

TEN GUN TESTS
4/7/10

83

ET06644

Snedeker, Jim

From: Franz, Scott
Sent: Thursday, November 02, 2000 8:54 AM
To: Golemboski, Matt R.; Zajk, Joseph J; Diaz, Danny; Keeney, Mike; Danner, Dale; Snedeker, Jim
Subject: 10 Gun Test Summary
Importance: High

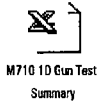
Attached are the summary results for the 10 gun test that was completed yesterday.

Results can be summarized as follows:(see attached file for specifics)

- 2 Bolt Handle Braze Failures
 1. One handle failed at 107 rounds during live fire testing
 2. The second handle failed during the bolt plug abuse test
- Trigger pulls not within Specification
- Followers sticking in magazine boxes
- Bolt stop detent Inconsistent
- Bolt Closing Force High
 1. Improved over DAT (Could not measure accurately)
 2. High closing force related to extractor operation (2 guns)

In addition our "albeit" limited test shows the new bolt plug design superior. Recommend T&P samples all have the new configuration. Call if you have any questions.

Scott

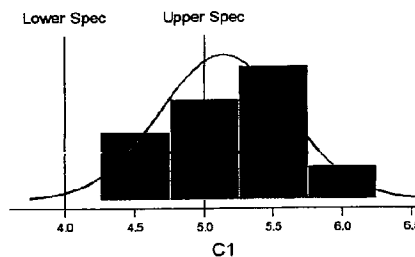


PROJECT# 241095
TLW 0344

GUN	TRIGGER PULL	Trial 1	Trial 2	Trial 3	AVERAGE
A-1		4.75	5	4.5	4.75
A-2		4.75	4.75	4.75	4.75
A-3		5.5	5.25	5	5.25
A-4		5.5	5.5	5.25	5.42
A-5		6	5.75	5.75	5.83
A-6		4.75	4.25	4.75	4.58
A-7		4.75	5	5	4.92
A-8		5.5	5.5	6	5.67
A-9		6	5.25	5.5	5.58
A-10		4.75	4.5	4.75	4.67

Overall Avg. = 5.14 lbs.
Std. Dev. = 0.4632378 lbs.

Model 710 - 10 Gun Test Data



Pp	0.36	Targ	*	Mean	5.14209	%USL Exp	62.06	PPM+USL Exp	620498
PPU	-0.10	USL	5.000	Mean+3s	6.53058	Obs	50.00	Obs	500006
PPL	0.82	LSL	4.000	Mean-3s	3.75342	%LSL Exp	0.68	PPM+LSL Exp	6807
Ppk	-0.10	k	1.284	s	0.46286	Obs	0.00	Obs	0
Cpm	*	n	10.000						

CONFIRM PROPER FIT BETWEEN STOCK AND RECEIVER AND STOCK TO BARREL. NO SHIMS

GUN	
A-1	STOCK, BARREL AND RECEIVER GAPS NOT UNIFORM BUT NOT EXCESSIVE NO SHIMS
A-2	STOCK, BARREL AND RECEIVER GAPS NOT UNIFORM BUT NOT EXCESSIVE NO SHIMS
A-3	STOCK, BARREL AND RECEIVER GAPS NOT UNIFORM BUT NOT EXCESSIVE NO SHIMS
A-4	STOCK, BARREL AND RECEIVER GAPS NOT UNIFORM BUT NOT EXCESSIVE NO SHIMS
A-5	STOCK, BARREL AND RECEIVER GAPS NOT UNIFORM BUT NOT EXCESSIVE NO SHIMS
A-6	OK
A-7	OK
A-8	STOCK, BARREL AND RECEIVER GAPS NOT UNIFORM BUT NOT EXCESSIVE NO SHIMS
A-9	STOCK, BARREL AND RECEIVER GAPS NOT UNIFORM BUT NOT EXCESSIVE NO SHIMS
A-10	STOCK, BARREL AND RECEIVER GAPS NOT UNIFORM BUT NOT EXCESSIVE NO SHIMS

CONFIRM PERMANENT ATTACHMENT OF RECOIL LUG TO STOCK

RECOIL LUGS ON ALL 10 GUNS WERE PERMANENTLY GLUED TO THE STOCK.

