Ilion, NY
January 6, 1988

Firearms Business Team
R.B. Sperling
R.K. Straitman
A,B, Dana
R.A. Blackhall
D.M. Condon

MODEL 700 TRIGGER ASSEMBLY REPLACEMENT PROGRAM

BACKGROUND

Centerfire rifle trigger assemblies contain a part referred to as a connector that releases the sear safety cam to fire the rifle when the trigger is pulled. This part fits on the forward edge of the upper portion of the trigger assembly. (See Exhibit A)

These parts are manufactured to Remington Arms specfications by Connecticut Spring, a long-time vendor that supplies about 120 other firearms parts for Remington firearms valued at about $400M per year. A change was introduced to this vendor's process in April, 1987 in reaction to what was erroneously interpreted by the vendor as a heat treatment specification alteration. This change caused the flanges on either end of the parts to splay outward. These warped parts were rejected at Ilion for nonconformance to physical specifications. Connecticut Spring subsequently attempted to salvage these rejected parts by bending them back to an acceptable profile. However, because this straightening occurred after heat treatment, potential for stress cracks was introduced.

Starting in late July, 1987, some of these improperly manufactured parts were assembled into Remington centerfire rifles. This problem was not detected until December 11, 1987, when a gallery failure occurred during test firing. An immediate investigation was begun to evaluate the incident resulting in the discovery of Connecticut Spring's change.

A test program was designed to test the improperly heat treated connectors. Five guns were prepared with connectors in which a discontinuity had been detected by magnetic particle inspection. Five guns with known good connectors were also prepared as control. Ten guns were fired 2,000 times without incident. Four guns were then prepared with severely cracked connectors and the tests repeated. Three guns successfully completed the test and one gun failed at 270 firings due to a broken connector.

Broken connectors infrequently can get out of position and cause a malfunction by not supporting the sear safety cam. If this occurs, the firing mechanism may follow the bolt down during the loading cycle. If the safety is in the fire position this is not a dangerous situation. If the safety switch is in the safe position and the broken connector is out of correct position, the firing mechanism would be supported by the safety. Moving the safety to the fire position could then cause the rifle to fire without the trigger being pulled. If this occurred and safe gun handling practices were followed no injuries or property damage would occur.

MAGNITUDE OF THE PROBLEM

Model 700 series rifles produced between July 29, 1987 and December 11, 1987 could be affected by these connectors. This includes M/700, M/78, M/40XB, M/40X and M/7 rifle models produced in some 150 different specifications (RAMACS). Actual quantities invovled are as follows:

	M GUNS
Shipments	18.7
Warehoused Product	8.3
In-Process Inventory	7.0
Triggers Sold to Gunsmiths	.5
Triggers Used in Repairs	.5
TOTAL POTENTIAL IMPACT	35.0

Because of the length of time between first use of the suspect connectors and discovery of the problem, distribution of the rifles to Remington's invoiced customers has been very broad, as shown on the following page:

CUSTOMER AND CATEGORY	# SHIPPING LOCATIONS	# GUNS SHIPPED
LARGE RETAILERS		
K-Mart	8*	1,625
Walmar	347	1,487
Best	79	799
Gart Bros.	1*	305
Oshman's	3*	187
Udisco/Herman's	2*	107
Others	6	176
TOTAL LARGE RETAILERS	446*	4,686
HARDWARE CHAINS		
Cotter	13*	154
Coast-to-Coast	11*	96
Others	9*	161
TOTAL HARDWARE CHAINS	33	411
WHOLESALERS		
John's	1	1,906
Jerry's, Bonitz, Simmons	6	1,087
Ellett Bros.	1	678
Wammes	1	610
Oshi	8	586
Sports South	1	572
R. Crawford	1	570
Munson	1	235
Greenblatt's	1	228
Lew Horton	1	225
Beikirch	1	209
Others	32	1,907
TOTAL WHOLESALERS	55	8,709
DEALERS	1,005	4,865
TOTAL SHIPMENTS	1,539*	18,617

Given the timing of this occurrence, it is likely that a significant portion of these guns have been sold through to end users or to a nondirect dealer, i.e., that the products impacted are no longer physically at the location shipped to by Remington.

*Excludes shipments to captive stores by firm's warehouse.

