REMINGTON ARMS COMPANY, INC.

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"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, Foreman-Test Lab / R.E. Nightingale, Foreman-Measurement Lab

Signature Date 6-2-82

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

Signature Date 6/2/82

TEST & MEASUREMENT LAB REPORT

REPORT NUMBER:	82 0361
REPORT TITLE:	M/700 Fire Control Evaluation and Lubrication Test Relieved Sear Safety Cam, Trigger and Connector
MODEL(S):	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.

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.

A P P E N D I X " A "

(Data Sheet No. 1)

LUBRICATION OF FIRE CONTROL TEST
WITH SEAR SAFETY CAM, TRIGGER, AND CONNECTOR RELIEVED
MODEL 700 FIRE CONTROL EVALUATION

AGL/RS
5-25-82

	FC-1	FC-2	FC-3	FC-4	FC-5	FC-6	FC-7	FC-8	FC-9	FC-10	FC-11	FC-12	FC-13	FC-14	FC-15
LUBRICANT USED →	WD-40	WD-40	DUPONT	DUPONT	DUPONT	DUPONT	DUPONT	DUPONT	DUPONT	WD-40	WD-40	WD-40	WD-40	CRC	CRC
CYCLES COMPLETED →	25,000	25,000	10,000	10,000	10,000	25,000	25,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
RELIEF →	.005	.005	.005	.005	.005	.010	.010	.010	.010	.010	.010	.010	.010	.010	.010
SEAR LIFT & ENGAGEMENT (IN.)															
ORIGINAL															
L →	.0075	.010	.007	.010	.0105	.0125	.010	.0115	.012	.012	.0125	.0125	.013	.010	.012
E →	.011	.015	.026	.017	.0215	.0205	.0205	.0145	.0145	.018	.0105	.009	.009	.012	.015
5000 CYS.															
L →	.010	.010	.010	.010	.010	.015	.0135	.010	.0135	.0115	.0125	.0115	.011	.013	.0115
E →	.0225	.0205	.027	.020	.024	.018	.015	.0205	.022	.025	.0125	.0145	.0165	.026	.0205
10000 CYS															
L →	.011	.011	.010	.0125	.012	.013	.0165	.015	.017	.0105	.015	.014	.0135	.0125	.0125
E →	.021	.021	.020	.0215	.0245	.0185	.0225	.0195	.0195	.0255	.0195	.020	.0185	.023	.027
20000 CYS															
L →	.011	.0115	—	—	—	.0125	.0085	—	—	—	—	—	—	—	—
E →	.024	.021	—	—	—	.025	.025	—	—	—	—	—	—	—	—
25000 CYS															
L →	.0125	.011	—	—	—	.0125	.008	—	—	—	—	—	—	—	—
E →	.025	.024	—	—	—	.025	.0235	—	—	—	—	—	—	—	—
TRIGGER PULL (lbs) (AVE. OF 3)															
0 CYS	5.3	5.6	5.6	5.4	5.7	5.5	5.6	5.5	6.25	5.6	5.8	5.7	5.7	4.0	6.5
5000 CYS	5.0	5.0	5.2	4.9	5.7	5.2	5.5	5.4	5.7	5.7	5.7	6.7	5.5	6.0	6.4
10000 CYS	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	4.0	6.7
15000 CYS	4.9	4.9	—	—	—	5.6	5.6	—	—	—	—	—	—	—	—
20000 CYS	5.25	5.2	—	—	—	5.5	5.6	—	—	—	—	—	—	—	—
25000 CYS	5.1	5.1	—	—	—	5.5	5.5	—	—	—	—	—	—	—	—

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

DATA SHEET

NO

Lubricant Test: 1-7-82 fbl.

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, etc.)

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:
   @ 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 samples *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
- Sprayon 711
- CRC 3-36
- Houghton HLP
- WD-40
- Moly cote GN - Paste.

} R&D Ilion results only.

Additional Testing: At completion of successful dry cycle

- Continuation to failure.
- Continuation with Lubricant removed.
- Cold tests.
- Enviornment 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.

1-12-82
FH

Lubricant Tests: — Cont'd.

— 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:
   - 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°.

   (All to take place in one day.)
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
PS

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. ?

