

# CUSTOMER COMPLAINTS

Long before the Walker Fire Control was first introduced into a Remington rifle, Remington recognized the importance of customer input.

Customers were conceived as sources of input, in lieu of government inspectors, for testing and acceptance of Remington firearms.

Remington Production Document Bates # R2500597 –R2500627

EXPERIENCES  
IN THE  
DESIGN & MANUFACTURE  
OF  
SHOTGUNS & RIFLES

REMINGTON  
DUPONT

Bridgeport, Connecticut, U.S.A.  
October 1945

## FOREWORD

The information compiled herein represents the contributions of many individuals of long service and varied experience in our organization. It comprises certain factual data based on analyses of our past experiences in the manufacture of shotguns and rifles and the performance of those weapons in the hands of our customers.

We believe that our employees are just as anxious as Management for maintenance of the quality, usefulness and economic value of our products. To develop and hold high quality standards we all recognize that we must practice constantly the habit of accuracy and thoroughness. Loose inspections and inattention to details are bound to lead to a minimum of good quality which in turn reduces our sales and affects the economic stability of the organization. The quality of our products must exceed that of our competitors at all times as our ultimate customers not only determine if our product is acceptable, but; of more importance, whether or not we stay in business. Therefore, in the manufacture and assembly of component parts for our shotguns and rifles we must maintain a quality consciousness which will ensure the contribution of good workmanship on the part of all members of the organization as they perform their daily tasks.

The recording of good accomplishments along with the focusing of attention upon existing weaknesses should serve as a guide or reference for those who assume the factory tasks as replacements in production during future years.

Now that war work is discontinued, if we can visualize our customers in place of Government inspectors awaiting our products for test and acceptance, we will go a long way toward building up an army of satisfied users of Remington Sporting Arms with attendant benefits toward our economic security.

Therefore, we are confident that all will unite in efforts to bring about new developments and improved designs combined with accurate fabrication and proper assembly so that Remington Quality may be maintained at a level unsurpassed in the industry.

*W. L. Olney*  
W. L. Olney  
Manager of Quality

THE EFFECT OF THIS KIND OF ACCIDENT UPON THE SHOOTER.

## SAFETY DEVICES:

Some mechanical safeties previously employed were so designed that the user of the gun would occasionally pull the trigger while attempting to "put on" or "take off" the safety. This was a former weakness in the Model 11 Shotgun, also in the Model 29 (Model 10). In both guns the former safety was located just in front of the trigger. It was a sliding unit which was pulled to the rear to lock the action or put the gun on safety, and was pushed forward to the firing position. Occasionally a shooter in attempting to put the safety "on" would allow his finger to slip off of the safety and strike the trigger, thus discharging the gun accidentally. It was also possible accidentally to discharge the gun while pushing the safety from "safe" to the firing position. Men with large fingers or wearing gloves could strike the trigger just to the rear of the safety with sufficient force to fire the arm. The effect of the accidental discharge of a high powered rifle or a shotgun is dangerous and annoying. It is sometimes accompanied by personal injury either to the shooter or

to adjacent bystanders. The shooter, of course, will invariably blame the arm.

In several instances this deficiency was overcome by changing the design of the safety to a cross bolt at the rear of the trigger guard.

## RULES APPLYING TO ALL TYPES OF ARMS

### GENERAL RULES:

The gun must be safe. It must withstand a free fall of about 6", striking on the butt. A new model must be tested for "jar off" in various ways as sometimes a slight blow on top of the receiver or butt stock will cause the notches to separate resulting in a jar off. There have been cases where closing a slide action gun too hard would give the same result.



The Model 721 was the first model equipped with the Walker Fire Control. It was introduced in March of 1948. By August of 1948, 3 field complaints surfaced of rifles that would fire upon release of the safety.

Remington Produced Document Bates # AL031908

Elion, New York  
August 25, 1943

PROGRESS REPORT

MODEL 721-722 FIRE EXTINGUISHER AND SAFETY

INTRODUCTION

Three field complaints have been received which reported the "M" 21 fire extinguisher firing when the Safety is moved to the "off" position. Two guns represent two of the complaints were tested at Elion without it being possible to reproduce the defect.

It is, however, theoretically possible under very remote conditions to experience this problem and the Elion Design Meeting of July 15, 1943, recommended an immediate investigation be made to develop an alternative design which would eliminate the hazard.

OBJECTIVE

With knowledge of the field complaints, Remington recognized in 1948 that its *“potential liability for the safety of our product is somewhat augmented.”*

Remington Produced Document Bates # R2501440



REMINGTON ARMS COMPANY, INC.

INTER-OFFICE CORRESPONDENCE

Remington

SUPER

PETERS

SUPER

Bridgeport, Connecticut

August 31, 1948

TO: MR. S. M. ALVIS,

From: MR. A. J. Greene,

Subject: MODEL 721 SAFETY

The gun mentioned in your letter of August 27th was duly delivered to us by Mr. Pinckney, and is returned to him with his copy of this letter. We are unable to secure a malfunction of its safety, and deem its construction a substantial improvement over the model which we had previously examined.

Our usual potential liability for the safety of our product is somewhat augmented by our knowledge that some Model 721 safeties have malfunctioned. However, our liability does not seem to be out of proportion to the advantage of retaining the present sear and safety construction, pending receipt of further complaints from the field.