ACTIONS TAKEN TO DATE

As soon as known (on December 11, 1987), all Remington shipments of potentially impacted models were halted. As soon as test results were in hand (on December 21, 1987), the problem was communicated to all Remington personnel. As soon as customer shipping information was obtained and digested (on December 29, 1987), sales representatives were asked to contact their respective customers to request that all sales of Remington centerfire rifles in the above models produced between July 29, 1987 and December 11, 1987 be terminated. Customers were also advised that they will be receiving a letter from Remington during the week of January 4, 1988 that details all guns shipped to them that could be impacted and that further instructions will be available at that time.

The following actions have been taken to prepare for the upcoming trigger assembly replacement program.

- Roger Potter has been placed on special assignment to coordinate the replacement program. His existing Product Services duties will be covered by a retiree/consultant, Dick St. John, who is now in place.
- Task teams have been established representing all plant and service functions that will be involved in processing returned rifles.
- All guns involved have been identified by serial number by customer.
- Temporary offices have been established to handle the effort. The 800 phones have been installed and are operational. The offices are partially staffed.
- Public Affairs and Marketing Communications groups have been contacted to prepare standby press releases (needs) and ad copy (if necessary).
- Initial cost estimates have been prepared and are attached as Exhibit B.
- Initial contacts have been made with the vendor to inform him of the problem, and a revised schedule for supply of additional parts needed to overcome the foreseen shortages has been agreed to.

- All mass-merchant, hardware and wholesale chains were called prior to January 4, 1988 informing them of the problem and asking them to hold further shipments of Remington bolt action centerfire rifles.

- New Gun Repair Gunsmiths have been notified via phone and a list made of the gunsmiths that will participate in the replacement program.

TRIGGER ASSEMBLY REPLACEMENT PROGRAM - PATH FORWARD

The next step is to institute a general replacement program for those rifles that potentially could be impacted by the nonconforming connectors. Major elements of this program are discussed below:

1. All mass merchant, hardware, and wholesale chains were called by their respective sales representatives informing them of Remington's replacement program and basic logistics:

   a. Each customer will receive a letter in the mail during the week of January 4th that addresses the nature of the program and details by serial number each potentially impacted gun that was shipped to that account.

   b. Each customer will be asked to halt sales of impacted rifles still in inventory.

   c. Each customer will be asked to provide information on any guns already shipped, or a proposed method for obtaining this information, that will be in the best interests of the customer and Remington.

   d. Each customer will be asked to mail this information to Ilion.

   e. A customer-specific trigger replacement program will be developed for each account that consists of sending a Remington representative into the account (where 100 or more guns are involved), the use of a local New Gun Repair Gunsmith brought into the account (for 10 - 99 guns involved), forwarding to a local gunsmith (less than ten guns). In cases where local gunsmiths are impractical or good customer relations dictate. Programs for specific customers will be designed as necessary.

2. For all dealer accounts where ten or more guns will potentially be impacted, Ilion Product Services will telephone the account directly prior to mailing the replacement program letter and printout, and then discuss each of the subjects outlined above.

3. For dealer accounts with less than ten guns involved, no advance phone calls will be made, and these accounts will be handled as they respond to the letter and printout mailing.

4. New Gun Repair Gunsmiths will be contacted in advance of the mailing via phone and a separate letter that outlines the program and its administration will be mailed shortly thereafter. A supply of trigger assemblies will be provided to them during January to begin the program. They will call or write for more trigger assemblies as needed.

5. All phone calls and guns returned to Ilion will be handled by a separate group that will be coordinated by Roger Potter and a management consultant/retiree who will be retained to add an in-house capability to deal full-time with customer relations and coordinations efforts, as well as to focus internal communications and logistics.

6. Follow-up activity with consumers and dealers served by Remington wholesalers will be handled by the dedicated Ilion group, and is estimated to span a period of 1-2 years based on past experience.

7. An advertising campaign is being developed for use during 1988 to identify those guns not caught in the earlier serial number screenings, assuming such action is necessary.

8. About 40M extra trigger assemblies will be procured to handle the one-time effort associated with this program. Based on current estimates, it is more economical, practical, and safe to replace full assemblies rather than reconditioning assemblies. However, should a way of reconditioning be found that is more economical, practical, and safe, these parts ultimately may be used. The cost per assembly is about $9.

