

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington
STAMPEDPETERS
STAMPEDDistribution: C. B. Workman
J. W. Brooks
C. E. Ritchie
P. Nasypany

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

RESEARCH TEST and MEASUREMENT REPORT - Report No. 821161M/700 .222 CALIBER COMPARISON TEST - USING THE STAMPED NO-BIND FOLLOWER
VS CURRENT PRODUCTION SPRING UNALTERED AND ALTEREDPrepared by: J. BaggettaDate Prepared: 1-27-83

Proofread and Cleared By:

J.H. Hennings, / R.E. Nightingale,
Foreman-Test Lab / Foreman-Measurement Lab*R.E. Nightingale* 2-23-83
Signature DateC.E. Ritchie,
Sr. Supervisor - Testing,
Meas. & Mech. Analysis Lab*C.E. Ritchie* 2/23/83
Signature Date

TEST & MEASUREMENT LAB REPORT

REPORT NUMBER: 821161
REPORT TITLE: M/700 - .222 Caliber Comparison Test -- (Using the Stamped No-Bind Follower VS Current Production Spring Unaltered and Altered
MODEL(S): 700
GAUGE OR CALIBER: .222
DATE: 4-26-82
WORK ORDER NO.: C-5010-000
PART NAME: Stamped No-Bind Follower
DESIGNER/ENGINEER: P. Nasypany

TEST TYPE:

1. PHOTO LAB
2. STRENGTH TEST - NO. OF GUNS TESTED _____
3. FUNCTION TEST - NO. OF GUNS TESTED 7
4. ACCURACY TEST - NO. OF GUNS TESTED _____
5. MEASUREMENTS - TYPE: _____
6. ENVIRONMENTAL TEST
7. AMMUNITION TESTING & EVALUATION - TYPE: _____
8. VISUAL EVALUATION - _____ OUT OF _____ GUN SAMPLE
9. ENDURANCE - NO. OF GUNS TESTED: 7

NO. OF ROUNDS PER GUN: 150

TOTAL ROUNDS FIRED IN TEST: 2100

AMMO TYPE: MAGS. _____; TARGET: _____

RIM FIRE _____ CENTER FIRE X

January 27, 1983

TO: R. E. NIGHTINGALE

FROM: J. BAGGETTA

REPORT TITLE M/700 .222 CALIBER COMPARISON TEST - USING THE STAMPED NO-BIND
FOLLOWER VS. CURRENT PRODUCTION SPRING UNALTERED & ALTERED

ABSTRACT

A request was received from P. Nasypany, Current Firearms Design, to evaluate 5 Stamped No-Bind Followers vs. the current production Cast Followers and the following Magazine Spring: Current production altered and unaltered.

SCOPE OF TEST

To evaluate and compare the results of the following Follower/Spring combinations:

- 1.) Current production Cast Magazine Follower/current production spring unaltered.
- 2.) Stamped No-Bind Follower/current production spring unaltered.
- 3.) Current production Cast Magazine Follower/current production spring altered.
- 4.) Stamped No-Bind Follower/current production spring altered.

TEST RESULTS

- 1.) The following followers were used with the current production spring unaltered.
 - o Two control rifles were fired a total of 300 rounds (150 rounds each) experiencing 2 malfunctions for an overall malfunction rate of 0.7%.
 - o Five stamped No-Bind Followers were fired a total of 750 rounds (150 rounds each) experiencing 45 malfunctions for an overall malfunction rate of 6.0%.
- 2.) The following followers were used with the current production spring altered by B. Joy, Process Engineering.
 - o Two control rifles were fired a total of 300 rounds (150 rounds each) experiencing 4 malfunctions for an overall malfunction rate of 1.3%.
 - o Five stamped No-Bind Followers were fired a total of 750 rounds (150 rounds each) experiencing 66 malfunctions for an overall malfunction rate of 8.5%.

TEST PROCEDURE

Prior to testing, the Followers were assembled into the M/700 .222 caliber rifles. There were two test conditions; first was current production spring unaltered and second was current production spring altered.

A. Measurements

No measurements were taken.

B. Field Function Test

The Field Function Test was run at the Ilion Fish & Game Club Rifle Range. The rifles were cooled 30 rounds (able to hold barrel in hand). Five men were used to fire the rifles, incorporating the round robin system. Each man took 30 rounds of each bullet weight and ammo type and fired 5 rounds at a time, using the feed rate 10 rounds slow, 10 rounds medium and 10 rounds fast.

