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THE BEST in the Business

Notes and Instructions for Using the Rem. 700 Boltway Reamer

You've just purchased a precision cutting tool, made to exacting specifications, from the finest available materials. Please take a few minutes to read and understand these instructions so that you may realize the most profit from your investment.

Tool Design

The Manson Boltway Reamer was designed to open the boltway on Remington 700 Actions to a straight, constant diameter to facilitate close fitting of the bolt to the receiver. In order to achieve this close fit, the bolt must be sleeved and carefully fitted to the reamed receiver—the bolt sleeving operation is *not* covered in these instructions.

Additional Tools Required

The following tools are suggested for use during the reaming operation:

- Large (5" min. opening) Bench Vise
- Large (12"-20") Tap Handle
- Brownells Action Wrench, p/n 080-800-700 for Rem. 700 Actions
- Good-quality cutting oil
- Manson Boltway Reamer with tapered bushing

Please note: The operation can be done differently, with different tools. The tools and procedures described here are known to produce good results.

Preliminary Steps

Strip the receiver completely, removing the trigger, bolt stop, any sight bases, etc. Clamp the stripped receiver in the Brownells Action Wrench and then clamp the Action Wrench/Receiver assembly in your bench vise, with the receiver axis horizontal and the front receiver ring facing you. Slide the small end of the tapered pilot bushing into the boltway from the tang end until it seats firmly.

Reaming the Receiver

Apply some cutting oil to the pilot end of the reamer (1/2" diameter). Insert it into the boltway from the front of the receiver and through the pilot bushing in the opposite end until the leading edge of the reamer butts against the front of the boltway. Clamp a large tap handle on the driving square at the large end of the reamer and apply cutting oil to both the fluted and solid sections of the reamer.

Oil is necessary on the solid section because it bears on the area that's just been reamed, serving as a pilot for the rear of the tool.

Apply moderate forward pressure on the reamer, making sure it's visually centered in the receiver and turn in a clockwise direction. Because of the interrupted cut, the reamer may feel like it is bouncing around at first. Continued, or increasing forward pressure while turning should eliminate this and the reamer should settle down quickly by the time it has cut 1/4" forward. You'll be able to feel "tugs" as the cutting edges pass openings in the receiver, but you should not have the sensation of it moving from side to side or jumping around.

Continue reaming until the tap wrench bottoms on the receiver ring. Unclamp the tap wrench from the square and turn the Action Wrench/ Receiver assembly around so the tang end of the action is facing you, with the receiver axis horizontal. Clamp the tap handle on the square on the pilot end of the Receiver Reamer and *pull* the reamer toward you while turning it in a *counter-clockwise direction*. The Reamer will eventually bottom on the Tapered Pilot Bushing. Continue reaming and the Bushing will be pushed out of the receiver by the Reamer as it cuts. At this point, the Reamer will be completely captive within the receiver and will continue to cut a true hole.

When the Reamer has cut completely through the receiver, remove it, clean the receiver and check your results. You should have a smooth—not mirror finish—hole of constant diameter that runs true from one end of the receiver to the other. Once you've sleeved the bolt and carefully fitted it to your reamed receiver, you'll have an action that will rival any custom action for precision and accuracy potential.

The Rem. 700 Boltway Reamer, like all tools we manufacture, is guaranteed against defects in material and workmanship. It will perform the job for which it was designed when used in accordance with accepted machining principles and these guidelines. If you have ANY questions about its use, or suggestions as to how it can be improved, please call or write us. **IT'S BETTER TO ASK A QUESTION THAN TO RUIN AN EXPENSIVE RECEIVER OR TOOL.**