

# Test Lab Work Request Form

Rev.3 -20 April, 2000

Date Submitted: 10/4/00	Tracking # : TLW 0319
Project # : 241095	Engineer: S. Franz for M. Keeney
<b>Test Objective:</b> To determine performance of the M/710 Bolt Action Rifle during standard SAAMI Drop, Jar-off and Rotation tests when fitted with an engagement screw with a 60 deg. Cone configuration on the end of the screw (Dwg. B-300448, Alt. D).	
<b>Test Description:</b> <ul style="list-style-type: none"> <li>Obtain 5 working M/710 DAT guns from series B-1 through B-10.</li> <li>Install new engagement screw with the 60 deg. Cone configuration (See Phillip).</li> <li>Set trigger pull specifications to process minimums.             <ol style="list-style-type: none"> <li>Set Trigger Pull to 4.0 lbs.</li> <li>Set Engagement to .020 in.</li> </ol> </li> <li>Perform Standard SAAMI Jar-off Test on all <sup>5</sup> guns. (All 6 orientations)</li> <li>Recheck Trigger Pull and engagement after Jar-off Test.</li> <li>Reset Trigger Pull and Engagement to process minimums if needed.</li> <li>Perform Standard SAAMI Drop Test on all <sup>5</sup> guns. (All 6 orientations)</li> <li>Recheck Trigger Pull and Engagement after the Drop Test.</li> <li>Reset Trigger Pull and Engagement to process minimums if needed.</li> <li>Perform Standard SAAMI Rotation Test on all six guns. (Right &amp; Left Side)</li> <li>Recheck Trigger Pull and Engagement after the Drop Test.</li> </ul>	
<b>Resource Usage:</b> Manpower Requirements -2 techs.  Facility Requirements -Drop Area	<b>Test Results Required:</b> Formal Report:      Data Only: X  Requested Completion Date: 10/6/00
Required Materials/Parts/Equipment (include quantities):	
Test Parts Availability Date:	
Start Date: 10-5-00 Completion Date: 10-6-00 Report Date: 10-6-00	Test Assigned To: Bob Lee & Jesse Arnold  Assignment Date: 10/05/00

ET29917

TRACKING # TLW0010  
PROJECT #241095

NAME	DATE	TEST ACTIVITY	COMMENTS	ROUNDS AT START-	
				RDS. FIRED	TOTAL RDS.
JW/ SW	9/11/00	HEADSPACE	MIN. + .004		
JW/ SW	9/11/00	PROOF, HEADSPACE	PROOF, INSPECT, HEADSPACE MIN. + .005 & PROOF STAMP	1	1
JA/BL/JC	9-11-00	Trigger Pulls			
	9-11-00	Sear/Trigger Engagement/Sear Lift			
	9-11-00	Indents			
MRT	9-12-00	MAINTAIN FOLK BOLT HEAD NO INDICATION			
Brian Rages		Dry Cycle ISS			
PKR	10/04/00	Replaced Bolt Assy with one from B-8			
JA/BL	10/5/00	Replaced Engagement Screw w/ 60° Cone Screw			
JA/BL	10/5/00	Set Engagement - .0201	Trigger Pull - 4.08		
JA/BL	10-6-00	S.A.A.M. DROP, JAR-OFF and Rotation test completed			
		Final measurements see SAME JAR-off, Drop & Rotation Test Form			

THIS SHEET IS TO ACCOMPANY THE FIREARM AT ALL TIMES THROUGHOUT TESTING

## Forms

**BARBER - 5.22.06r0006890**

ET29918

~~CONFIDENTIAL - SUBJECT~~ - 5.2.Protection Order  
- 5.2.206006890

**STARBUR - 5.2.2. PROTOTEST**  
**BARBER - 5.2.2.006890**

**Williams v. Remington**

TLW 0319Project No. 241095**S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST**