We note that in the production gun which you supplied the three adjustment screws in the trigger assembly are not staked, as they were in the earlier models. We believe it important that these screws, particularly the one which determines the amount of engagement of connector and sear, be so sealed as to afford a positive indication when our factory adjustment has been altered.

AJG/m

*A. J. Greene*  
A. J. GREENE,  
Patent Attorney.

*out  
of  
work  
Notified  
H.F.N. - 9/7/48  
A. J. Greene  
H.F.N.*

After noting a 2% malfunction rate is “too high”, Remington in 1953 re-affirmed its belief that *“complaints from customers is one of our principal yardsticks, especially as to ‘what will be acceptable.’”*



January 9, 1953

TO: W. A. Best

FROM: S. M. Alvis

SUBJECT: MODEL 721 QUALITY & ENDURANCE TESTING

Under date of January 5th, C. J. Theriault, of the Testing Unit, issued report of results covering the quality and endurance test for the Model 721 which was conducted by Research during 1952. In this connection, a conclusion was made with respect to adequacy of functioning. This conclusion was based on assumptions with respect to the original trial and pilot test as made for this model many years ago.

We have since discussed the matter with C. J. Theriault and believe have reached an agreement as to the fallacy of such a policy. In other words, we often assume certain calculated risks in connection with new models but only on basis of confidence that required standards of quality will be attained as production improvements are made. Then too, we must all agree that the complaints from customers is one of our principal yardsticks, especially as to "what will be acceptable", and we believe that everyone will agree that a 2% malfunction rate in a bolt action gun of this type is too high and that the results of any such tests should be carefully analysed in an effort to use the information to the best possible advantage towards improving our quality.

We have, therefore, suggested to C. J. Theriault that in future reports of this type, they will simply record and report on the factual results and, where practical, to give comparisons of previous testing. No attempt should be made to judge adequacy.

  
S. M. Alvis

Arms Research & Development Division

SMAL:J

Even authorized Remington gunsmiths proposed solutions for incidents of unintended firings upon closure of the bolt or release of the safety.

Remington Produced Document Bates # 1295002285

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

*Realistic*  
RECEIVED

*PERMANENT*  
RECEIVED

*Wayne*

*We can do this for SMT*

Bridgeport, Connecticut,  
June 18, 1957.

TO:

MR. S. M. ALVIS, Ilion

FROM:

JAMES D. CRANFORD

SUBJECT:

SEAR AND TRIGGER ASSEMBLY--MO. ELS 721-722

T. E. SHORTEN  
423 Bridge Street,  
Weatherford, Texas

We forward today, under separate cover, a box containing a revised trigger and sear assembly for the Model 721 and 722 rifles. This unit was submitted to us by an outside inventor, one T. E. Shorten, who operates the Shorten Gun Shop of Weatherford, Texas.

Mr. Shorten states that he has had several 721 and 722 rifles in for adjustment because the sear would release when the bolt was closed or the safety was released. His redesigned unit is supposed to correct this.

Mr. Shorten is aware that the present working model is rough, but he asks that we evaluate the construction and functioning. It may be that your group can evaluate the structure from the crude drawing of Shorten's and the model, without putting it in a rifle. I don't know. In any event, please give me your opinion of his structure, for communication to him. We will have to return the model to Shorten, of course.

Thank you very much.

JDC/AMH  
JDC:1  
JDC:1

*James D. Cranford*  
JAMES D. CRANFORD,  
Assistant Patent Attorney.



In 1968, Consumer Reports  
published that the Model 700  
*“would fire without warning.”*



## Varmint Rifles

THE FIVE CHECK-RATED MODELS WERE ACCURATE ENOUGH TO HIT SMALL VARMINTS AT LONG RANGES

The varmint hunter is in some ways more fortunate than his fellow Nimrods who go out for big game. He can usually hunt near home in any season and without limit on his bag; and some farmers, bedeviled by crows, woodchucks and such, will allow the varminteer to shoot in their fields.

But while an old .30-30 may still bring home the venison, the varminteer needs a long-range precision rifle. It will normally be a rifle chambered for a cartridge with a rather heavy powder charge and a comparatively light bullet of small diameter. That combination results in a flat trajectory and long effective range (up to about 400 yards for some calibers), and in a bullet that tends to disintegrate when it hits an obstacle, rather than ricochet dangerously.

Varmint hunters have used many calibers, from the little .22 Long Rifle to the .30-06. At the lower extreme, you have a short-range cartridge with a slow-moving, high-trajectory bullet that ricochets easily—not suitable or safe for most varminting. At the other extreme, you have a big-game cartridge, that has a large-diameter bullet with too high a trajectory for accuracy over long range, plus a lot of recoil and a report loud enough to make your ears ring and to startle someone taken unawares. In between is anyone's land. The venerable .22 Hornet is on the small side by today's standards and seems to have lost much of its popularity. And the famed .220 Swift, which delivered higher velocity and flatter trajectory than any commercial cartridge before or since, proved to have drawbacks. (It was extremely loud, some claimed it tended to wear out barrels rapidly, and its relatively light bullet was too easily deflected by the wind, among other things.)

Among the most popular varmint-hunting cartridges today are the .222 Remington and the .22-250 Remington. The .222 has an effective range of up to about 300 yards and a relatively mild report; the .22-250 has a maximum effective range of about 400 yards, but a considerably bigger bang. On the advice of our consultants, we decided to limit our report largely to rifles of those two calibers. Two other calibers, the .243 Winchester and the .244 Remington, have been widely used for varmint shooting in the West. But they're a bit heavy for varmints smaller than the coyote or fox, and a bit loud for use away from the wide open spaces.

