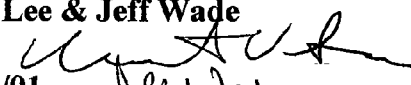



Test Lab Work Request Form

Rev.3 -20 April, 2000

Date Submitted: 06-07-01	Tracking # :TLW 0546
Project # : 241095	Engineer: M. Keeney
Test Objective: Confirmation of proposed M/710 reduced bolt body diameter samples' performance when subjected to SAAMI Drop Testing. 6 Guns to be tested, 3 sighted & 3 scoped	
Test Description: 1. Measure initial trigger pull. 2. Measure bolt body diameter using micrometers. 3. Inspect and adjust supplied firearms to process minimums for trigger pull (4 lbs.) and sear engagement (.020). 4. Perform standard SAAMI Jar-off Test, Rotation Test and Drop Test and record results per our standard test procedures. 5. Measure sight screw hole depth on the 3 sighted guns, per print- D-305320. See Phillip for print & measurement method.	
Resource Usage: Manpower Requirements - Facility Requirements -	Test Results Required: Formal Report: Data Only:X Requested Completion Date: 06-13-01
Required Materials/Parts/Equipment (include quantities): Firearms supplied by Mayfield.	
Test Parts Availability Date: 06-07-01	
Start Date: 06-12-01 Completion Date: 06-12-01 Report Date: 06-12-01	Test Assigned To: Bob Lee & Jeff Wade Assignment Date: 06/11/01  

ET30270

PROJECT: # 241095
TLW0546

REMINGTON M/710
REDUCED BOLT BODY DIAMETER

START DATE : 06-12-01
FINISH DATE : 06-13-01

M/ 710 RIFLE REDUCED DIAMETER BOLT BODY
PROJECT #241095
TLW0546 6/13/01

INITIAL TRIGGER PULL	
avg. of 6 measurements	
A1	5.88
A2	3.96
A3	4.79
A4	4.88
A5	4.66
A6	4.62

SET PRIOR TO DROP TEST		
avg. of 6 measurements		
	TRIGGER PULL	ENGAGEMENT
A1	3.96	0.0200
A2	3.96	0.0200
A3	3.96	0.0207
A4	4.08	0.0204
A5	3.96	0.0203
A6	3.96	0.0204

AFTER DROP TEST		
avg. of 6 measurements		
	TRIGGER PULL	ENGAGEMENT
A1	4.00	0.0200
A2	4.00	0.0200
A3	4.00	0.0207
A4	4.58	0.0204
A5	3.96	0.0203
A6	3.96	0.0204

BOLT BODY DIAMETER	
A1	.689 +.002
A2	.688 +.003
A3	.698 +.002
A4	.689 +.002
A5	.688 +.003
A6	.689 +.002

SAAMI JAR-OFF, RATATION & DROP TESTING	
Drop Test data sheets in file	
A1	PASS
A2	PASS
A3	PASS
A4	PASS
A5	PASS
A6	PASS

SIGHT SCREW HOLE DEPTH					
REFERENCE POINT D-305320					
sighted guns only					
REAR			FRONT		
	HOLE A	HOLE B		HOLE C	HOLE D
A1	0.140	0.140	A1	0.113	0.110
A2	0.140	0.139	A2	0.111	0.112
A3	0.141	0.140	A3	0.111	0.110

ET30271

Remington.

PO BOX 99 • 22 RIFLE TRAIL • HICKORY, KY 42051

TO: MIKE KEENEY FROM: TERRY HELMER
COMPANY: _____ DATE: 6/8/01
FAX NUMBER: _____ TOTAL NO. OF PAGES INCLUDING COVER: 2
PHONE NUMBER: _____ SENDER'S PHONE NUMBER: 270-856-4200 x
RE: _____ SENDER'S FAX NUMBER: 270-856-3233

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

MIKE,

PER MY VOICE MAIL TO YOU THIS
AFTERNOON:

- SIX M/710 30-06 CAL (3 SCORED : 3 SIGHTED)
- WILL SHIP TO YOU TODAY HPS GROUND.
- THE BOLT BODIES ARE AT .690" DIA.
- GUNS ARE FOR DROP TEST
- ADJUSTING SCREWS DIDN'T HAVE DUCO APPLIED.
- I WILL ALSO SEND A BOX WITH SIX BOLT BODY ASSEMBLIES AT .690" DIA. FOR JIM HARBON TO TEST.