Firecontrol No. \_\_\_\_\_ Firecontrol Type: \_\_\_\_\_ Date: 10-5-00  
 Dry Cycles/Rounds Completed: \_\_\_\_\_ Stock Type \_\_\_\_\_ Engagement at Start .0201  
 Model No. 710 Serial No. 71001378 B-4 Engagement at End .0188  
 Trigger Pull at Start of Test (1) 4.0 (2) 4.0 (3) 4.25 (4) 4.0 (5) 4.25 (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) 4.0 (4) 4.0 (5) 4.25 (6) 4.0  
 Average Trigger Pull at End of Test: 4.20 Std. Dev. of Trigger Pull at End of Test: \_\_\_\_\_

Tester Initials: \_\_\_\_\_

## Additional Notes and Comments

Note: measurements between Jar-off and rotation Test  
engagement - .0198 Trigger pull - 4.66 Reset - 4.083  
Note: measurements after standard rotation Test  
engagement - .0193 Trigger pull - 4.16 Reset - none

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.

Note: for Firearms with the ISS system installed - The ISS will be set in the unlocked  
 position for all six orientations of the Jar-Off Test

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

ET29919

TLW 0319Project No. 241095**S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST***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.

Note: for Firearms with the ISS system installed - The Firearms will be set with the  
 ISS system in the **unlocked** position for all six orientations of the Drop Test

Orientation	ISS Unlocked	Comments
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"/>	
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 Horizontal, Bottom of Stock Up:	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	
Barrel Horizontal, Bottom of Stock 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 Test" (safety in "Safe" position) - one drop per orientation.

Note: for Firearms with the ISS system installed - The Firearms will be set with the  
 ISS system in the **unlocked** position for both orientations of the Rotation Test.

Orientation	ISS Unlocked	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: (continue on back of sheet if necessary)

Tester's Initials JTC

**CAL- 30.06 SPRG.**

## DAILY TEST DATA SHEET

PROJECT #241095

NAME	DATE	TEST ACTIVITY	COMMENTS	ROUNDS AT START-	
				RDS. FIRED	TOTAL RDS.
JWI SW	9/11/00	HEADSPACE	MIN. $\pm .002$		
JWI SW	9/11/00	PROOF, HEADSPACE	PROOF, INSPECT, HEADSPACE MIN. $\pm .003$ + PROOF STAMP	1	1
JA/BL/JC	9-11-00	Trigger Pulls			
	9-11-00	Sear/Trigger Engagement/Sear Lift			
	9-11-00	Indents			
MRT	9-12-00	MANUAL BOLT HEAD - NO INDICATIONS			
PKR	10/04/00	Replaced Bolt body with one from B-6			
JA/BL	10-5-00	Replaced Engagement screw w/ 60° cone screw			
JA/BL	10-5-00	Set Engagement - .0211 Trigger Pull - 3.91			
JA/BL	10-6-00	Saami Drop, Jar-off and Rotation test completed			
		Final measurements see S.A.A.M.I. Jar-off, Drop & Rotation Test Form			

Note: Bolt Handle broken during Detailed Measurements. (J. Carson)  
Gun Hard to close. Tapped

Note: Bolt Handle  
broken during Detailed  
Measurements. (J. Carson)  
Gun Hard to close. Tapped  
w/ hammer & handle broke  
off.

THIS SHEET IS TO ACCOMPANY THE FI

## Forms

**BARBER - 5.22.06r0006893**

ET29921

Confidential - Submitter: 50221060000595e Order

**Williams v. Remington**

TLW 0319Project No. 241095**S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST**

Firecontrol No. \_\_\_\_\_ Firecontrol Type: \_\_\_\_\_ Date: 10-5-00  
 Dry Cycles/Rounds Completed: \_\_\_\_\_ Stock Type \_\_\_\_\_ Engagement at Start .0211  
 Model No. 710 Serial No. 71001340 B-5 Engagement at End .0201  
 Trigger Pull at Start of Test (1) 4.0 (2) 3.75 (3) 4.0 (4) 4.0 (5) 4.0 (6) 3.75  
 Average Trigger Pull at Start of Test: 3.91 Std. Dev. of Trigger Pull at Start of Test: \_\_\_\_\_  
 Trigger Pull at End of Test (1) 4.5 (2) 4.0 (3) 4.0 (4) 3.75 (5) 3.75 (6) 3.75  
 Average Trigger Pull at End of Test: 3.95 Std. Dev. of Trigger Pull at End of Test: \_\_\_\_\_