We purchased 13 models in 11 major brands. Eight rifles were .22-250s and four were .222s (models available in both calibers were tested in .22-250). The other tested rifle, the popular Winchester 70, was not available in either cali-

ber at the time we purchased our test models, although it's now being made in .22-250. Our Winchester fired a .225 caliber bullet, slightly shorter in range than the .22-250.

All the models we tested are repeaters, except for the top-rated Ruger. That unique rifle has a dropping-block, single-shot action. You operate it by pushing down a hinged lever extending beneath the trigger guard.

### The rifle versus the varmint

Above all, the varmint rifle must be accurate. A bullet that hits the target a couple of inches off your aiming point can still bring down a deer, but it may completely miss a prairie dog, crow or woodchuck. To meet our consultants' standard of accuracy for a rifle often called upon to hit small targets at long distances, a rifle must be capable of grouping all its shots within a circle of about one inch diameter at 100 yards (one minute of angle, or MOA). We fitted each rifle with a high-quality, high-powered telescopic sight and, after a 50-shot "break-in," fired groups of five shots from a rest.

We tested all the rifles with commercial ammunition and checked most of them with carefully hand-loaded ammunition as well. As would be expected, the rifles fired with both types of ammo proved more consistently accurate with the hand-loaded type than with the commercial product. The check-rated Tradewinds, for example, shot slightly outside the MOA with commercial ammo, within the MOA with hand-loaded ammo.

Nine models were judged consistently capable of MOA accuracy with either type of ammunition. The B&R was only slightly outside the MOA limit; the Savage 340 and the similar Western Field were significantly further out.

We checked the .222 cases for excessive expansion. All checked out satisfactorily, indicating that cases fired in these rifles could probably be reloaded up to about 20 or 30 times.

While firing for accuracy, we judged the quality of the trigger pull and the smoothness and ease of operation of the bolt and the repeating mechanism. As a group, our varmint rifles exhibited better trigger performance than most guns of other types CU has tested in the past. That is as it should be, since a good trigger pull—light and without noticeable creep—contributes greatly to the accuracy a varminteer must have. A pull of four or five pounds is about right. A heavier pull may cost you in steadiness; a lighter pull risks accidental discharge.

You may have to adjust the trigger pull—or have a gunsmith do it—once you get the rifle home. We judged the trigger pulls on most of the tested rifles a little heavy as received, but the pull was adjustable on all but the three lowest-ranked models. Where a trigger showed noticeable creep, it's mentioned in the Ratings.

The lightest trigger pull was on the Tradewinds, which has a double-set trigger. To set the front trigger, the one that fires the rifle, you must first pull the rear trigger rather hard (about seven pounds on our sample). Then the front trigger responds to a pull that can safely be set very light indeed. Ours was adjusted for less than a one-pound pull.

The five check-rated models were judged very good in both trigger pull and mechanical operation (see table, page 158); and, of course, they were judged consistently capable of meeting the minimum MOA criterion, at least with hand-loaded ammunition.

The sixth-ranked rifle, the Remington 700, exhibited a potentially dangerous flaw as first tested. There was so little clearance between the trigger and the trigger guard that when the trigger was pulled with the safety on (something you or a friend might do when sighting down the rifle or trying it for feel), the trigger sometimes failed to return to its forward position. And with the trigger in the back position, the rifle would fire without warning the next time the safety was moved to the fire position. The malfunction persisted for more than 100 firings before the trigger wore in and performed normally. An unwary buyer might have caused a serious accident by then.

Although we judged the deficiency more a sample defect than a design shortcoming, we nevertheless downrated the Remington 700 because of it. We would warn anyone buy-

ing a rifle to test the safety in the store. If the trigger can be moved with the safety on, make sure it returns to its forward position after you pull it.

We also gave weight in the Ratings to checkering and other grip-improving devices. Those qualities affect not only the appearance of the rifle (an important matter to many purchasers) but also the ease of holding and firing. Good, sharp checkering helps you keep a firm grip; a raised checkpiece helps you position your hand for a good sighting picture. The stocks of all but five models (Ruger, Savage 110C, Remington 700, Savage 340 and Western Field) had raised checkpieces, and all but the Remington 700 had checkered grips and fore-ends. Cut checkering (formed by actual removal of wood) generally provides a better grip than impressed checkering. The Ruger, Weatherby, S&W, Browning, Tradewinds, BSA and H&R models had cut checkering. The Winchester, Savage 110C, Savage 340 and Western Field had impressed checkering that we judged not sharp enough to help your grip much. The checkering on the Remington 700, though impressed, did provide enough friction to improve the grip.

### Special needs, special features

The varmint hunter may drive around a good deal between shops, looking for his game. So he should be able to unload his rifle quickly, without working each cartridge through the action (it's dangerous to carry a loaded gun in a car, and equally illegal). With eight of the tested repeaters you could remove cartridges easily through a hinged floor plate at the bottom of the magazine. Five models had a removable box magazine, also judged satisfactory.

Rather than load and unload a magazine, many varmint



In the 1970's, gun examinations of rifles returned by customers were conducted by "C. Prosser."

On many occasions, Mr. Prosser examined rifles wherein complaints were made that the rifle had fired upon release of the safety or closure of the bolt.

