



2221 WEST POINT ROAD, LAGRANGE, GA 30240

RPD KIT ASSEMBLY INSTRUCTIONS

Your kit will contain the following parts:

- 3 8-32 x 1/8 button head cap screws
- 3 1/8 0 x 7/8 OAL roll pins
- 1 3/16 0 x 1" dowel pin
- 1 3/16 0 x 1 1/4" dowel pin
- 1 1/16 0 x 1/2" OAL dowel pin
- 1 10-32 button head cap screws
- 1 1/8 0 x 1/2 OAL dowel pin
- 1 1/8 0 x 3/8 OAL dowel pin
- 1 1/8 0 x 1/2 OAL dowel pin
- 1 sear
- 1 disconnect
- 1 actuator body
- 1 striker block
- 1 firing pin extension
- 1 take down pin
- 1 trigger spring
- 1 striker spring
- 1 actuator spring

Thank you for purchasing an RPD Kit from us!
We greatly appreciate your business!

2221 WEST POINT ROAD, LAGRANGE, GA 30240

706-756-1000

www.fmjarmory.com

Noble Firearms Inc.



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Thank you for purchasing our RPD receiver and/or semi-auto conversion kit! These instructions are provided to give the home builder a general outline of the steps to build the RPD kit into a functioning semi-auto rifle.

It should be noted that a certain amount machine work and welding is called for in this project, and some is mandated by BATF&E regulations to ensure that original full auto parts cannot be assembled into the receiver. Examples of this are the machining of the bolt carrier rails to a smaller dimension and the welding of the safety lever. These are simple procedures but require equipment not available to some home builders. Any good machine or welding shop will be able to handle these easily and affordably.

Help can be found online at some of the firearms and gun building forums.

PG/WLA

1. BARREL GROUP

Thread Protector

Remove the thread protector by unscrewing it from the muzzle. Set aside for later bead blasting and bluing with other parts.

Front Sight

Remove the front sight by using a 9MM box wrench or socket to remove the lock nut from the bolt that secures the sight. Turn the slotted screw all the way out and capture the spring. Tap the dovetail sight sideways with a brass or Delrin (plastic) punch and mallet. Set these parts aside to be blasted and blued later on.

Bipod

Remove the bipod by using a 3/32" diameter pin punch to drive out one of the two pins in the collar that holds the bipod onto the front of the barrel. The remaining pin will act as a hinge to allow the collar to open up, and release the bipod. The bipod can then be set aside with other parts that need blasting and bluing all together. No further disassembly is necessary.

Gas Regulator

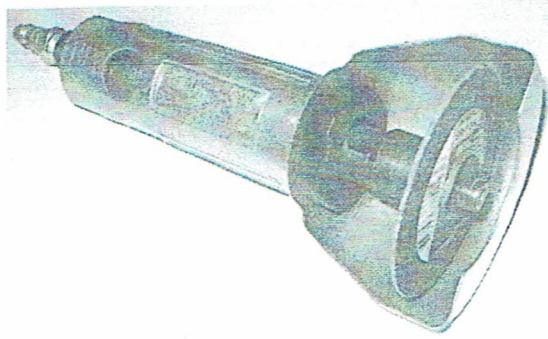
Remove the gas regulator by laying the bbl assembly on its side with the regulator bolt head facing up, and loosening this bolt with a 17 MM box wrench or socket. After the bolt is turned out approximately 1/8", put a protective small piece of sheet metal over the head of the bolt, and rap the head sharply with a hammer to crack the conical shaped nut loose on the other side. Once this is loose you can prevent the conical nut from turning by holding the nut against the housing with one hand, while the other hand turns the bolt out. Set aside with other parts to be blasted and blued.

Hand-guard

Remove the hand guard by removing four slotted screws. Slide the sheet metal heat guards off, and inspect the wood for any cracks or finish flaws that may require refinishing. If you want to keep and restore the hand guards, cracks may be repaired with super glue, and the wood can be sanded, stained with Minwax stain with the color named "Gunstock". Watco lacquer is good for a final spray finish. It is available at local hardware stores like ACE Hardware. Look it up on the internet for a dealer location. You can purchase newly made hand guards from your kit dealer. Set the heat guards aside for blasting and bluing with other parts later on.

Receiver Remnant

Remove the front portion of the old receiver (still attached to the barrel) by positioning the barrel assembly upside down in a soft jaw vise, and clamping the assembly at the gas regulator. The gas regulator provides a flat spot on each side, to clamp the assembly in a jaw protected vise. Use an air-saw with a thin, 3", carborundum blade (see photo below) to saw through the bottom of the receiver,

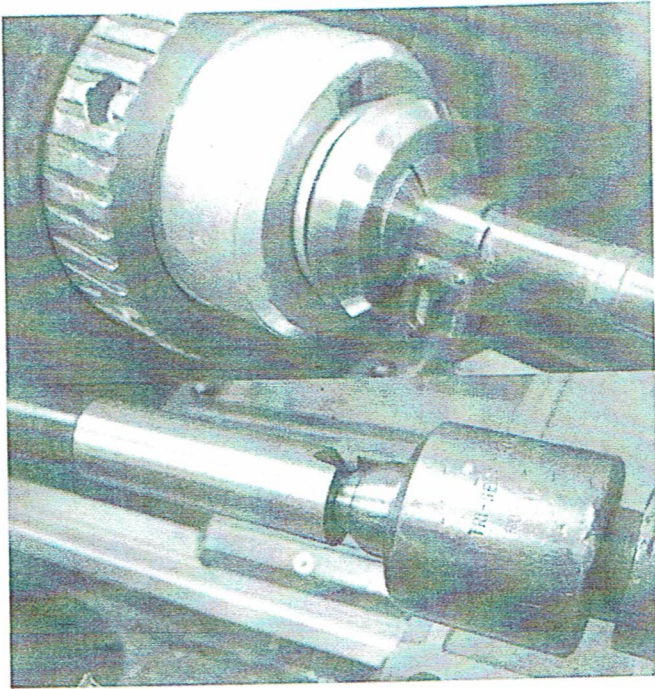
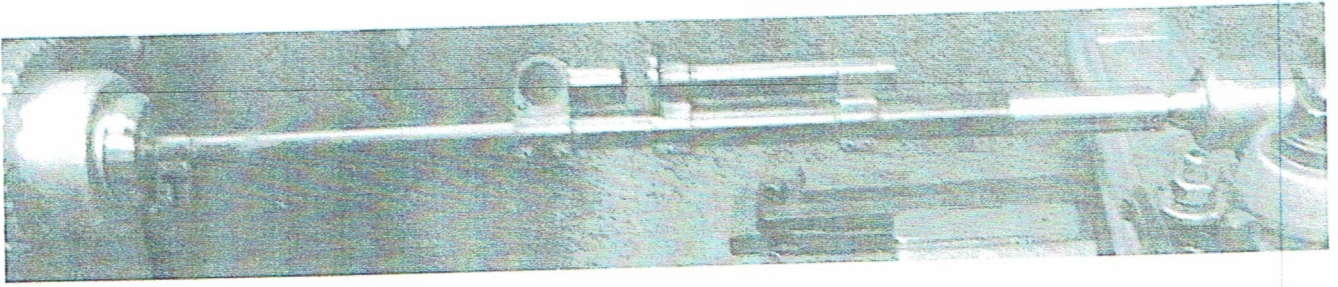


The cut will be underneath and parallel to the barrel chamber. Saw lightly back and forth, making a slit along the center line of the receiver, until the receiver "pops" slightly open. You will be cutting into the barrel threads a little, in order to do this, but this is not a concern, since the barrel threads will be coming off in later step. The barrel is screwed in under considerable foot-pounds of pressure, so when this is released by sawing, you can hear the receiver "pop" and separate slightly. It can then be turned off the barrel using an adjustable wrench, or you may rap the longer, left leg of the receiver with a hammer to crack it loose, and turn it by hand. You may discard this section of the old receiver.

