How to Make A

SUPER SHOOTER

How To Accurize Your Daisy 717 For Practically Nothing And Outshoot The High Priced Competition.

BY DON NYGORD

THE new Daisy Model 717 air pistol is a modern miracle. Here is an American-made compressed air pistol which shoots the .177 pellet required for International competition and is capable of shooting possibles on the 10 m target. To my knowledge, this is a first. Hammerli, Walther, and Feinwerkbau air pistols have been prominent on the line for decades. and lately those names carry price tags from $300 to $500. So, a domestic product is indeed good news, but the best news of all is the cost - a mere $40! If that isn't a miracle today, what is? Okay, there are a couple of catches. The sights are virtually useless, and the trigger pull is designed for King Kong. The first couple of times I tried it, I was sure the safety was on. But there is a step-by-step means of overcoming these problems, and when we're done, we'll have change from a $100 bill *and* a real match level gun with a 500 gram trigger, micrometer sights, and external adjustments. The first thing to do before starting any work is to set up a 10m target and try to adjust the sights to get in the black. Don't try for much more - just somewhere in the black with your normal hold. Then measure the distance from the top of the sight to the bottom of the sight recess in the frame. Record this measurement because it will be needed later. Now disassemble the gun by removing the grips and the three screws under the cocking lever which hold the side-plate.

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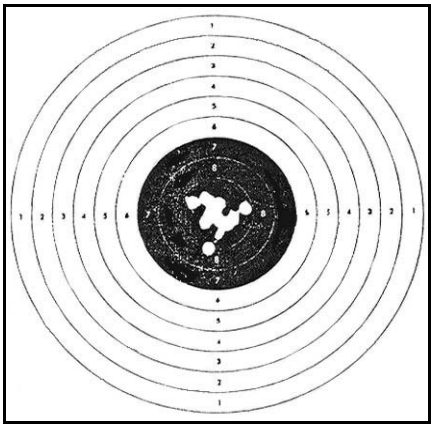

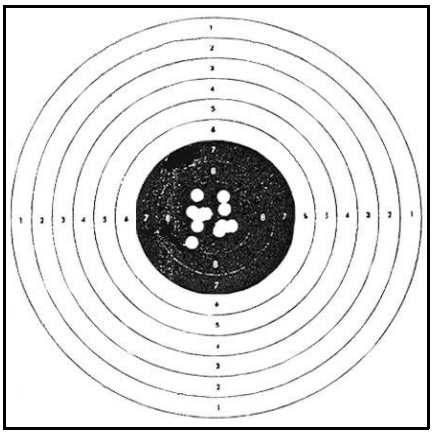

It is difficult to distinguish between the top target, shot with the accurized Daisy, and the bottom target, shot with the FWB 65.

Remove the side-plate and the plastic rear sight. Study the internal mechanism to assure correct reassembly. Two key items are the valve rod / "trip lever" relationship and the "bolt" / "bolt safety lever" positioning. (Daisy does not supply a parts list or nomenclature, so I have invented names for the internal parts.) Disengage the grip frame assembly from the barrel I gas chamber assembly. Now remove the lock parts from the grip frame by pushing out the two pins that hold the sear and the valve trip lever. Remove the safety cylinder (watch out for the spring loaded ball bearing or be ready to hunt for it somewhere across the room). Make a center punch mark on the bottom of the recess inside the grip frame about 1 1/16" from the forward edge (where it dips into the trigger recess) and centered. Set up the frame in a drill press with the top of the frame parallel to the table. Drill through at the punch mark with a #38 drill. Tap for a 5-40 set screw. Run a 1/2" screw into the hole and almost up to the bottom of the recess. Reassemble the lock parts and then run the screw up until it jams against the bottom of the sear. Back off the screw and disassemble again. Look at the bottom of the sear. It will be marked forward of the pin hole from the screw. Using a cylindrical cutter in a hand grinder, or a file, make a shoulder/relief cut at this point. This makes a flat for the adjustment screw to bear against and limits the engagement of the sear (see figure 1).