THANKS,
TERRY

IF YOU RECEIVE THIS FAX BY MISTAKE, PLEASE NOTIFY SENDER.

ET30272

M710 ENGINEERING TEST GUNS				
DATE	6/8/01			
NAME	Helmer			
TEST:	Drop test on guns with bolt body at .690 dia. M710's (30-06 cal.)			
QTY.	3 ea. Scoped guns and 3 ea. Sighted guns.			
SENT TO:	E-town	C/O Mike Keeney		
		REF. INSERT		
		ADJUSTING		
		FIXTURE BENCH		
	Ser. No.	T.P. Fix.	T.P. Ben.	Sear Lift
Scoped	71017722	5.087 lb.	4.667 lb.	0.015
	71016333	4.912 lb.	4.417 lb.	0.016
	71015921	5.045 lb.	5.000 lb.	0.017
Sighted	71015574	4.968 lb.	5.000 lb.	0.015
	71016322	5.080 lb.	5.000 lb.	0.016
	71015057	4.877 lb.	4.583 lb.	0.016
	Avg.	4.992 lb.	4.778 lb.	0.016
NOTE: No Duco cement was put on any of the adjusting screws.				

83

ET30273

Project # 241095
Tracking # TLW 0546

Initial
Trigger pull

Bob + Jeff

AVG.

6-12-01

A1	6.0	6.0	6.0	5.75	5.75	5.75	5.88
A2	4.8	3.75	4.0	4.0	4.0	4.0	3.96
A3	5.0	5.0	4.25	4.5	4.5	5.0	4.79
A4	5.25	4.75	5.0	4.75	4.75	4.75	4.88
A5	4.75	4.75	4.25	4.75	4.5	5.0	4.66
A6	4.75	4.75	4.75	4.5	4.5	4.5	4.62

Adjusted Trigger pull

AVG.

83

A1	4.0	4.0	4.0	4.0	3.75	4.0	3.96
A2	4.0	3.75	4.0	4.0	4.0	4.0	3.96
A3	4.0	4.0	4.0	4.0	4.0	3.75	3.96
A4	4.0	4.0	4.5	4.0	4.0	4.0	4.08
A5	4.0	3.75	4.0	4.0	4.0	4.0	3.96
A6	4.0	4.0	4.0	3.75	4.0	4.0	3.96

Engagement

A1	,0201	,0200	,0201	AVG.	,0200
A2	,0200	,0201	,0203	AVG.	,0200
A3	,0208	,0200	,0207	AVG.	,0207
A4	,0201	,0203	,0209	AVG.	,0204
A5	,0207	,0200	,0204	AVG.	,0203
A6	,0203	,0209	,0201	AVG.	,0204

ET30274

	Bolt Body Diameter			AVG.
A1	.6937	.6932	.6935	.6934
A2	.6930	.6935	.6936	.6933
A3	.6930	.6937	.6935	.6934
A4	.6936	.6939	.6930	.6935
A5	.6935	.6938	.6935	.6936
A6	.6932	.6933	.6935	.6933

	End of Test Trigger Pull							AVG.
A-1	4.0	4.0	3.75	4.0	4.5	3.75	4.0	
A-2	3.5	3.5	3.25	3.25	3.0	3.25	3.29	adjusted
A3	4.0	4.0	4.25	3.75	4.0	4.0	4.0	*
A4	4.5	4.5	5.0	4.5	4.25	4.75	4.58	
A5	3.75	4.25	4.0	3.75	3.75	4.00	3.92	
A6	4.5	3.75	3.75	4.0	4.0	4.0	4.0	