At varying times, examined rifles would be found to have metal shavings or chips or other conditions that reduced the engagement between the sear and the trigger connector.

Remington Produced Documents Bates # AL0029765, PPS03693, AL0029724, AL0029723, AL0029714, and AL0029713

P.I. NO GUN EXAMINATION REPORT NUMBER: \_\_\_\_\_ MODEL: 700 ADL  
 GENERAL CONDITION: GOOD R #: 22791  
 OUTSIDE WORK: NO DATE: 11-12-71  
 FROM: CHRISTY GUN WORKS  
 FIRED AMMO TYPE: \_\_\_\_\_ SACRAMENTO, CAL.  
 & CONDITION: \_\_\_\_\_ GUN #: 6372120  
 PROOF: R.E.P.A. INSP.: NONE TEST: 13 CODE: No Cod  
 HEADING: BOLT CLOSING ON ASSEMBLY MAX. GA./CAL.: 3006  
 BREECH OPENING: \_\_\_\_\_ CHECKED BY: C. PROSSER  
 RECOIL SHOULDERS: O.K. APPROVED: \_\_\_\_\_  
 CHAMBER: O.K. APPROVED: \_\_\_\_\_  
 TEST: NO APPROVED: \_\_\_\_\_  
 COMPONENT CONDITION: (Damaged, Broken, Old Style)  
NO DAMAGED COMPONENTS. APPROVED: \_\_\_\_\_

EXHIBIT

15

COMPLAINT: GUN FIRES WHEN SAFETY IS RELEASED.INCIDENT: FOLLOW DOWN.

COMMENTS: MALFUNCTION NOT VERIFIED BY WRITER.  
HOWEVER, EXAMINATION OF THE TRIGGER REVEALS  
SEVERAL SMALL METAL SHAVINGS WHICH MAY HAVE,  
IF CONCENTRATED IN ONE POSITION, REDUCED THE  
ENGAGEMENT TO A DANGEROUS LEVEL.  
TRIGGER PULL WAS FOUR POUNDS, SEAR-CONNECTOR  
ENGAGEMENT WAS .020.

PLAINTIFF'S  
EXHIBIT

AL 0029765

Customer Complaint  
CHIP

P.I. NO GUN EXAMINATION REPORT NUMBER: \_\_\_\_\_ MODEL: 700 BDL  
GENERAL CONDITION: NEW R# : 010030  
OUTSIDE WORK: NO DATE: 5-1-72

FROM: ODELL HOWE, CO.  
GREENSBORO, N.C.  
FIRED AMMO TYPE: \_\_\_\_\_ GUN #: 6429469  
& CONDITION: \_\_\_\_\_ CODE: EVA 10/71  
PROOF: R.F.P.H. INSP.: 51 TEST: 13 Rpt./OAL.: 3006  
HEADING: O.K. CHECKED BY: C. PROSSER  
BREECH OPENING: \_\_\_\_\_ APPROVED: \_\_\_\_\_  
RECOIL SHOULDERS: O.K. APPROVED: \_\_\_\_\_  
CHAMBER: O.K. APPROVED: \_\_\_\_\_  
TEST: NO. APPROVED: \_\_\_\_\_

COMPONENT CONDITION: (Damaged, Broken, Old Style) APPROVED: \_\_\_\_\_  
NO BROKEN COMPONENTS. CONNECTOR, SEAR ENGAGE-  
MENT .008 MIN. 13.020 ALSO FOUND METAL CHIP  
BETWEEN TRIGGER & CONNECTOR.

COMPLAINT: WILL NOT FIRE

INCIDENT: FOLLOWS DOWN.

COMMENTS: THE METAL CHIP BETWEEN THE TRIGGER AND  
CONNECTOR REDUCED THE CONNECTOR-SEAR ENGAGE-  
MENT TO ZERO CAUSING THE FOLLOWS DOWN.



P.I. NO GUN EXAMINATION REPORT NUMBER: \_\_\_\_\_MODEL: 700 BDLGENERAL CONDITION: NEWR #: 026826OUTSIDE WORK: SCOPE MOUNTEDDATE: 12-18-72FROM: DICK'S SPT. SHOP

FIRED AMMO TYPE: \_\_\_\_\_

STAHLSTOWN, PA.

&amp; CONDITION: \_\_\_\_\_

GUN #: 6223531PROOF: R.E.P.

INSP. \_\_\_\_\_

?

TEST: 87CODE: AS-3/69HEADING: O.K.GA./CAL.: 3006

BREECH OPENING: \_\_\_\_\_

CHECKED BY: C. PROSSERRECOIL SHOULDERS: O.K.

APPROVED: \_\_\_\_\_

CHAMBER: O.K.

APPROVED: \_\_\_\_\_

TEST: NO

APPROVED: \_\_\_\_\_

COMPONENT CONDITION: (Damaged, Broken, Old Style)

APPROVED: \_\_\_\_\_

SEAR-TRIGGER CONNECTOR ENGAGEMENT .015 (MIN.  
15.020) BURRS ON SEAR AND TRIGGER. TRIGGER  
1.074 (MODEL DRAWING = 1.076) CONNECTOR 1.081 (1.080  
1.079) 1.083)  
SAFETY CENTER OF PIVOT TO TOP OF CAM .290 (1.292  
1.296)

COMPLAINT: "MISFIRES WHEN HE PUSHES THE SAFE OFF"INCIDENT: FOLLOW DOWN

EXHIBIT

20

COMMENTS: FOLLOW DOWN COULD HAVE BEEN DUE TO  
BURRS BINDING AND PREVENTING RETRACTION OR  
EXCESSIVE CONNECTOR-TRIGGER CLEARANCE  
ALLOWING THE CONNECTOR TO WORK UP TO INTERFERE  
WITH THE SEAR WHICH THE SAFETY DID NOT LIE  
ENOUGH TO CLEAR.

