

10 CO-8
REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington
EXPORT

PETERS
IMPORT

03579

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"

Ilion, New York
May 20, 1975

TO: E.F. BARRETT

FROM: G.W. MARTIN

SUBJECT: BOLT ACTION RIFLE SAFETIES

Since your last visit, and per your request, we have had the opportunity to look into three (3) different areas for information. The three (3) areas are as follows:

1. The computer
2. All available Gunsmith Call Reports
3. Arms Service Usage Report

The Computer Report is broken down into three (3) parts.

1. Safety malfunctions found in our gallery on new rifles.
2. The number of complaints coming into Arms Service
3. The number of actual justified complaints from number 2; preceeding. A copy of these reports are attached.

The Gunsmith Call Reports date back as far as 1970. In these reports we find one (1) Model 600, two (2) Model 788, and thirteen (13) Model 700's with some sort or another of justified or unjustified malfunctions. The one that is the most concerning is Fred Woodrick's Call Report of March 5th. on Ewell Cross Gunshop, Ft. Worth, Texas. I personally called Malcom Cross to confirm that he did encounter six (6) Model 700's that were malfunctioning. He did verify that it was the Model 700, but that it was an educated guess on the number. He did say that this is the first that he had encountered this on the Model 700. He stated that it was because there was not enough clearance between the sear and the connector. He did not seem concerned, but promised to send us the very next one he gets into his Shop. Copies of these Gunsmith Call Reports are attached.

We are also enclosing the Arms Service Usage Report. Truthfully, I don't think we can get much meat from this report for our particular purpose. It would be too difficult to get factually why the various complaints were made.

Preliminary Survey as of May 1975. In addition to the guns already tested, we received, today, 220 additional rifles from Carter's Country in Houston, Texas.

010000147

03580

Bower
-5/9/75-

5-19-75

M/600 - SAFETY FUNCTION TEST - PRELIMINARY SUMMARY

Period - Start of Test 4/14/75 to ^{5/6}5/9/75

Total guns received 359
344

Guns received with box marked OK (previously tested) 88

Of 88 guns received with box marked OK - All guns passed both the worst test and trick test.

Of the remaining ²⁷¹256 guns:

1 failed the worst test
139 failed the trick test

Of the ¹⁵¹139 guns which failed the trick test:

¹⁴⁵133 repaired by installing swaged Safeties
6 guns replaced by Custom Repair

Of the 1 gun which failed the worst test:

1 repaired by installing swaged Safety

010000148

03581

CODE NO.CATEGORY & TYPEFIRING (100 to 199)

- 100 Fails to cock.
- 101 Fails to fire or misfires.
- 102 Firing Pin strikes light blow, poor point.
- 103 Firing Pin fell out.
- 104 Firing Pin or Spring binds, length incorrect, protrudes
- 105 Firing Pin strikes off center, marks shells.
- 106 Fails to connect.
- * 107 Jars off or fires closing.
- * 108 Fires on safe or safe doesn't hold.
- * 109 Fires when safe is pushed off.
- * 110 Follows down or Hammer falls.
- 111 Pieces or primer in action or Bolt.
- 112 Right Connector doesn't seat in sear notch.
- 113 Trigger binds.
- 114 Trigger pull heavy, light, creeps, long. Poor
- 115 Safe binds, loose, excessive play, double click.
- 116 Max. header.
- 117 Min. header.
- 118 Bolt catches on Receiver (M/721-722 only).
- 119 Fires automatic, doubles.
- 120 Improper Head Space
- 121 Safe goes on after firing.
- 122 Selector won't fire.
- 123 Selector works hard, binds.
- 124
- 125

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

010000149

DON'T SAY IT—WRITE IT

03582

TO GEORGE MARTINSAFETY MALFUNCTIONSDATE 5-2-75FROM GENE BULLINGALLERY 4

MALFUNCTIONS															TOTAL SAFETY MALFUNCTIONS BY MODEL	
MODEL	FSR			JO			FD			FOS			SWW			
	105	74	75	105	74	75	105	74	75	105	74	75	105	74	75	
40							4									4
P 100							3									3
540																
541								2	1							3
580													1			1
581							3	2	1							6
582																
600	1						10	74	55							140
700	9						7	19	10	1				1		47
788	4						3	9	3	2	9	4	14	95	53	196
RELAY MALF. TOTALS	14						30	106	70	3	9	4	14	97	53	410

TOTAL SAFETY M.

