

RD-48-B

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

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RESEARCH TEST and MEASUREMENT REPORT - Report No. 82 0251

M/7400 - M/7600 - NEW "ZYTEL 101" SAFETY DETENT BALL EVALUATION

Prepared by: A.J. Long

Date Prepared: 3-25-82

Proofread and Cleared By:

J.H. Hennings, / R.E. Nightingale,
Foreman-Test Lab / Foreman-Measurement Lab

James Hennings 6-2-82
Signature Date

C.E. Ritchie,
Sr. Supervisor - Testing,
Meas. & Mech. Analysis Lab

C.E. Ritchie 6/2/82
Signature Date

TEST & MEASUREMENT LAB REPORT

REPORT NUMBER: 82 0251
 REPORT TITLE: M/7400 - 7600 - NEW "ZYTEL 101" SAFETY DETENT BALL
 EVALUATION
 MODEL(S): 7400/7600
 GAUGE OR CALIBER: ALL
 DATE: 3/24/82
 WORK ORDER NO.: C-1704
 PART NAME: Detent Ball
 DESIGNER/ENGINEER: Al Eddy

TEST TYPE:

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

NO. OF ROUNDS PER GUN: _____

TOTAL ROUNDS FIRED IN TEST: _____

AMMO TYPE: MAGS. _____; TARGET: _____

RIM FIRE _____ CENTER FIRE _____

Report No. 82 0251

REMINGTON ARMS COMPANY, INC.
Firearms Research Division

May 25, 1982

TO: J.H. Hennings

FROM: A.J. Long

REPORT TITLE: M/7400 - 7600 - New "Zytel 101" Safety Detent Ball Evaluation

ABSTRACT

A request was received from A. Eddy, Research Design to evaluate the performance of two new design safety detent ball (Zytel 101) versus one (1) current production ball for endurance.

SCOPE OF TEST

To determine if the new Zytel 101 detent ball is a possible replacement for the steel ball which causes noise related problem while hunting.

TEST RESULTS

All three (3) samples were run a total of 10,000 dry cycles each.

The Zytel samples show slight wear and deformation where the safety button rubs against the ball. The steel ball showed no signs of wear.

REPORT TEXT

All samples were assembled in a M/7400 fire control and run on the Safe on-off dry cycle machine in the Test Lab.

Visual inspection was made while samples were running and measurements taken at 0 - 2500 - 5000 - 7500 - 10,000 cycle levels.

Safe On - Off results are as follows:

<u>Cycles</u>		<u>Steel</u>	<u>Zytel No. 1</u>	<u>Zytel No. 2</u>
0	Safe On	4.91	5.08	7.08
	Off	4.83	4.83	7.16
2500	Safe On	6.83	4.08	6.16
	Off	5.16	4.83	5.58
5000	Safe On	6.16	4.33	5.41
	Off	6.40	4.58	5.16
7500	Safe On	6.83	4.50	5.58
	Off	6.66	4.25	4.75
10000	Safe On	7.08	4.33	5.00
	Off	6.68	4.16	5.16

Remington Specifications for these measurements are:

Max. 8.00 - Min. 4.00