

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington

PETERS

Distribution: C.B. Workman
C.E. Ritchie
J.W. Brooks
L.J. Hagen

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

RESEARCH TEST and MEASUREMENT REPORT - Report No. 82 0361

M/700 FIRE CONTROL EVALUATION AND LUBRICATION TEST
RELIEVED SEAR SAFETY CAM, TRIGGER AND CONNECTOR

Prepared by: A. Long - F. Supry

Date Prepared: 5-25-82

Proofread and Cleared By:

J.H. Hennings, / R.E. Nightingale,
Foreman-Test Lab / Foreman-Measurement Lab

James Hennings
Signature

6-2-82
Date

C.E. Ritchie,
Sr. Supervisor - Testing,
Meas. & Mech. Analysis Lab

C.E. Ritchie
Signature

6/2/82
Date

TEST & MEASUREMENT LAB REPORT

REPORT NUMBER: 82 0361
REPORT TITLE: M/700 Fire Control Evaluation and Lubrication Test
MODEL(S): Relieved Sear Safety Cam, Trigger and Connector
700
GAUGE OR CALIBER: All
DATE: 5-25-82
WORK ORDER NO.: C-1803-000
PART NAME: Fire Control
DESIGNER/ENGINEER: L.J. Hagen

TEST TYPE:

1. PHOTO LAB
2. STRENGTH TEST - NO. OF GUNS TESTED _____
3. FUNCTION TEST - NO. OF GUNS TESTED 15
4. ACCURACY TEST - NO. OF GUNS TESTED _____
5. MEASUREMENTS - TYPE: Trigger Pull - Sear Lift Engagement
6. ENVIRONMENTAL TEST
7. AMMUNITION TESTING & EVALUATION - TYPE: _____
8. VISUAL EVALUATION - _____ OUT OF _____ GUN SAMPLE
9. ENDURANCE - NO. OF GUNS TESTED: _____

NO. OF ROUNDS PER GUN: _____

TOTAL ROUNDS FIRED IN TEST: _____

AMMO TYPE: MAGS. _____; TARGET: _____

RIM FIRE _____ CENTER FIRE _____

REMINGTON ARMS COMPANY, INC.
Firearms Research Division

May 25, 1982

TO: J.H. Hennings

FROM: A.J. Long - F. L. Supry

REPORT TITLE: M/700 Fire Control Evaluation and Lubrication Test Relieved Sear Safety Cam, Trigger and Connector

ABSTRACT

On 2-5-82 a request was received from Pete Hagen, Research Current Products, to test 15 altered M/700 fire controls.

- A. 10 fire controls have the sear safety cam, trigger and connector relieved by .010".
- B. 5 fire controls have the sear safety cam, trigger and connector relieved by .005".

The test was to be a dry cycle evaluation with inspection at 5000 cycle intervals. WD-40, Du Pont and CRC lubricants were to be used for the test.

SCOPE OF TEST

To compare the 15 altered fire controls and to compare the 3 lubricants.

TEST RESULTS

All 15 fire controls were tested with no malfunctions occurring. No significant differences were noticed.

The three lubricants included in the test performed well. No significant differences were noticed.

M/700 Fire Control Evaluation and Lubrication Test
Relieved Sear Safety Cam, Trigger and Connector

Report No. 82 0361
Page 2

REPORT TEXT

Data Sheet No. 1 (Appendix A) contains the following information: lubricant used, cycles completed, amount of relief, sear lift, sear engagement, and trigger pull measurements on each fire control.

A. Dry Cycle

Fire controls No. 1, No. 2 (with WD-40) and No. 6 and No. 7 (with Du Pont) were cycled to 25,000 cycles, all others were stopped at 10,000 cycles.

Six (6) fire controls were lubricated with WD-40, seven (7) with Du Pont and two (2) with CRC.

TEST PROCEDURE

1. The fire controls with .005 relief were marked 1 through 5.
2. The fire controls with .010 relief were marked 6 through 15.
3. The fire controls were degreased, using the solvent degreasing tanks located in the Heat Treat and then lubricated with the assigned lubricant.
4. The fire controls were assembled into Model 700 actions, then sear lift and engagement measurements, and trigger pull measurements were taken.
5. The actions were assembled into a dry cycle simulator and a predetermined number of cycles were run, with measurements taken every 5000 cycles.
6. Steps No. 3, 4 and 5 were repeated until all the fire controls were tested.