MALFUNCTION MEANINGS

FSR - FIRES WHEN SAFE IS RELEASED - SELF EXPL.

JO - JARS OFF (HAMMER FAILS TO STAY ENGAGED WITH SEAR AND FALLS DOWN WHEN GUN IS JARRED.)

FD - FOLLOWS DOWN (COCKING PIECE FAILS TO PROPERLY ENGAGE WITH SEAR AND FOLLOWS THE COCKING CAM SURFACE OF THE BOLT TO THE FIRED POSITION).

FOS - FIRES ON SAFE (GUN FIRES WITH SAFE IN "ON" POSITION WHEN TRIGGER IS PULLED).

SWW - SAFETY WON'T WORK - SELF EXPL.

010000150

* - 1975 DATA FROM DEC. 26, AM TO APRIL 29, 1975 ONLY.

141

[illegible]

03583

010000151

03584

Bower
6/2/75

M/600 - SAFETY FUNCTION TEST - PRELIMINARY SUMMARY

Period - Start of Test 4/14/75 to 5/30/75

Total guns received 585

Guns received with box marked OK (Previously tested) 88

Of 88 guns received with box marked OK - All guns passed both the worst test and trick test.

Of the remaining 497 guns:

2 failed the worst test
322 failed the trick test

Of the 322 guns which failed the trick test:

316 repaired by installing swaged Safeties
6 guns replaced by Custom Repair

Of the 2 guns which failed the worst test:

2 repaired by installing swaged Safeties

RECEIVED

JUN 03 1975

G. W. MARTIN

010000152

REMINGTON ARMS COMPANY, INC.

Field Servi
Bpt., Conn.

RECOMMENDED GUNSMITH CALL REPORT

63585

Shop SWELL CROSS GUN SHOP Reporter F. W. Woodrick Date Jan 25, 71

Address 4101 East Rosedale St. Fort Worth, Texas Zip 76105
Street City State

Type of Business Sale & repair Dealer ☒ Large ☒ Small ☐

Persons Interviewed Mr. Swell Cross Position Owner & Gunsmith

GENERAL DISCUSSION

This shop performs much of the warranty work for the Dallas office so had a few problems that have not been encountered before:

Had 2 M788's that would fire with the safety on--one from a Gibson Store which was Serial .038572, 30/30 and one from Nash Hardware stock--a M788 6811 76003736 Code 0384--installed new fire controls in both and will return the defective ones to Ilion.

Mention was made of three M788's misfiring--the only thing Mr. Cross did to them was to adjust the bolt plug so they would thread in a half turn more --advised this does not govern the firing pin protrusion--although stated no more difficulty was encountered with them.

In the last two months have had about eight M1100's in which the gas cylinder has come loose from the barrel assembly. This past year has had about a 100 or more feed latches breaking.

Had a M591 in which the bolt latch tip was broken off--replacement corrected it so it worked properly--another in which the fired shell would not come out of the chamber--fired case showed marks from the chamber so recommended it be returned to the factory for SPECIFIC PROBLEMS barrel chamber check.

Past year have had about a dozen M700's that close hard over the shell--usually adjustment of extractor corrects the condition--also about eight to ten trigger connectors breaking--usually only after the customer has fired a few shots--(these fire controls have not been touched) also at least twice the above number when they have been adjusted by the customer improperly.