SEAR LIFT v ENGAGEMENT

Sample	Low lift	Low eng
1- 0-	.0095	.017
5000	.010	.0225
10,000	.011	.021
15000	.010	.0225
20000	.011	.024
25000	.0125	.025
2. 0	.010	.015
5000	.010	.0205
10000	011	.021
15000	.010	.0215
20000	.0115	.021
25000	011	.024
3- 0	~~.010~~	~~.022~~
5000	.007	.0226
10000	.0110	.027
~~15000~~	~~.010~~	~~.020~~
4. 0	.010	.017
5000	.0110	.020
10000	.0125	.0215
15000		
20000		
25000		

		Lean Light	Lean Engagement
	0	.0105	.0215
	5000	.010	.024
	10000	.012	.0245
	15000		
	20000		
	25000		
6.	0	.0121	.0201
	5000	.015	.018
	10000	.013	.0185
	15000	.0125	.0235
	20000	.0115	.025
	25000	.0125	.025
	0	.010	.0205
	5000	.0135	.018
	10000	.01015	.0225
	15000	.0105	.0205
	20000	.0085	.025
	25000	.008	.0235
8.	0	.0115	.0161
	5000	.010	.0201
	10000	.015	.0195
6	0	.012	.0165
	5000	.0135	.022
	10000	.017	.0195

		Lear Lfd	Lear Engagement
10.	0	.012	.018
	5000	.0115	.025
	10000	.0105	.0255
11.	0	.0125	.0101
	5000	.0125	.0125
	10000	.015	.0195
12	0	.0125	.009
	5000	.0115	.0185
	10000	.014	.020
13.	0	.013	.009
	5000	.011	.0161
	10000	.0135	.0181
14	0	.010	.012
	5000	.013	.026
	10000	.0121	.023
15	0	.012	.015
	5000	.0115	.0205
	10000	.0125	.027
	Rem Ltd	Lear Lfd	.005- .018
		Lear Eng	.015 - .020

(w/ 13) 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	5.5	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								

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. 3

TESTER: AC TEST TITLE: Sear Relief

PREVIOUS CYCLES: 17500 RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1 (1) BOLT NO. _____

CYCLE RATE: _____ FIRE CONTROL NO. 1

LUBRICATION: WD40 WORK ORDER NO. _____

NO. OF CYCLES: 2500 TOTAL: 20 000

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: 22 500

SEAR LIFT: _____ SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.50 2. 5.50 3. 5.5 (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: .012 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
4.30.57 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. 2

TESTER: AC TEST TITLE: SEAR RELIEF

PREVIOUS CYCLES: 7500 RIFLE NO. M603 59 SA

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: .011 SEAR ENGAGEMENT: .021

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

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	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 (5.08)

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

NO. OF CYCLES: 2500 TOTAL: 15000

SEAR LIFT: .010 SEAR ENGAGEMENT: .022

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

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. 4.50 2. 4.50 3. 4.75 (4.58)

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

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. 1

TESTER: MC TEST TITLE: SEAR RELIEF

PREVIOUS CYCLES: _____ RIFLE NO. B623 5951

CYCLE SIMULATOR NO. 1 (1) BOLT NO. _____

CYCLE RATE: _____ Hazen FIRE CONTROL NO. 1

LUBRICATION: WD40 WORK ORDER NO. _____

NO. OF CYCLES: 0 TOTAL: _____

SEAR LIFT: .009✓ SEAR ENGAGEMENT: .017

TRIGGER PULL: 1. 5.25 2. 5.50 3. 5.25 (5.33)

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

NO. OF CYCLES: 3560 TOTAL: 3560

SEAR LIFT: [illegible] SEAR ENGAGEMENT: .018✓

TRIGGER PULL: 1. 5.25✓ 2. 5.25✓ 3. 5.50 (5.33)

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

NO. OF CYCLES: 1440 TOTAL: 5000

SEAR LIFT: .010 SEAR ENGAGEMENT: .022✓

TRIGGER PULL: 1. 525 2. 5.00 3. 500 (5.08)

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

NO. OF CYCLES: 2500 TOTAL: 7500

SEAR LIFT: [illegible] SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.00 2. 5.25✓ 3. 500 (5.08)

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

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. 3

TESTER: JC TEST TITLE: Dean Rifle

PREVIOUS CYCLES: 17500 Klagen RIFLE NO. A 6409561

DRY CYCLE SIMULATOR NO. 2 (2) BOLT NO. _____

CYCLE RATE: V FIRE CONTROL NO. _____

LUBRICATION: WD 40 WORK ORDER NO. _____

NO. OF CYCLES: 2500 TOTAL: 20000

SEAR LIFT: .011 5 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 (5.16)