	End of Test Engagement						AVG.
A1	.0206	.0202	.0207				.0205
A2	.0208	.0200	.0212				.0206
A3	.0201	.0199	.0203				.0201
A4	.0205	.0204	.0202				.0204
A5	.0205	.0206	.0205				.0205
A6	.0205	.0205	.0205				.0205

	Adjusted Trigger Pull							AVG
A1	4.0	4.0	3.75	4.0	4.5	3.75	4.0	
A2	4.0	4.0	3.75	4.0	4.25	4.0	4.0	adjusted
A3	4.0	4.0	4.25	3.75	4.0	4.0	4.0	
A4	4.5	4.5	5.0	4.5	4.25	4.75	4.58	
A5	3.75	4.25	4.0	3.75	3.75	4.00	3.92	
A6	4.5	3.75	3.75	4.0	4.0	4.0	4.0	

ET30275

Rear Sight hole diameter

A1 Hole A .1400

A2 " A .1400

A3 " A .1405

~~A4 " A~~

~~A5 " A~~

~~A6 " A~~

Hole B .1400

" B .1390

" B .1400

~~" B~~

~~" B~~

~~" B~~

Front Sight hole diameter

A1 Hole C .1130

A2 " C ~~.1105~~ .1105

A3 " C .1110

~~A4 " C~~

~~A5 " C~~

~~A6 " C~~

Hole D .1100

" D .1115

" D .1100

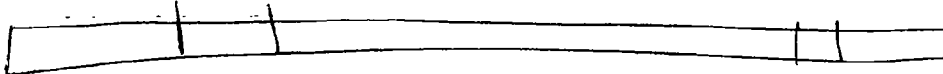
~~" D~~

~~" D~~

~~" D~~

A B

C D



CONFIDENTIAL 83

Original DATA

OL-12-01

Project: 241095

TLW: # 0546

ET30277

TLW 0546
Project No. 241095

Page 1 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST

Rifle
Firecontrol No. A-1 Firecontrol Type: STANDARD Date: 6-12-01
Dry Cycles/Rounds Completed: _____ Stock Type STANDARD Engagement at Start .020
Model No. 710 Serial No. 71015574 Engagement at End .0205
Trigger Pull at Start of Test (1) 4.0 (2) 4.0 (3) 4.0 (4) 4.0 (5) 3.75 (6) 4.0
Average Trigger Pull at Start of Test: 3.96 Std. Dev. of Trigger Pull at Start of Test: _____
Trigger Pull at End of Test (1) 4.0 (2) 4.0 (3) 3.75 (4) 4.0 (5) 4.5 (6) 3.75 ⁸³
Average Trigger Pull at End of Test: 4.0 Std. Dev. of Trigger Pull at End of Test: _____

Additional Notes and Comments

Bolt Body Diameter .6934 / With out SCOPE

For additional details on the proper procedures to be used for this Test Procedure refer to:

ANSI / SAAMI Z299.5-1990

SAAMI Specifications for Standard Jar-Off Test:

Jar-Off Test: 12 inch drop - onto 1" thick 85 durometer (Shore A) Rubber Matt
Firearm ready to fire, Safe in "Fire" position, Fresh Primed Case in
Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

12 inch drop (safety in "Fire" position) - one drop per orientation.

Comments

Barrel Horizontal, Bottom of Stock Down :	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Bottom of Stock Up :	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Left side of Stock Up :	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Right side of Stock Up :	Pass	<u>X</u>	Fail	_____
Barrel Vertical, Muzzle Up :	Pass	<u>X</u>	Fail	_____
Barrel Vertical, Muzzle Down :	Pass	<u>X</u>	Fail	_____

ET30279

TLW 0546

Project No. 241095

Page 2 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST (cont'd)

SAAMI Specifications for Standard Drop Test:

Drop Test: 48 inch drop - onto 1" thick 85 durameter (ShoreA) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