010000153

FIELD SERVICE
BRIDGEPORT, CONNECTICUT

03586

GUNSMITH CALL REPORT

CC: E B Spencer

DATE Feb. 3, 1972

NAME WAGGONER Reporter E. E. Woodrick

ADDRESS 615 N. Valley Mills, Waco, Texas Zip 76710
Street City State

Model (X) Large (X) Small () Gunsmith on premises? Yes X No

Recommended List (X) Silent List () Other

PERSONS INTERVIEWED Mr. Leo Bradshaw Jr. POSITION Gen. Mgr.
Mr. Wesley Priess Gunsmith

GENERAL DISCUSSION

This shop reported the usual run of minor problems with our guns, mainly on the M100 & 870 the breakage of feed lathes, where many come from the customers in trying to take the guns apart, have used about 15 to 20 this past season. Today had a M530 in which the left ctr. was broken and ext. ring missing--Mr. Priess felt those parts should be made more substantial although has not had only a couple break since this model has been out. The bolt handles on the M788 were mentioned and had had a couple with very little brass contact--others were the result of hand loaded shells sticking with six handles broken this past year. Had a customer M700 6525977 in which was noted that customer wanted a new trigger assembly for the gun went off and shot him in the foot--at this stage the gun would only fire by holding the trigger and releasing the safety. In checking the gun found it completely out of adjustment with no seal left on the adjusting screws at all, the gunsmith will advise the customer on picking up the gun. I was handed a gun from the racks and asked if I could tell them the caliber, a new M700 with the code (U T 64) but without any marking of caliber on the barrel--this will be returned to Ilion for replacement. Mr. Bradshaw advised that in the last two years has sold over a thousand Rem. guns and is very pleased with our

IFIC PROBLEMS line with very few problems or complaints.

010000154

GUNSMITH CALL REPORT

03587

Date April 24, 1975 Reporter E. WoodrickShop Name Tillman Gun Shop, Inc. Gunsmith's Name Mr. Ken BearmanAddress 1025 Maumee Ave. Fort Wayne, Ind. Zip 46803
No. & Street City StateGunsmith on Premises? X If not, give address below:Gunsmith's Address _____ Zip _____
No. & Street City StateRecommended List (X) Open Acct. (X) 30% Disc. _____ Dealer (X) Large () Small (X)PERSONS INTERVIEWED and POSITION:1) Mr. Leonard S. Sieminski, Mgr. (2) Mr. Ken Bearman, Gunsmith
3) _____ (4) _____SPECIFIC PROBLEMS ENCOUNTERED:

- 1 M76 22 — Would not fire at times when safety was released.
- 1 N66 22 — Cartridges would jam (Cart. Stop Spring missing)
- 1 M700 BDL 25/06 6611418 Fired when safety was released—
(Trigger pull had been adjusted to 1#)
- 1 M742 30/06 7492056 PY Bolt would not unlock.

GENERAL DISCUSSION

010000155

Since my last visit to this shop both of the above men are new and was able to cover the above guns and assist in the repairs. The M76 had been in the shop for some time and was about to send it to the plant along with the new M742 in which the bolt could not be opened. This M742 had the tip of the bolt latch broken which was binding the bolt not allowing it to move, after getting the gun apart and replacing this latch the gun would operate. The M700 gun had been adjusted so the pull was only a pound and would follow down when the safety was released—after properly adjusting to 3½# the gun functioned properly and could not be tricked for any failure. In discussing the M1100 nothing specific was brought out as causing trouble, was told the biggest trouble seems to be the customers use them and put the gun away without any cleaning allowing them to rust causing the gun to fail. Both men commented that Remington

GUNSMITH CALL REPORT

817 535-2690358

Date Mar. 5, 1975

Reporter F. Woodrick

Shop Name Ewell Cross Gun Shop,

Gunsmith's Name Mr. Malcolm Cross

Mr. Lester Brooks

Address 4101 East Rosedale Street, Fort Worth Texas
No. & Street City State

Zip 76105

Gunsmith on Premises? X If not, give address below:

Gunsmith's Address

No. & Street

City

State

Zip

Recommended List (X) Open Acct. (X) 30% Disc. Dealer (X) Large (X) Small ()

PERSONS INTERVIEWED and POSITION:

1) Mr. Malcolm Cross, Owner & Gunsmith(?) Mr. Lester Brooks, Gunsmith

2) _____ (4) _____

SPECIFIC PROBLEMS ENCOUNTERED:

Hard opening on the M742 12 - 15 Guns this past year.