Barrel Machining

The barrel assembly (and bolt carrier and lower frame) need machining to get them ready for this build. If you have machining ability you can try these yourself, or you can send them to a machine shop with the drawings included. A lathe and mill are required.

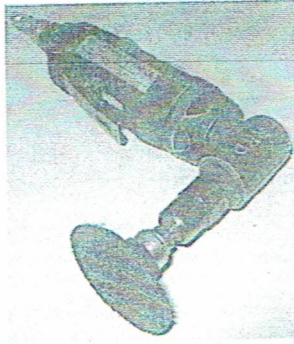
The barrel assembly can now be put into a lathe. The best set-up is a collet system with a 5/8" collet, and a standard tapered center on the other end. (see photos below). Because of the notch in the chamber, it is better to have a filler plug with a center drill cone in one end, to fit tight in the chamber, and mate with the tail stock on the lathe. If you are using a Vector receiver the chamber-end of the barrel must be turned down to an OD of .867" + - .0005" diameter, which will remove the threads and reduce the overall diameter. If you're using a DSA receiver the chamber end of the barrel should be turned to .945" + - .0005. This step works in conjunction with the instructions called "Barrel Well Prep" on page 5. Do these two steps together to assure a proper press fit for the barrel. The exact chamber O.D. is critical for a proper pressing of the barrel into the receiver. The goal is a .001" interference fit with the receiver. You will be turning an eccentric mass, so the lathe turn speed must be no faster than 1600rpm. After turning to final diameter, chamfer the butt end with a 30 deg chamfer, 1/8 forward onto the chamber end of the bbl. After machining, the barrel is ready for pressing into the receiver in a later step.



2. BOLT CARRIER MOD

Hole Clearing

This step may be skipped but it does make drilling the transfer pin hole easier. Locate a .314" hole going through the butt end of the carrier, from side to side. Notice that this hole has a vertical rod exposed in it, which attaches the roller bearing on top. This rod must be drilled out very clean with a short, 8mm bit, to allow a filler pin to be inserted and welded. This drilling is best done on a vertical mill, so the bit does not drift. Make a filler pin from mild steel round stock. It should be about .780" long and .314" in diameter. Chamfer the ends to 45 deg on a grinder or belt sander, to provide a trough for TIG welding. Insert the pin and TIG weld around both ends. Grind and polish the welds with your pneumatic angle grinder (see photo below).



This type of angle grinder will be used extensively through this build

Carrier Machining

The bolt carrier can now be machined as per the drawings provided. An overview of steps is as follows: enlarge the shallow hole at the rear, drill a hole for the new transfer pin, drill a smaller, retainer pin hole (to retain the transfer pin), and mill the side rails narrower.

De-burring

After machining, de-burr the carrier in all areas where machining has taken place. Note especially the top of the rails at the rear. The machining operation will frequently leave a residue portion of the rail which looks like a large burr or flashing. This can be removed with your angle grinder and a 120 disk supported by a rubber pad.

Note the retaining pin hole in the side of the carrier at the rear. This may have burrs inside it, which can be removed in the next reaming step. Locate a pin punch which best fits this hole, and push the punch through both sides of the carrier to push the burrs into the path of the reamer during the next step.

Ream the transfer pin hole with a .1885" or slightly larger reamer or drill.

Set this item aside with other parts to be blasted and Parkerized. The transfer pin can be put with this group also.

3. RECEIVER PREP

Audit

Audit the dimensions of the receiver to assure that it is correct, before expending any further effort, which may be wasted if the receiver must be rejected or returned.

De-burring

If dims are correct, de-burr all sharp corners inside and out, using a file and/or emery cloth.

Polishing

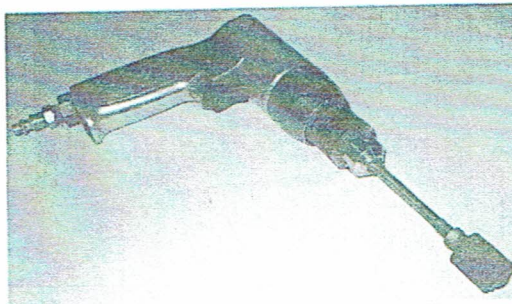
Polish the exterior with an angle grinder at 120 grit or smaller, to remove machining marks and any other blemishes.

Thread chasing

Find the 3 threaded holes on the left side, and chase them with an 8-32 tap to clean out any burrs.

Barrel Well Prep

The barrel well is the large, round hole in the front of the receiver. Using a $\frac{3}{4}$ " dia sanding drum in 120 grit, mounted in an air drill (see photo below), lightly clean the heat scale off the surfaces in the barrel well. The bbl well will frequently warp during heat treat. It usually warps by shrinking inward on the sides, so the opening is ob-rounded. If the width is too narrow, sand the two sides slightly with the drum sander, putting pressure against the sidewall. Sand the same amount on each side. Check the progress frequently. Use caution to not enlarge the well too large for your barrel. Keep in mind that the correct interference fit is a bbl that is .001" larger than the well.



A pneumatic drill with an arbor and $\frac{3}{4}$ " sanding drum

Barrel Pressing

Using a 40 ton electric/hydraulic bbl press machine, designed for this purpose, align the bbl group with the receiver, and carefully press the bbl into the receiver.

Barrel Alignment

Remove the bbl assembly from the press, and check for alignment. Alignment is done with the new gas piston mounted on the bolt carrier. Slide the carrier into the receiver and move it forward until the piston moves into the gas cylinder (gas tube). It should slide easily, with no binding, all the way through the stroke. If it binds, then some additional motion or gas tube alignment is required. Pull the carrier out of the receiver, and check again for side to side, and up and down movement of the piston. A fair amount of "play" should exist. If this looks good, reinstall the carrier and move it forward until the piston is just about to enter the gas tube. Turn the assembly upside down, and check the clearance between the sides of the piston head and the sides of the receiver at this position. The space should be the same on both sides. If the piston is off center, the bbl assembly must be rotated in the receiver to make these gaps equal. This is done with a large, adjustable wrench on the receiver, while holding the bbl assembly in a vise – preferably a bbl vise.

Barrel Pinning

When alignment is verified by the piston moving freely, and by looking down the top of the receiver, barrel and front sight, you may now drill the receiver and bbl for pinning, which locks it into correct position. This is best done on a vertical mill to assure that the drill bits do not drift. Install a 3/16" straight flute, carbide bit into the mill chuck, clamp the receiver in the mill vise, and align the bit with the starter hole in the right side of the receiver. Drill into the receiver until you reach the bbl, or as far as the bit will plunge. Change to a longer, spiral 3/16" carbide bit, and finish the hole clear through. This procedure assures that the spiral bit will not drift to the side.