C. Ammunition

Ammunition used in Field Function Test :

- o Remington - 50 gr. Pointed Soft Point
- o Remington - 50 gr. Hollow Point
- o Remington - 55 gr. Metal Case

D. Test Rifles

Rifles used in Field Function Test:

<u>Samples</u>	<u>Control</u>
B6293957	B6292414
B6294381	B6271098
B6292508	
B6293903	
B6271106	

REPORT TEXT

A. Field Function - Current Production Spring Unaltered.

- o Current Cast Magazine Follower - 2 Follower related malfunctions. (Refer to Appendix "A" Data Sheet No. 1.)
- o Stamped No-Bind Follower - 45 Follower related malfunctions. (Refer to Appendix "A" Data Sheet No. 1.)

B. Field Function - Current production spring altered.

- o Current Cast Magazine Follower - 4 Follower related malfunctions. (Refer to Appendix "A" Data Sheet No. 2.)
- o Stamped No-Bind Follower - 66 Follower related malfunctions. (Refer to Appendix "A" Data Sheet No. 2.)

" APPENDIX " A "

FIELD CYCLE TEST - CENTERFIRE

REPROT NO.: 821161

DATE: 5-6-82 MODEL: 700 GAUGE: 222 SERIAL NO. _____
PREVIOUS ROUNDS _____
TEST TITLE: SUMMARY SHEETS PER - RIFLE - ARMO TYPE - SHOOTER
TTL. RDS. FIRED: _____
TTL. MALFUNCTIONS: _____
MALFUNCTION RATE: _____

"MALFUNCTIONS"

SUMMARY SHEET BY	SHELLS	NO. OF ROUNDS FIRED	FIRING	FEED FROM MAG.	FEED FROM MAG.	SHELL STOPS MAG.	POWER OVERRIDE	DON'T LOCK UP	STEM CHAMBER				SHELL JUMPS MAG.	FOLLOWER BINDS	LOADING	BOLT OVERRIDE	ACTION HANG UP	DON'T EXTRACT	BREA KAGES	ADJUSTMENTS	REPLACEMENTS	MALFUNCTIONS PER Rate Followey Related	PLF. RATE PER ALL
									1st	2nd	3rd	4th											
2 Control		150																				0	0
B6292363		150																				1.3	1.3
B6270227		150																					
5 Samples																							
B6293957		150																				4.0	4.0
B6294387		150														2						6.7	6.7
B6292508		150											15									10.7	10.7
B6293903		150														2						4.0	4.0
B6271106		150											5									3.3	3.3
TOTAL (PER MAL.)																							

* Control rifles had current cast magazine follower
* Sample rifles had stamped No. Bind follower

FIELD CYCLE TEST - CENTERFIRE

REPROT NO.: 821161

DATE: 5.7.82

MODEL: 700

GAUGE: 222

SERIAL NO. _____

PREVIOUS
ROUNDSTEST TITLE: SUMMARY SHEETS PER - RIFLE - ~~AMP TYPE~~ - ~~SHOOTER~~

Data Sheet No 2

TTL. RDS. FIRED: _____

TTL. MALFUNCTIONS: _____

MALFUNCTION RATE: _____

Production Springs Crimped on Both "MALFUNCTIONS" ENDS 3/8" by Bob Joy

SUMMARY SHEET BY	SHOOTER	NO. OF ROUNDS FIRED	FIRING	TRAPPED SHELL	DON'T EJECT	DON'T EJECT BACK	DON'T LOCK UP	FEED FROM MAG.	SHELL STOPS MAG.	POWER OVERRIDE	DON'T LOCK UP	STEM CHAMBER				SHELL JUMPS MAG.	FOLLOWER BEARS TIP DOWN	LOADING	BOLT OVERRIDE	ACTION HANG UP	DON'T EXTRACT	BREAKEYS	ADJUSTMENTS	REPLACEMENTS		MALFUNCTIONS RATE Followers Related	A.F. RATE PER OVER-ALL
								1st LATCH	2nd			HIGH	LOW	HIGH	LEFT												
2 Control																											
B6292414		150										1		2												2.0	2.0
B6271098		150											1													0.7	0.7
5 Samples																											
B6293957		150										3		1	2											4.0	4.0
B6294381		150										1				10										7.3	7.3
B6292508		150										1		1	2	15										12.7	12.7
B6293903		150										4			1	14										12.7	12.7
B6271106		150										3				6	2									7.3	7.3
TOTAL (PER MAL.)																											

* Control rifles had current cast magazine follower

* Sample rifles had stamped NO-BIND follower