1 M 700 17 Rem 6543663 CW (New gun from the box) Showed discoloration on receiver--stock had slight chip out at fore end tip & finished over. Bolt slightly rusted from finger prints.

6 M700's Last Fall (when the safety was put on and trigger pulled, then in releasing the safety the gun would fire.

M788 8 Bolt handles breaking.

M66 12 rear sight where the elevation screw strips out.

M1100 3 - 10 guns in which the inter. latch stud has worn around the retainer notch and will not properly hold the latch.

GENERAL DISCUSSION

Mr. Cross and Brooks reported the above problems encountered on our guns this past year. In checking the new M700 the condition would not allow it to be sold for a new gun and suggested it be returned to the factory for correction. The men here did not think the trigger pulls on the M700's are up to the usual standard for they seldom ever heard of a complaint of this type. Both questioned about the inter. latch studs in the M1100 receiver, stating that with the number of guns in the field and all getting older the condition of the retainer moving and wearing the notch on the stud is starting to show up and no doubt will be giving this trouble, would like to see some corrective measure other than returning the receiver for a new stud. Mr. Cross stated that we are giving the best service on parts for today received a shipment posted Feb. 28 from the plant.

010000156

03601

ARM SERVICE USAGE REPORT DATE: NOVEMBER, 1974 - MARCH, 1975

PAGE 7

MODEL	PART	DESCRIPTION	USAGE
870	25375	MAG CAP	1330
870	18647	EJECTOR RIVET REAR	1228
870	20040	SHELL LATCH LEFT 12	1110
870	18646	EJECTOR RIVET FRONT	1094
870	14577	STOCK PRESS FORMED	1000
870	14532	MAIN SPG MIL	986
870	14405	ADAPTER SLEEVE SCREW	951
870	14696	MAG TUBE COUPLING	934
878	16909	SHELL LATCH LEFT 12 GA	207
878	25175	FORE END	134
878	25165	PISTON ASSEMBLY	103
878	25310	R SIGHT BASE 12GA	98
878	16965	R SIGHT BASE PIN	97
878	25860	ACT BAR ASSY	49
878	25170	BREECH BOLT ASSY COMPLETE	44
878	16967	BREECH BOLT 12 GA	24
878	19659	ACTION SPG STOP	21
878	16895	MAGAZINE CAP	19
879	16901	PISTON SPG BUSHING	25
879	14077	FORE END	4
879	29435	REC ASSY	1
88	30330	TRIGGER HOUSING ASSY L H	2

010000169

REMINGTON ARMS COMPANY, INC.

Field Service
Sgt., Col.

REPAIR REPORT

NAME CROSS GUN SHOP Reporter P. H. Woodruff Date Jan 26
Address 4101 East Rosedale St. Fort Worth Texas Zip 76105
Street City State
Type of Business Sale & repair Dealer (x) Large (x) Small ()

Persons Interviewed Mr. Floyd Cross Position Owner & Gunsmith

GENERAL DISCUSSION

This shop performs much of the warranty work for the Dallas office so had a few problems that have not been encountered before:

Had 2 M788's that would fire with the safety on--one from a Gibson Store which was Serial 038372, 30/30 and one from Nash Edwe stock--a M788 671 #6003736 Code 0384--installed new fire controls in both and will return the defective ones to Ilion.

Mention was made of three M788's misfiring--the only thing Mr. Cross did then was to adjust the bolt plug so they would thread in a half turn more. advised this does not govern the firing pin protrusion--although stated no more difficulty was encountered with them.