APPENDIX " A "

(Data Sheet No. 1)

DATA
SHEET

MODEL 700 FIRE CONTROL EVALUATION

TRIGGER PULL 3 lbs to 8 lbs
SEAR LIFT .005" to .018"
SEAR ENGAGEMENT .015" to .020"

BARBER - PRESALE R 0112307

R2513295

NO

①

Lubricant Test:

1-7-82
fht.

Procedure: - Cock & Fire Dry Cycle.

1. Photos at start of test.
 - a- ^{cocking} cam surface on bolt body.
 - b- firing pin striker
2. Apply lube: determine amount (spray)
 - a. bolt assem. (1 sec./2 sec. --- etc.)
 - b. fire control assem. (distance, also)
3. Take the following meas.
 - a. trigger pull - (3)
 - b. safe on/off forces. (3)
 - c. bolt lift --- cocked & fired.
4. Start Dry Cycle
inspection cycles:

①, every 100 cycles on 1st sample of each lube to determine inspection cycle for remaining four samples
5. Cycle limit:

25,000 cycles all samples -- or failure.
6. Measurements (*3) will be taken on sampler
*2 thru *5 at levels determined by sample #1.

7. Photos at completion of test. --- or failure.
- a.- cam track area on Bolt.
 - b.- firing pin striker area.
 - c.- sear and connector surfaces of fire control.

8. Measurements (#3) taken at completion of test.

Lubricants to be tested.

- DuPont Diester - production sample.
 - Krylon Ten-4
 - Spragon 711
 - CRC 3-36
 - Houghton HLP
 - WD-40
 - Molycote GN - Paste.
- } R&D I lion
results only.

Additional Testing: At completion of successful dry cycle

- Continuation to failure.
- Continuation with lubricant removed.
- Cold tests.
- Environment Tests.

Test Sample Size.

- 1 rifle, 5 bolts, 5 fire controls per lubricant.
- 2 dry cycle machines available.
cycle rate -- 1 every 3 seconds. per machine.

(4)

1-12-82
JH

Lubricant Tests: — 2nd.

— Congealment vs Function —

Firearms: m-700 + m-1100

1. Photos of surfaces where lubricant applied
2. Determine application (Per sheet 1)
3. Live round jack shooting in following sequence:

All to take
place in one
day.

- Fire 100 rds.
 - Place firearm on roof of building for 4 hours.
 - Place firearm in freezer for remainder of shift (specify time on log) at -20°
 - Place rifle in stress coat oven overnight at $+120^{\circ}$
4. Continue with step 3 for one week or until failure of firearm to function properly occurs.

"Failure to function properly."

- The firearm does not perform as designed.
- Evaluate rust development, if any
- Record the function of the m-1100 via bolt velocities and/or closing velocities during the test when irregular operation occurs.
- Observe safety operation on both firearms during test.

(5)

1-12-82
R/H

Cleaning Capability, Rust Removal & Prevention

Firearms: Consignment guns at Ilion Fish & Game Club.

(Winter Skeet/Trap Shooting)

(All firearms tested will be m-1100-12 and 20ga.)

1. Review Firearms and select for excessive crud/dirty condition and rust evident on surfaces of receiver and barrel.
2. Assign a lubricant to a firearm
3. Record via photos; crud and rust.
4. Attempt to clean firearm using assigned lubricant and document results.
5. Thoroughly clean firearm by other means if assigned lubricant fails to do so.
6. Lubricate firearm with assigned lubricant.
7. Maintain accurate log on each firearm in test for one month's usage at the Gun Club.
 - Date - rounds fired.
 - load used.
 - Shooters comments on function
 - Weather
 - Storage location and temperature variance
8. Review condition of firearms and record results of crud & rust via photos.

Note: - Bolt velocities at start and finish ?

*- Same test at Rem. Farms. ?

SENR LIFT & ENGAGEMENT

Sample	Len. exp.	Len. en.
1- 0	.0095	.017
5000	.010	.0225
10000	.011	.021
15000	.010	.0225
20000	.011	.024
<u>25000</u>	.0125	.025

2. 0	.010	.015
5000	.010	.0205
10000	.011	.021
15000	.010	.0215
20000	.0115	.021
<u>25000</u>	.011	.024

3. 0	.010	.020
5000	.007	.026
10000	.010	.027
15000	.010	.020

4. 0	.010	.017
5000	.010	.020
10000	.0125	.0215
15000		
20000		
<u>25000</u>		

	Lean Left	Lean Engaged
0	.0105	.0215
5000	.010	.024
10000	.012	.0245
15000		
20000		
25000		

6.	0	.0125	.0205
	5000	.015	.018
	10000	.013	.0185
	15000	.0125	.0235
	20000	.0115	.025
	25000	.0125	.025