48 inch drop (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Barrel Horizontal, Bottom of Stock Down :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Barrel Horizontal, Bottom of Stock Up :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Barrel Horizontal, Left side of Stock Up :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Barrel Horizontal, Right side of Stock Up :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Barrel Vertical, Muzzle Up :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Barrel Vertical, Muzzle Down :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

SAAMI Specifications for Standard Rotation Test:

Rotation Test: Rest Firearm on the Butt end and allow Firearm to Fall
Drop - onto 1" thick 85 durameter (ShoreA) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

"Rotation" (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Firearm Vertical, Drop so Left side of Stock is Up :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Firearm Vertical, Drop so Right side of Stock is Up :	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Notes: _____

Tester Initials: JW

ET30280

TLW 0546
Project No. 241095

Page 1 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST

Rifle
Firecontrol No. A-2 Firecontrol Type: STANDARD Date: 6-12-01
Dry Cycles/Rounds Completed: _____ Stock Type STANDARD Engagement at Start 020
Model No. 710 Serial No. 71016322 Engagement at End _____
Trigger Pull at Start of Test (1) 4.0 (2) 3.75 (3) 4.0 (4) 4.0 (5) 4.0 (6) 4.0
Average Trigger Pull at Start of Test: 3.96 Std. Dev. of Trigger Pull at Start of Test: _____
Trigger Pull at End of Test (1) 4.0 (2) 4.0 (3) 3.75 (4) 4.0 (5) 4.25 (6) 4.0 83
Average Trigger Pull at End of Test: 4.0 Std. Dev. of Trigger Pull at End of Test: _____
Additional Notes and Comments
Bolt Body Diameter .6933 / without scope / Trigger Pull adjusted

For additional details on the proper procedures to be used for this Test Procedure refer to:

ANSI / SAAMI Z299.5-1990

SAAMI Specifications for Standard Jar-Off Test:

Jar-Off Test: 12 inch drop - onto 1" thick 85 durometer (Shore A) Rubber Matt
Firearm ready to fire, Safe in "Fire" position, Fresh Primed Case in
Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

12 inch drop (safety in "Fire" position) - one drop per orientation.

Comments

Barrel Horizontal, Bottom of Stock Down :	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Bottom of Stock Up :	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Left side of Stock Up :	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Right side of Stock Up :	Pass	<u>X</u>	Fail	_____
Barrel Vertical, Muzzle Up :	Pass	<u>X</u>	Fail	_____
Barrel Vertical, Muzzle Down :	Pass	<u>X</u>	Fail	_____

ET30281

TLW 0546

Project No. 241095

Page 2 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST (cont'd)

SAAMI Specifications for Standard Drop Test:

Drop Test: 48 inch drop - onto 1" thick 85 durameter (ShoreA) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

48 inch drop (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Barrel Horizontal, Bottom of Stock Down :	Pass <u>X</u>	Fail _____	front sight fell off
Barrel Horizontal, Bottom of Stock Up :	Pass <u>X</u>	Fail _____	
Barrel Horizontal, Left side of Stock Up :	Pass <u>X</u>	Fail _____	
Barrel Horizontal, Right side of Stock Up :	Pass <u>X</u>	Fail _____	
Barrel Vertical, Muzzle Up :	Pass <u>X</u>	Fail _____	
Barrel Vertical, Muzzle Down :	Pass <u>X</u>	Fail _____	

SAAMI Specifications for Standard Rotation Test:

Rotation Test: Rest Firearm on the Butt end and allow Firearm to Fall
Drop- onto 1" thick 85 durameter (ShoreA) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

"Rotation" (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Firearm Vertical, Drop so Left side of Stock is Up :	Pass <u>X</u>	Fail _____	
Firearm Vertical, Drop so Right side of Stock is Up :	Pass <u>X</u>	Fail _____	

