

*Pilot line return authority
Condition of Pilot line Test Conditions.*

Illon, New York
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TO: W. E. LEEK
FROM: H. J. WATERMAN

MODEL 600 - PILOT LINE TEST

The following concerns discrepancies found in the Model 600 pilot line test. Calibers dealt with are the .222 Rem. and .35 Rem.

All of the rifles discussed in this report were passed in the gallery.

Production is continuing on the Model 600 in all calibers.

.222 Rem.

The .222 Rem. pilot line functioning test of 10 rifles had 14 stemming malfunctions in 400 rounds. Twelve (12) of these malfunctions occurred when firing Winchester ammunition and 2 with Remington. Investigation showed a proposed magazine alteration of bending the bottom tabs upward .030-.040 had not been done. This change was made and the function test rerun. Results were as follows:

150 rounds of Winchester ammunition fired in 8 rifles resulted in 2 malfunctions. This alteration is already in use in production.

The chamber mouth also must be maintained at the required .030^R to prevent stemming.

A chart showing amount of production and cause of malfunctions from 1-2-64 to 1-20-64 is attached to this report.

.35 Rem.

The .35 Rem. pilot line functioning test was fired using Rem. 200 gr. SPCL ammunition. There were 8 malfunctions of stemming in 200 rounds. Chamber casts were made of two rifles. These casts showed a lack of the full .030 radius on the mouth of the chamber.

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.35 Rem. Continued

Further functioning tests with dummy ammunition showed the blunt nose of the 200 gr. bullet sometimes brushed the edge of the chamber, but it was not felt that this was enough to hinder a bolt worked at the normal operating speed. The large bullet diameter and the rather straight case of this cartridge make it imperative that the radii called for in the loading areas is maintained.

Receiver Dimensions

Two receivers each in .222 Rem. and .35 Rem. were measured for magazine dimensions and concentricity of the bolt to the magazine cuts. Please see attached sheet for results.

Fire Control

The fire control investigation is not complete and will continue. The trigger pulls in the pilot line test rifles were checked. The pulls in the .222 Rem. caliber rifles were of very poor consistency and uniformity, while those of the .35 Rem. caliber were considerably better in both respects. Investigation indicated that a different assembler had worked on each of the two groups of rifles. Inasmuch as the fire control, stock, etc. are common parts to all calibers, this would indicate that assembly or method of assembly should be checked for variation.

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