	0	.010	.0205
	5000	.0135	.015
	10000	.0105	.0225
	15000	.0105	.0205
	20000	.0085	.025
	25000	.008	.0235

8.	0	.0115	.0165
	5000	.010	.0205
	10000	.015	.0195

6.	0	.012	.0165
	5000	.0135	.022
	10000	.017	.0195

		Lean Lift	Lean Engagement
10.	0	.012	.018
	5000	.0115	.025
	10000	.0105	.0255

11.	0	.0125	.0105
	5000	.0125	.0125
	10000	.015	.0195

12	0	.0125	.009
	5000	.0115	.0185
	10000	.014	.020

13.	0	.013	.009
	5000	.011	.0165
	10000	.0135	.0185

14.	0	.010	.012
	5000	.013	.026
	10000	.0125	.023

15	0	.012	.015
	5000	.0115	.0205
	10000	.0125	.027

Rem Lth Lean Lift	.005 - .018
Lean Eng	.015 - .020

Wd 3

TRIGGER

PULL

Rem STD- 3⁺ 8⁺

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	5.3	5.6	5.6	5.4	5.7	5.5	5.6	5.5	6.25	5.6	5.8	5.9	5.7	4.0	6.5
2500	5.3	5.6	5.2	5.2	5.8	5.5	5.5	5.5	5.9	5.7	5.6	5.9	5.2	5.8	6.5
5000	5.0	5.0	5.2	4.9	5.7	5.2	5.5	5.4	5.7	5.7	5.7	5.9	5.5	6.0	6.4
7500	5.0	5.1	5.2	5.2	6.0	5.5	5.7	5.2	5.7	5.6	5.4	5.9	5.5	5.6	7.1
10000	4.8	4.9	5.0	5.2	5.9	5.2	5.5	5.2	6.1	5.7	5.5	5.8	5.5	6.0	6.7
12500	5.0	5.0				5.6	5.6								
15000	4.9	4.9				5.6	5.6								
17500	4.5	4.8				6.1	5.5								
20000	5.25	5.2				5.5	5.6								
22500	5.50	5.2				5.1	5.8								
25000	5.1	5.1				5.5	5.5								

TESTER: AL

TEST TITLE: Lead Relief

PREVIOUS CYCLES: 17500

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 1

LUBRICATION: WD40

WORK ORDER NO. _____

NO. OF CYCLES: 2500

TOTAL: 20000

SEAR LIFT: .011

SEAR ENGAGEMENT: .024

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25 (5.25)

OBSERVATIONS: SAFE ON FORCE SAFE OFF FORCE BOLT LIFT-COCKED BOLT LIFT-FIRED

1.			
2.			
3.			

NO. OF CYCLES: 2500

TOTAL: 22500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.50 2. 5.50 3. 5.50 (5.50)

OBSERVATIONS: SAFE ON FORCE SAFE OFF FORCE BOLT LIFT-COCKED BOLT LIFT-FIRED

1.			
2.			
3.			

NO. OF CYCLES: 2500

TOTAL: 25000

SEAR LIFT: .0125

SEAR ENGAGEMENT: .025

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.00 (5.1)

OBSERVATIONS: SAFE ON FORCE SAFE OFF FORCE BOLT LIFT-COCKED BOLT LIFT-FIRED

1.			
2.			
3.			

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS: SAFE ON FORCE SAFE OFF FORCE BOLT LIFT-COCKED BOLT LIFT-FIRED

1.			
2.			
3.			

TESTER: AL

TEST TITLE: SEAR RELIEF

PREVIOUS CYCLES: 7500

RIFLE NO. 16235951

DRY CYCLE SIMULATOR NO. 1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 1

LUBRICATION: WD 40

WORK ORDER NO. _____

NO. OF CYCLES: 2500

TOTAL: 10.000

SEAR LIFT: .1011

SEAR ENGAGEMENT: .1021

TRIGGER PULL: 1. 5.00 2. 4.75 3. 4.75 (4.8)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-CKECKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 12500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.00 2. 5.25 3. 5.00 (5.00)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-CKECKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 15000

SEAR LIFT: .1010

SEAR ENGAGEMENT: .10225

TRIGGER PULL: 1. 5.00 2. 5.00 3. 4.75 (4.9)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-CKECKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 17500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 4.50 2. 4.50 3. 4.75 (4.58)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-CKECKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