Tester Initials: \_\_\_\_\_

## Additional Notes and Comments

Note: measurements between Jar-off and rotation Testengagement - .0192 Trigger pull - 4.0 Reset - noneNote: measurements after standard Rotation Testengagement - .0197 Trigger pull - 3.91 Reset - none

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.

Note for Firearms with the ISS system installed - The ISS will be set in the unlocked  
position for all six orientations of the Jar-Off Test

Orientation• ISS UnlockedComments

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

ET29922

TLW 0319Project No. 241095**S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST***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.

Note: for Firearms with the ISS system installed - The Firearms will be set with the  
ISS system in the unlocked position for all six orientations of the Drop Test

Orientation	ISS Unlocked	Comments
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"/>	
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 Horizontal, Bottom of Stock Up:	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	
Barrel Horizontal, Bottom of Stock 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 Test" (safety in "Safe" position) - one drop per orientation.

Note: for Firearms with the ISS system installed - The Firearms will be set with the  
ISS system in the unlocked position for both orientations of the Rotation Test.

Orientation	ISS Unlocked	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: (continue on back of sheet if necessary)

Tester's Initials TTG

Page 2 of 2  
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ET29923

**CAL- 30.06 SPRG.**

# DAILY TEST DATA SHEET

PROJECT #241095

NAME	DATE	TEST ACTIVITY	COMMENTS	ROUNDS AT START-	
				RDS. FIRED	TOTAL RDS.
JW/ SW	9/11/00	HEADSPACE	MIN. +.002		
JW/ SW	9/11/00	PROOF, HEADSPACE	PROOF, INSPECT, HEADSPACE MIN. +.003 & PROOF STAMP	1	1
JA/BL/JC	9-11-00	Trigger Pulls			
	9-11-00	Sear/Trigger Engagement/Sear LIFT			
	9-11-00	Inalents			
MRT	9-12-00	MAGNIFLUX BOLT HEAD - NO INDICATIONS			
JA/BL	10-5-00	Replaced Engagement Screws w/60° cone screw			
JA/BL	10-5-00	Set Engagement - .020" Trigger Pull - 4.08			
JA/BL	10-6-00	S.A.A.M.I. Drop, JAR-off and Rotation Test completed			
		Final measurements see S.A.A.M.I. JAR-off, Drop & Rotation test form			

THIS SHEET IS TO ACCOMPANY THE FIREARM AT ALL TIMES THROUGHOUT TESTING

## Forms

**BARBER - 5.22.06r0006896**

9

ET29924

~~Confidential - Subversive~~ - 502-276-0608 Order

**Williams v. Remington**



TLW 0319Project No. 241095**S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST**

Firecontrol No. \_\_\_\_\_ Firecontrol Type: \_\_\_\_\_ Date: 10-5-00  
 Dry Cycles/Rounds Completed: \_\_\_\_\_ Stock Type \_\_\_\_\_ Engagement at Start .0201  
 Model No. 710 Serial No. 71001333 B-7 Engagement at End .0169  
 Trigger Pull at Start of Test (1) 4.25 (2) 4.0 (3) 3.75 (4) 4.25 (5) 4.25 (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) 4.25 (3) 4.25 (4) 4.25 (5) 4.0 (6) 4.25  
 Average Trigger Pull at End of Test: 4.25 Std. Dev. of Trigger Pull at End of Test: \_\_\_\_\_

Tester Initials: \_\_\_\_\_

## Additional Notes and Comments

Note: measurements between Jar-off and rotation Test 83  
engagement - .0229 Trigger pull - 4.5 Reset - 4.0  
Re-adjust engagement - .0191 (insert bracket screw loosened to  
Loosen sear it was sticking)

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.

