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**Remington.**

**REMINGTON ARMS COMPANY, INC.**

**RESEARCH & DEVELOPMENT TECHNOLOGY CENTER**

**315 W. RING ROAD**

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**VIA EMAIL: JOHN.TRULL@REMINGTON.COM**

The Test and Measurement organization within the Elizabethtown Research and Development facility formally supports exit from both Design Acceptance and Trial and Pilot testing of the M/710 Magnum Bolt Action Rifle (configured in 7mm Rem. Mag.) subject to the following issues and conditions:

1. A Design Transmittal must occur to formally establish component dimensional parameters reflective of T&P product. All shipped 7mm Rem. Mag. product must conform to these parameters or a written deviation from design must be obtained from the Design team.
2. Trigger pull specification for the Magnum is now 4.5 lbs. – 6.0 lbs. (Established during the 300 Win. Mag. testing).
3. Trigger to sear engagement for the Magnum is now .025" - .030". (Established during the 300 Win. Mag. testing).
4. Chamber dimensions and finish must be monitored and specifications maintained during production. This is critical in the belted magnum calibers for the proper operation of the gun. A high quality chamber will insure that the fired case can be extracted from the chamber with acceptable operator effort.
5. Front Take Down Screw torque must be monitored and maintained during assembly to the specified 70-75 in. lbs. to help prevent the premature loosening of this screw during live fire.

In addition the following issues were discovered during testing of the 300 Win. Mag. product that Test believed could result in customer dissatisfaction. No changes were made after the 300 Win. Magnum T&P that would affect these issues; therefore they still occurred in testing of the 7mm Rem. Magnum product. Marketing previously accepted these conditions on 300 Win. Magnum rifles. Consequently, Test supports shipment of M/710 Magnum rifles in 7MM Rem. Magnum contingent on Marketing re-approval of these issues:

- Action Binds Caused by Incorrectly Loaded Magazine Boxes – This only occurs when cycling the action to the rear with the magazine box loaded to capacity. If the box is loaded incorrectly, the resulting stagger of the rounds takes up all the available vertical

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space in the box. If the action is closed and the box is installed into the rifle, opening and cycling the bolt results in the bottom lug at the 6 o'clock position catching the belt on the magnum case of the top round in the magazine. Since there is no room for the round to travel downward the bolt movement is stopped at this point. The only way to clear this condition is to remove the magazine box. It is relatively easy to load the magazine box and result in an incorrect round stagger. Based on initial customer feedback of this product Marketing may want to consider various ways to educate the user to avoid this situation or consider a design change to the magazine box.

- Magazine Box Deformation During Live Firing – This deformation is caused by the rounds moving in the box during recoil, which hammers the front and rear surfaces out of shape. This lengthens the box and eventually (depending on starting box length and stock box opening dimensions) will result in magazine boxes that are difficult to insert or remove from the rifle. This deformation visually starts in as little as 60 rounds and becomes a box fit issue at around the 100 round levels. The user will have to straighten the box to remove the deformation or obtain a new box. This deformation is not new to the M/710, but the round level required to cause deformation is lower due to the higher recoil. This may result in a higher frequency of complaints on the Magnum and higher warranty costs. Box deformation with the 7MM Rem. Magnum was slightly less than that seen with the .300 Win. Magnum. Deformation with both Magnum calibers is greater in magnitude and occurs sooner than in non-Magnum guns (.270 Win. or .30-06 Springfield)
- High Pressure and Obstructed Bore Test Results – Changes have been made to the heat treatment of the bolt head and barrel to minimize gun damage that occurred during these tests. Significant strength increases have been made, although a level of gun damage does occur. Design, Management and Marketing have been fully informed of the results of this testing. Test results with the 7MM Rem. Magnum was consistent with that of the .300 Win. Magnum product.

Test recommends that these issues be resolved through design/process changes if Marketing finds any of these conditions unacceptable.

Elizabethtown stands ready to assist should you determine that additional audits of the product are required

With Kind Regard,

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