REPORT NO. _____

DRY CYCLE SUMMARY

PAGE NO. 1TESTER: WLCTEST TITLE: SEAR RELIEF

PREVIOUS CYCLES: _____

RIFLE NO. 86235951CYCLE SIMULATOR NO. 1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 1LUBRICATION: WD40

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: _____

SEAR LIFT: .0095SEAR ENGAGEMENT: .017TRIGGER PULL: 1. 5.25 2. 5.50 3. 5.25

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

NO. OF CYCLES: 3560TOTAL: 3560SEAR LIFT: .002SEAR ENGAGEMENT: .0225TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.50

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

NO. OF CYCLES: 1440TOTAL: 5000SEAR LIFT: .010SEAR ENGAGEMENT: .0225TRIGGER PULL: 1. 5.25 2. 5.00 3. 5.00

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

NO. OF CYCLES: 2500TOTAL: 7500SEAR LIFT: .008

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.00 2. 5.25 3. 5.00

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

TESTER: 12 L

TEST TITLE: Lead Relief

PREVIOUS CYCLES: 17500

RIFLE NO. D 6409501

CYCLE SIMULATOR NO. 2

BOLT NO. _____

CYCLE RATE: V

FIRE CONTROL NO. _____

LUBRICATION: WD 40

WORK ORDER NO. _____

NO. OF CYCLES: 2500

TOTAL: 20000

SEAR LIFT: .0115

SEAR ENGAGEMENT: .021

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25 (5.25)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 22500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25 (5.25)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 25000

SEAR LIFT: .011

SEAR ENGAGEMENT: .024

TRIGGER PULL: 1. 5.25 2. 5.00 3. 5.25 (5.10)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

TESTER: AL HagerTEST TITLE: SEAR RELIEFPREVIOUS CYCLES: 7500RIFLE NO. 16409561CYCLE SIMULATOR NO. 2BOLT NO. CYCLE RATE: FIRE CONTROL NO. 2LUBRICATION: WD40WORK ORDER NO. NO. OF CYCLES: 2500TOTAL: 10.000SEAR LIFT: .011SEAR ENGAGEMENT: .021TRIGGER PULL: 1. 4.75 2. 5.00 3. 5.00 (4.91)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. 2. 3. NO. OF CYCLES: 2500TOTAL: 1200SEAR LIFT: SEAR ENGAGEMENT: TRIGGER PULL: 1. 5.00 2. 5.25 3. 5.00 (5.08)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. 2. 3. NO. OF CYCLES: 2500TOTAL: 1500SEAR LIFT: .010SEAR ENGAGEMENT: .0215TRIGGER PULL: 1. 5.00 2. 5.00 3. 4.75 (4.91)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. 2. 3. NO. OF CYCLES: 2500TOTAL: 17500SEAR LIFT: SEAR ENGAGEMENT: TRIGGER PULL: 1. 5.00 2. 4.75 3. 4.71 (4.83)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. 2. 3.

TESTER: AL

TEST TITLE: SEAR RELIEF

PREVIOUS CYCLES: _____

RIFLE NO. AC 409501

CYCLE SIMULATOR NO. 2

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 2

LUBRICATION: WD40

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: _____

SEAR LIFT: .010

SEAR ENGAGEMENT: .015

TRIGGER PULL: 1. 5.60 2. 6.00 3. 5.50 (56)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 3500

TOTAL: 3500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.00 2. 5.00 3. 5.00 (5.00)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 72140

TOTAL: 5000

SEAR LIFT: .010

SEAR ENGAGEMENT: 10203

TRIGGER PULL: 1. 5.00 2. 5.00 3. 5.00 (5.00)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 7500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.00 2. 5.25 3. 5.25 (516)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

TESTER: AL

TEST TITLE: Sear Relief

PREVIOUS CYCLES: 7500

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 3

LUBRICATION: DUPONT

WORK ORDER NO. _____

NO. OF CYCLES: 2500

TOTAL: 10000

SEAR LIFT: 1010

SEAR ENGAGEMENT: 1020

TRIGGER PULL: 1. 500 2. 5.25 3. 500 (508)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

REPORT NO. _____

DRY CYCLE SUMMARY

PAGE NO. 1TESTER: ALTEST TITLE: Lean ReliefPREVIOUS CYCLES: 0

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 3LUBRICATION: DUPONT

WORK ORDER NO. _____

NO. OF CYCLES: 0TOTAL: 0SEAR LIFT: .007SEAR ENGAGEMENT: .026TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.50

(5.6)

OBSERVATIONS: SAFE ON FORCE SAFE OFF FORCE BOLT LIFT-COCKED BOLT LIFT-FIRED

	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

NO. OF CYCLES: 2500TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25

(5.25)

OBSERVATIONS: SAFE ON FORCE SAFE OFF FORCE BOLT LIFT-COCKED BOLT LIFT-FIRED

	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

NO. OF CYCLES: 2500TOTAL: 5000SEAR LIFT: .010SEAR ENGAGEMENT: .022TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25