Note: for Firearms with the ISS system installed - The ISS will be set in the **unlocked**  
position for all six orientations of the Jar-Off Test

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

TLW 0319

Project No. 24095

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

Note: for Firearms with the ISS system installed - The Firearms will be set with the  
ISS system in the unlocked position for all six orientations of the Drop Test

Orientation	ISS Unlocked	Comments
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"/>	
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 Horizontal, Bottom of Stock Up:	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	
Barrel Horizontal, Bottom of Stock 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 Test" (safety in "Safe" position) - one drop per orientation.

Note: for Firearms with the ISS system installed - The Firearms will be set with the  
ISS system in the unlocked position for both orientations of the Rotation Test.

Orientation	ISS Unlocked	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: (continue on back of sheet if necessary)

Note: measurements after Rotation Test

engagement - .0187 Trigger Pull - 4.1lb Result - none

Tester's Initials JTA

**CAL- 30.06 SPRG.**

# DAILY TEST DATA SHEET

PROJECT #241095

NAME	DATE	TEST ACTIVITY	COMMENTS	ROUNDS AT START-	
				RDS. FIRED	TOTAL RDS.
JW/ SW	9/11/00	HEADSPACE	MIN. + .001		
JW/ SW	9/11/00	PROOF, HEADSPACE	PROOF, INSPECT, HEADSPACE MIN. + .002 & PROOF STAMP	1	1
JA/BL/JC	9-11-00	Trigger Pulls			
	9-11-00	Sear/Trigger Engagement/Sear L.F.T			
	9-11-00	Indents			
MRT	9-12-00	MAGNAFLUX BOLT HEAD - NO INDICATIONS			
JA/BL	10-5-00	Replaced engagement screw w/60° cone screw			
SA/BL	10-5-00	Set engagement - .0206 Trigger Pull 4.04			
JA/BL	10-6-00	S.A.A.M.E. Drop, JAR-off and Rotation Test Completed			
		Final measurements see S.A.A.M.E. JAR-off, Drop			
		Rotation Test Form			

THIS SHEET IS TO ACCOMPANY THE FIREARM AT ALL TIMES THROUGHOUT TESTING

## Forms

**BARBER - 5.22.06r0006899**

ET29927

~~Confidential - Subject~~ - 5.2.20606899 Order

**Williams v. Remington**

TLW 0319Project No. 241095**S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST**

Firecontrol No. \_\_\_\_\_ Firecontrol Type: \_\_\_\_\_ Date: 10-5-00  
 Dry Cycles/Rounds Completed: \_\_\_\_\_ Stock Type \_\_\_\_\_ Engagement at Start .0206  
 Model No. 710 Serial No. 71001063 B-9 Engagement at End .0189  
 Trigger Pull at Start of Test (1) 4.25 (2) 4.0 (3) 4.0 (4) 4.25 (5) 3.75 (6) 4.0  
 Average Trigger Pull at Start of Test: 4.04 Std. Dev. of Trigger Pull at Start of Test: \_\_\_\_\_  
 Trigger Pull at End of Test (1) 4.0 (2) 4.0 (3) 4.0 (4) 4.25 (5) 3.75 (6) 4.0  
 Average Trigger Pull at End of Test: 4.0 Std. Dev. of Trigger Pull at End of Test: \_\_\_\_\_

Tester Initials: \_\_\_\_\_

## Additional Notes and Comments

NOTE: measurements between Jar-off and rotation Test  
engagement - .0196 Trigger Pull - 4.08 Reset none  
NOTE: measurements after standard Rotation Test  
engagement - .0193 Trigger Pull - 4.08 Reset none

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.

Note: for Firearms with the ISS system installed - The ISS will be set in the unlocked  
position for all six orientations of the Jar-Off Test

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

TLW 0319

Project No. 241095

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

Note: for Firearms with the ISS system installed - The Firearms will be set with the

ISS system in the unlocked position for all six orientations of the Drop Test

Orientation	ISS Unlocked	Comments
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"/>	
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 Horizontal, Bottom of Stock Up:	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	
Barrel Horizontal, Bottom of Stock 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 Test" (safety in "Safe" position) - one drop per orientation.

