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# REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington OTHER D

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"\_

llion, 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.

W. E. Leek To: .:From: A. A. Hugick M/600 Safety Evaluation - Report #1

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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.
- M/600 6854270 Test Gun #22 3.

  - 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.

hd:HAA Ilion Research Division Attached

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### 2 X M/600 RIFLES WITH SWADGED SAFETY CAMMING

- Trigger pull, Headspace, Safe On force, Safe off force, safety lift of Sear at Trigger, Trigger radius at Sear.
- В. Check function of safety - fire 10 Rds.
- C. Clean and lubricate (F.C. WD-40)
- 1,000 cock and dry fire dry cycles. 1,000 Safe On / Safe Off dry cycles.
- Measure Safe On force, Safe Off force, Trigger pull, safe lift of Sear at Trigger.
- F. Check function of safe. - fire 10 Rd.
- Clean and lubricate. G.
- H. 1,000 cock and dry fire cycles. 2,000 Safe On / Safe Off cycles.
- Measure Safe On force, Safe Off force, Trigger pull, safe lift of 1. Sear at Trigger.
- J. Check function of safe - fire 10 Rds.
- K. Clean and lubricate.
- 2,000 cock and dry fire cycles. 2,000 Safe On / Safe Off cycles.
- Μ. Repeat I.
- N. Repeat J.
- 0. Repeat K.
- 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.

Bower -5/9/75-5-/9-75

# M/600 - SAFETY FUNCTION TEST - PRELIMINARY SUMPARY

> 1 failed the worst test 139 failed the trick test

Of the 139 guns which failed the trick test:

145
133 repaired by installing swaged Safeties
6 guns replaced by Custom Repair

Of the 1 gum which failed the worst test:

I repaired by installing swaged Safety

CODE NO.

## CATEGORY & TYPE

### FIRING (100 to 199)

```
Fails to cock.
           Fails to fire or misfires.
           Firing Pin strikes light blow, poor point.
102
103
         · Firing Pin fell out.
104
           Firing Pin or Spring binds, length incorrect, protrudes
105
          Firing Pin strikes off center, marks shells.
           Fails to connect.
         Jars off or fires closing.
Fires on safe or safe doesn't hold.
           Follows down or Harmer falls.
        · Pieces or primer in action or Bolt.
         Right Connector doesn't seat in sear notch.
113
       Trigger binds.
         Trigger pull heavy, light, creeps, long. Poor
114
115
         Safe binds, loose, excessive play, double click.
        Max. header.
116
        Min. header.
Bolt catches on Receiver (M/721-722 only).
           Fires automatic, doubles.
        Improper Head Space
          Safe goes on after firing.
        Selector won't fire.
122
         . Selector works hard, binds.
```

These are the complaint code numbers and meanings used on the attached report.