In the last two months have had about eight M1100's in which the gas cylinder has come loose from the barrel assembly. This past year has had about a 10 or more feed latches breaking.

Had a M591 in which the bolt latch tip was broken off--replacement corrected it so it worked properly--another in which the fired shell would not come out of the chamber--fired case showed marks from the chamber so recommended it be returned to the factory for SPECIFIC PROBLEMS barrel chamber check.

Past year have had about a dozen M700's that close hard over the shell--usually adjustment of extractor corrects the condition--also about eight to ten trigger connectors breaking--usually only after the customer has fired a few shots--(these fire controls have not been touched) also at least twice the above number when they have been adjusted by the customer improper

66

cc: E. Sparre
J.G. Williams
A.J. Sperling

Bridgeport, Connecticut
June 23, 1975

SUBJECT: MODEL 600 FIRE CONTROL STUDY

The Product Safety Committee met June 20, 1975, in
Illion to review the Model 600 fire control investigation.

In summary, (Bob Sperling will issue the meeting
minutes) the Production and Research plans to improve bolt
action fire controls were accepted. The recent audit indicates
the new procedures instituted by the Plant have eliminated the
"trick" safety condition on all bolt action guns. Design
improvements which will be in production within the next six
months will give additional assurance there will be no recur-
rence of the problem.

It was agreed that the section of the gunsmith manual
which covers bolt action fire controls will be rewritten to
include the additional checks and recommended corrective action
for the "trick" safety condition.

No further action is contemplated at this time.

EFB/ab

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"

AUGUST 27, 1975

J. W. BOWEN

M/600 SAFETY FUNCTION AUDIT - FINAL REPORT

During the past year the design of the M/600 Fire Control was revised because of the possibility of tricking the gun, and firing it when the Safety was released. An audit was made, in Illinois, from April 14, 1975 to June 19, 1975, to determine the reliability of the Safety on M/600's currently in the field. This audit consisted of inspecting 615 total guns returned from the field. This sample represents guns that were shipped from 1970 through 1975, and to dealers scattered throughout the United States.

Results:

1. 0.3% of the returned guns (2) failed the worst test, as defined in Appendix I.
2. 55.6% of the returned guns (342) failed the trick test, as defined in Appendix I.
3. A total of 90 guns were received with the box marked OK. This represents guns shipped after revised inspection procedures, to check for proper Gear lift, were instituted. Of these, all passed both tests. See Appendix III.

J. W. Bowen
J. W. Bowen, Supervisor
Process Eng. - Current Products

4/23/75

UNPACK

Pull staples and open packing case.
Record Dealer and Wholesaler on form.
Record Serial Numbers on form.
Cut Seal.
Open box, remove rifle, remove Rifle (INSPECT FOR LIVE AMMO.)
Unpack Seal, remove Seal, Rifle to Truck. Rifle box returned to Case.
Number case and truck section with same no.
Verify Serial No. of guns - match serial nos. on cases.

INSPECT

Worse
Test
Pick Rifle, inspect for live ammo. Close and lock Bolt.
(Pull Safety back to "ON" position.
(Pull Trigger, No Click, Trigger retracts.
(Push Safety forward to "OFF" position.
(Firing Pin remains cocked.
Try 3 times.
1 In addition to passing Worse and Trick Test, .008 shim must go freely between
Sear and Trigger when Safety is on.

Trick
Test
(Pull Safety back to "ON" position.
(Push Safety halfway off, pull Trigger.
(Firing Pin remains cocked, no click, Trigger retracts.
(Push Safety lightly, must spring forward to full "OFF" position, Firing Pin
(remains cocked.
Try 3 times
1 In addition to passing Worse and Trick Test, .008 shim must go freely between
Sear & Trigger when Safety is on.

If Rifle fails either test:

Remove Stock, replace Safety with a swaged one, reassemble Safety with a new
Safety Pivot Pin and snap washer making certain that snap washer is and stays
engaged on both sides.