PLAINTIFF'S  
EXHIBIT

AL 0029773

Last Long.

No GUN EXAMINATION REPORT NUMBER: \_\_\_\_\_ MODEL: 700 B.D.  
GENERAL CONDITION: Good R #: 000394  
OUTSIDE WORK: No DATE: 7-9-73  
FROM: JOHN'S SPORTS CENTER  
FIRE AMMO TYPE: \_\_\_\_\_ PITTSBURGH, KAN.  
& CONDITION: \_\_\_\_\_ GUN #: 6432940  
PROOF: R.E.P.-L INSE. 73 TEST: 84 CODE: CU-4/71  
HEADING: \_\_\_\_\_ GA./CAL.: 243 WIN.  
BREECH OPENING: \_\_\_\_\_ CHECKED BY: CIPROSSER  
RECOIL SHOULDERS: O.K. APPROVED: \_\_\_\_\_  
CHAMBER: O.K. APPROVED: \_\_\_\_\_  
TEST: No APPROVED: \_\_\_\_\_

COMPONENT CONDITION: (Damaged, Broken, Old Style) APPROVED: \_\_\_\_\_  
BOLT CAM MARRED BY SAFETY. GROOVE CUT INTO  
LEFT REAR OF HOUSING BY FIRING PIN HEAD. SEAR-  
TRIGGER CONNECTOR ENGAGEMENT .015 (MIN. IS .020)  
CONNECTOR BINDING ON TRIGGER.

COMPLAINT: "WENT OFF WHEN THE BOLT WAS CLOSED"

INCIDENT: FOLLOW DOWN

PLAINTIFF'S  
EXHIBIT

3184

COMMENTS: THE TRIGGER CONNECTOR PROBABLY FAILED TO  
RETRACT INTO POSITION UNDER THE SEAR, ALLOWING  
THE FIRING PIN TO FOLLOW DOWN.



P.I. MO GUN EXAMINATION REPORT NUMBER: 700 ADL  
GENERAL CONDITION: Good R #: 000130  
OUTSIDE WORK: SCOPE MOUNTED, BUTT PAD DATE: 1-11-73  
Fitted. FROM: ESTELL CURRY

FIRE AMMO TYPE: GATESVILLE, TEXAS  
& CONDITION: ASSEMBLER 6 GUN #: 165224  
PROOF: R.E.P. Insp.: D TEST: B7 CODE: WM-8/65  
HEADING: - GA./CAL.: 24.3 INCH.  
BREACH OPENING: - CHECKED BY: CROSSER  
RECOIL SHOULDERS: O.K. APPROVED:   
CHAMBER: O.K. APPROVED:   
TEST: NO APPROVED:

COMPONENT CONDITION: (Damaged, Broken, Old Style) APPROVED:   
STEEL CHIPS BETWEEN TRIGGER AND CONNECTOR.  
HARDENED LUBRICANT AROUND SEAR. EVIDENCE OF  
FIRING PIN HEAD CATCHING ON REAR-LEFT CORNER  
OF HOUSING.

COMPLAINT: FIRE AS BOLT WAS UNLOCKED

INCIDENT: FOLLOW DOWN

PLAINTIFF'S  
EXHIBIT

3183

COMMENTS: THE CHIPS BETWEEN TRIGGER AND CONNECTOR  
CAUSE SEAR-CONNECTOR ENGAGEMENT TO DRIFT  
LEADING TO FOLLOW-DOWN. THE HARDENED  
LUBRICANT AND FIRING PIN HEAD-HOUSING INTER-  
FERENCE ALSO CONTRIBUTE TO FOLLOW-DOWN  
MALEFUNCTIONS.

EXHIBIT

AL 0029713

In each of the preceding examples, rifles returned with complaints that the rifle fired without a pull of the trigger were described as being in either “good” or “new” condition.

In 1973, the Australian government banned importation of Remington Model 700's until Remington undertook measures *“to correct what they declare is an unsafe trigger mechanism.”*

Remington Produced Document Bates # R2505356





# BOUSTEAD WOOD PTY. LTD.

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AND AT: WELLINGTON, AUCKLAND, CHRISTCHURCH, LONDON  
REGISTERED OFFICE: 407 CITY ROAD, SOUTH MELBOURNE

DFT:LM  
765

22nd March, 1973.

RECEIVED

MAR 27 1973

OFFICE - F. E. MULLER

Attention Mr. Cipcer:

Remington Arms Co. Inc.,  
939 Barnum Ave.,  
Bridgeport,  
CONNECTICUT. U.S.A.

RECEIVED

MAR 27 1973

INTERNATIONAL SALES

Gentlemen,

SUBJECT: PROHIBITIVE FIREARM IMPORTS  
MODELS 700 & 541S

The Australian Commonwealth Police in conjunction with the Department of Customs and Excise have siezed all 700 and 541S firearms offour recent shipments and will not release them until we undertake to correct what they declare is an unsafe trigger mechanism.

