

Test Lab Work Request Form

Rev.3 -20 April, 2000

Date Submitted: 4/2/02	Tracking # : TLW0822
Project # : 241230	Engineer: Franz for Golemboski
Test Objective: To evaluate the "Hole-less Connector" in the Model 710 product line. A secondary objective will be to evaluate a heat treat process change (tempered) to the scope mount screws for the same product.	
Test Description: 15 guns will be used for this testing. (Eight .30-06 cal. and seven .270 Win. Caliber) The following measurements and tests will be done. • Measurements as Rec'd (All 15 guns) ○ Trigger Pull (spec. is 4.0 – 5.5 lbs.) ○ Engagement (spec. is .020 - .025 in.) ○ Over travel (spec. is .20 - .025 in.) ○ Headspace • Proof and Re-measure Headspace (All 15 guns) • SAAMI Jar-Off, Drop Rotation (6 guns: 3 of each caliber chosen at random) ○ Drop with scopes mounted (Use std. Screws) ○ Set fire controls to process minimums - TRIGGER PULL: 4.0 lbs. - ENGAGEMENT: 0.020 in. • Extended SAAMI Jar-Off Only (same 6 guns) ○ Drop with scopes mounted (Use std. Screws) ○ Set fire controls to process minimums - TRIGGER PULL: 4.0 lbs. - ENGAGEMENT: 0.020 in. • 100 Rd. Jack Fcn. Test (9 guns) ○ Shoot with scopes mounted on 8 guns, 9th gun has no scope mounted ▪ Use special mount screws provided (tempered screws) ▪ Use Loctite 222MS and torque screws to 15 – 20 in. lb. ○ Fire 100 rds per gun in the heavy shooting jacks (any ammo type but note what's used) ○ Track malfunctions ○ Pay special attention to fire control function and feel ○ Cycle Safety from Fire to Safe every feeding cycle ○ Check Scope mount screws for tightness after firing 100 rds ○ Remove and inspect screws for cracks after firing	
Resource Usage:	Test Results Required:

ET31348

Manpower Requirements -1to2 techs	Formal Report: Data Only: X
Facility Requirements -Drop area, F&C	Requested Completion Date: 4/12/02
Required Materials/Parts/Equipment (include quantities): 15 guns, 32 scope mount screws	
Test Parts Availability Date: Now	
Start Date: 4/1/02 Completion Date: 4/4/02 JA Report Date: 4/11/02 SF	Test Assigned To: Arnold Assignment Date: 4/1/02