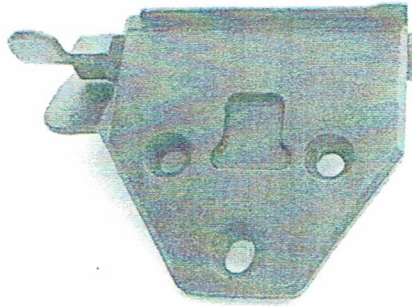
Next, ream this hole with a 5.5MM (.1965" #9 drill size SAE) reamer.

Install the bbl pin by starting it with a 1 ton hand press, then tap it the rest of the way with a hammer.

Grind the pin flat and smooth with an angle grinder using a 120 disk. Set this assembly aside for now, ready for blasting and bluing, so you can blast and blue everything at once.

Drum Mount Mod and Prep

Locate the drum mount (see photo below) from the parts kit, and check that the mounting plate portion (with three holes in it) is flat.

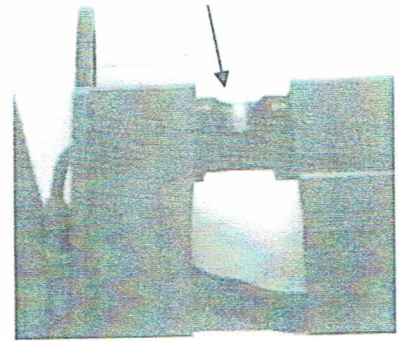
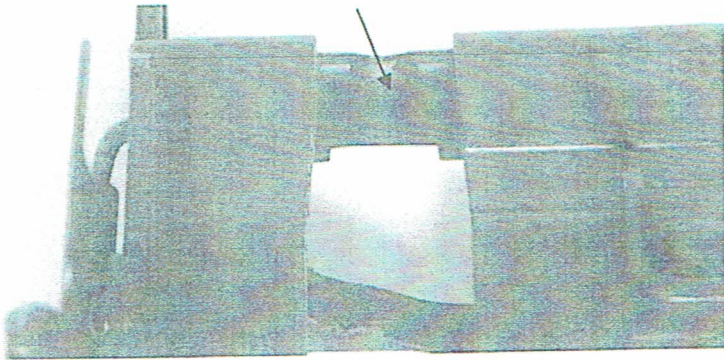


They are usually a little bent from salvage workers prying them off the receiver in Europe. If bent, place the flat half on a block of steel, thick enough to allow the curved part to hang over and down, and tap it along the bend line with a ball peen hammer until it is straight. It is soft metal, so this goes pretty easily.

We will be attaching this mount to the side of the receiver with (3) 8-32X3/8" counter-sunk Allen screws, so the 3 holes in the drum mount need to be counter-sunk. Be sure to counter-sink on the **outside** of the mount. (see photo above) Do this to a depth that will set the screws flush with the plate. Use a screw as a gage. Check for any dings that might need polishing out, and polish them with the angle grinder. Set this part aside for blasting and bluing later on.

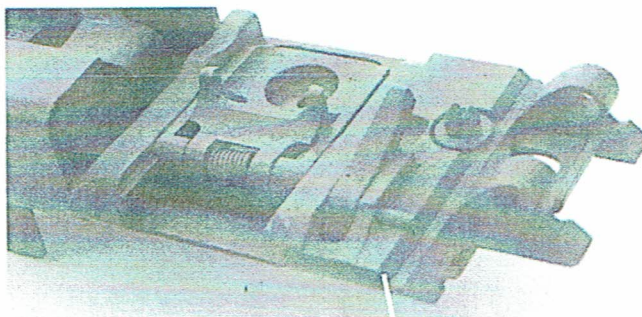
Feed Tray Mod and Prep

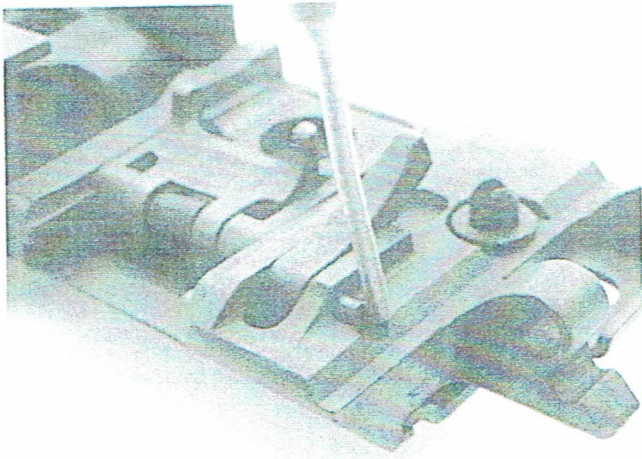
Locate the feed tray from the parts kit, and observe a half circle cut-out where it forms the beginning of the feed ramp. (see 1st photo below) This can be improved by enlarging it with a 1/4" dia stone in a Dremel type tool. Follow the same tapered angle and enlarge this cut-out about double, as in the 2nd photo. Check for any imperfections that can be polished out. Set aside for blasting and bluing later on.



Top Cover Mod and Prep

Locate the top cover in the parts kit, and turn it upside down. Observe a spring loaded pall at the forward end. This depresses the round to guide it down and into the chamber. It is pinned with a loose fitting pin that is too long, and can interfere with the feed tray if it starts to come out due to Vibration (see 1st Photo). Find a 1/16" pin punch, and drive the pin out (at a slight angle due to other parts being in the way). Shorten the pin by 3/32" + - on a sander, or use your angle grinder while holding the pin in a pliers. Sand a small chamfer on the other end to facilitate replacement alignment. Re-install the pin and stake it in place by deforming the corners on each side of the trough just in front of the end of the pin. (see 2nd photo below) Use a flat tipped pin punch to do this. This will prevent the pin from coasting out.





At this point you will have to decide whether you want to re-blue the top cover or not. If the kit was new or as new when it was shipped from Europe, the bluing will be in good condition. It may not match the rest of the gun after it is blued, but there is some work to disassemble it for bluing, and this will be the decision you have to make. If you decide to blast and blue it, then do the following: you must remove the sliding latch at the rear by grinding the underside of the screw that holds the latch in place. Note that the screw has been staked around the tip of the screw. If you grind this down a little, it will weaken the staking and you can twist the screw out. Remove and the screw, latch and spring for blasting. It is not recommended to remove the other parts of the top cover. You can blast and blue the assembly with the other parts still attached. Check the top cover for any imperfections that can be polished out. After parts have been blasted, you can loosely reassemble them for bluing except for the spring.

