

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington



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xc: W.H. Coleman, II/File
 T.C. Douglas
 L.B. Bosquet
 F.E. Martin
 F.L. Supry
 File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 881723
JUNE 30, 1988

MODEL 700 MOUNTAIN RIFLE 7X57 CALIBER DESIGN ACCEPTANCE

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ABSTRACT:


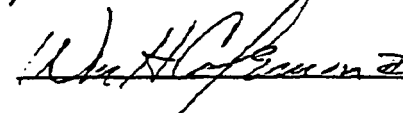
Research and Development finds the Design Acceptance Evaluation of the Model 700 Mountain Rifle, 7X57 caliber rifles to be acceptable. The evaluation consisted of Accuracy and Field Function. The six rifle sample, provided by F.E.Martin, was found to be within Remington specifications for each phase of the Design Acceptance Evaluation.

Prepared by: F.L. Supry
Date Prepared: June 30, 1988

proofread and cleared by:

H.C. MUNSON, Quality Resource

W.H. COLEMAN, II
New Products Research Lab Director

MODEL 700 MOUNTAIN RIFLE 7X57 CALIBER DESIGN ACCEPTANCE

TO: H.C. Munson
FROM: F.L. Supry

INTRODUCTION:

In June, 1988, a request to conduct a Design Acceptance Evaluation of the Model 700 Mountain Rifle, 7X57 caliber rifles was received by the Test Lab. The evaluation used six rifles and consisted of Accuracy and Field Function.

SCOPE OF THE TEST:

To determine if the 7X57 caliber sample would meet the Remington Specifications for accuracy and field function.

TEST RESULTS:

The sample of the 7X57 caliber, Model 700 Mountain Rifle was found to be acceptable in all phases of the Design Acceptance Evaluation. The results of each phase of testing were as follows:

The overall appearance of the rifles was good.

ACCURACY:

The average group size was 2.250 inches.

FIELD FUNCTION:

Four of the rifles experienced no malfunctions.

The two rifles that had malfunctions (one stem chamber on C6252543 and five stem chambers on C6252965) during the first function test, experienced no malfunctions after magazine box adjustments, in an additional 100 round and 200 round function test respectively.

REPORT TEXT:**GENERAL:**

The following six rifles were used for the Design Acceptance Evaluation:

C6252543 C6252625 C6212166 C6252965 C6252609 C6209218

ACCURACY:

The results showed that the Model 700 Mountain Rifle, 7X57 caliber, met the Remington specification (2.7 inches) for group size.

All six rifles were used in the accuracy test.

The average group size for the six rifles used in the accuracy test was 2.250 inches.

The group size for Rifle C6252625 averaged 2.755 inches, which is .055 inches out of specification for a 7X57 caliber rifle. Examination of the rifle showed that the action was not properly bedded in the stock. The action was re-bedded by J.E. Selan and the rifle reshot. The group size for the rifle, after the re-bedding, averaged 1.729 inches.

Accuracy results per individual rifle are located in the appendix of this report.

FIELD FUNCTION:

The six rifles were fired 70 rounds each in a field function test conducted at the Ilion Fish and Game Club and the following results were established:

Four of the rifles experienced no malfunctions.

Rifle C6252543 had one stem chamber malfunction with R7MSR 175 grain SP Remington ammunition. The magazine box was adjusted and an additional 100 rounds of R7MSR were fired with no malfunctions.

Rifle C6252965 had one stem chamber malfunction with R7MSR 175 grain SP Remington ammunition and four stem chamber malfunctions with 7A 175 grain Federal ammunition. The magazine was adjusted and 100 rounds of each ammunition type were fired with no malfunctions.

TEST PROCEDURE:**ACCURACY:**

Three, five shot groups were shot with each of the six rifles. The accuracy was shot by D.R. Thomas and J.E. Selan in the Research and Development 100 yard range located in building 52-1A.

Remington ammunition code (R191-D0000) R7MSR (175 grain SP) was used for the accuracy testing.

Standard long action Leupold bases and rings were used in conjunction with a 20X All-American Lyman scope.

The targets were analyzed for group size using the HP 9000 computer and digitizing tablet.

FIELD FUNCTION:

The six rifles were subjected to the loading and firing of 70 rounds of Remington and competitive 7X57 ammunition in a field function test conducted at the Ilion Fish and Game Club. A round robin method of shooting, alternating shooters and ammunition types every ten rounds, was used throughout the field function testing.

The addition function testing was conducted using a shooting jack in the shooting room located in building 52-2A.

The following ammunition types were used in the field test:

REMINGTON	R7MSR1	140 GRAIN POINTED SOFT POINT
	R7MSR	175 GRAIN SOFT POINT
RWS	7X57	162 GRAIN CONE POINT
IMPERIAL	7MM7X57	160 GRAIN SOFT POINT
WINCHESTER	X7MM	175 GRAIN SOFT POINT
FEDERAL	7B	139 GRAIN SOFT POINT
	7A	175 GRAIN SOFT POINT

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APPENDIX

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100 YARD ACCURACY RESULTS

<u>SERIAL NUMBER</u>	GROUP 1 (in.)	GROUP 2 (in.)	GROUP 3 (in.)	AVERAGE (in.)
C6209218	2.578	2.419	1.495	2.164
C6252965	3.253	2.267	1.380	2.300
C6212166	3.010	3.133	1.647	2.600
C6252609	3.044	2.472	1.443	2.320
C6252543	3.760	1.520	1.885	2.388
C6252625	1.748	2.303	1.135	1.729
		overall average =		2.250