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

4.30 5V

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. 2

TESTER: AL Harper TEST TITLE: SEAR RELIEF

PREVIOUS CYCLES: 7500 RIFLE NO. AG40 9561

DRY CYCLE SIMULATOR NO. 2 (2) BOLT NO. _____

CYCLE RATE: _____ FIRE CONTROL NO. 2

LUBRICATION: WD40 WORK ORDER NO. _____

NO. OF CYCLES: 2500 TOTAL: 10.000

SEAR LIFT: .011 SEAR ENGAGEMENT: .021

TRIGGER 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: 2500 TOTAL: 12.500

SEAR 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: 2500 TOTAL: 15000

SEAR LIFT: .010 SEAR ENGAGEMENT: .021

TRIGGER 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: 2500 TOTAL: 17500

SEAR LIFT: _____ SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.00 2. 4.75 3. 4.75 (4.83)

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

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. 1

TESTER: AC TEST TITLE: SEAR RELIEF

PREVIOUS CYCLES: _____ RIFLE NO. AC409561

DRY CYCLE SIMULATOR NO. 2 (2) BOLT NO. _____

CYCLE RATE: _____ Hagen FIRE CONTROL NO. 2

LUBRICATION: WD40 WORK ORDER NO. _____

NO. OF CYCLES: 0 TOTAL: _____

SEAR LIFT: .010 SEAR ENGAGEMENT: .015

TRIGGER PULL: 1. 5.50 2. 6.00 3. 5.50 (5.56)

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

NO. OF CYCLES: 3500 TOTAL: 3500

SEAR LIFT: [redacted] SEAR ENGAGEMENT: [redacted]

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: 12440 TOTAL: 5000

SEAR LIFT: .010 SEAR ENGAGEMENT: .020

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 (5.16)

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

DRY CYCLE SUMMARY

REPORT NO. ______

TESTER: AL

TEST TITLE: Sear Relief

PREVIOUS CYCLES: 7500

Hagen

(3)

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: 10,000

SEAR LIFT: .010

SEAR ENGAGEMENT: .020

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: ______

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. 1

TESTER: AL TEST TITLE: Lear Rebuf

PREVIOUS CYCLES: 0 Hogan RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1 (3) BOLT NO. _____

CYCLE RATE: _____ FIRE CONTROL NO. 3

LUBRICATION: DuPont WORK ORDER NO. _____

NO. OF CYCLES: 0 TOTAL: 0

SEAR LIFT: .007 SEAR ENGAGEMENT: .026

TRIGGER 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
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: .010 SEAR ENGAGEMENT: .027

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. 5.25 2. 5.25 3. 5.25 (5.25)

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

DRY CYCLE SUMMARY

REPORT NO. ______ PAGE NO. ______

TESTER: AL

TEST TITLE: Sear Tailey

PREVIOUS CYCLES: 7500

Hagen

(4)

DRY CYCLE SIMULATOR NO. 2

RIFLE NO. ______

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: .0215

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: RC TEST TITLE: Low Reload

PREVIOUS CYCLES: 0 RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 2 BOLT NO. _____

CYCLE RATE: _____ FIRE CONTROL NO. 4

LUBRICATION: DuPont WORK ORDER NO. _____

NO. OF CYCLES: 0 TOTAL: 0

SEAR LIFT: .010 SEAR ENGAGEMENT: .012

TRIGGER PULL: 1. 5.50 2. 5.50 3. 5.25 (5.4)

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: .010 SEAR ENGAGEMENT: .020

TRIGGER PULL: 1. 5.00 2. 5.00 3. 4.95 (4.9)

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
1.				
2.				
3.				

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. _____

TESTER: AL TEST TITLE: Sear Relief

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: .021

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 (6.08)

OBSERVATIONS:	~~SAFE ON FORCE~~	SAFE OFF FORCE	BOLT LIFT-COCKED	~~BOLT LIFT-FIRED~~
tp 1.	5.75 - 6.00	- 6.00	(5.91)	10.000 Cycles
2.				
Sear lift 3.	.012			Sear Engagement .0245

G-88

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

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

"SAFETY RULES ARE PERFECT TOOLS"