Note: for Firearms with the ISS system installed - The Firearms will be set with the

ISS system in the unlocked position for both orientations of the Rotation Test.

Orientation	ISS Unlocked	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: (continue on back of sheet if necessary)

Tester's Initials JTA

Page 2 of 2  
 Z101NDROPTTEST\_REV3.DOC

ET29929

TRACKING #TLW0010  
PROJECT #241095

NAME	DATE	TEST ACTIVITY	COMMENTS	ROUNDS AT START-	
				RDS. FIRED	TOTAL RDS.
JW/ SW	9/11/00	HEADSPACE	MIN. + .001		
JW/ SW	9/11/00	PROOF, HEADSPACE	PROOF, INSPECT HEADSPACE MIN. + .003 + PROOF STAMP	1	1
JA/BL/JC	9-11-00	Trigger Pulls			
	9-11-00	Sear/Trigger Engagement/Sear Lift			
	9-11-00	Indents			
JA 25	9-12-00	MAGNIFIER BOLT HEAD - NO INDICATIONS			
JA / BL	10-5-00	Replaced Engagement Screw w/60° cone Screw			
JA / BL	10-5-00	Set Engagement - .0203 Trigger Pull 3.87			
JA / BL	10-6-00	S.A.A.M.I. Drop, JAR-OFF and Rotation Test completed			
		final measurements see S.A.A.M.I. JAR-OFF, Drop			
		Rotation Test Form			

THIS SHEET IS TO ACCOMPANY THE FIREARM AT ALL TIMES THROUGHOUT TESTING

## Forms

**BARBER - 5.22.06r0006902**

6

ET29930

~~CONFIDENTIAL - SUBJER-5022P690606902~~ Order

**SHARBER - 502-666-9090** Order

TLW 0319Project No. 241095**S.A.A.M.I. JAR-OFF, DROP & ROTATION TEST**

Firecontrol No. \_\_\_\_\_ Firecontrol Type: \_\_\_\_\_ Date: 10-5-00  
 Dry Cycles/Rounds Completed: \_\_\_\_\_ Stock Type \_\_\_\_\_ Engagement at Start .0208  
 Model No. 710 Serial No. 71001069 B-10 Engagement at End .0216  
 Trigger Pull at Start of Test (1) 3.75 (2) 4.0 (3) 4.0 (4) 3.75 (5) 3.75 (6) 4.0  
 Average Trigger Pull at Start of Test: 3.87 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) 3.75 (5) 4.0 (6) 4.25  
 Average Trigger Pull at End of Test: 3.95 Std. Dev. of Trigger Pull at End of Test: \_\_\_\_\_

Tester Initials: \_\_\_\_\_

## Additional Notes and Comments

Note: measurements between Jar-off and rotation Test 83  
engagement - .0199 Trigger Pull - 3.91 Reset - none  
 Note: measurement after standard rotation test  
engagement - .0202 Trigger Pull - 3.91 Reset - none

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.

Note: for Firearms with the ISS system installed - The ISS will be set in the unlocked  
position for all six orientations of the Jar-Off Test

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

ET29931

TLW 0319

Project No. 241095

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

Note: for Firearms with the ISS system installed - The Firearms will be set with the

ISS system in the **unlocked** position for all six orientations of the Drop Test

Orientation	ISS Unlocked	Comments
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"/>	
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"/>	cracked insert
Barrel Horizontal, Bottom of Stock Up:	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	
Barrel Horizontal, Bottom of Stock 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 Test" (safety in "Safe" position) - one drop per orientation.

Note: for Firearms with the ISS system installed - The Firearms will be set with the

ISS system in the **unlocked** position for both orientations of the Rotation Test.

Orientation	ISS Unlocked	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: (continue on back of sheet if necessary)

Tester's Initials JTC