GUN	HEAD SPACE	PROOF RDS	HEAD SPACE @ 10 RDS.	BOLT OPENING FORCE MEASUREMENTS (lbs.)			
				w/DUMMY	w/o DUMMY	w/DUMMY	w/o DUMMY
A-1	MIN	1	0.001	4.23	2.67	12.59	11.62
A-2	0.001	1	0.003	3.43	2.84	13.75	13.46
A-3	0.002	1	0.002	2.48	2.67	13.15	12.79
A-4	MIN	1	0.002	3.89	3.34	11.63	10.62
A-5	0.001	1	0.002	3.38	2.55	13.54	12.35
A-6	0.001	1	0.002	3.26	2.53	11.69	11.54
A-7	0.001	1	0.002	2.97	2.59	14.88	15.09
A-8	0.001	1	0.002	3.28	3.09	14.61	14.97
A-9	0.001	1	0.002	3.16	3.39	11.8	11.03
A-10	0.001	1	0.002	3.70	3.54	10.03	9.83
Avg.				3.38	2.92	12.77	12.33
Std. Dev.				0.49	0.39	1.51	1.77

BOLT CLOSING FORCE MEASUREMENTS (lbs.)	
w/o DUMMY	
FORWARD FORCE	

38.70
32.85
35.45
34.37
34.82
33.75
32.24
39.68
30.59
30.17
34.33
3.07

Note: Could not get consistent closing force measurements.
Overall impression is that they close better than DAT samples.

PROJECT# 241095
TLW 0344
200 ROUND JACK FUNCTION TEST

GUN	AMMO	ROUNDS	
A-1	REM R30065 180GR	200	NO MALFUNCTIONS
A-2	REM R30065 180GR	107	BOLT HANDLE BROKE 107 RDS
A-3	REM R30065 180GR	200	NO MALFUNCTIONS
A-4	REM R30065 180GR	200	(6) STEM LOWS. FOLLOWER STICKING. FILED FOLLOWER NO MORE MALFUNCTIONS
A-5	REM R30065 180GR	200	NO MALFUNCTIONS
A-6	REM R30065 180GR	200	NO MALFUNCTIONS
A-7	REM R30065 180GR	200	NO MALFUNCTIONS
A-8	REM R30065 180GR	200	NO MALFUNCTIONS
A-9	REM R30065 180GR	200	(6) STEM LOWS. FOLLOWER STICKING. FILED FOLLOWER NO MORE MALFUNCTIONS
A-10	REM R30065 180GR	200	NO MALFUNCTIONS

* TESTERS REPORTED THAT THE BOLT CLOSING FORCE WAS VERY HIGH WHILE ROTATING THE OPERATING HANDLE
DOWNWARD ON GUNS A-1 & A-7, THIS OCCURRED MOST OF THE TIME, BUT NOT ON EVERY CYCLE

ET06647

PROJECT# 241095
TLR 0344
ISS ABUSE TEST

GUN

OLD STYLE INSERT

- A-1 BOLT CLOSED EASILY WITH ISS LOCKED. NO VISIBLE DAMAGE.
- A-5 CLOSED BOLT WITH ISS LOCKED. NO DAMAGE VISIBLE.
- A-7 **CLOSED BOLT WITH ISS LOCKED. BROKE BOLT PLUG, DAMAGE VISIBLE.**
- A-8 **CLOSED BOLT WITH ISS LOCKED. BROKE BOLT PLUG. DAMAGE VISIBLE.**

NEW STYLE INSERT

- A-3 CLOSED BOLT WITH ISS LOCKED. NO DAMAGE VISIBLE.
- A-6 COULD NOT CLOSE BOLT ISS LOCKED. NO DAMAGE VISIBLE.
- A-9 CLOSED BOLT WITH ISS LOCKED. NO DAMAGE VISIBLE.
- A-10 COULD NOT CLOSE BOLT WITH ISS LOCKED. NO DAMAGE VISIBLE.

INSPECTED ALL BOLT PLUG WITHOUT VISIBLE DAMAGE USING STEREOSCOPE