This current problem is the result of a situation described

Remington modified the trigger mechanism of the Model 700 by adding a trigger screw lock screw to prevent improper adjustment of the trigger for rifles exported to Australia. Remington failed to make this change on rifles that stay in the United States.

DATES AND REASONS FOR REVISIONS 11/3/80-Revised for MRP-RLJ-279453  
12/17/80 - Was Op. #150 - RFS - 279887

**DESCRIPTIVE INFORMATION**

"For Australian use only:  
substitute Trigger Engagement  
Screw... followed by Trigger  
Engagement Screw Lock

Trigger Engagement Screw—  
#91128  
(has a radius on end of screw)

**NOTE: For Australian use only;**  
Substitute Trigger Engagement Screw, [91117]  
followed by Trigger Engagement Screw Jack  
Screw, [91127

Trigger Pin #24477

NOTE: For Left Hand Version,  
substitute:  
• Trigger Housing Assembly  
132985

7. Dummy Plan - 151468

**—Burr Spring - #17047**

—Trigger Stop Screw - #15401  
(Long Dog Point Screw)

—Trigger Adjusting Screw - #17053  
(Short Day Point Screw)

**NOTE: For Australian use only:**  
 Substitute Trigger Screw Front, 191110, followed by Trigger Screw Lock Screw Front, 191127.

Trigger Spring - #15400

Trigger Connector - #19461

Fraser - A15240

"For Australian use only: substitute Trigger screw Front ... followed by Trigger Screw Lock Screw."

PART NAME Trigger Assembly COOLANT \_\_\_\_\_ SET UP TIME \_\_\_\_\_ MODEL No. 700 OPER. No. 154  
TYPE \_\_\_\_\_ MACH. HRS \_\_\_\_\_ DEPT. No. 61 PAGE 1 OF 4  
MACHINE \_\_\_\_\_

A three-year history of complaints of “Fires on Safe” resulted in a conclusion that all such complaints were “the result of minimal Connector–Sear engagement.”

Remington Produced Document Bates # AL0029705



*Fred Milner*

DON'T SAY IT—WRITE IT

DATE December 21, 1973

FROM E. R. Carr

M/700 - CUSTOMER COMPLAINTS

Fires on Safe - Follows down

Over three years ago, all guns in the above category began to be referred to P.E. & C. for examination and diagnosis. It began to be readily apparent that these guns were all the result of minimal Connector-Sear engagement.

In June of 1972, an operation was initiated making the adjustment on a comparator which assured a minimum engagement of .015".

It is my opinion that review of these guns, except in the case of Damaged Actions or Personal Injury guns, is no longer justified and should be discontinued.

*Does this present any problem to you*

*Chick*

*Not at all. We  
will stop sending  
to P.E. & C. this type  
of complaint as of 1/2/74  
F. Plunkett*

TO BE SAFE, FIRST THINK YOU MIGHT NOT BE

Complaints from the field were consistent with Remington's internal testing. In one 4-month period in 1975, Remington experienced 46 instances of Fire on Safety Release or "Follow Down," during its quality control testing.

# DON'T SAY IT—WRITE IT

TO GEORGE MARTIN

FROM GENE BULLIS

SAFETY MALFUNCTIONS  
GALLERY 4

DATE 5-2-75

MALFUNCTIONS															TOTAL SAFETY MALFUNCTIONS BY MODEL	
MODEL	FSR			JO			FD			FOS			SWW			
40							4								4	
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	
ARLY MALF TOTALS	14						30	106	70	3	9	4	14	97	53	

## 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.

\* - 1975 DATA FROM DEC. 26, 1974 TO APRIL 29, 1975 ONLY.

5/4/75

A “follow down” is essentially a firing of the rifle, although in a “soft” follow down, there is insufficient energy in the firing pin for the rifle to actually fire.



By late 1979, in spite of “hundreds” of customer complaints, Remington attributed all such complaints to “tampering”, “over oiling” or some “other unauthorized alterations.”

Remington Produced Document Bates # R2543636

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington  
CORP.

PETERS  
CORP.

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"

February 22, 1979

TO: E.G. LARSON  
FROM: E.F. SIENKIEWICZ

SUBJECT: RIFLES RETURNED FOR FIRE ON SAFE RELEASE

Since the Model 600 recall, hundreds of people owning Model 700 and other model firearms have contacted Remington alleging that their guns have fired when pushing the safety from on safe to off safe position without touching the trigger.

To date, all such inquiries have been handled by requesting the rifle be returned to Ilion for examination and repair at no charge.

Examinations of the returned guns received at Ilion have revealed no factory defects. All problems that have been found are due to customers tampering with the trigger adjusting screws, over oiling, (I.E. motor oil, salad oil, etc.) and other unauthorized alterations.

Several models returned are old obsolete Models 721, 722 rifles, some being 30 years old, that are worn from hard use, including the trigger assemblies. We do not have any replacement assemblies for these models; therefore, requiring extensive alterations to present Model 700 trigger assemblies for installation at no charge.

Each firearm returned requires 20 minutes examination time for each of three (3) engineers and \$25.00 to \$30.00 Arms Service charges for time and parts to make the repairs, totaling approximately \$50.00 to \$55.00 per gun on a no charge basis.

I believe that we should review this problem with our Legal Department and, if possible, reword our letters to customers on these alleged incidences to read: "Return your rifle for our examination and, if the rifle is found to be factory defective, the repairs will be made at no charge." If these guns have been tampered with, neglected, or parts are worn because of long usage, the customer should be responsible for the repairs.