(5.25)

OBSERVATIONS: SAFE ON FORCE SAFE OFF FORCE BOLT LIFT-COCKED BOLT LIFT-FIRED

	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

NO. OF CYCLES: 2500TOTAL: 7500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25

(5.25)

OBSERVATIONS: SAFE ON FORCE SAFE OFF FORCE BOLT LIFT-COCKED BOLT LIFT-FIRED

	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

REPORT NO. _____

PAGE NO. _____

TESTER: AL

TEST TITLE: Lean Relief

PREVIOUS CYCLES: 7500

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 2

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 4

LUBRICATION: DUPONT

WORK ORDER NO. _____

NO. OF CYCLES: 2500

TOTAL: 10.000

SEAR LIFT: .0125

SEAR ENGAGEMENT: 10215

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25 (5.25)

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

REPORT NO. _____

DRY CYCLE SUMMARY

PAGE NO. _____

TESTER: ALTEST TITLE: Low PullPREVIOUS CYCLES: 0

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 2

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 4LUBRICATION: DUPONT

WORK ORDER NO. _____

NO. OF CYCLES: 0TOTAL: 0SEAR LIFT: 010SEAR ENGAGEMENT: 1012TRIGGER PULL: 1. 5.502. 5.523. 5.25

(5.4)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

NO. OF CYCLES: 2500TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.252. 5.253. 5.25

(5.25)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

NO. OF CYCLES: 2500TOTAL: 5000SEAR LIFT: 010SEAR ENGAGEMENT: 1020TRIGGER PULL: 1. 5.002. 5.003. 4.75

(4.9)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

NO. OF CYCLES: 2500TOTAL: 7500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.252. 5.253. 5.25

(5.25)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

BARBER - PRESALE R 0112328

REPORT NO. _____

DRY CYCLE SUMMARY

PAGE NO. _____

TESTER: AL

TEST TITLE: Lean Relay

PREVIOUS CYCLES: 0

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 5

LUBRICATION: DUPONT

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: _____

SEAR LIFT: .0105

SEAR ENGAGEMENT: .0215

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.75 (5.75)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.75 3. 6.00 (5.83)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 5000

SEAR LIFT: .010

SEAR ENGAGEMENT: .020

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.75 (5.75)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 7500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 6.25 2. 6.00 3. 6.00 (6.09)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u>5.75</u> - <u>6.00</u> - <u>6.00</u>	_____	(5.91)	<u>10.000 cycles</u>
2. <u>low lift</u> <u>.012</u>	_____	_____	<u>low engagement .0245</u>
3. _____	_____	_____	_____

G-88

DON'T SAY IT-WRITE IT

FOR LAB

To C.E. RITCHIE
From L. J. HAGEN

Date 2-5-82

THESE FIRE CONTROLS DO NOT HAVE
ANY LUBRICATION ON THEM.

JUAN. 15

1-5- WIDCO
6-15- (2) DUPONT
(2) CRC

"SAFETY RULES ARE PERFECT TOOLS"

WORK REQUEST

WR # 820361

DATE REQUESTED 2-5-82WORK ORDER C 1802-000DESIGNER OR ENGINEER L. J. HAGENMODEL 700 CAL. OR GAUGE _____ BARREL TYPE _____GUN Nds.- 1/700 FIRE CONTROLS QUANTITY-15TYPE OF TEST

NEW DESIGN _____ DESIGN CHANGE _____

DRY CYCLE _____ ACCURACY _____ HAND LOADING _____ STRESS _____

PRESSURE _____ MUZZLE VELOCITY _____ FUNCTION ☒ PHOTOS _____EVALUATION ☒ BOLT VELOCITIES _____ OTHER _____REPORT REQUIREDFORMAL ☒ INFORMAL _____ TEST RESULTS ONLY _____TEST OBJECTIVE

1. LUBRICATION OF FIRE CONTROL TEST
 TEST TO BE DETERMINED BY RED TEST LAB. - C.E. RITCHIE.
- A. 10 FIRE CONTROLS HAVE THE SEAR SAFETY CAM,
 TRIGGER & CONNECTOR RELIEVED IN AREAS BY .010
- B. 5 FIRE CONTROLS HAVE THE SEAR SAFETY CAM,
 TRIGGER & CONNECTOR RELIEVED IN AREAS BY .005.
- C. 1-5 = .005 RELIEF
 6-15 = .010 RELIEF

TEST COMPLETION DATE _____

SIGNED _____

DON'T SAY IT-WRITE IT

FOR LAB

To

C.E. RITCHIE

Date

2-5-82

From

L. J. HAGEN

THESE FIRE CONTROLS DO NOT HAVE
ANY LUBRICATION ON THEM.