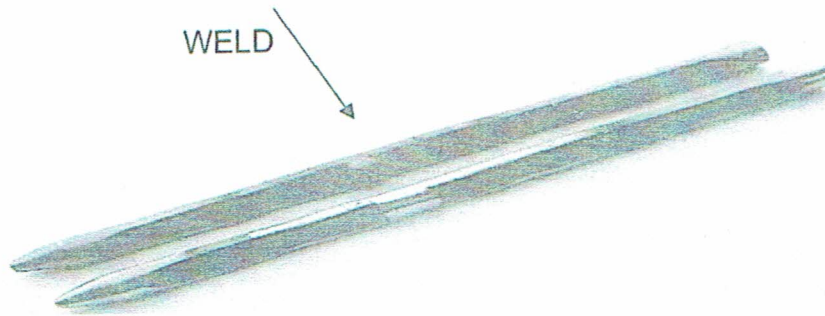
4. BOLT MOD

Firing Pin Removal

Lay the bolt on its side on a workbench, and using a 5/64 or 1/16 pin punch, drive the firing pin retaining pin out. This will allow the firing pin to exit out of the bolt. We will next modify the firing pin to limit the original amount of travel, to make it safer against accidental firing out of battery.

Firing Pin Welding

Note that the firing pin has a flat spot on one side. This is the bottom surface. Using a metal marking scratch awl, scratch a mark across on this surface 1.194" from the firing pin tip. Using a TIG welding outfit, deposit a lump of weld on this surface starting at the mark, and going backward about 1/4" The lump should be about 3/32 high. (see photo below)



Shaping

Using a pneumatic angle grinder, grind this lump to look like the radius of the butt end of the firing pin. The lump should be .003" less high than the radius of the butt end. (see photo above) Compare it with a caliper. Insert the firing pin back into the bolt, orienting the flat side toward the bottom, and drive in the retaining pin. If it is loose, you must stake it with a prick punch, and then flatten the staked area with a larger, flat tipped punch. The bolt is now ready for a later assembly step.

5. LOWER FRAME DISASSEMBLY & MODIFICATION

Stock Removal

Separate the stock from the lower by disassembling the nut & bolt that holds the stock in place at the rear of the lower frame. Keep the stock and the nut and bolt for a later step.

Trigger Removal

Remove the trigger pin by using a pin punch of the correct size. You may discard the trigger and pin. You will not need them.

Safety Lever Removal

Remove the safety lever by assuring that it is in the forward, safe position, then depress the leaf spring and pull the lever out. Keep this part for later use.

Leaf Spring Removal

Remove the safety lever leaf spring by inserting a small punch or awl in the hole and sliding the spring to the rear until you can remove it straight upward. Keep this part for later use.

Lower Frame Machining

The lower frame may now be machined as per the drawings provided. An overview of the operations is as follows: shorten or notch the front, hog out the trigger box in two places, drill 4 small pin holes in precise locations and square up the cross pin boss.

Lower to Upper Fitting

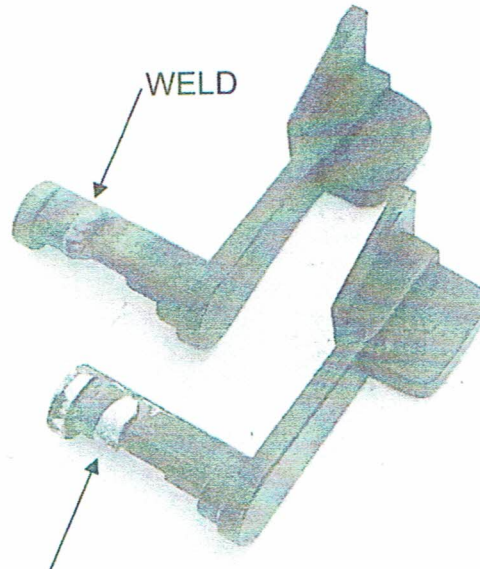
Take the receiver and the lower frame in hand, and slide the lower into the receiver from the rear. The lower is too long to fit fully into the receiver so you must hand fit the lower to the upper.

Make sure the lower is in as far as it can go. (Tap it with a soft face hammer). Observe the gap between the butt of the receiver and the lower frame. This is the amount of metal you need to remove from the front end of the lower frame. If your lower has an original serial number that matches the top cover, you might want to keep the area with the number unmodified. To do this, just notch the sides of the lower frame the required amount, leaving the ser# area intact. If this is not important to you, the lower can just be cut straight across the proper amount.

Remove the lower and remove the required amount off the front end. Proceed carefully to a final, tight fit between the receiver and the lower. Use the cross pin to gauge the final fit. The pin should pass easily through both upper and lower.

Safety Lever Mod

Using a scraper, Dremel, jeweler's file or other tool, remove the bluing off the round side of the cross pin portion of the lever as shown in the photo below. This cleans the bluing away for the next welding step. Using a TIG welder, lay down an approximate 3/32" wide bead of weld about 1/16" high centered above the edge of the notch located on the underside of the cross pin. (see photo below)

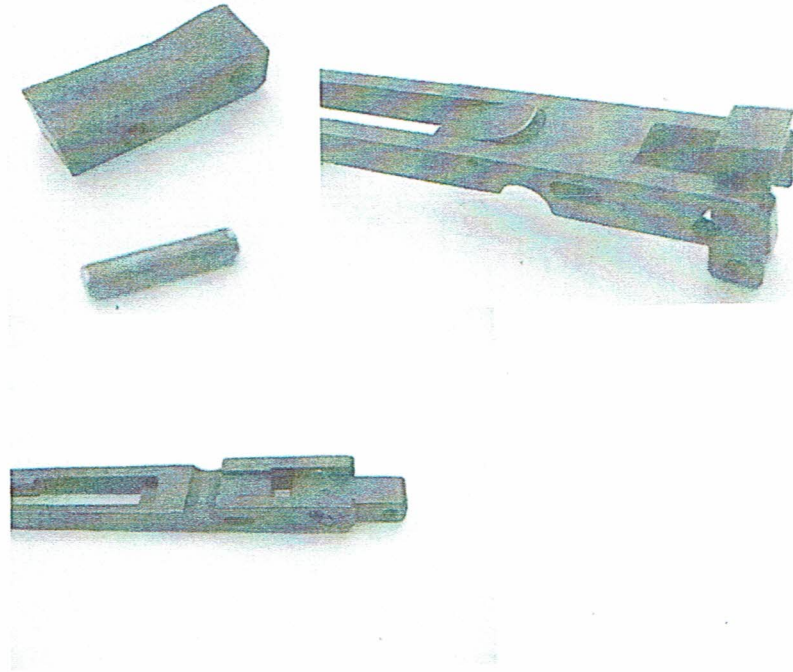


Using a pneumatic angle grinder, shape the weld to look like the full round end of the cross pin – same diameter and same height. (see photo above)

Inspect the thumb paddles on the end of the lever handle for any dings and grind/polish them off. (see photo above) Set this part aside with the group to be blasted and blued for later assembly.