9. Priorities for planning the replacement of these assemblies at Ilion and to supply new production parts will be:

New Guns Off Line	(no delay foreseen)
Field Repair Assemblies	(Goal is 5M to field 1/15)
Returns from Consumer	(1-2 week turnaround time)
Returns from Dealers	(1-2 week turnaround time)
Returns from Retailers, HDW	(1-2 week turnaround time)
Returns from Wholesalers	(1-2 week turnaround time)
Warehoused Guns	(1-2 week turnaround time)

These priorities become effective in the event of conflict.

10. A program is being pursured with M and L (Bob Blackhall) to work toward whatever vendor compensation is possible, and to ensure nonrecurrence.

11. A review of program status will be held monthly with the Firearms Business Team by the Product Services group to ensure the project is getting adequte support and that customer concerns are being addressed adequately.

EXHIBIT A

TRIGGER ASSEMBLY REPLACEMENT PROGRAM

SECTION VIEW, MODEL 700 SERIES TRIGGER ASSEMBLY

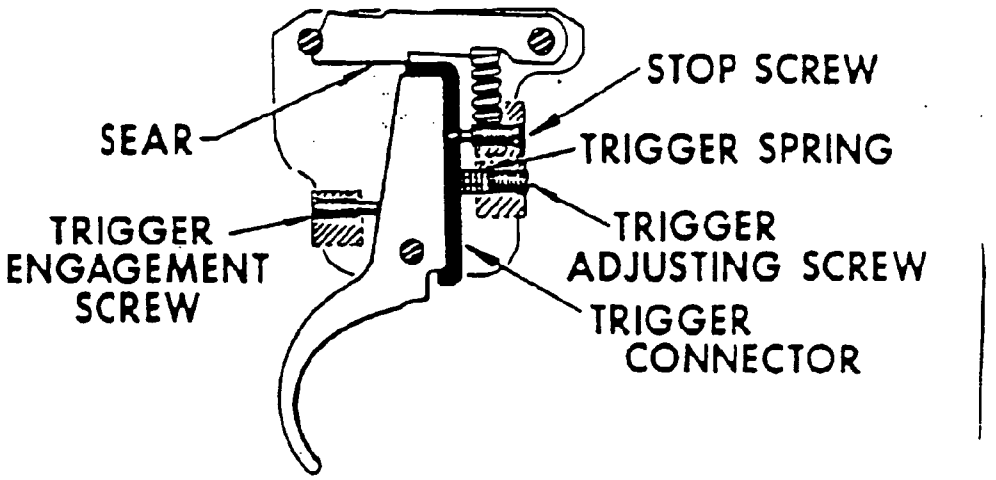

EXHIBIT B

TRIGGER ASSEMBLY REPLACEMENT PROGRAM

FINANCIAL IMPACT

A Reserve is being established in 1987 to accommodate the financial impact of this program on 1987 performance, and will encompass the following estimated expenses:

	$M
NOTIFICATION	
Mailing (20M @ $2)	40
Telephone (6 lines for 1 year @ $20M)	120
Telephone Switching	12
Telephone Operators (2,000 Hours/Line @ $8)	96
Long-Distance Calls	30
Advertising Campaign	250
TOTAL NOTIFICATION	548
SHIPPING	
Freight (15M Guns 2 ways @ $5)	150
Packing Material (10M @ $1.25)	13
TOTAL SHIPPING	163
REPAIRS IN THE FIELD	
Replacement Parts (10 @ $9)	90
Warranty Repairs (12.5 @ $22)	275
Field Repairs (3.7 @ $50)	185
Reconditioning (8.7 @ $10)	87
Factory Repairs(3 @ $30)	90
Customer Units to Obtain Records (50 man weeks)	50
TOTAL REPAIR	777
INHOUSE COSTS	
Sorting Connectors	5
Reconditioning (18M @ $9)	162
Engineering, Supervision	50
Management Consultant & Office Help	85
Programming/Systems Support	15
Rearrangement	6
TOTAL INHOUSE COSTS	323
TOTAL COSTS	1,810

ALTERNATIVES

At the present time, we see none.