JUAN. 15

1- 5 - WIDEC
6-15- (2) DUPONT
(2) CRC

"SAFETY RULES ARE PERFECT TOOLS"

WORK REQUESTWR[#] 820361DATE REQUESTED 2-5-82WORK ORDER 31802-000DESIGNER OR ENGINEER L. J. HAGENMODEL 700

CAL. OR GAUGE _____

BARREL TYPE _____

GUN No(s). - 1/700 FIRE CONTROLS QUANTITY - 15TYPE OF TEST

NEW DESIGN _____

DESIGN CHANGE _____

DRY CYCLE _____

ACCURACY _____

HAND
LOADING _____

STRESS _____

PRESSURE _____

MUZZLE
VELOCITY _____FUNCTION ☒

PHOTOS _____

EVALUATION ☒BOLT
VELOCITIES _____

OTHER _____

REPORT REQUIREDFORMAL ☒

INFORMAL _____

TEST RESULTS ONLY _____

TEST OBJECTIVE

1. LUBRICATION OF FIRE CONTROL TEST

TEST TO BE DETERMINED BY R&D TEST LAB. - C.E. RITCHIE.

A. 10 FIRE CONTROLS HAVE THE SEAR SAFETY/CAM,
TRIGGER & CONNECTOR RELIEVED IN AREAS BY .010B. 5 FIRE CONTROLS HAVE THE SEAR SAFETY/CAM,
TRIGGER & CONNECTOR RELIEVED IN AREAS BY .005.

C. 1-5 = .005 RELIEF

6-15 = .010 RELIEF

TEST COMPLETION DATE _____

SIGNED _____

G-88

DON'T SAY IT-WRITE IT

To _____

Date _____

From _____

Simulator #1 control #6

Firing pin cam broke on cycle 23, 7/2.

"SAFETY RULES ARE PERFECT TOOLS"

TESTER: AL

TEST TITLE: Lean Relief

PREVIOUS CYCLES: 0

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 2

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 6

LUBRICATION: DUPONT

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .0125

SEAR ENGAGEMENT: .0205

TRIGGER PULL: 1. 5.75 2. 5.50 3. 5.50 (5.50)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.50 2. 5.50 3. 5.50 (5.50)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 5000

SEAR LIFT: .018

SEAR ENGAGEMENT: .018

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25 (5.25)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 7500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.50 2. 5.50 3. 5.50 (5.50)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
TP 1. <u>5.25</u> <u>5.25</u>	<u>5.25</u>	(5.25)	<u>10,000 C, CC</u>
2. _____	_____	_____	_____
Lean Lift <u>1013</u>	_____	_____	<u>Lean Engaged .0185</u>

TESTER: Angelo

TEST TITLE: _____

PREVIOUS CYCLES: 10,000

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. #1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. #6

LUBRICATION: Dupont

WORK ORDER NO. _____

NO. OF CYCLES: 2500

TOTAL: 12500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.50 3. 5.75 (56)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 15000

SEAR LIFT: .0125

SEAR ENGAGEMENT: .0235

TRIGGER PULL: 1. 5.75 2. 5.50 3. 5.75 (56)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 17500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 6.0 2. 7.0 3. 5.5 (61)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 20000

SEAR LIFT: .0115

SEAR ENGAGEMENT: .0250

TRIGGER PULL: 1. 5.50 2. 5.50 3. 5.50 (55)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

TESTER: Angelo

TEST TITLE: _____

PREVIOUS CYCLES: 20,000

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. #6LUBRICATION: Dupont

WORK ORDER NO. _____

NO. OF CYCLES: 2500TOTAL: 22500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.0 (5.1)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1.			
2.			
3.			

NO. OF CYCLES: 2500TOTAL: 25000SEAR LIFT: .0125SEAR ENGAGEMENT: .0250TRIGGER PULL: 1. 5.50 2. 5.50 3. 5.50 (5.5)

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1.			
2.			
3.			

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1.			
2.			
3.			

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1.			
2.			
3.			

