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REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE



"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

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.

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

- Test Activity
- 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.

- Test Results
- 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.

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From: A. A. Hugick
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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^gs 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