eliminate the following steps of ASSEMBLY INSTRUCTIONS:

3, 9, 13, 14, 15,

Step #28 Weld a 1/4" thich steel disc to rear of barrel bushing before welding the barrel bushing into receiver tube. This weld must be permanet!!

Step #29 Manufacture a dummy mag by cutting the top off an original mag as illustrated.

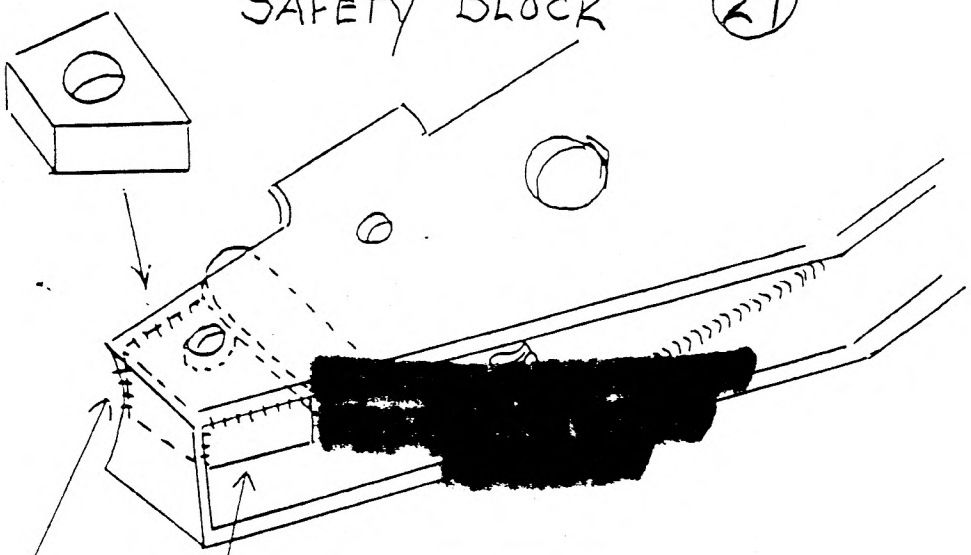
Step #30 Fashion a cover plate and weld onto dummy mag. Reinstall original mag internal parts.

Grind firing pin off of bolt face. Install one of our alloy dummy barrels.

SEMI-AUTO:

Install Safety Block as per Step #27. This converts gun from full auto/semi auto to a fire/safe type of firing.

SAFETY BLOCK (27)

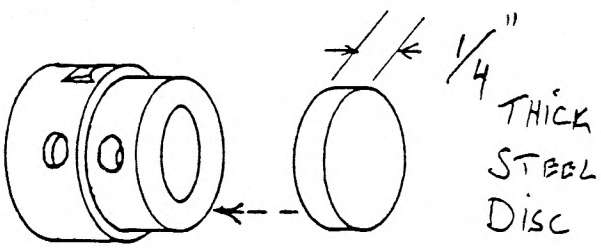


WELD IN PLACE BOTH ENDS

(FIT SO TRIP LEVER (disconnector) JUST CLEARS BLOCK WHEN SWITCHED TO SAFE POSITION - some grinding to block may need to be done

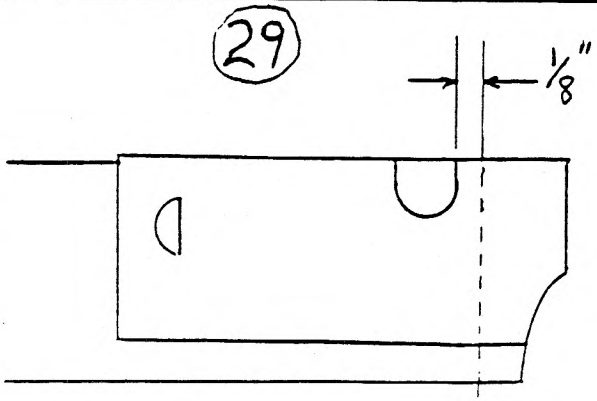
REPLICA CONSTRUCTION STEPS

(28)

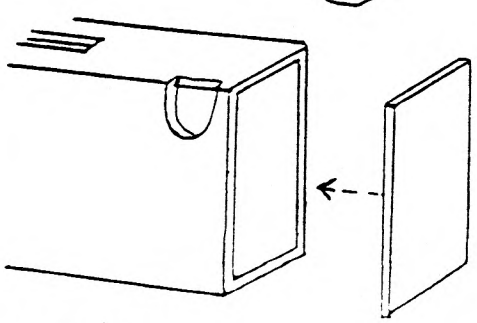


WELD TO BARREL BUSHING

(29)



(30)



DUMMY MAG