In order to put this problem into proper prospective, 500 guns returned, examined and repaired on a no charge basis, is costing our Company between \$25,000 and \$27,000.

E.F. Sienkiewicz

Remington, however, realized it had never informed customers about “improper cleaning or improper lubrication”. “We *must* investigate this more fully.”

Remington Produced Document Bates # AL0017502

<sup>copy to</sup>  
DON'T SAY IT-WRITE IT

→ T. Capelletti  
R. Sassone

To Joe Glas -

Location

From Clark Workman

Location

Phone  
No.

Subject Hummed Triggers - Lesson's memo of Oct 3/80 Date 10/13/80

I have referred this to T Capelletti's group for action. To answer Lesson's questions,

- (1) We must investigate this more fully
- (2) We do not warn about improper cleaning or improper lubrication of the fire control in our manual.



Even by Remington's own assessment, 2% of all Model 700's could be "tricked", a condition whereby the safety could be placed in an intermediate position between "safe" and "fire" or would "fire off safe."

Remington Produced Document Bates # R2508949

Ilion, New York  
January 22, 1980

E. HOOTON, JR.

MODEL 700 RETURNS TO ARMS SERVICE  
6-13-78 - 1-15-79

	<u>Before 1975</u>	<u>1975 To Date</u>	<u>Total</u>
I. Total Tested	<u>907</u>	<u>2,469</u>	<u>3,376</u>
II. <u>Failed Trick Test</u>			
Customer Caused	8 - .88%	14 - .57%	22 - .65%
Other	4 - .44%	9 - .36%	13 - .39%
	<u>12</u>	<u>23</u>	<u>35</u>
III. <u>Fires Off Safe</u>			
Customer Caused	9 - .99%	20 - .81%	29 - .86%
Other	4 - .44%	5 - .20%	9 - .27%
	<u>13</u>	<u>25</u>	<u>38</u>

R. L. Hall  
Plant Manager

*H. K. Boyle*

H. K. Boyle  
Asst. Plant Manager

HKB:ah

Customer complaints continued.  
Out of 133 complaints received  
between July 1979 and January  
1980, 44 were “verified.”

Remington Produced Document Bates # R2508943-45

# REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington  
OUTPOST

PETERS  
OUTPOST

REMINGTON ARMS CO.  
RECEIVED

MAR 7 1980

ILION RESEARCH DIVISION

cc: C. H. Markman  
J. P. Linde  
T. W. Rawson, Bpt.  
E. G. Larson

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"

E. HOOTON, JR.

## SAFETY-RELATED COMPLAINTS-BOLT ACTION CENTER FIRE RIFLES JULY, 1979 - JANUARY, 1980

In response to Earl Larson's letter to D. J. Sanita dated January 23, 1980, the following data is supplied. Listed are items where Bolt Action firearms were returned for a safety complaint. We have been previously reporting on all customer returned Model 700's that failed the trick test and fires off safe (see attached letter).

Model	Production for the Period	Complaints	Total No. Unable to Duplicate	Total No. Verified
700	83,862	133	89	44
788	14,735	10	4	6
600	-	5	3	2
660	-	1	-	1
721	-	1	1	-
722	-	1	-	1
725	-	1	-	1

### Complaints - Unable to Duplicate

Total No.

#### I. Model 700

1) Rifle discharged when Safety is released	54
2) Trigger stiff - misfires	1
3) Follows Down	4
4) Bolt closes hard and discharges	2
5) Delayed firing	5
6) Fires on closing Bolt when unloading	3
7) Rifle discharged when Bolt handle raised	2
8) Push Safety to "Off" position - slight touch of Trigger and rifle discharges	1
9) Accidental discharge	5
10) Fires on closing	8
11) Safety does not work	1
12) Defective Safety - works hard	1
13) Faulty Trigger - gun goes off	1
14) Goes off prematurely	1
	89

## Complaints Verified

### I. Model 700

#### Complaints:

#### 1) Rifle discharges when Safety is released

Total No. = 19

Causes:	No.
a) Insufficient Sear lift	3
b) Trigger bent	1
c) Adjusting screws adjusted outside of factory	8
d) Safety Detent ball missing	1
e) Excess oil in housing	1
f) Interior of housing dirty	1
g) Excess movement of Trigger	1
h) Trigger binds on Trigger Guard	1
i) Excess clearance - Trigger and Trigger Pin	1
j) Safety not responsive	1

#### 2) Follows Down

Total No. = 8

Causes:	No.
a) Sear binds	4
b) Adjusting Screws adjusted outside of factory	2
c) Connector broken	1
d) Engagement surfaces of Sear and Connector chipped	1

## Complaints Verified Contd.

### I. Model 700 - Contd.

#### 3) Accidental Discharge

Total No. = 2

Causes:	No.
a) Insufficient Sear lift	1
b) Adjusting Screws adjusted outside of factory	1

#### 4) Safety Does Not Work

Total No. = 3

Causes:	No.
a) Safety clearance cut in Stock miscut	1
b) Safety binds in Receiver	1
c) Detent ball missing	1

#### 5) Fires on Closing

Total No. = 4

Causes:	No.
a) Interior of housing dirty - oily	1
b) Sear rubs in housing	1
c) Adjusting Screws adjusted outside of factory	1
d) Connector broken	1

#### 6) Rifle Discharges with Safety On

Total No. = 0



Remington ignored even reports  
from its own authorized  
gunsmiths, trained to recognize  
and service returned rifles.