Repeat both tests - Return passed Rifle to truck and fill out record form.
Inspected Rifle, replace entire Trigger Housing assembly to pass tests.

After the gun has been repaired, or when both tests have been tried and passed,
the tester will stamp his mark adjacent to the Final Inspection stamp.

Notes

[illegible]

FRANCO 111

8/26/75

M/500 - SAFETY FUNCTION TEST - FINAL SUMMARY

Period - Start of Test 4/14/75 to 6/19/75

Total guns received 615

Guns received with box marked OK (Previously tested) 90

Of 90 guns received with box marked OK - All guns passed both the worst test and trick test.

Of the remaining 525 guns:

2 failed the worst test
342 failed the trick test

Of the 342 guns which failed the trick test:

335 repaired by installing swaged Safeties
7 guns replaced by Custom Repair

Of the 2 guns which failed the worst test:

2 repaired by installing swaged Safeties.

SECRET

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M/600 SAFETY FUNCTION AUDIT
(By Quarter)

<u>Shipping Date</u>	<u>Actual Count</u>	<u>Failed Worst Case</u>	<u>Failed Threshold</u>	<u>% Failed</u>
1st Quarter - 1975	119	-	32	27%
4th Quarter - 1974	216	-	99	46%
3rd Quarter - 1974	27	-	22	82%
2nd Quarter - 1974	10	-	8	80%
1st Quarter - 1974	22	1	16	77%
4th Quarter - 1973	187	1	144	78%
3rd Quarter - 1973	3	-	2	67%
2nd Quarter - 1973	11	-	7	64%
1st Quarter - 1973	-	-	-	-
All - 1972	5	-	2	40%
All - 1971	-	-	-	-
All - 1970	15	-	10	67%
Total	615	2	342	56%

1000
1/20/75

<u>NAME OF WHOLESALE</u>	<u>TOTAL RETURNED</u>	<u>NO. FAILED WRITH TEST</u>	<u>NO. FAILED WORTH TEST</u>
1. Carter's Country Houston, Texas	220	169	2
2. Sporting Goods, Inc. Houston, Texas	118	1	0
3. Sports Search, Inc. Lake Charles, La.	70	32	1
4. Nationwide Sports Distributors Southampton, Pa.	62	39	0
5. Jensen-Byrd, Co. Spokane, Washington	24	19	0
6. Leslie Edelman of N.Y. Farmingdale, N.Y.	14	6	0
7. John's Sporting Goods Canton, Ohio	8	8	0
8. Grand National Sports Supply Buffalo, N.Y.	3	3	0
9. Edelman's of N.J. Sauken, N.J.	3	3	0
10. Leslie Edelman, Inc. Southampton, Pa.	7	3	0
11. Outdoor Sports Hdqts, Inc. Dayton, Ohio	5	0	0
12. Max L. Lerner Sporting Gds. Boothwyn, Pa.	1	0	0
13. Edelman's Inc. Wayne, N.J.	5	3	0
14. Grand Nat'l Shooters Supply Tonawanda, N.Y.	1	1	0
15. All Sports Supply, Inc. Portland, Oregon	0	1	0

Remittance Schedule

DEBIT OR CREDIT		PAID RETURNED	PAID TRUCK FUEL	PAID TRUCK FUEL
16.	Harco Truck Co. Ballington, Washington	7	7	0
17.	Manchesters Langley, Washington	2	1	0
18.	Swanson's Bogus, Washington	5	5	0
19.	Jerry's Gun & Supply Oregon, Mo.	3	0	0
20.	Del Mar Distributing Co. Corpus Christie, Texas	6	3	0
21.	La Verna Firearms Service Portage, Wisc.	1	0	0
22.	Marlow's Custom Tackle	4	3	0
23.	Mountainers Rod & Gun Club	1	1	0
24.	Vernon S. Drake	1	1	0
25.	Ackley & Son Westfield, Pa.	1	1	0
26.	V. F. Grace, Inc. Anchorage, Alaska	4	3	0
27.	Hughes Gun Repair	5	3	0
28.	Katz's Gun Shop	3	2	0
29.	The Gun Shop, Inc.	6	4	0
30.	Welborn Enterprises	1	1	0
31.	Bob's Merchandise, Inc.	7	6	0
32.	Disco Sporting Goods Coos Bay, Oregon	2	1	0

