

TEST AND MEASUREMENT LAB

TEST REPORT

REQUESTER: D. Findlay  
 WRITTEN BY: D. Thomas  
 DATE: 11/10/93  
 WORK ORDER:  
 REPORT NO.: 932792  
 TEST TYPE: Function / Endurance  
 MODEL: 522

CAL: 22

REASON FOR TEST:

To compare function and endurance characteristics of the experimental sear 2534 and experimental Firing Pin Spring 2475 to the current design.

EQUIPMENT REQUIRED:

Ten control Model 522's (SERIAL #'s)  
 3049628      3049627      3049655      3049655      3049786  
 3049641      3049745      3049785      3049748      3049656  
 Ten 522's with exp. sear 2534 & exp. firing pin spring 2475 (SERIAL #'s)  
 3049882      3049878      3049886      3049881      3049890  
 3049889      3049855      3049872      3049874      3049883

2000 rounds of each of the ammunition types listed.

Winchester	Remington	Federal	CCI
X22LR	6122	710	00052
XT22LR	1522	712	00033
X22LRH	1922		

TEST PROCEDURE:

Twenty guns were shot 100 rounds with each of the ammunition types listed above, for a total of 1000 rounds per gun. All malfunctions and breakages were recorded.

TEST RESULTS:

The malfunctions by group were as follows:

Malfunction	Control	Experimental
Fail to Fire (Stopped 2nd Sear)	30	131
Trapped Shell	10	65
Fail to Fire (poor hit)	6	51
Bolt Override	19	36
Don't Close Up	60	31
Stems Chamber	15	18
Don't Blow Back (Stopped 2nd Sear)	0	3
Fail to Fire (good hit)	2	2
Fail to Connect	3	0
Blown Case	1	0
<b>Total</b>	<b>146</b>	<b>337</b>
Total rounds fired	10000	9800
Malfunction rate	1.46%	3.4%

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RESEARCH TEST & MEASUREMENT LAB WORK REQUEST

Purpose for Testing:

- Developmental
- Design Acceptance
- Trial & Pilot
- Safety Issue
- Design Change Eval.
- Plant Assistance
- Marketing Request
- Quality Evaluation
- Ammunition Evaluation
- Cost Reduction
- Litigation Support
- Other

Types of Testing Requested:

- Intentional Abuse
- Function Test
- Accuracy Test
- Measurements
- Endurance Testing
- Dry Cycle Testing
- Ammunition Testing
- Environmental Testing
- Photography/Video
- High Speed Photography
- Other (specify)

Type Report Desired:

- Formal Written
- Informal Written
- Results only

Date Requested: 10 / 6 / 93  
(dd / mm / yy)

Date Needed: 11 / 6 / 93  
(dd / mm / yy)

Work Order No. to be Charged for This Testing: \_\_\_\_\_

Name of Requester: D. Friday  
Extension where you can be reached: JVC  
Pager Number: 241

Firearm Descriptions:

Model(s): <u>522 exp.</u>	Model(s): <u>522 CONTROL</u>	Model(s): _____
Gage/Cal: _____	Gage/Cal: _____	Gage/Cal: _____
Barrel Type: _____	Barrel Type: _____	Barrel Type: _____
RAMAC #: _____	RAMAC #: _____	RAMAC #: _____
No. of samples: <u>10</u>	No. of samples: <u>10</u>	No. of samples: _____

Explain in DETAIL the reason(s) for conducting this test.

- what are we trying to learn?
- what will be the criteria used to judge the results?
- use back of sheet if more room is needed .

SHOOT 10 ROUNDS WITH EXP  
 F.P. SPRING 2475  
 SEAR 2534 + EXP  
 1000 RD. ENDURANCE WITH VARIOUS AMM.  
 TYPES. SHOOT ALSO THE CONTROLS  
 THE SAME 1000 RDS.

TL-FORM # -001

Note: No firearms or parts will be tested in the Lab unless accompanied by a Work Request that is completely filled out along with the guns or parts that are to be tested. NO EXCEPTIONS

Date completed: \_\_\_/\_\_\_/\_\_\_

Completed By: \_\_\_\_\_

Report Completed: \_\_\_/\_\_\_/\_\_\_