Remington Produced Document Bates # R2531937

GUNSMITH CALL REPORT

Date 7/25/83 Reporter Donald McClure

Shop Name C. Wheeler Guns & Gunsmith Ser. Gunsmith's Name C. F. Wheeler

Address 1908 E. George Washington Way Richland, WA, Zip 99352  
 No. & Street City State

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

Gunsmith's Address \_\_\_\_\_ Zip \_\_\_\_\_  
 No. & Street City State

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

PERSONS INTERVIEWED and POSITION: NEW GUN REPAIR

1) C. Wheeler - Owner/Gunsmith (2) \_\_\_\_\_

3) \_\_\_\_\_ (4) \_\_\_\_\_

SPECIFIC PROBLEMS ENCOUNTERED:

1. M-700 - Guns fire when safety switch moved to off position.
2. M-1148 - 12 Ga. - Needed oversize locking block.

GENERAL DISCUSSION

Mr. Wheeler told me they have had 5 M-700's in the last year which the owners claimed fired when the safety was pushed to the off position. All were returned to Arms Service per our instructions. The guns came back with new triggers installed but no explanation of what, if anything, was found wrong. He said a couple of the gun owners were unhappy because their gun had to be sent to the factory, but he told them that was Company policy, so they accepted it.

Still some M-1148 shotguns coming in; usually need an oversize locking block to correct the problem.

By the 1990's, the rate of  
customer complaints was  
*“constantly increasing.”*

Remington Produced Document Bates # PR0604 and PR0545-46

22/85

14:21

0818 374 3302

BRYAN CAVE KC

0005

VD-01-2

# REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

*Remington*  
QUINCY

*PETERS*  
QUINCY

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"

January 25, 1990

TO: K.D. GREEN

FROM: J.A. STEKL *JAS*

RE: M/700 RIFLE RETURNS - ALLEGED ACCIDENTAL FIRINGS

The number of Model 700 rifles being returned to the factory because of alleged accidental firing malfunctions is constantly increasing.

170 were returned to Product Service for examination in 1988 with various accidental firing complaints.

To date this year, 29 have been returned.

JAS:tpg

cc: W.E. Ericson  
J.C. Hutton



In the mid-1990's, Remington commissioned an outside laboratory to investigate the legitimacy of complaints of unintended firings. H.P. White Laboratories also experienced a fire on safety release with one of the rifles it was commissioned to examine.

Remington Produced Document Bates # MA2839-40 and MA2845

## TEST REPORT

EXTREME ENVIRONMENT, RELIABILITY  
TESTING OF MODIFIED MODEL 700,  
RIFLE, FIRE CONTROL ASSEMBLIES

### Prepared For

Remington Arms Company, Inc.  
Research and Development Technical Center  
315 West Ring Road  
Elizabethtown, Kentucky  
42701

### By

H.P. White Laboratory, Inc.  
3114 Scarboro Road  
Street, Maryland 21154

October 1995

MA2839

## PREFACE

This report presents the results of Extreme Environment Testing of modified, Model 700 Rifle Fire Control Assemblies comparatively with currently fielded, Model 700 Rifle Fire Control Assemblies. The tests were conducted in accordance with Remington Arms Company, Inc. Purchase Order Number LRR-0792.

### Safety.

#### 1.5 Summary

1.5.1 Except for the Blowing Sand and Dust Test, none of the extreme environmental testing produced a discernible effect on the operation of either configuration of Fire Control Groups.

1.5.1.1 The Sand/Dust Test adversely effected the operation of both of the Fire Control Groups.

1.5.2 None of the extreme environmental testing produced inadvertent firings with either Fire Control Group configuration.

1.5.2.1 All of the malfunctions induced by conditions of the tests interrupted the firing sequence and are therefore categorized as having no effect on safety.

1.5.3 During the final cleaning, subsequent to the last test of the series, two of the rifles "fired" inadvertently with the release of the safety - one each of both configurations of the Fire Control Group.

1.5.3.1 A Safety Manipulation Test was conducted which performed one hundred trials with each of the five Modified Fire Control Groups, the three previously tested, unmodified Fire Control Groups and two additional, unmodified Fire Control Groups not previously tested (10 guns/1000 testing) with no additional inadvertent "firings".

Between 1992 and 2004,  
Remington had received  
approximately 3,273 customer  
complaints of unintended  
firings.

In summary, between 1992 and 2004 there were approximately five (5) reported unintended firings per week



SUMMARY OF CUSTOMER COMPLAINTS FROM WILLIAMS PRODUCTION  
BATES STAMPED DOCUMENTS MAE 00012056 -00012530

[illegible]

Between 1993 and 2006, Remington paid over \$18 million in settlements and judgments to people injured or killed as a result of unintended firings.

Remington Produced Document Bates # WIL09027

Remington Settlements Post 12/1/93  
Models 700, Seven and 710

12/1/93-12/31/97

\$7,377,999

9 matters

1/1/98-12/31/02

\$5,532,000

10 matters

1/1/03-12/31/06

\$5,559,680

15 matters

CONFIDENTIAL - SUBJECT  
TO PROTECTIVE ORDER

WILLIAMS V. REMINGTON

\$18,469,679

WIL 09027

Remington failed to heed its own advice expressed in 1945 to “*visualize our customers in place of Government inspectors awaiting our products for test and acceptance.*”