APPENDIX T (continued)

NAME OF FIRM/DEALER	TOTAL RETURNED	NO. OF BANDS RETURNED	NO. OF BANDS RETURNED
33. Boston W. Company	1	1	0
34. Frontier Sporting Gds.	6	1	0
35. Valley Sports & Hdwe. Shohomisk, Wash.	3	0	0
36. Stewarts Sport Shot Coos Bay, Oregon	2	1	0
37. Village Trading Post	2	2	0
Total	615	342	2

Malfunction Index

1 of 5

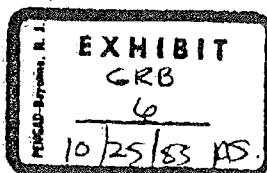
CODE			CODE		
1	AD	Action binds	29	CS	Cases swell (concave/convex)
2	ASFW	Action Spring Follower binds	30	CWSB	Cams wrong side of Bar
3	BHS	Bolt hits Safe	31	CTP	Creepy Trigger pull
4	BCOF	Bolt catches on Follower	32		
5	BAC	Burr at chamber	33	DYL	Don't Ext. Live Rd.
1	BB	Bolt binds/catches	34	DEB	Don't blow back
6	BBB	Barrel binds back	35	DE	Don't eject
7	BC	Blows cases	36	DEL	Don't eject live round
8	BOBS	Bolt catches on Bolt Stop	37	DFB	Don't feed back
9	BOOE	Bolt catches on Ejector	38	DFU	Don't feed up
10	BCPS	Bolt catches rim of shell	39	DLB	Don't lock back
11	BDC	Bolt doesn't cam	40	DLO	Don't lock open (last shell)
12	BLOP	Bar Lock/Disc. out of position	41	DLU	Don't lock up
13	BPO	Bolt pulls out	42	DCU	Don't close up
14	BSSN	Bolt stems shell in Magazine	43	DO	Doubles (fires automatic)
15	BSB	Bolt Stop binds	44	DSM	Drops shells - Magazine
16	BHR	Bolt hits Receiver	45	DTL	Don't trip latch
17	BWCFM	Bolt won't close - full Magazine	46	DR	Don't release
18	BSAD	Barrel Support came out	47	DX	Don't extract
19	BLW	Barrel Lug shot off	48	DCT	Double click in Trigger
20	BRB	Breech Ring broken	49	DCS	Double click in Safety
21	CBS-F	Shells catch on Bbl. Support - feeding	50	FC	Fails to connect
22	CBS-L	Shells catch on Bbl. Support - loading	51	EDS	Extractor drops shell
23	CC	Carrier catches on shell in Mag., on Latches, on Receiver	52	ESB	Ejector sticks back
24	CH	Closes hard	53	ESCR	Empty shell catches Receiver
25	CHAB	Carrier hits Action Bar	54	ESS	Extractor stems shell
26	CLM	Can't load Magazine	55	FB	Follower binds
27	CO	Cut off			
28	CR	Cuts rim			

EXHIBIT

GRB

6

10/25/83 PS.



