

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

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.

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

RULES APPLYING TO ALL TYPES OF ARMSGENERAL 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.

EXPERIENCES

IN THE

DESIGN & MANUFACTURE

OF

SHOTGUNS & RIFLES

REMINGTON

DUPONT

Bridgeport, Connecticut, U.S.A.

October 1945

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 CONTROL AND SAFETY

INTRODUCTION

Three field complaints have been received which reported the "M21" rifle firing when the Safety is moved to the "off" position. Two guns representing 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 reproduce 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.

INTERNATIONAL CORRESPONDENCE



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.

out of warranty notified 11/21/48 - 11/21/48 A. J. Greene

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

AJG/m

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.’”*

Remington Produced Document Bates # R2501804

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

SM:LI

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
RESEARCH

DESIGN

Wayne
we can do this for SMT

Bridgeport, Connecticut,
June 18, 1957.

TO:

MR. S. M. ALVIS, Ilion

FROM:

JAMES E. CRANFORD

SUBJECT:

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

T. E. SHORTEN
223 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.

James E. Cranford
JAMES E. CRANFORD,
Associate Patent Attorney.

WES/AMH
encs.
7/1/57

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 varmintier to shoot in their fields.

But while an old .30-30 may still bring home the venison, the varmintier 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 .223 Remington and the .22-250 Remington. The .223 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 .223s (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 .30-06 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 varmintier 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 head 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 impressed 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

FIRE AMMO TYPE: _____ FROM: CHRISTY GUN WORKS
& CONDITION: _____ SACRAMENTO, CAL.
PROOF: R.I.P.A INSP.: NONE TEST: 13 GUN #: 6372120
HEADING: BOLT CLOSERS ON ASSEMBLY MAX. CODE: No Cod
BREECH OPENING: _____ GA./CAL.: 3006
RECOIL SHOULDERS: O.K. CHECKED BY: C. PROSSER
CHAMBER: O.K. APPROVED: _____
TEST: NO APPROVED: _____

COMPONENT CONDITION: (Damaged, Broken, Old Style)
NO DAMAGED COMPONENTS.

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

18/1
D

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: —

& CONDITION: ASSEMBLER'S GUN # : 6429469

PROOF: R.F.P.H INSP.: 51 TEST: 13 CODE: EUA 10/71

HEADING: O.K. RT./DAL.: 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) 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 ENGA-
MENT TO ZERO CAUSING THE FOLLOWS DOWN.

P.I. NO GUN EXAMINATION REPORT NUMBER: _____

MODEL: 700 BDL

GENERAL CONDITION: NEW

R #: 026826

OUTSIDE WORK: SCOPE MOUNTED

DATE: 12-18-72

FROM: DICK'S SPT. SHOP

FIRED AMMO TYPE: _____

STAHLSTOWN, PA.

& CONDITION: _____

GUN #: 6223531

ASSEMBLER C

PROOF: R.E.P. INSP. ? TEST: 87

CODE: AS-3/69

HEADING: O.K.

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) APPROVED: _____

SEAR-TRIGGER CONNECTOR ENGAGEMENT .015 (MIN. 15.020) BURRS ON SEAR AND TRIGGER. TRIGGER 1.074 (MODEL DRAWING = 1.076 / 1.079) CONNECTOR 1.081 (1.080 / 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

Walt Long

No GUN EXAMINATION REPORT NUMBER: _____ MODEL: 700 B.D.
 GENERAL CONDITION: Good R #: 000394
 OUTSIDE WORK: No DATE: 7-9-73
 FIRED AMMO TYPE: _____ FROM: JOHN'S SPORTS CENTER
 & CONDITION: _____ PITTSBURGH, KAN.
 GUN #: 6432940
 PROOF: R.E.P. INSE. 73 TEST: 84 CODE: EU-4/73
 HEADING: _____ GA./CAL.: 243 WIN.
 BREACH OPENING: _____ CHECKED BY: CROSSER
 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
LETT. 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: _____ MODEL: 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: _____ GUN #: 165224
PROOF: R.E.P. ASSEMBLER 6 INSP.: D TEST: B7 CODE: WM-8/65
HEADING: - GA./CAL.: 243 W.M.
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: FIRED AS BOLT WAS UNLOCKED

INCIDENT: FOLLOW DOWN

PLAINTIFF'S
EXHIBIT
3183

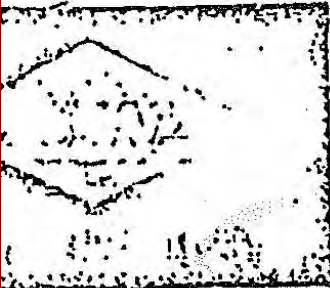
COMMENTS: THE CHIPS BETWEEN TRIGGER AND CONNECTOR
CAUSE SEAR-CONNECTOR ENGAGEMENT TO BE VERY
LEADING TO FOLLOW-DOWN. THE HARDENED
LUBRICANT AND FIRING PIN HEAD-HOUSING INTER-
FERENCE ALSO CONTRIBUTE TO FOLLOW-DOWN
MAJUNCTIONS.

EXHIBIT
71

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



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REGISTERED OFFICE: 407 CITY ROAD, SOUTH MELBOURNE

DFT:LM
765

22nd March, 1973.

RECEIVED

MAR 27 1973

OFFICE - F. E. M...