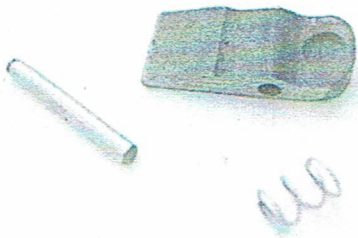
Actuator sub-assembly

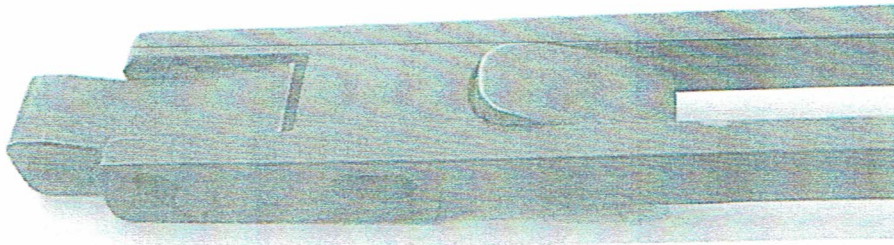
Locate also the sear and sear pin from new parts kit. (see 1st photo below) Place the sear in position into the actuator, per 2nd photo below, and insert the pin. If the pin slips through the sear easily, you will want to "stake" the pin in place by positioning the actuator upside down on a work bench, and positioning a center punch above the pin, centered on the sear, and giving it a sharp rap to dimple the sear. (see 3rd photo below)



Disconnect

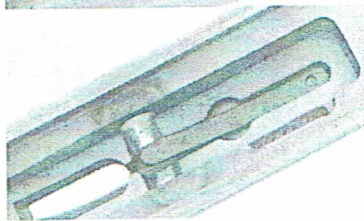
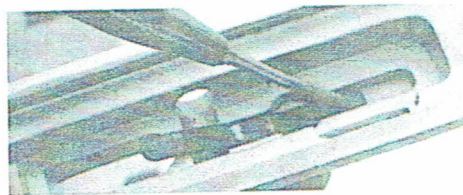
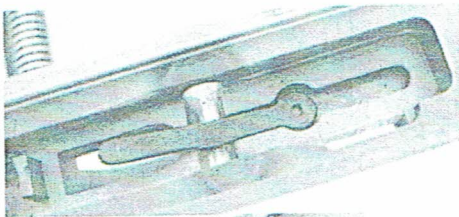
Locate the disconnect, disconnect spring and disconnect pin, (see photo below) and install the spring into the disconnect by placing the disconnect upside down and twisting the spring into the round detent hole until it stays on its own. Position the actuator so it lays on the bench with the bench as in the 2nd photo above, then place the disconnect into position and depress the disconnect with your thumb while lining up the holes, then insert the pin (2nd photo below).





Leaf Spring

Install the safety lever leaf spring into the lower frame by dropping it into the round opening in the front cavity, (see 1st photo below) then slide it forward with a pointed tool like an awl or small screwdriver (see 2nd photo below) until it is all the way forward as in 3rd photo.

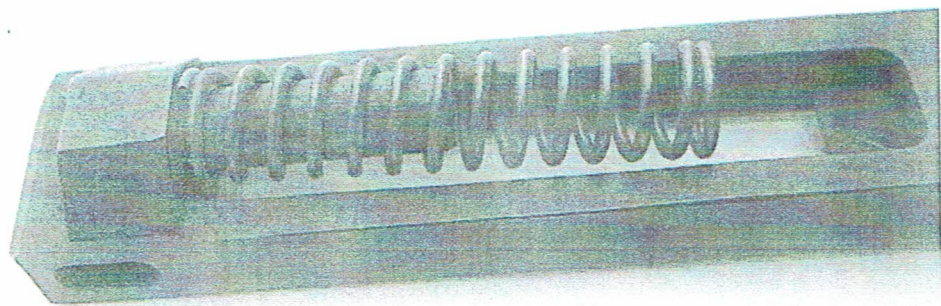


Safety Lever

Install the safety lever by holding the leaf spring down and inserting the safety lever from the right side. Rotate the lever to the rear fire position.

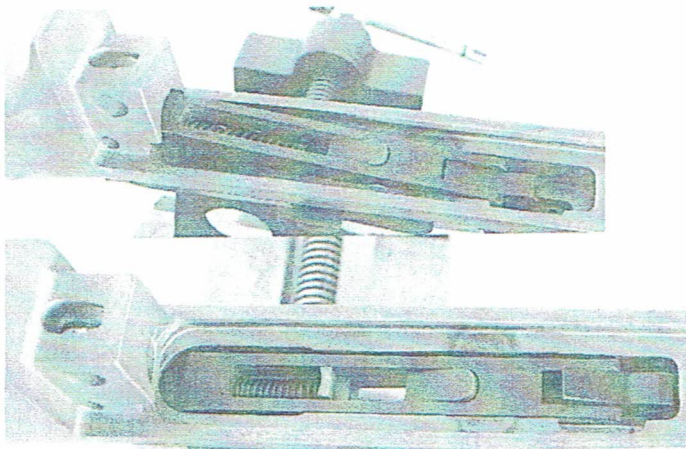
Actuator Spring

Locate the actuator spring and install it onto the actuator spring guide pin at the rear of the actuator. (see photo below)



Actuator into Lower

With its spring on the bottom and to the rear, position the actuator at the extreme rear of the trigger cavity, (see 1st photo below) and guide the front, loose end of the spring downward as you move the actuator forward and downward into its position in the lower frame trigger cavity. (see 2nd photo below)



Retainer Pins

Locate 3 retainer pins (roll pins). Two of these pins will need to be reduced in diameter in the middle area that goes through the slots in the actuator, but leave the ends the original size so they will hold the pin in place in the receiver. A middle diameter of .120 should work. The sear pin need not be modified. Carefully drive in the rear most (modified) pin until it is evenly spaced in the lower. Install the second (modified) pin just forward of the safety the same way. The original trigger pin from your parts kit will be used.

Trigger Machining

Locate the trigger and trigger pin from your parts kit and the trigger spring from your semi-auto parts set. The trigger must be relieved on it's left side for the new trigger spring. This can be accomplished most easily on a milling machine, but a drill press and Dremel tool will work. Using a mill, start with a .250 dia. end mill centered directly over the trigger pin hole and cut down into the trigger approximately .130". Now moving perpendicular to the trigger, feed the mill out until it clears the remaining material. See photo for clarification of this cut. Next, using the .250 or smaller end mill, cut a secondary notch for the tail of the trigger spring to rest on the trigger. This cut is made at the top of the first cut and should be about .055 deep from the original trigger surface. Be careful not to cut into the trigger hook.

If using a drill press, drill the trigger pin hole approximately .130" deep with a .250" drill. Use a Dremel tool to remove the excess material and then cut the second notch.



Trigger install

Assure that the trigger spring and pin are handy, and Install the trigger, for a test, by placing the trigger spring into the pocket on the left side of the trigger, and holding it in place with the left hand while lowering the trigger down into position into the actuator. Have a small pin punch in your right hand to push the spring back into its pocket as you move the trigger into position, while assuring that the free end of the spring catches into the slit in the lower frame. When in position, insert the pin with your right hand. Tap it in. The objective here is to have the right amount of trigger pull, so that the sear is a visual 1/64" below the surface of the actuator when the trigger releases the disconnect. This will reduce the amount of trigger travel necessary between shots. If the sear goes further down than 1/64", Then you can remove the trigger, and take more off the trigger tang. If you are getting close, take off only a little. If you take off too much, the sear will not pull down below the surface, and you will have to buy a new trigger and start over. Once you are satisfied, stake the trigger pin. Set this assembly aside for later bluing and bluing.

ASSEMBLY

NOTE: It is advised that you fully assemble and test fire the gun before bluing and Parkerizing so these finishes will not be marred if further metal work is needed.

1. BBL/RECEIVER GROUP

Front Sight

Locate the front sight and front sight bolt and lock-nut. Install the sight by tapping it into position with a soft faced hammer. Once in position, install the bolt and lock-nut. The thread protector, if available can also be installed.

