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

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 881681
JUNE 17, 1988

MODEL 700 CLASSIC 35 WHELEN CALIBER TRIAL AND PILOT EVALUATION

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MODEL 700 CLASSIC 35 WHELEN CALIBER TRIAL AND PILOT EVALUATION

ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the 35 Whelen caliber, Model 700 Classic rifles to be acceptable. The Trial and Pilot Evaluation consisted of Visual Inspection, Field Function and Accuracy. The 10 rifle sample, randomly selected from an 20 rifle sample, was found to be within Remington specifications for each phase of the Trial and Pilot Evaluation.

Prepared by: F.L. Supry
Date Prepared: June 17, 1988

proofread and cleared by:

H.C. MUNSON, Quality Resource

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

[Handwritten signature: H.C. Munson]
[Handwritten signature: W.H. Coleman II 6/29/88]

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MODEL 700 CLASSIC 35 WHELEN CALIBER TRIAL AND PILOT EVALUATION

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

INTRODUCTION:

In June, 1988, a request to conduct a Trial and Pilot Evaluation of the 35 Whelen caliber, Model 700 Classic rifles was received by the Test Lab. The evaluation used 10 rifles, randomly selected from a production rifle sample and consisted of Visual Inspection, Pattern Evaluation and Field Function.

SCOPE OF THE TEST:

To determine if the production run sample would meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The production sample of the 35 Whelen caliber, Model 700 Classic rifles was found to be acceptable in all phases of the Trial and Pilot Evaluation. The results of each phase of testing were as follows:

VISUAL:

The overall appearance of the rifles was good.

ACCURACY:

The average group size was 1.77 inches.

FIELD FUNCTION:

Eight of the rifles experienced no malfunctions.

The two rifles that had malfunctions (one DX and two DE on C6241041, and four stem magazine left on C6216053) during the first function test, experienced no malfunctions in an additional 80 round function test after an extractor change and magazine box adjustment respectively.

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REPORT TEXT:

GENERAL:

The following ten rifles were randomly selected from the production sample for the Trial and Pilot Evaluation:

C6240976	C6241033	C6241047	C6240971	C6241041
C6240958	C6241087	C6216558	C6216053	C6240945

VISUAL INSPECTION:

The visual inspection committee finds the overall visual appearance of the Trial and Pilot sample to be acceptable.

All ten of the rifles were used in the Visual Inspection.

Comments on each rifle are located in the appendix.

FIELD FUNCTION:

The ten rifles were fired 20 rounds each in a field function test conducted at the Ilion Fish and Game Club and the following results were established:

Eight of the rifles experienced no malfunctions.

Rifle C6241041 had one don't extract and two don't eject malfunctions during the function test. The extractor was replaced on this rifle by production employees and the rifle was fired an additional 80 rounds with no malfunctions.

Rifle C6216053 had four stem magazine left malfunctions during the function test. The magazine box was adjusted by production employees and the rifle was fired an additional 80 rounds with no malfunctions.

ACCURACY:

The results showed that the 35 Whelen caliber, Model 700 Classic rifles tested met the Remington specification (3.5 inches) for group size.

The following five rifles were used in the accuracy test:

C6240976	C6241033	C6241047	C6240971	C6241041
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The average group size for the five rifles used in the accuracy test was 1.77 inches.

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

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TEST PROCEDURE:**VISUAL INSPECTION:**

The visual inspection committee consisted of R.F. Leskovar, R.W. Howe, F.L. Supry, and D.R. Thomas.

All ten rifles were examined.

Each rifle was wiped down with a clean white Coyne towel and examined by each committee member. All comments were recorded.

FIELD FUNCTION:

The ten rifles were subjected to the loading and firing of 20 rounds 250 grain Remington 35 Whelen ammunition in a field function test conducted at the Ilion Fish and Game Club. A round robin method of shooting, alternating shooters every five rounds, was used throughout the field function testing.

ACCURACY:

Three, five shot groups were shot with each of the five rifles selected for 100 yard accuracy. 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 (J02G-C8905) R35WH2 (250 grain SP) was used for the accuracy testing.

Standard long action Leupold bases and rings were used in conjunction with a 12X Redfield scope.

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

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VISUAL INSPECTION:

GENERAL COMMENTS:

The appearance of the 35 Whelen caliber, Model 700 Classic sample was good.

There were no visual defects severe enough to reject the sample however, the following items were noted in the visual inspection:

COMMENTS PER INDIVIDUAL RIFLE:

C6240945	CHATTER MARKS ON BOLT PLUG
C6216558	CHATTER MARKS ON BOLT PLUG LIGHT FILL IN TWO SMALL KNOTS LEFT SIDE OF STOCK
C6240976	CHATTER MARKS ON BOLT PLUG
C6216053	CHATTER MARKS ON BOLT PLUG
C6241033	CHATTER MARKS ON BOLT PLUG BRIGHT MAR ON TRIGGER GUARD OPEN KNOT ON STOCK
C6241087	BRIGHT MAR ON REAR STRAP SCREW PIN HOLES AND DULL AREA ON STOCK
C6241047	CHATTER MARKS ON BOLT PLUG
C6241041	NICE LOOKING WOOD
C6240971	POOR REPAIR AROUND CROSS PIN
C6240958	POOR FILL JOB ON THE STOCK

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MODEL 700 CLASSIC 35 WHELEN CALIBER TRIAL AND PILOT EVALUATION

100 YARD ACCURACY RESULTS

<u>SERIAL NUMBER</u>	GROUP 1 (in.)	GROUP 2 (in.)	GROUP 3 (in.)	AVERAGE (in.)
C6240976	1.73	1.58	2.17	1.83
C6241033	1.41	1.53	2.01	1.65
C6241047	1.35	1.70	2.01	1.69
C6240971	2.85	1.90	1.19	1.98
C6241041	1.78	1.05	2.20	1.68