Notes: _____

Tester Initials: JW

ET30282

TLW 0546
Project No. 241095

Page 1 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST

Rifle
Firecontrol No. A-3 Firecontrol Type: STANDARD Date: 6-12-01
Dry Cycles/Rounds Completed: _____ Stock Type STANDARD Engagement at Start 0207
Model No. 710 Serial No. 71015057 Engagement at End _____
Trigger Pull at Start of Test (1) 4.0 (2) 4.0 (3) 4.0 (4) 4.0 (5) 4.0 (6) 3.75
Average Trigger Pull at Start of Test: 3.96 Std. Dev. of Trigger Pull at Start of Test: _____
Trigger Pull at End of Test (1) 4.0 (2) 4.0 (3) 4.25 (4) 3.75 (5) 4.0 (6) 4.0 83
Average Trigger Pull at End of Test: 4.0 Std. Dev. of Trigger Pull at End of Test: _____

Additional Notes and Comments

Bolt Body Diameter, 6934 / with out scope

For additional details on the proper procedures to be used for this Test Procedure refer to:

ANSI / SAAMI Z299.5-1990

SAAMI Specifications for Standard Jar-Off Test:

Jar-Off Test: 12 inch drop - onto 1" thick 85 durometer (Shore A) Rubber Matt
Firearm ready to fire, Safe in "Fire" position, Fresh Primed Cuse in
Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

12 inch drop (safety in "Fire" position) - one drop per orientation.

Comments

Barrel Horizontal, Bottom of Stock Down :	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Bottom of Stock Up :	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Left side of Stock Up :	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Right side of Stock Up :	Pass	<u>X</u>	Fail	_____
Barrel Vertical, Muzzle Up :	Pass	<u>X</u>	Fail	_____
Barrel Vertical, Muzzle Down :	Pass	<u>X</u>	Fail	_____

ET30283

TLW 0546

Project No. 241095

Page 2 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST (cont'd)

SAAMI Specifications for Standard Drop Test:

Drop Test: 48 inch drop - onto 1" thick 85 durameter (Shore A) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

48 inch drop (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Barrel Horizontal, Bottom of Stock Down :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Barrel Horizontal, Bottom of Stock Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Barrel Horizontal, Left side of Stock Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Barrel Horizontal, Right side of Stock Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Barrel Vertical, Muzzle Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Barrel Vertical, Muzzle Down :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	

SAAMI Specifications for Standard Rotation Test:

Rotation Test: Rest Firearm on the Butt end and allow Firearm to Fall
Drop - onto 1" thick 85 durameter (Shore A) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

"Rotation" (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Firearm Vertical, Drop so Left side of Stock is Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Firearm Vertical, Drop so Right side of Stock is Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	

Notes: _____

Tester Initials: JW

ET30284

TLW 0546
Project No. 241-095

Page 1 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST

Rifle
Firecontrol No. A-4 Firecontrol Type: STANDARD Date: 6-12-01
Dry Cycles/Rounds Completed: _____ Stock Type STANDARD Engagement at Start .0204
Model No. 710 Serial No. 71017722 Engagement at End .0204
Trigger Pull at Start of Test (1) 4.0 (2) 4.0 (3) 4.5 (4) 4.0 (5) 4.0 (6) 4.0
Average Trigger Pull at Start of Test: 4.08 Std. Dev. of Trigger Pull at Start of Test: _____
Trigger Pull at End of Test (1) 4.5 (2) 4.5 (3) 5.0 (4) 4.5 (5) 4.25 (6) 4.7583
Average Trigger Pull at End of Test: 4.58 Std. Dev. of Trigger Pull at End of Test: _____

Additional Notes and Comments

Bolt Body Diameter .6935 / with scope

For additional details on the proper procedures to be used for this Test Procedure refer to:

ANSI / SAAMI Z299.5-1990

SAAMI Specifications for Standard Jar-Off Test:

Jar-Off Test: 12 inch drop - onto 1" thick 85 durometer (Shore A) Rubber Matt
Firearm ready to fire, Safe in "Fire" position, Fresh Primed Case in
Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

12 inch drop (safety in "Fire" position) - one drop per orientation.