Gas Regulator

Locate the gas regulator bolt and cone shaped nut. Install it by placing the nut in position on its indexing pin, and holding it in position with one hand while turning the bolt into it with the other hand. Tighten to snug with a 17MM box wrench or socket.

Charging Handle

Locate the charging handle and install it by aligning the wider tabs on the slide portion, with the larger cuts in the receiver groove. Drop the slide down into the groove and move it forward into final position.

Fore-Grip

Install the fore-grip using 4 screws, and check for any interference with the charging handle. It must clear the grip with no binding. If it binds, remove material from the grip.

Feed tray and Top cover

Find the feed tray, top cover and top cover pin, and place the feed tray in position and then the top cover over the tray. Align the hinge tabs with the hole in the receiver and install the pin. Check that everything fits and the top closes, then flare (rivet) the end of the pin.

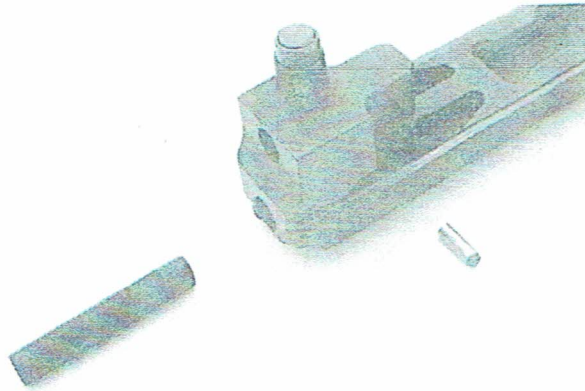
Drum hanger

Place the hanger on the receiver and use 3 countersunk flathead screws to secure it.

2. BOLT CARRIER

Transfer Pin

Find the carrier, transfer pin and retainer pin, (see photo below) and Install the transfer pin through the new hole in the rear of the carrier. Orient the flat side down, so the retainer pin will clear. Install the retainer pin. If the pin fits loosely, it must be staked with a prick punch. One stake on each side of the carrier should suffice. Flatten the staking by tapping the deformed area with a larger, flat tipped pin punch.

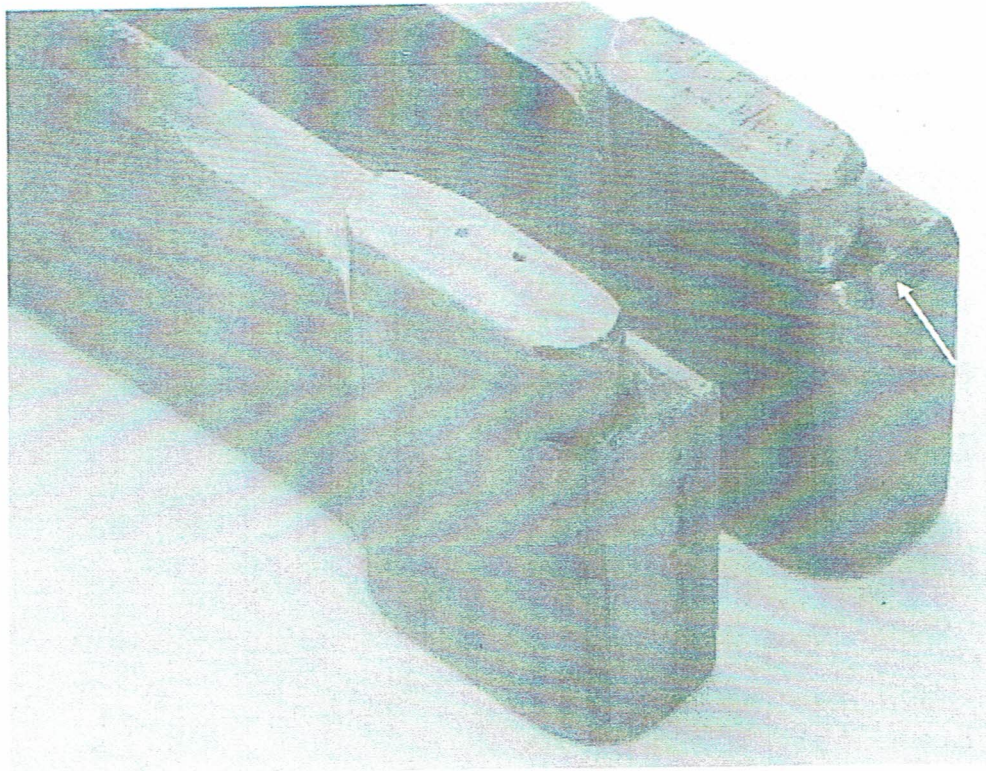


3. BOLT AND LOCKING PIECES

Install the locking pieces onto the bolt by nesting them into their respective pockets. The smaller, flat ends go forward and become "hinges" to allow the pieces to swing outward at the rear, and lock into broached slots in the inside walls of the receiver. Turn the receiver upside down, and drop the bolt into position, from the bottom, while holding the locking pieces in position. Push this assembly forward into battery position.

Spread the locking pieces outward and check the length, which determines the fit into the broaches. The locking pieces should be slightly too long to fit into the broaches. This is to allow you to "hone" them down to the exact, correct length. Using the locking piece grinding fixture (which holds the piece square and at the correct tilt) grind the butt end of the piece a very slight amount, until you have a .005" gap between the locking piece and the back edge of the broach. This is checked with a feeler gage. This is done through a repetition of grind and check, to sneak up on the final length. This gap must also be no more than .001" to .002" maximum difference from one side to the other. Both locking pieces must share the impact of recoil equally, so they must be gapped the same.

When these gaps are satisfactory, remove the bolt from the receiver, and install it onto the carrier with the locking pieces in place, and push the bolt against the spreading wedge on the carrier. Check to see that the locking pieces contact the wedge at the same time. If not, using a 1" belt sander, sand the large radius on the butt end of the longer piece slightly, and check again until they contact at the same time. Finally, examine these radii for any flat spots, and lightly sand them out on the 1" belt. Chamfer the outside corner of the rear of the locking piece as shown in the before and after photo below.



4. Lower assembly

Reassemble the stock, recoil tube, trigger and other fire control parts in their correct configuration on the lower frame.

5. Butt plate

Place the butt plate into position and install the original thru-bolt. Tighten it with a flat blade screwdriver, enough to hold it in approximate final position. Find the rear door latch spring and insert it through the square hole in the butt plate. Assure that the curl in the end of the spring faces upward. Hold the spring in position with one finger while inserting the bolt down through the spring a stock from the inside. Once in place, hold the head of the bolt with a finger while starting the nut onto the bolt with the other hand. Now you are ready to push the plate into final position tight against the wood while tightening the both nuts with a screwdriver. A flat driver that has been notched in the middle works well for final tightening, as the bolt comes up through the nut to the flush position. You can notch a regular flat blade screwdriver using a Dremel or air saw.

6. Striker assembly

Locate the striker block and spring. Slide the spring over the recoil rod. Now compress the spring down the rod until you can start the striker onto the rod. Be sure to install the striker with the counter bore for the striker spring to the rear and make sure the spring is seated in it. Now, carefully slide the striker down the rod until it catches on the sear. While holding the striker against the sear (it could fly off if not held) carefully assemble the lower to the receiver.