WORK REQUEST

WR # 820361

DATE REQUESTED 2-5-82 WORK ORDER C 1702-000

DESIGNER OR ENGINEER L. J. HAGEN

MODEL 700 CAL. OR GAUGE _____ BARREL TYPE _____

GUN NO(S).- M/700 FIRE CONTROLS QUANTITY-15

TYPE OF TEST

NEW DESIGN _____ DESIGN CHANGE _____

DRY CYCLE _____ ACCURACY _____ HAND LOADING _____ STRESS _____

PRESSURE _____ MUZZLE VELOCITY _____ FUNCTION ✓ PHOTOS _____

EVALUATION ✓ BOLT VELOCITIES _____ OTHER _____

REPORT REQUIRED

FORMAL ✓ 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 .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

2 1-5-WISC
6-15-(2) DUPONT
(2) CREE

"SAFETY RULES ARE PERFECT TOOLS"

WORK REQUEST

WR # 820361

DATE REQUESTED 2-5-82 WORK ORDER C 17082-000

DESIGNER OR ENGINEER L. J. HAGEN

MODEL 700 CAL. OR GAUGE _____ BARREL TYPE _____

GUN NO(S).- M/700 FIRE CONTROLS QUANTITY-15

TYPE OF TEST

NEW DESIGN _____ DESIGN CHANGE _____

DRY CYCLE _____ ACCURACY _____ END LOADING _____ STRESS _____

PRESSURE _____ MUZZLE VELOCITY _____ FUNCTION ✓ PHOTOS _____

EVALUATION ✓ BOLT VELOCITIES _____ OTHER _____

REPORT REQUIRED

FORMAL ✓ 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 .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 _____

G-88

DON'T SAY IT—*WRITE IT*

To _____ Date _____

From _____

Simulator #1 control #6

Firing pin cam broke on cycle 23,712.

"SAFETY RULES ARE PERFECT TOOLS"

REPORT NO. _____ D Y CYCLE SUMMARY PAGE NO. _____

TESTER: AL TEST TITLE: Lear Rifle

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: .012 SEAR ENGAGEMENT: .020

TRIGGER PULL: 1. 5.75 2. 5.50 3. 5.50 (5.58)

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

NO. OF CYCLES: 250 TOTAL: 250

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: .015 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.	5.25 - 5.25	5.25	(5.75)	10,000 C, EC
2.				
Lear Mfg 3.	.013			Lear Engagement .0185

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. 1

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 (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: .0125 SEAR ENGAGEMENT: .0235

TRIGGER PULL: 1. 5.75 2. 5.50 3. 5.75 (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. 6.0 2. 7.0 3. 5.5 (6.1)

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 (5.5)

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

REPORT NO. _____ D Y CYCLE SUMMARY PAGE NO. 2

TESTER: Angelo TEST TITLE: _____

PREVIOUS CYCLES: 20,000 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: 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: 2500 TOTAL: 25000

SEAR LIFT: .0125 SEAR ENGAGEMENT: .0250

TRIGGER 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.				

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. _____

TESTER: _____ TEST TITLE: Sear Reliab

PREVIOUS CYCLES: _____ (1) 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 (5.66)

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 (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: .0135 SEAR ENGAGEMENT: .015

TRIGGER PULL: 1. 5.50 2. 5.75 3. 5.75 (5.58)

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 (5.75)

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
T.P. 1.	5.50	5.75	5.75 (5.58)	10,000 Cycles
2.				
Sear lift 3.	.0105		Sear eng - .0225	

REPORT NO. _____ DR CYCLE SUMMARY PAGE NO. 1

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 (5.6)

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

REPORT NO. _____ DR CYCLE SUMMARY PAGE NO. 2

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.				

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. _____

TESTER: _____ TEST TITLE: Sear Relief

PREVIOUS CYCLES: _____ (2) 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: .016

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. 550 2. 5.25 3. 550 (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: .020

TRIGGER PULL: 1. 5.52 2. 5.52 3. 524 (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. 521 2. 5.25 3. 5.21 (5.25)

OBSERVATIONS:	~~SAFE ON FORCE~~	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
T.P. 1.	524	5.25	5.25 (5.25)	10000
2.				
Sear lift 3.	.014		Sear eng.	.019

REPORT NO. ______ DRY CYCLE SUMMARY PAGE NO. ______

TESTER: ______ TEST TITLE: Sear Fail

(3)

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: 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: .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: 2500 TOTAL: 7500

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~~
TP 1. 6.25 · 6.00	6.25	(6.1)	10000 cycles
2.			
Sear lift 3. .017		Sear	Eng - .0195

CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER
KINZER V. REMINGTON

R2513329

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. _____

TESTER: HC (1) TEST TITLE: _____

PREVIOUS CYCLES: 0 RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 1 BOLT NO. _____