Comments

Barrel Horizontal, Bottom of Stock Down :	Pass <u>X</u> Fail _____	_____
Barrel Horizontal, Bottom of Stock Up :	Pass <u>X</u> Fail _____	_____
Barrel Horizontal, Left side of Stock Up :	Pass <u>X</u> Fail _____	_____
Barrel Horizontal, Right side of Stock Up :	Pass <u>X</u> Fail _____	_____
Barrel Vertical, Muzzle Up :	Pass <u>X</u> Fail _____	_____
Barrel Vertical, Muzzle Down :	Pass <u>X</u> Fail _____	_____

ET30285

TLW 0546

Project No. 241095

Page 2 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST (cont'd)

SAAMI Specifications for Standard Drop Test:

Drop Test: 48 inch drop - onto 1" thick 85 durameter (Shore A) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

48 inch drop (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Barrel Horizontal, Bottom of Stock Down :	Pass <u>X</u>	Fail	
Barrel Horizontal, Bottom of Stock Up :	Pass <u>X</u>	Fail	Bent scope
Barrel Horizontal, Left side of Stock Up :	Pass <u>X</u>	Fail	
Barrel Horizontal, Right side of Stock Up :	Pass <u>X</u>	Fail	
Barrel Vertical, Muzzle Up :	Pass <u>X</u>	Fail	
Barrel Vertical, Muzzle Down :	Pass <u>X</u>	Fail	Loose scope

SAAMI Specifications for Standard Rotation Test:

Rotation Test: Rest Firearm on the Butt end and allow Firearm to Fall
Drop - onto 1" thick 85 durameter (Shore A) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

"Rotation" (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Firearm Vertical, Drop so Left side of Stock is Up :	Pass <u>X</u>	Fail	
Firearm Vertical, Drop so Right side of Stock is Up :	Pass <u>X</u>	Fail	

Notes:

Tester Initials: JW

ET30286

TLW 0546Project No. 241095

Page 1 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST

Rifle
Firecontrol No. A-5 Firecontrol Type: STANDARD Date: 6-12-01
Dry Cycles/Rounds Completed: _____ Stock Type STANDARD Engagement at Start 0203
Model No. 710 Serial No. 71015921 Engagement at End 0205
Trigger Pull at Start of Test (1) 4.0 (2) 3.75 (3) 4.0 (4) 4.0 (5) 4.0 (6) 4.0
Average Trigger Pull at Start of Test: 3.96 Std. Dev. of Trigger Pull at Start of Test: _____
Trigger Pull at End of Test (1) 3.75 (2) 4.25 (3) 4.0 (4) 3.75 (5) 3.75 (6) 4.0 83
Average Trigger Pull at End of Test: 3.92 Std. Dev. of Trigger Pull at End of Test: _____

Additional Notes and Comments

Bolt Body Diameter .6936 / with scope

For additional details on the proper procedures to be used for this Test Procedure refer to:

ANSI / SAAMI Z299.5-1990

SAAMI Specifications for Standard Jar-Off Test:

Jar-Off Test: 12 inch drop - onto 1" thick 85 durometer (Shore A) Rubber Matt
Firearm ready to fire, Safe in "Fire" position, Fresh Primed Case in
Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

12 inch drop (safety in "Fire" position) - one drop per orientation.

Comments

Barrel Horizontal, Bottom of Stock Down :	Pass <u>X</u>	Fail _____	_____
Barrel Horizontal, Bottom of Stock Up :	Pass <u>X</u>	Fail _____	_____
Barrel Horizontal, Left side of Stock Up :	Pass <u>X</u>	Fail _____	_____
Barrel Horizontal, Right side of Stock Up :	Pass <u>X</u>	Fail _____	_____
Barrel Vertical, Muzzle Up :	Pass <u>X</u>	Fail _____	_____
Barrel Vertical, Muzzle Down :	Pass <u>X</u>	Fail _____	_____

ET30287

TLW 0546

Project No. 241095

Page 2 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST (cont'd)

SAAMI Specifications for Standard Drop Test:

Drop Test: 48 inch drop - onto 1" thick 85 durameter (ShoreA) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

48 inch drop (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Barrel Horizontal, Bottom of Stock Down :	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>		
Barrel Horizontal, Bottom of Stock Up :	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>		Bent scope
Barrel Horizontal, Left side of Stock Up :	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>		
Barrel Horizontal, Right side of Stock Up :	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>		
Barrel Vertical, Muzzle Up :	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>		
Barrel Vertical, Muzzle Down :	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>		

SAAMI Specifications for Standard Rotation Test:

Rotation Test: Rest Firearm on the Butt end and allow Firearm to Fall
Drop - onto 1" thick 85 durameter (ShoreA) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

"Rotation" (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Firearm Vertical, Drop so Left side of Stock is Up :	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>		
Firearm Vertical, Drop so Right side of Stock is Up :	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>		

Notes: _____

Tester Initials: JW

ET30288

TLW 0546
Project No. 241095

Page 1 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST

Rifle
Firecontrol No. A-6 Firecontrol Type: STANDARD Date: 6-12-01
Dry Cycles/Rounds Completed: _____ Stock Type STANDARD Engagement at Start 0204
Model No. 710 Serial No. 71016333 Engagement at End 0205
Trigger Pull at Start of Test (1) 4.0 (2) 4.0 (3) 4.0 (4) 3.75 (5) 4.0 (6) 4.0
Average Trigger Pull at Start of Test: 3.96 Std. Dev. of Trigger Pull at Start of Test: _____
Trigger Pull at End of Test (1) 4.5 (2) 3.75 (3) 3.75 (4) 4.0 (5) 4.0 (6) 4.0 83
Average Trigger Pull at End of Test: 4.0 Std. Dev. of Trigger Pull at End of Test: _____

Additional Notes and Comments

Bolt Body Diameter .6933 / with scope

For additional details on the proper procedures to be used for this Test Procedure refer to:

ANSI/SAAMI Z299.5-1990

SAAMI Specifications for Standard Jar-Off Test:

Jar-Off Test: 12 inch drop - onto 1" thick 85 durometer (Shore A) Rubber Matt
Firearm ready to fire, Safe in "Fire" position, Fresh Primed Case in
Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

12 inch drop (safety in "Fire" position) - one drop per orientation.

Comments

Barrel Horizontal, Bottom of Stock Down:	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Bottom of Stock Up:	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Left side of Stock Up:	Pass	<u>X</u>	Fail	_____
Barrel Horizontal, Right side of Stock Up:	Pass	<u>X</u>	Fail	_____
Barrel Vertical, Muzzle Up:	Pass	<u>X</u>	Fail	_____
Barrel Vertical, Muzzle Down:	Pass	<u>X</u>	Fail	_____

ET30289

TLW 0546

Project No. 241895

Page 2 of 2

S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST (cont'd)

SAAMI Specifications for Standard Drop Test:

Drop Test: 48 inch drop - onto 1" thick 85 durameter (Shore A) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

48 inch drop (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Barrel Horizontal, Bottom of Stock Down :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Barrel Horizontal, Bottom of Stock Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	Bent scope
Barrel Horizontal, Left side of Stock Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Barrel Horizontal, Right side of Stock Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Barrel Vertical, Muzzle Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Barrel Vertical, Muzzle Down :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	

SAAMI Specifications for Standard Rotation Test:

Rotation Test: Rest Firearm on the Butt end and allow Firearm to Fall
Drop - onto 1" thick 85 durameter (Shore A) Rubber Matt
Firearm not ready to fire, Safe in "Safe" position, Fresh Primed Case
in Chamber, Magazine loaded to capacity with Dummy Rounds.
After each drop Fire Primed Case to verify firearm will still function.

"Rotation" (safety in "Safe" position) - one drop per orientation.

	Pass	Fail	Comments
Firearm Vertical, Drop so Left-side of Stock is Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	
Firearm Vertical, Drop so Right side of Stock is Up :	Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>	

Notes: _____

Tester Initials: JW

ET30290