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REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

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

Ilion, New York  
June 30, 1975

TO: W. E. LEEK  
FROM: A. A. HUGICK  
DATE: June 27, 1975  
SUBJECT: M/600 SAFETY EVALUATION - REPORT #6  
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INTRODUCTION:

Four (4) experimental M/600 rifles were delivered to the lab for safety evaluation dry cycle testing as part of the bolt action rifle safety review. The fire controls aduse the M/700 trigger housing with a hardened right panel, and swaged safety cam of two styles. Test guns #34 and #35 have normal sear lift and an interrupted swaged safety cam. Test guns #36 and #37 have increased sear lift and a continuous swaged safety cam.

TEST OBJECTIVE:

Dry cycle test the four (4) experimental rifle safety assemblies for endurance and function.

1. M/600 - 243 Win. - 6849595 - Test gun #W34  
M/600 - 243 Win. - 6849565 - Test Gun #W35

|                      |   |
|----------------------|---|
| <u>Test Activity</u> | - Aduse M/700 Trigger Housing R&D.              |
|                      | - Bolt lock ground off for sear lift measuring. |
|                      | - Safety swaged with projection at initial cam. |
|                      | - 50,000 Safe on - Safe off                     |
|                      | - 10,000 Cock and dry fire.                     |
|                      | - W D 40 Lubricant.                             |
|                      | - Inspection / measured every 10,000.           |

|                     |  |
|---------------------|--|
| <u>Test Results</u> | - Safe on sear lift loss due to dry cycling was less than .002 inch. and fairly uniform. |
|                     | - Safe on force ranged from 5.0 Min. to 10.0 Lbs. Max.                                   |
|                     | - Safe off force ranged from 3.0 Min. to 6.0 Lbs. Max.                                   |

To: W. E. Leek  
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TEST OBJECTIVE: - Cont'd

1. Test Results - Cont'd

- Safety cam, pivot pin and trigger housing shows little to no wear indication.
- The sear at safe cam contact area shows wear and chrome plate removal.
- Safety function - okay.

2. M/600 - 243 Win. - 6846934 - Test Gun #36  
M/600 - 243 Win. - 6846789 - Test Gun #37

Test Activity

- Adused M/700 trigger housing (R&D).
- Bolt lock ground off for sear lift measuring.
- Safety swaged with continuous cam and increased sear lift.
- 50,000 safe on- safe off cycles.
- 10,000 cock and dry fire cycles.
- W D 40 lubricant.
- Inspection / measured every 10,000.

Test Results

- Safe on sear lift loss due to dry cycling was less than .002 inch with limited uniformity.
- Safe on force ranged from 10.0 Max. to a Min. of 5.0 lbs.
- Safe off force ranged from 6.0 Max. to a Min. of 3.0 lbs.
- Safety cam, pivot pin and trigger housin<sup>g</sup>s show little to no wear indications.
- Sear at safe cam contact area shows wear and chrome plate removal.
- Safety function was okay.

REPORT #5  
#W34

M/600 SAFE EVALUATION  
M/600 - 243 Win. - 6849595 - MACHINE DRY CYCLE

50,000 SAFE ON - SAFE OFF CYCLES  
10,000 COCK AND DRY FIRE CYCLES  
W D 40 LUBRICANT - JUNE 1975

Rifle disassembled for inspection A. A. Hugick  
Bolt Striker Assembly - Okay.

Fire control disassembled for inspection A. A. Hugick.

- Aduse 700 trigger housing - hardened right panel little - to - no detent area deformation.
- Safety pivot pin shows minor wear due to pivoting of safe.
- Sear shows a slight step due to action of safety cam.
- The interrupted safety cam shows limited wear at initial cam.

AAH:bd  
Measurement/Test Lab  
Ilion Research Division

REPORT #6  
#W35

M/600 SAFE EVALUATION

M/600 - 243 Win. - 6849565 - MACHINE DRY CYCLE

50,000 SAFE ON - SAFE OFF CYCLES.  
10,000 COCK AND DRY FIRE CYCLES  
W D 40 LUBRICANT - JUNE 1975

Rifle disassembled for inspection per A. A. Hugick.  
- Bolt striker assembly - Okay.

Fire control disassembled for inspection A. A. Hugick.  
- Aduse 700 trigger housing w/hardened right panel shows little-  
to-no detent area deformation.  
- Safety pivot pin shows minor wear due to rotation of safe assembly.  
- Chrome plate is worn off due to action of safety cam.  
- The interrupted safety cam show limited wear at initial cam.

A.A.Hugick/bd  
Measurement/Test Lab  
Ilion Research Division

REPORT #6  
#36

M/600 SAFE EVALUATION

M/600 - 243 Win. - 6846934 - MACHINE DRY CYCLE

50,000 SAFE ON-SAFE OFF CYCLES  
10,000 COCK AND DRY FIRE CYCLES  
W D 40 LUBRICANT - JUNE 1975

Rifle disassembled for inspection

- Bolt and striker assembly - okay.

Fire control disassembled for inspection.

- Aduse 700 trigger housing - hardened right panel little-to-no detent area deformation.
- Safety pivot pin show brightness and galling due to safe pivoting.
- Sear shows a step due to cam action of safety.
- Safety swaged cam shows limited wear at initial cam.

AAHugick:bd  
Measurement/Test Lab 6/25/75  
Illion Research Division

REPORT #6  
#37

M/600 SAFE EVALUATION

M/600 - 243 Win. - 6846789 - MACHINE DRY CYCLE

50,000 SAFE ON - SAFE OFF CYCLES  
10,000 COCK AND DRY FIRE CYCLES  
W D 40 LUBRICANT - JUNE 1975

Rifle disassembled for inspection - A. A. Hugick.  
- Bolt & striker assembly - Okay.

Fire control disassembled for inspection.  
- Results are like results of Test Gun #36.

AAHugick:bd  
Measurement/Test Lab  
Illion Research Division