7. LOWER TO UPPER

Locate the cross pin and retainer screw from the semi-parts kit, and slide the lower frame into the rear of the receiver. Install the cross pin and screw. Check all components for proper fit and function.

You are now ready for test fire. Be cautious and use eye and ear protection.

Bead Blasting

Blasting should be done just prior to bluing and Parkerizing, so that parts do not rust due to air-borne moisture.

Plug the ends of the bbl with rubber stoppers, and bead blast (#10 beads) the entire assembly. Check to see if previous polishing on the receiver was sufficient to allow the bead blast to "hide" all machining and polishing marks. It should be a matt, smooth and uniform finish.

Blast all the parts that are to be blued or Parkerized, including the drum mount, feed tray, top cover, charging handle and any other small parts.

Remove the stoppers in the barrel, and blow all bead media and dust from the inside and outside of the entire assembly. Plug the ends of the bbl again with rubber stoppers, ready for bluing. Blow all parts and assemblies to free them of media dust.

Bluing

Blue all parts and assemblies. (see appendix)

(This would be good time to also Parkerize all the other parts that have been made ready.)

Final Assembly

Reassemble your firearm and check all functions for proper operation. Make especially sure the trigger and safety are working properly before loading the firearm.

Enjoy!

APPENDIX

BLUING

The RPD is a blued gun. You will need access to a bluing set up. To make the gun look its best, most of the gun (most of its parts) should be bead blasted and blued so that all the parts and pieces match. We will not go into bluing in this manual. If you already know how, we don't need to tell you. If you don't know how, have someone who does, blue these parts for you.

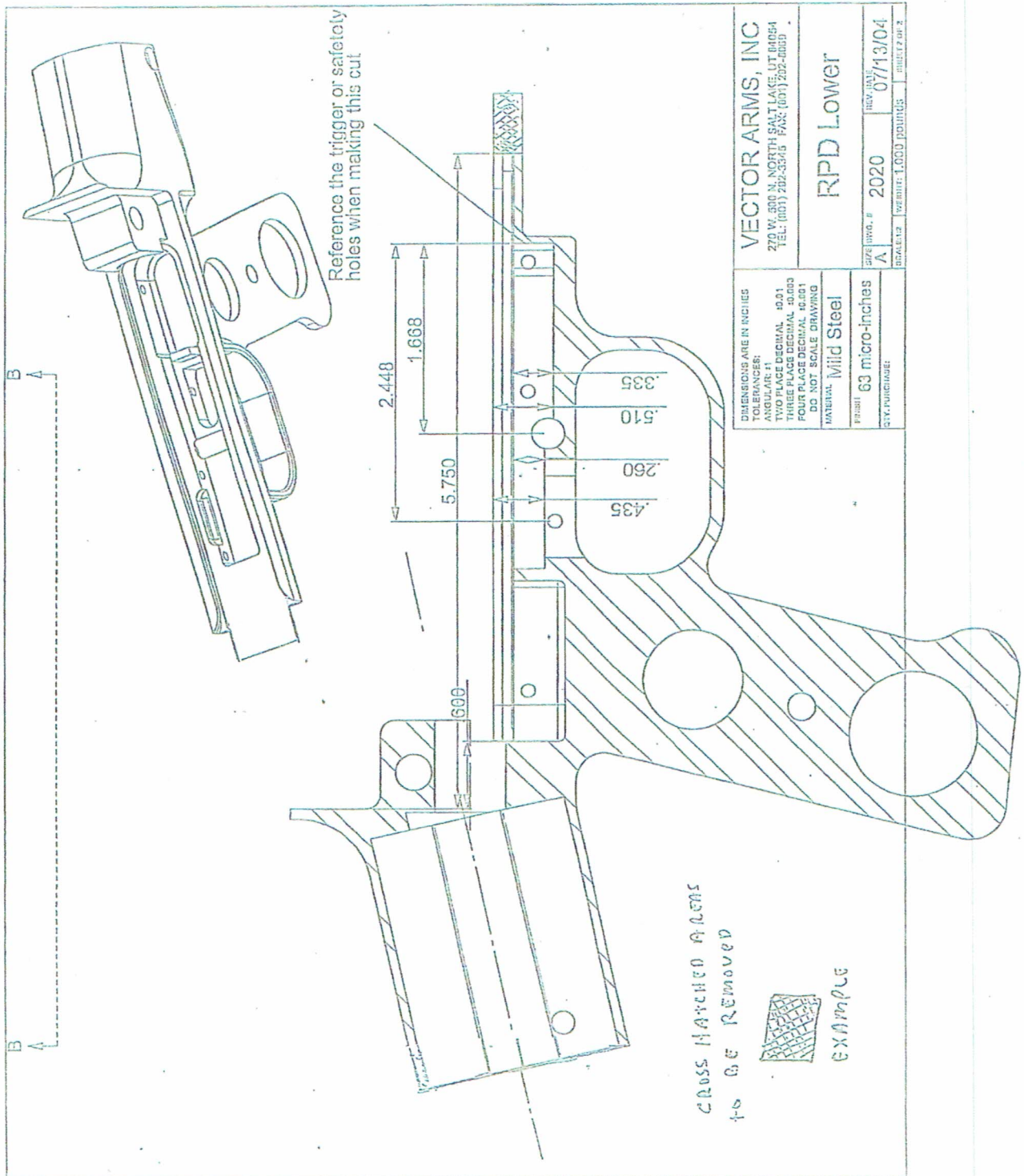
PARKERIZING

There are a few internal parts that will be Parkerized. An overview of the process is included here, if you want to try it.

THE TANK: Recommended size: 40"L X 6"W X 8"H 11 ga stainless steel tank on legs,. The tank should have a 1" flange around the top edge to stiffen the edge and to rest hanger rods on. The hanger wires for hanging the parts during Parkerizing, are stainless also. This is a requirement. The burner for heating the tank contents to proper temps can be a salvaged hot water heater gas burner mounted on a shelf or rack under the tank.

The rinse tank can be the same size and material, and must be heated also, but not as hot.

THE PROCESS: Parkerizing kits can be bought online from outlets such as Brownell's. Follow the instructions in your kit. Cooking temp is usually 205 for 10 to 15 minutes, followed by a warm water rinse. All parts can be blow-dried carefully for about a minute or as required, or left to dry on a perforated rack. After the parts are dried, they are sprayed with or dipped in WD-40 or other light oil to protect them.