FUNCTION INDEX

- 2 -

CODE	FUNCTION	CODE	FUNCTION
56	FF Fails to fire	84	JO Jars off
57	FFM Fails to feed from Magazine	85	
58	FFP Flat Firing Pin	86	
59	FH Feeds high	87	
60	FOS Fires on safe	88	LB Light blow
61	FRPB Firing Pin hits Barrel	89	
62	FRO Floor plate opens	90	
63	FRPH Floor plate opens hard	91	
64	FSR Fires when safe is released	92	MAH Magazine assembles hard
65	FT Follower tips	93	MCH Magazine capacity wrong
66	FUH Feeds up hard	94	MF Misfires
67	FD Hammer follows down	95	MFOP Magazine follower out of position
68	FPHI Firing Pin hits inside rim	96	MH Min. header
69	FA Fires Automatically (See #43 DO)	97	HL Magazine loose (falls out)
70	MEL Heavy Bolt left	98	PLH Magazine loads hard
71	MUE Hard under Extractor	99	MPH Magazine removes hard
72	MUR Hard under rail	100	HK Max. header
73	GRSO Guide Ring shot off	101	MCSO Magazine Cap shot off
74	GCSO Gas Cylinder shot off	102	
75		103	NBP No Barrel pin
76	ILOP Interceptor latch out of position	104	
76	IIRH Interceptor latch retainer missing	105	
76	ILSOP Inter. latch spring out of position	106	OH Opens hard
77	ILSB Interceptor latch stud broken	107	OOS Opens on safe
78		108	OR Over rides shell
79		109	
80	JBS Jumps Bolt stop	110	
81	JCS Jumps cartridge stop	111	
	JL Jumps Latch	112	PH Pulls heads
83	JM Jumps Magazine	113	POR Power over ride

MALFUNCTION INDEX

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CODE

114
115
116
117 RC Rough chamber
118 RDW Release don't work
119 RS Rim stem
120
121 SHTL Shell hits top lock
122 SCX Shell catches extracting
123 SHI Short indent
124 SBC Stems bottom chamber
125 SBE Stems Barrel extension
126 SC Stems chamber
127 SCOD Shell catches on disconnecter
128 SHFP Shell hits firing pin
129 SI Stems incline
130 SL Shaves lead
131 SLC Stems left side of chamber
132 SOR Stem over ride
133 SP Stems port
134 SRC Stems right side of chamber
135 STC Stems top of chamber
136 SSC Shells stem carrier
137 SWE Safety works too easy
138 SWH Safety works too hard
139 SWW Safety won't work
140

CODE

141
142 TLDL Top lock doesn't latch
143 TD Tips down
144 TU Tips up
145 TWW Trigger won't work
146
147 XH Extracts hard
148 XHB Extractor hits Barrel
149
150 Uncoded defects
151 HI
152 LOW
153 LEFT
154 RIGHT
155 DON'T GROUP
156 OTHER (VISUAL)
157
158
159
160
161
162
163
164
165 BOE Burr on ejector
166 EHR Ejector Hammer releases

TARGET
SHEETS
ONLY

9/15/75
GRB

MALFUNCTION INDEX

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CCDE

167 FELI Fore End loose on iron

168

169 FESO Fore End shoots off

170

171 FPP Firing pin protrudes

172

173 TLB Top lock binds

174

175

176

177

178

179

700 = ADL

7001 = WIN BDL - includes Classic

7002 = VARMINT

7003 = Left HAND

PROOF MALFUNCTIONS

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CODE

180	AI	Assembly incomplete - proof
181	BC-P	Blows cases at proof
182	BEB-P	Barrel extension broken - proof
183	BS-P	Barrel split - proof
184	DLOS-P	Doesn't lock over shell - proof
185	ESB-P	Ejector sticks back - proof
186	FF-P	Fails to fire - proof
187	GRSO-P	Guide ring shot off - proof
188	GCSO-P	Gas cylinder shot off - proof
189	BLSO-P	Barrel lug shot off - proof
190	BRB-P	Breech ring broken - proof
191	MCSO-P	Magazine cap shot off - proof
192	DLO-P	Doesn't lock open - proof
193	FESO-P	Fore-end shoots off - proof
194	PP-P	Pierced Primer - proof
195	BP-P	Blown Primer - proof
196		
197		
198		
199		
200		Uncoded proof malfunctions