TESTER: _____

TEST TITLE: Lead Relief

PREVIOUS CYCLES: _____

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 7

LUBRICATION: DuPont

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .010

SEAR ENGAGEMENT: .0205

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.50 (564)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.50 (558)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 5000

SEAR LIFT: .0135

SEAR ENGAGEMENT: .015

TRIGGER PULL: 1. 5.50 2. 5.75 3. 5.50 (558)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 7500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.75 (575)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u>5.50</u>	<u>5.50</u>	<u>5.75</u> (558)	<u>10.000 Cycles</u>
2. <u>.0105</u>	_____	_____	_____
3. <u>.0105</u>	_____	_____	_____

TESTER: Angelo

TEST TITLE: _____

PREVIOUS CYCLES: 10000

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 2

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 7

LUBRICATION: Dupont

WORK ORDER NO. _____

NO. OF CYCLES: 2500

TOTAL: 12500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.50 (5.6)

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

NO. OF CYCLES: 2500

TOTAL: 15000

SEAR LIFT: .0105

SEAR ENGAGEMENT: .0205

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.50 (5.6)

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

NO. OF CYCLES: 2500

TOTAL: 17500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.50 3. 5.50 (5.5)

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

NO. OF CYCLES: 2500

TOTAL: 20000

SEAR LIFT: .0085

SEAR ENGAGEMENT: .0250

TRIGGER PULL: 1. 6.0 2. 5.5 3. 5.5 (5.5)

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.				
2.				
3.				

TESTER: Angelo

TEST TITLE: _____

PREVIOUS CYCLES: 20000

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. #2

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. #7

LUBRICATION: Dupont

WORK ORDER NO. _____

NO. OF CYCLES: 2500

TOTAL: 22500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 6.0 2. 5.75 3. 5.75 (5.8)

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 25000

SEAR LIFT: .006

SEAR ENGAGEMENT: .0235

TRIGGER PULL: 1. 5.50 2. 5.75 3. 5.50 (5.5)

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

NO. OF CYCLES: _____

TOTAL: _____

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. _____ 2. _____ 3. _____

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

TESTER: _____

TEST TITLE: Lean Reliability

PREVIOUS CYCLES: _____

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 2

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 8

LUBRICATION: DUPONT

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .0115

SEAR ENGAGEMENT: .0165

TRIGGER PULL: 1. 5.50 2. 5.71 3. 5.52 (5.58)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.50 2. 5.25 3. 5.50 (5.58)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 5000

SEAR LIFT: .010

SEAR ENGAGEMENT: .0205

TRIGGER PULL: 1. 5.52 2. 5.52 3. 5.25 (5.41)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 7500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25 (5.25)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
T.P. 1. <u>5.25</u>	<u>5.25</u>	<u>5.25</u> (5.25)	<u>10000</u>
2. _____	_____	_____	_____
3. <u>.015</u>	_____	_____	_____

Lean Lift

Lean Eng - .0195

TESTER: _____

TEST TITLE: Lead Follow

PREVIOUS CYCLES: _____

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 3

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 9

LUBRICATION: DUPONT

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .012

SEAR ENGAGEMENT: .0165

TRIGGER PULL: 1. 6.25 2. 6.25 3. 6.25 (6.25)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2520

TOTAL: 2520

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 6.25 2. 6.25 3. 5.75 (5.91)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 5200

SEAR LIFT: .0135

SEAR ENGAGEMENT: .022

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.75 (5.75)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2120

TOTAL: 7520

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 6.00 2. 6.00 3. 5.25 (5.75)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u>6.25-6.00</u>	<u>6.25</u>	(6.1)	<u>10000 cycles</u>
2. _____	_____	_____	_____
3. <u>.012</u>	_____	_____	<u>sear eng - .0195</u>

TESTER: PL

TEST TITLE: _____

PREVIOUS CYCLES: 0

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 10

LUBRICATION: WD40

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .012

SEAR ENGAGEMENT: .018

TRIGGER PULL: 1. 5.75 2. 5.50 3. 5.75

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

NO. OF CYCLES: 2500

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.75

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

NO. OF CYCLES: 2500

TOTAL: 5000

SEAR LIFT: .0115

SEAR ENGAGEMENT: .021

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.75

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. _____

2. _____

3. _____

NO. OF CYCLES: 250

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.50 3. 5.75

OBSERVATIONS: SAFE ON FORCE

SAFE OFF FORCE

BOLT LIFT-COCKED

BOLT LIFT-FIRED

1. trigger - 5.75 - 5.75 - 5.75

2. sear lift .0105

3. _____

5.75

5.60

5.75

7877 - 10.000

sear engagement .0251

sear engagement .0251

TESTER: AL

TEST TITLE:

PREVIOUS CYCLES:

RIFLE NO.

DRY CYCLE SIMULATOR NO. 2

BOLT NO.

CYCLE RATE:

FIRE CONTROL NO. 11

LUBRICATION: WD-40

WORK ORDER NO.