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 - RIS - 279887

DESCRIPTIVE INFORMATION

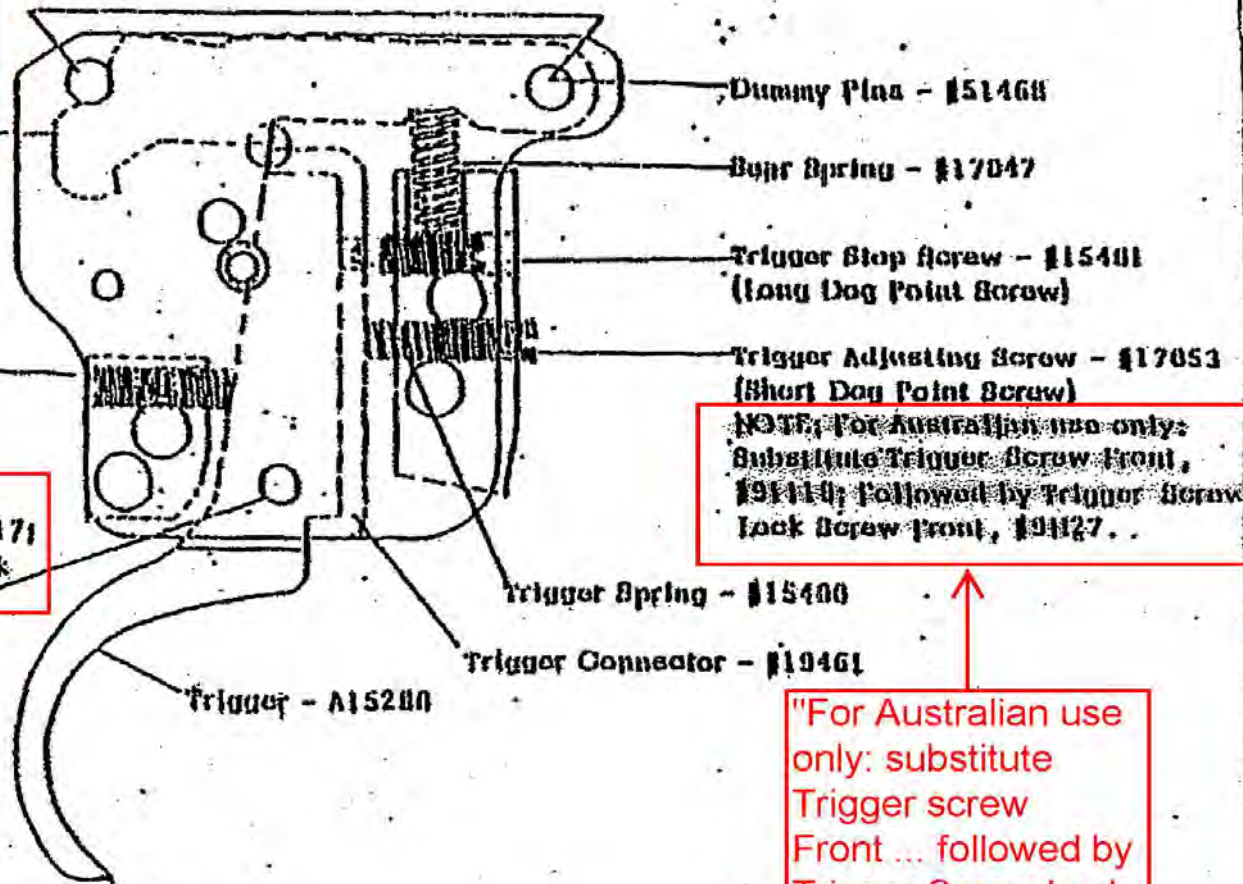
"For Australian use only:
 substitute Trigger Engagement
 Screw... followed by Trigger
 Engagement Screw Lock

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 Lock
 Screw, #91127

Trigger Pin #24477

NOTE: For Left Hand Version,
 substitute
 a Trigger Housing Assembly
 #12905



NOTE: For Australian use only:
 Substitute Trigger Screw Front,
 #91119, followed by Trigger Screw
 Lock Screw front, #91127.

"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 11
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 Milkner

DON'T SAY IT—WRITE IT

DATE December 21, 1973

TO ~~M. Galvo~~

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
like*

*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

SAFETY MALFUNCTIONS
GALLERY

DATE 5-2-75

FROM GENE BULLIS

MODEL	MALFUNCTIONS												TOTAL SAFETY MALFUNCTIONS BY MODEL			
	FSR			JO			FD			FOS				SWW		
40							4									4
1P 100							3									3
540																
541								2	1							3
580													1			1
581							3	2	1							6
582																
100	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
EARLY MALF. TOTALS	14						30	106	70	3	9	4	14	97	53	400

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 29th, 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
CORPORATION

PETERS
CORPORATION

*Jack, For your information
good letter by Ed*

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"

February 22, 1979

Tipple Bob,
For your info.

TO: E.G. LARSON *Jack*
FROM: E.F. SIENKIEWICZ *2-26-79*

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 perspective, 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

^{copy to}
DON'T SAY IT - WRITE IT

→ T. Capelletti
R. Saronne

To Joe Glas - Location _____
From Clark Workman Location _____ Phone No. _____
Subject Hummed Triggers - Lanson's memo of Oct 3, 80 Date 10/13/80

I have referred this to T Capelletti's group for action. To answer Lanson'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

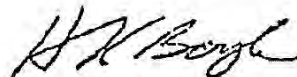
Ilion, New York
January 22, 1980

E. HOOTON, JR.

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

	<u>Before</u> <u>1975</u>	<u>1975</u> <u>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
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 ARMS CO.
RECEIVED

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

MAR 7 1980

ILION RESEARCH DIVISION

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"

Jim Martin
for your use in developing a better Bolt Action Gun Control
Clark
Ilion, New York
March 5, 1980

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

22/95

14:21

0818 374 JJ0Z

BRYAN CAVE KC

005

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington
SUPER

PETERS
SUPER

"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:tpp

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

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 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.*”