CYCLE RATE: _____ 5.5 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 (5.66)

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 (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: .011 SEAR ENGAGEMENT: .021

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: 25 TOTAL: 2520

SEAR LIFT: _____ (5.6) 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 pull - 5.75 - 5.75 - 5.75			(5.75)	FTF - 10.000
2.				
3. bar lift .010			sear engagement .021	

REPORT NO. _____ DI F CYCLE SUMMARY PAGE NO. _____

TESTER: NC TEST TITLE: _____

PREVIOUS CYCLES: _____ (2) 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: .012 ✓ SEAR ENGAGEMENT: .010 ✓

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

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: _____ (5.66)

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

NO. OF CYCLES: 2500 TOTAL: 7500

SEAR LIFT: _____ SEAR ENGAGEMENT: _____ (5.44)

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

OBSERVATIONS: ~~SAFE ON FORCE~~	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
trig pull 1. 5.50 - 5.50 5.50		(5.50)	Trip 10.00
2.			
sear lift 3. .015		sear engagement	.019 ✓

REPORT NO. ______ DRY CYCLE SUMMARY PAGE NO. ______

TESTER: AC

PREVIOUS CYCLES: 0

DRY CYCLE SIMULATOR NO. 3

CYCLE RATE: ______

LUBRICATION: WD40

(3)

5-F82

TEST TITLE: ______

RIFLE NO. ______

BOLT NO. ______

FIRE CONTROL NO. 12

WORK ORDER NO. ______

NO. OF CYCLES: 0 TOTAL: 0

SEAR LIFT: .0121 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: ✓ 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~~
Trig pull 1. 2500 5.75 - 5.75	- 6.00	(5.83)	Tot AC 10,000
2.			
Sear lift 3. .014		Sear engagement	.020

R2513332

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. _____

TESTER: _____ TEST TITLE: _____

PREVIOUS CYCLES: 0 (4) RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 4 BOLT NO. 13

CYCLE RATE: _____ 5-5-82 FIRE CONTROL NO. _____

LUBRICATION: WD40 WORK ORDER NO. _____

NO. OF CYCLES: 0 TOTAL: 0

SEAR LIFT: .013 SEAR ENGAGEMENT: .009

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. 5.25 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 (5.58)

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
1.	5.50-5.50 trigger pull	5.50	(5.50)	for PC cycles 1000 c
2.				
3.	.0135 sear lift		sear engagement .0185	

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. _____

TESTER: AL TEST TITLE: Sear Relief

PREVIOUS CYCLES: 0 (3) RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 3 BOLT NO. _____

CYCLE RATE: _____ 5/4/84 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 (4.08)

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: .013 SEAR ENGAGEMENT: .026

TRIGGER PULL: 1. 6.00 2. 6.25 3. 6.00 (6.08)

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

NO. OF CYCLES: 2520 TOTAL: 7520

SEAR LIFT: _____ SEAR ENGAGEMENT: _____

TRIGGER PULL: 1. 5.75 2. 5.75 3. 5.50 (5.66)

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	~~BOLT LIFT-FIRED~~
Trig Pull 1.	6.25-6.00-6.0	(6.08)		10.000
2.				
Sear Lift 3.	.0125		Sear Eng.	.023

REPORT NO. _____ DRY CYCLE SUMMARY PAGE NO. _____

TESTER: AL TEST TITLE: Sear Relief

PREVIOUS CYCLES: 0 RIFLE NO. _____

DRY CYCLE SIMULATOR NO. 4 (4) BOLT NO. _____

CYCLE RATE: _____ 5/6/82 FIRE CONTROL NO. 15

LUBRICATION: CRC WORK ORDER NO. _____

NO. OF CYCLES: 0 TOTAL: 0

SEAR LIFT: .012 (6.58) SEAR ENGAGEMENT: .015

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

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

NO. OF CYCLES: 2500 TOTAL: 2500

SEAR LIFT: _____ (6.58) SEAR ENGAGEMENT: _____

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

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 (6.41) SEAR ENGAGEMENT: .0205

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

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

NO. OF CYCLES: 2500 TOTAL: 7500

SEAR LIFT: _____ (7.16) SEAR ENGAGEMENT: _____

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

OBSERVATIONS:	SAFE ON FORCE	SAFE OFF FORCE	BOLT LIFT-COCKED	BOLT LIFT-FIRED
1. TP	6.75 6.75 6.75	(6.75)		10.000
2.				
3. Sear lift .0125				Accum eng - .027