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .0125

SEAR ENGAGEMENT: .0105

TRIGGER PULL: 1. 6.00 2. 5.75 3. 5.75 (5.8)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>

NO. OF CYCLES: 2500

TOTAL: 2500

SEAR LIFT:

SEAR ENGAGEMENT:

TRIGGER PULL: 1. 5.50 2. 5.75 3. 5.75 (5.6)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>

NO. OF CYCLES: 2500

TOTAL: 5000

SEAR LIFT: .0125

SEAR ENGAGEMENT: .0125

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.75 (5.75)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>

NO. OF CYCLES: 2500

TOTAL: 7500

SEAR LIFT:

SEAR ENGAGEMENT:

TRIGGER PULL: 1. 5.50 2. 5.75 3. 5.75 (5.4)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u>try pull 5.50-5.50 5.50</u>	<u> </u>	(5.50)	<u>7110 10.00</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u>sear lift .015</u>	<u> </u>	<u> </u>	<u>sear engagement .0195</u>

TESTER: AL

TEST TITLE: _____

PREVIOUS CYCLES: 0

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 3

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 12

LUBRICATION: WD40

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .0125

SEAR ENGAGEMENT: .009

TRIGGER PULL: 1. 6.00 2. 6.00 3. 5.75 (5.91)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 6.00 2. 6.00 3. 5.75 (5.91)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 5000

SEAR LIFT: .0115

SEAR ENGAGEMENT: .0185

TRIGGER PULL: 1. 6.00 2. 6.00 3. 5.75 (5.91)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 7500

SEAR LIFT: 0

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 6.00 2. 5.75 3. 6.00 (5.91)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u>Trigger 5.75 - 5.75 - 6.00</u>	_____	(5.83)	<u>76 + 10.000</u>
2. <u>Sear lift .014</u>	_____	_____	_____
3. _____	_____	_____	<u>Sear engagement .020</u>

TESTER: _____

TEST TITLE: _____

PREVIOUS CYCLES: 0

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 4

BOLT NO. 13

CYCLE RATE: _____

FIRE CONTROL NO. _____

LUBRICATION: WD 40

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .013

SEAR ENGAGEMENT: .009

TRIGGER PULL: 1. 5.15 2. 5.75 3. 5.75 (5.95)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.25 2. 5.25 3. 5.25 (5.25)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 5000

SEAR LIFT: .011

SEAR ENGAGEMENT: .0165

TRIGGER PULL: 1. 5.50 2. 5.50 3. 5.75 (5.50)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 7500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.50 2. 5.50 3. 5.10 (5.50)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u>5.50-5.50 - 5.50</u>	_____	(5.50)	for PL cycles 1000 c
2. _____	_____	_____	_____
3. <u>.0135</u>	_____	_____	Sear engagement .0185

TESTER: AL

TEST TITLE: Seal Relief

PREVIOUS CYCLES: 0

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 3

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 14

LUBRICATION: CRC

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .010

SEAR ENGAGEMENT: .012

TRIGGER PULL: 1. 4.00 2. 4.00 3. 4.25

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 250

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.75 3. 6.00

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 250

TOTAL: 5000

SEAR LIFT: .013

SEAR ENGAGEMENT: .026

TRIGGER PULL: 1. 6.00 2. 6.25 3. 6.00

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 7520

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.75 3. 6.00

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. <u>Seal Lift</u> <u>.0125</u>	<u>6.00</u>	_____	<u>10.000</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____

TESTER: AL

TEST TITLE: Lead Relief

PREVIOUS CYCLES: 0

RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 4

BOLT NO. _____

CYCLE RATE: _____

FIRE CONTROL NO. 15

LUBRICATION: C Re

WORK ORDER NO. _____

NO. OF CYCLES: 0

TOTAL: 0

SEAR LIFT: .012

SEAR ENGAGEMENT: .015

TRIGGER PULL: 1. 6.50 2. 6.50 3. 6.75

(6.58)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 2500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 6.50 2. 6.50 3. 6.75

(6.58)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 5000

SEAR LIFT: .0115

SEAR ENGAGEMENT: .0205

TRIGGER PULL: 1. 6.25 2. 6.50 3. 6.50

(6.41)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

NO. OF CYCLES: 2500

TOTAL: 7500

SEAR LIFT: _____

SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 7.25 2. 7.25 3. 7.00

(7.16)

OBSERVATIONS: SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
TP <u>6.75 6.75 6.75</u>	(6.73)	_____	<u>10.000</u>
2. <u>Sear lift .0125</u>	_____	_____	_____
3. _____	_____	_____	<u>Sear Eng - .027</u>