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cc: J. P. Linde
Lab File L-2

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington
SUPERPETERS
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"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

Illon, New York
May 15, 1975

TO: W. E. LEEK
FROM: A. A. HUGICK
DATE: May 13, 1975
WORK ORDER: G 0457
TEST PERIOD: April 16, 1975 thru May 13, 1975
SUBJECT: M/600 SAFETY EVALUATION - REPORT #1

INTRODUCTION:

Design initiated a review of the bolt action rifle safety function. Three (3) M/600 test rifles were delivered to the Lab area for testing and evaluation. Test activity of these rifles was confined to wear function of the safety and fire control.

TEST OBJECTIVE:

Dry cycle test the sample M/600 rifle safety assemblies for endurance and function.

TEST RESULTS & OBSERVATIONS:

1. M/600 - 6854251 - Test Gun #1
 - Test Activity
 - 50,000 Cock and Dry fire cycles.
 - 50,000 Safe On - Safe Off cycles.
 - WD-40 lubrication.
 - Test Results
 - Sear lift showed no major trend.
 - Sear lift showed variation .0065 Max. - .0045 Min.
 - Safe On force variations ranged from 4.5 Max. to 2.5 Min.
 - Safe On force variations ranged from 15.0 Max. to 4.0 lbs. Min.

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TEST RESULTS & OBSERVATIONS: (Con'td)

1. (Cont'd)
 - Safe function was normal.
 - Safe could be tricked as received.
 - Trigger pull remained fairly constant around 8.5 lbs.
 - Fire control part appearance was good.

2. M/600 - 6846506 - Test Gun #2
 - Test Activity
 - 50,000 Safe On - Safe Off cycles.
 - 50,000 Cock and Dry fire cycles.
 - WD-40 lubrication.

 - Test Results
 - Safe can be made to fire rifle when assembled in stock.
 - Sear lift showed variations from .0062 Max. to .0019 Min. inches.
 - Safe On force variations ranged from 4.0 lbs. Max. to 1.0 lbs. Min.
 - Trigger pull remained constant at ten lbs.
 - Safe could be tricked as received.

3. M/600 - 6854270 - Test Gun #22
 - Test Activity
 - 23,500 Safe On- Safe Off cycles.
 - "Very Slow" Safe On - Safe Off cycling 12/Min.
 - No lubrication.

 - Test Results
 - The trigger housing failed in bearing due to detent ball.
 - Failure of trigger housing produced conditions of safe binding and not being able to move to Safe Off position.
 - Sear lift increased from .006 as received to .0118 at 11,000 Safe On - Safe Off cycles.
 - Safe On force and Safe Off force showed major increases.
 - Safe function was normal.
 - Safe could be tricked as received.

AAH:bd
 Ilion Research Division
 Attached

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2 X M/600 RIFLES WITH SWADGED SAFETY CAMMING

- a. Trigger pull, Headspace, Safe On force, Safe off force, safety lift of Sear at Trigger, Trigger radius at Sear.
- B. Check function of safety - fire 10 Rds.
- C. Clean and lubricate (F.C. WD-40)
- D. 1,000 cock and dry fire dry cycles.
1,000 Safe On / Safe Off dry cycles.
- E. Measure Safe On force, Safe Off force, Trigger pull, safe lift of Sear at Trigger.
- F. Check function of safe. - fire 10 Rd.
- G. Clean and lubricate.
- H. 1,000 cock and dry fire cycles.
2,000 Safe On / Safe Off cycles.
- I. Measure Safe On force, Safe Off force, Trigger pull, safe lift of Sear at Trigger.
- J. Check function of safe - fire 10 Rds.
- K. Clean and lubricate.
- L. 2,000 cock and dry fire cycles.
2,000 Safe On / Safe Off cycles.
- M. Repeat I.
- N. Repeat J.
- O. Repeat K.
- P. 5,000 cock and dry fire cycles.
5,000 Safe On / Safe Off cycles.
- Q. Repeat I.
- R. Repeat J.
- S. Repeat K.
- T. Repeat P.
- U. Continue to a total of 50,000 / 50,000 cycles.