

cc: S.M. Alvis
D.E. Miller
R.A. Williamson
H.J. Hackman
W.E. Leek
M.H. Walker

*Don't make in this form
 - much, anyone*

Elion, New York
 March 29, 1957

W. A. BEST

MODEL 721 - 30-06 - QUALITY AUDIT TEST FOR 1956

The subject test was started on 11/28/56 and completed 3/25/57. Again, because this test was used as a fill in with our other work it resulted in the span of time involved.

Procedure

1. Ten (10) guns were selected from warehouse and were fired 320 rds. each using sixteen (16) types of ammunition.
2. All ten guns were fired three 5-shot groups from a bench, using a twenty power scope and two shooters for accuracy.
3. Function-wise the best, average and worst guns were continued on up to 1,000 rds. each.
4. The average gun was then carried to 6,000 rds., using the regular routing ticket with measurements taken periodically.
5. A live round unloading test was performed on all ten guns, using five rounds each of the sixteen types.

The results are as follows:

<u>Gun No.</u>	<u>Rds.</u>	<u>No. of Malf.</u>	<u>Rate</u>	<u>Type</u>
397294	320	0	0	-
396596	320	0	0	-
285508	320	0	0	-
397288	320	0	0	-
397177	320	0	0	-
397112	320	0	0	-
396991	320	0	0	-

W. A. East

-2-

March 29, 1957

Gun No.	Rds.	No. of Malf.	Rate	Type
385749	1,000	0	0	-
395367	1,000	5	.29%	5 Failures to feed from mag.

A replacement of the magazine follower was made at 60 rds. of firing due to misalignment and this corrected the malfunctions that occurred.

396942	6,000	3	.05%	2 Failures to eject 1 Failure to extract
--------	-------	---	------	---

The extractor broke at 4,600 rds. (replaced).
This gun also completed and rain and dust test satisfactorily.

Gun No.	Group Size	Point of Impact
397294	1) 2.27"	1.08" high 1.02" left
	2) 1.25"	.75" .5" "
	3) 2.98"	1.22" " 1. " "
	Avg. 2.17"	
396596	1) 2.35"	1.8" high 1.94" right
	2) 2.98"	2.05" " 1. " "
	3) 1.1"	1.3" " 1.25" "
	Avg. 2.14"	
885508	1) 2.05"	1.76" high 1.15" right
	2) 2.1"	1.05" " 1.08" "
	3) 2. " "	.7" " .1" "
	Avg. 2.07"	
395367	1) 2.04"	1.75" high 2.2" left
	2) 2.9"	2.4" " 1.47" "
	3) 2.61"	3.4" " 1.5" "
	Avg. 2.51"	
397112	1) 3.9"	1.1" high .1" left
	2) 2.5"	.9" " .26" right
	3) 1.4"	.85" " .0
	Avg. 2.6"	

W. A. Best

-3-

March 29, 1957

Gun No.	Group Size	Point of Impact			
296991	1)	3.28"	2.6"	high	.8" left
	2)	2.6 "	3. " "		.2" right
	3)	1.3 "	2.7"	"	.2"
	Avg.	2.39"			
385749	1)	3.04"	2. " "	high	2.2" left
	2)	1.6 "	2. " "	"	1.5" "
	3)	2.3 "	1.75"	"	.3" "
	Avg.	2.31"			
395492	1)	1.4"	.2 " "	high	.4" right
	2)	.6"	1.8 " "	"	.1" left
	3)	2.05"	2.58"	"	.65" "
	Avg.	1.35"			
397288	1)	2.9 "	2. " "	high	.4 " left
	2)	2.1 "	2.3 " "	"	.3 " "
	3)	2.38"	2.5 " "	"	.2 " "
	Avg.	2.44"			
397177	1)	2.5 "	1.32"	high	.9 " left
	2)	2.3 "	1.45"	"	.8" "
	3)	1.4 "	1.78"	"	.3" "
	Avg.	2.07"			

The accuracy is well within the gallery specs. and there is no significant change in point of impact.

The following is the list of ammunition used in the initial 320 rds. of firing, and also in the live round unloading test.

0- 20	Rem. 180 gr. B.P.	161-180	Win. 150 gr. SP
21- 40	West. 150 gr. G.P.	181-200	Win. 180 gr. HP
41- 60	West. 220 gr. SP	201-220	Peters 220 gr. HP
61- 80	West. 150 gr. KB	221-240	West. 180 gr. MC
81-100	Peters 180 gr. PP	241-260	Rem. 150 gr. HP
101-120	Rem. 220 gr. SP	261-280	West. 150 gr. SP
121-140	Win. 110 gr. SP	281-300	Peters 220 gr. SP
141-160	Rem. 150 gr. MI	301-320	Rem. 180 gr. PSP

All guns performed satisfactorily on unloading live ammunition.

W. A. Best

-4-

March 29, 1957

The following are the measurements taken on the endurance guns:

	R O U N D S						
	320	1000	2000	3000	4000	5000	6000
Head Space	.004"	.004"	.004"	.004"	.004"	.005"	.005"
Trigger Pull	5#	4#8oz.	4#8oz.	4#8oz.	4#8oz.	4#10oz.	4#16oz.
Firing Pin Indent	.020"	.019"	.019"	.019"	.019"	.019"	.019"
Bolt Opening (Cocked)	7#	6#8oz.	6#7oz.	4#	4#	4#	4#
" (Uncocked)	9#8oz.	9#6oz.	9#6oz.	9#	9#	9#	9#
Safety Sear Test	OK	OK	OK	OK	OK	OK	OK
Jar Off Test	OK	OK	OK	OK	OK	OK	OK
Main Spring	6.4"	6.4"	6.4"	6.4"	6.4"	6.4"	6.4"
Ejector Spring	1.3"	1.3"	1.3"	1.3"	1.3"	1.3"	1.3"
Sear Spring	.55"	.55"	.5"	.5"	.5"	.5"	.5"

Conclusions

The above tests show the quality of this model and caliber to be exceptionally good and will surely carry the Remington name.

C. J. Theriault
C. J. Theriault
Supervisor - Testing Unit

CJT:f