VECTOR ARMS, INC
 270 W. 600 N. NORTH SALT LAKE, UT 84054
 TEL: (801) 202-3243 FAX: (801) 202-0833

DIMENSIONS ARE IN INCHES
 TOLERANCES:
 ANGULAR: ±1
 TWO PLACE DECIMAL ±0.01
 THREE PLACE DECIMAL ±0.003
 FOUR PLACE DECIMAL ±0.001
 DO NOT SCALE DRAWING
 MATERIAL: Mild Steel
 FINISH: 63 micro-inches
 WEIGHT: 1.000 POUNDS

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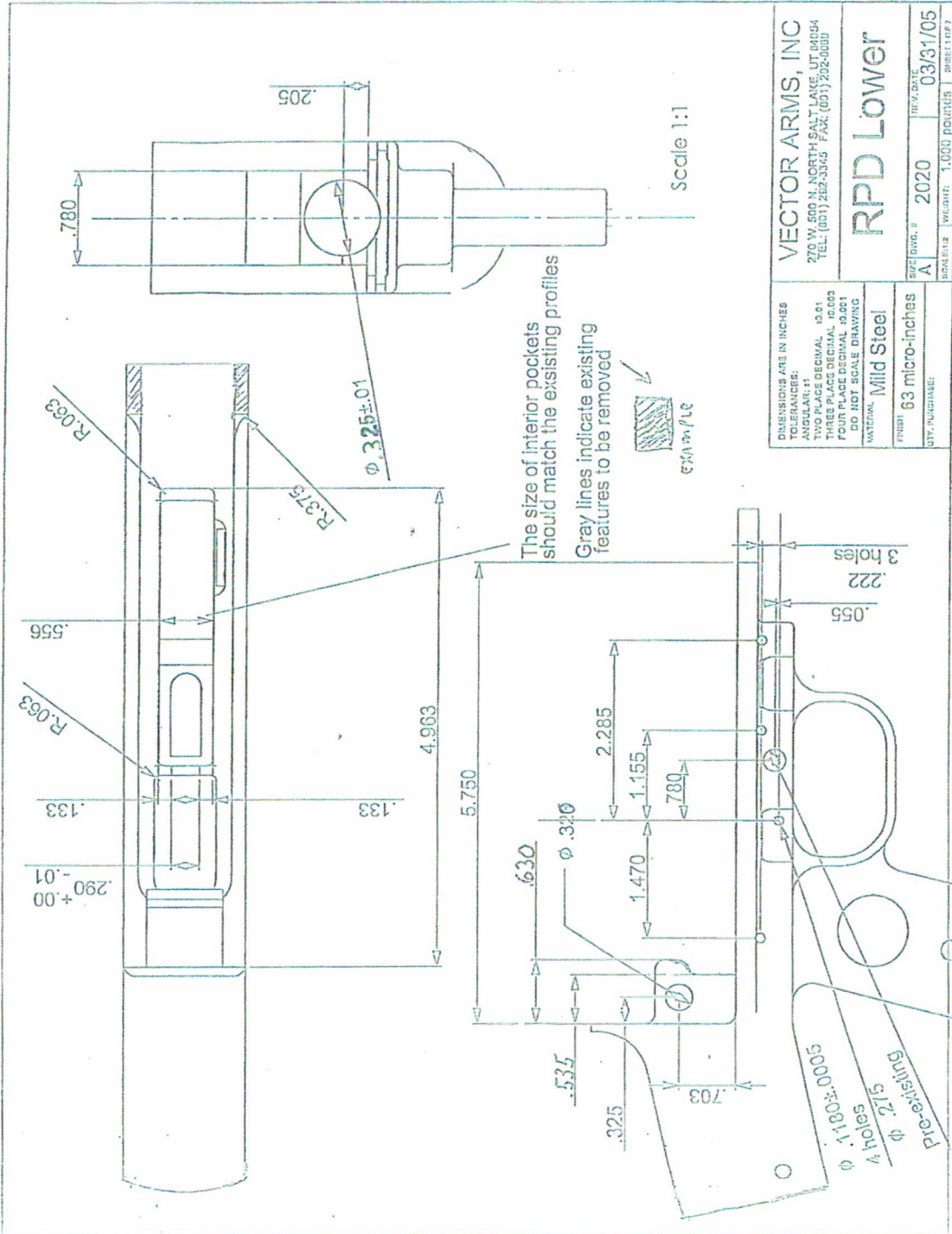
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VECTOR ARMS, INC
 270 W. 500 N. NORTH SALT LAKE, UT 84154
 TEL: (801) 282-3353 FAX: (801) 292-0000

RPD Lower

SIZE DWG.#	REV.#	REV. DATE
A	2020	03/31/05
WEIGHT	1.000	POUNDS
SHEET 1 OF 7		

DIMENSIONS ARE IN INCHES
 TOLERANCES:
 ANGULAR ±1°
 TWO PLACE DECIMAL .001
 THREE PLACE DECIMAL .0001
 FOUR PLACE DECIMAL .0001
 DO NOT SCALE DRAWING

MATERIAL: Mild Steel
 FINISH: 63 micro-inches
 SURF. FINISH: 1.000

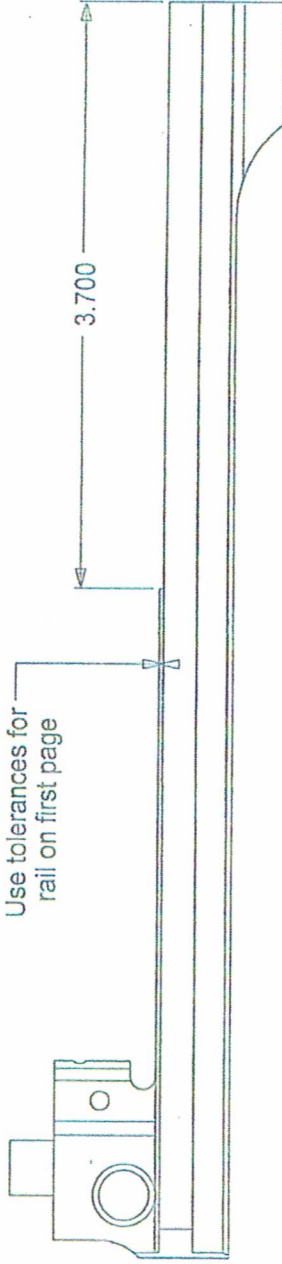
The size of interior pockets should match the existing profiles
 Gray lines indicate existing features to be removed



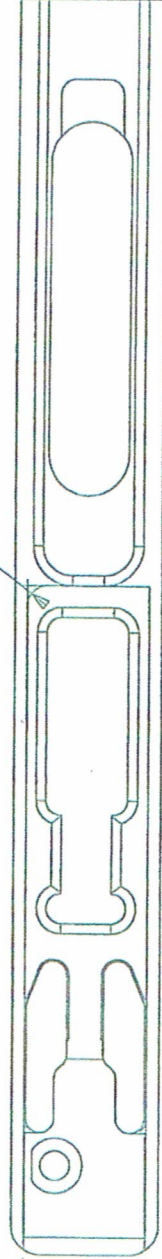
Pre-existing
 $\phi .215$
 4 holes
 $\phi 1.100 \pm .0005$

.025

Use tolerances for rail on first page



Up to .1250 radius may be added for appearances



DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGULAR: ±1
TWO PLACE DECIMAL: ±0.01
THREE PLACE DECIMAL: ±0.003
FOUR PLACE DECIMAL: ±0.001
DO NOT SCALE DRAWING

MATERIAL
Existing

FINISH
63 micro-inches

QTY. PURCHASE:

VECTOR ARMS, INC
270 W. 500 N. NORTH SALT LAKE, UT 84054
TEL: (801) 292-3345 FAX: (801) 292-0059

Bolt Carrier

SIZE (DWG. #) 2210
SCALE: 1:4
REV. DATE 05/21/04
SHEET 3 OF 3