

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE



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"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" \_\_\_\_\_

RESEARCH TEST AND MEASUREMENT REPORT - Report No. 842560

M/700 NEW EXTRACTOR AND BOLT SCHROUD GEOMETRY EVALUATION

TEST RESULTS ONLY

Prepared by: R.W. HOWE  
Date Prepared: 11/15/84

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R.E. Nightingale  
Signature Date

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Testing, Measurement & Mech. Analysis Lab

J.R. Snedeker 20 Nov 84  
Signature Date

November 15, 1984

TO: R. NIGHTINGALE  
FROM: R.W. HOWE  
REPORT TITLE: M/700 NEW EXTRACTOR AND BOLT SCHROUD  
GEOMETRY EVALUATION  
TEST RESULTS ONLY

REASON FOR TEST

To determine the effect on the proposed new M/700 extractor and bolt schroud geometry when seating five 220 gr. bullets ahead of a round loaded with 52.4 gr. of #4198 powder and a 220 gr. bullet and firing.

TEST PROCEDURE

The M/700, 30-06 cal., Ser. #B6471579, supplied was taken to the Test Lab, dry-cycle room where five 220 gr. bullets were forced into the chamber end of the barrel with a steel rod and hammer to a depth just far enough to clear a chambered round loaded with 52.4 gr. of #4198 powder and a sixth 220 gr. bullet, for a total of 1,320 grains of lead.

It was then taken to the Measurements Lab firing range and placed in the "Iron Lung" device to be fired by lanyard from a safe position outside the range. After firing the gun was taken to the Model Shop for disassembly and visual inspection. Then it was taken to the Photo Lab for pictures of the components.

Pictures appear in Appendix "A" of this report.

TEST RESULTS

After firing the test rifle showed no apparent physical damage although the bolt could not be opened without forcing. Upon disassembly it was discovered there was a small crack in the bolt schroud at the extractor hole location and also a very slight bulge in the Barrel at the location of the chamber. The cartridge was difficult to remove and was very distorted at the rear although the extractor and ejector were still functional.

See Appendix "A" for pictures.

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APPENDIX "A"

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## RESEARCH TEST &amp; MEASUREMENT LAB WORK REQUEST

<input checked="" type="checkbox"/> Developmental <input checked="" type="checkbox"/> Design Acceptance <input type="checkbox"/> Pre-Pilot <input type="checkbox"/> Pilot <input type="checkbox"/> Production Acceptance	<b>AREA OF TESTING</b> <input type="checkbox"/> Safety Related <input type="checkbox"/> Litigation <input type="checkbox"/> Competitive Evaluation <input type="checkbox"/> Warehouse Audit <input checked="" type="checkbox"/> New Design <input type="checkbox"/> Cost Reduction <input type="checkbox"/> Design Change <input type="checkbox"/> Stake _____ <input type="checkbox"/> Plant Assistance <input type="checkbox"/> Other _____	
<b>FIREARM STATS.</b> MODEL: <u>M. 700</u> CAL or GAGE: <u>.30-06</u> BARREL TYPE: _____ PROOFED: YES <input type="checkbox"/> NO <input type="checkbox"/>	<b>REPORT REQ'D.</b> FORMAL <input type="checkbox"/> TEST RESULTS ONLY <input checked="" type="checkbox"/>	DATE REQUESTED: <u>7-11-89</u> DATE NEEDED BY: _____ REQUESTED BY: <u>F. M. C.</u> WORK ORDER NO: <u>C. 1500 314</u>

<b>TEST TYPE</b>			
<input checked="" type="checkbox"/> Strength Test <input type="checkbox"/> Function Test <input type="checkbox"/> Accuracy Test	<input type="checkbox"/> Ammunition Test <input type="checkbox"/> Environmental Test <input type="checkbox"/> Customer Complaint	<input type="checkbox"/> Dry Cycle Test <input type="checkbox"/> Measurements <input type="checkbox"/> Endurance Test	<input type="checkbox"/> Photo/Video <input type="checkbox"/> Other _____

**EXPLAIN IN DETAIL THE REASON FOR THIS TEST:**

To Determine The Effect Of Installation In The New EXTRACTOR - The Change In Bolt Locking Geometry

⑤ SENT 4 BULLETS IN BRBL - 220 gr. 2nd

1 Loaded Round - 452.9 gr 9198 WITH 220 gr bullet - Shot in ion-fing

San Diego Test Ph.

**GUNS REQUIRED:**

To Be Supplied  
 M/700 - 30-06 SER# B6471579

NOTE: NO firearms or parts will be tested in the Labs unless they are accompanied by a Work Request, and both are delivered to the Labs by the designer or engineer. All Work Requests are to be filled out in detail. No Exceptions.

DATE COMPLETED: 9-25-89  
 TEST COMPLETED BY: J. J. C.  
 REPORT DATE: 9-25-89