Now reassemble and adjust the sear engagement to give a weight of pull from 500 to 750 grams (about 1 to 1-1/2 lbs.). After this adjustment, observe the amount of overtravel of the trigger after release. If excessive, drill another #38 hole through the nylon trigger bar that engages the safety cylinder about 1/2" from the end and centered. It is not necessary to remove the trigger from the frame. Tap for a 5-40 screw, put in a 3/ 16" or shorter screw, and adjust to give minimum overtravel. This completes the "action work." Reassemble the pistol without the plastic sights. Check the functioning of the gun and adjust the engagement if necessary. To bring the sighting system up to the match level, choose a steel micrometer rear sight such as the .45 ACP Micro (about $20) or the Bo-Mar BMX with the self-contained elevation screw (about $32). The Bo-Mar has more precise and finer adjustments, but the Micro is satisfactory and less expensive. Other sights can be used if available, of course, but the fitting procedure will differ from the following. Make a filler block to the approximate dimensions shown in figure 2. Measure your gun and adjust the dimensions as required to fit your individual situation. I use aluminum, but the block could be made from brass, plastic, or wood. The new sight will sit on top of this spacer. Mill or file the chosen sight to fit the .61x .325 recess of the frame. For the Micro, this means taking .050" off each side for a distance of .325" from the front of the sight. Alternately, the frame can be filed to accept the unaltered sight as it sits on the filler block. Fit the sight and the filler block into the recess of the frame and measure the height from the bottom of the recess to the top of the sight. By adding 10 to 20 clicks of elevation, you should be able to approximate the "zero" measurement recorded at the beginning of the subject. If not; either reduce the thickness of the block or cut a proper thickness shim as required. Now, using "Super Glue" or the equivalent, glue the filler block to the frame and the sight to the block and frame. Because the gun is finished with paint, use the black non-gloss enamel to match the filler block to the rest of the gun and for touch-up ,,"ark. A final step, not illustrated, would be to use an epoxy putty such as Biggs "A + B" to custom mold an "orthopedic" grip to your hand. The advantages of this accurization method are simplicity and transferability. If the gun breaks or wears out, simply invest another $40 in a new one and transfer your grips, frame, and sights. In a matter of minutes you have a brand new custom air pistol. The finished gun is not as pretty as an import, but it can shoot as well, balances about the same with a properly molded grip, and has match grade sighting equipment. If it doesn't last as long - well, you can buy nine more before you get behind in cost. The targets shown were shot under "match" conditions, offhand at 10 m on the sal1}e day. One was shot with the Daisy and one with an FWB 65. Without the labels, it's hard to see a difference. Remember, though, that I have gone beyond the manufacturer's design limits for the lock work and, as with any such modifications. more care must be taken to insure the safety of yourself and others.

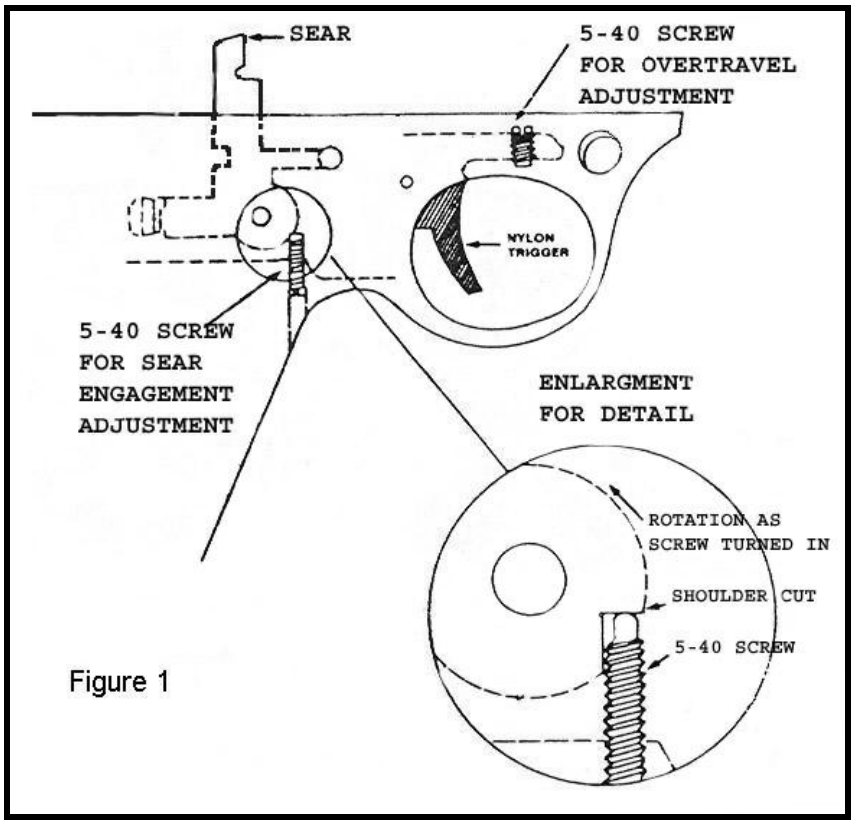

Figure 1

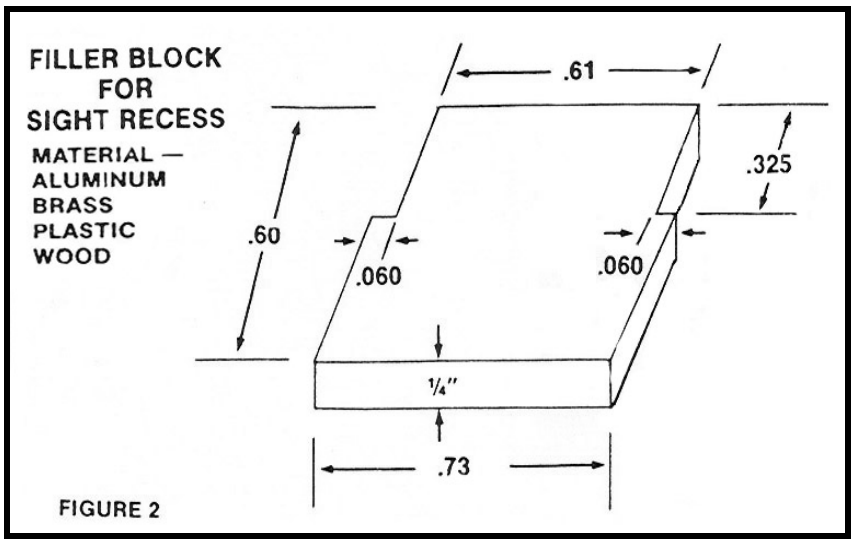

FIGURE 2