CONFIDENTIAL 83

ET31349

PROJECT# 241230									
TLW 0822									
M/710 CONNECTOR W/O HOLE									
MEASUREMENTS									
TRIGGER PULL (pounds)					ENGAGEMENT (inches)				
GUN	#1	#2	#3	AVERAGE	GUN	#1	#2	#3	AVERAGE
A-1	4.75	4.75	4.75	4.75	A-1	0.0248	0.0251	0.0247	0.0249
A-2	4.50	4.25	4.50	4.42	A-2	0.0247	0.0248	0.0247	0.0247
A-3	5.00	5.25	5.00	5.08	A-3	0.0262	0.0256	0.0255	
A-4	4.50	4.75	4.75	4.67	A-4	0.0241	0.0247	0.0243	0.0244
A-5	3.50	3.75	3.75		A-5	0.0236	0.0249	0.0244	0.0243
A-6	5.00	4.75	5.00	4.92	A-6	0.0219	0.0217	0.0222	0.0219
A-7	5.00	5.00	4.75	4.92	A-7	0.0226	0.0231	0.0225	0.0227
A-8	5.00	4.75	5.00	4.92	A-8	0.0247	0.0242	0.0244	0.0244
A-9	5.00	5.25	5.25	5.17	A-9	0.0262	0.0255	0.0257	
A-10	4.75	4.50	4.50	4.58	A-10	0.0249	0.0251	0.0248	0.0249
A-11	5.25	5.25	5.00	5.17	A-11	0.0243	0.0248	0.0244	0.0244
A-12	5.00	5.00	5.25	5.08	A-12	0.0236	0.0244	0.0233	0.0238
A-13	4.50	4.75	4.75	4.67	A-13	0.0245	0.0241	0.0243	0.0243
A-14	4.50	5.00	5.00	4.83	A-14	0.0232	0.0238	0.0236	0.0235
A-15	5.50	5.25	5.50	5.42	A-15	0.0238	0.0241	0.0238	0.0239
			Avg.	4.82				Avg.	0.0243
			S.D.	0.41				S.D.	0.0010
OVERTRAVEL MEASUREMENT (inches)									
Note: Actual Over Travel is this measurement minus the Engagement									
GUN	Meas. #1	Meas. #2	Meas. #3	AVERAGE	Over Travel				
A-1	0.0451	0.0446	0.0443	0.0447					
A-2	0.0441	0.0435	0.0443	0.0440					
A-3	0.0450	0.0451	0.0453	0.0451					
A-4	0.0452	0.0455	0.0451	0.0453	0.0209				
A-5	0.0456	0.0461	0.0457	0.0458	0.0215				
A-6	0.0452	0.0454	0.0452	0.0453	0.0233				
A-7	0.0434	0.0440	0.0436	0.0437	0.0209				
A-8	0.0462	0.0461	0.0456	0.0460	0.0215				
A-9	0.0451	0.0450	0.0443	0.0448					
A-10	0.0441	0.0452	0.0443	0.0445					
A-11	0.0466	0.0462	0.0463	0.0464	0.0219				
A-12	0.0421	0.0442	0.0436	0.0433					
A-13	0.0461	0.0451	0.0453	0.0455	0.0212				
A-14	0.0441	0.0432	0.0442	0.0438	0.0203				
A-15	0.0477	0.0514	0.0478	0.0490	0.0251				
			Avg.	0.0451	0.0209				
			S.D.	0.0014	0.0017				
= Denotes out of Spec.									

ET31350

PROJECT# 241230				
TLW 0822				
M/710 CONNECTOR W/O HOLE				
HEAD SPACE PROOF HEAD SPACE				
GUN	HEAD SPACE	PROOF	HEAD SPACE	COMMENTS
A-1	0.002	1 RD	0.002	NO PROBLEMS
A-2	0.003	1 RD	0.004	NO PROBLEMS
A-3	0.002	1 RD	0.003	NO PROBLEMS
A-4	0.001	1 RD	0.002	NO PROBLEMS
A-5	0.002	1 RD	0.002	NO PROBLEMS
A-6	0.002	1 RD	0.002	NO PROBLEMS
A-7	0.002	1 RD	0.002	NO PROBLEMS
A-8	0.002	1 RD	0.002	NO PROBLEMS
A-9	0.003	1 RD	0.004	NO PROBLEMS
A-10	0.004	1 RD	0.005	NO PROBLEMS
A-11	0.002	1 RD	0.004	NO PROBLEMS
A-12	0.003	1 RD	0.004	NO PROBLEMS
A-13	0.004	1 RD	0.004	NO PROBLEMS
A-14	0.001	1 RD	0.003	NO PROBLEMS
A-15	0.001	1 RD	0.002	NO PROBLEMS
Avg.	0.002		0.003	

83

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ET31351

PROJECT# 241230

TLW'S 0822

M/710 S.A.A.M.I. JAR-OFF, DROP, AND ROTATION TEST.

4/2/2002

SAAMI JAR-OFF, DROP, AND ROTATION TEST

SERIAL# 71053572 30.06

ENGAGEMENT AT START - .0204

TRIGGER PULL AT START - 3.958 LBS

PASSED ALL DROPS . REAR TAKE DOWN SCREW WELL BROKEN OFF.

ENGAGEMENT AT END - .0205

TRIGGER PULL AT END - 3.958

SAAMI JAR-OFF, DROP, AND ROTATION TEST

SERIAL# 71053511 30.06

ENGAGEMENT AT START - .0204

TRIGGER PULL AT START - 4.041 LBS

PASSED ALL DROPS . REAR TAKE DOWN SCREW WELL BROKEN OFF.

ENGAGEMENT AT END - .0205

TRIGGER PULL AT END - 4

SAAMI JAR-OFF, DROP, AND ROTATION TEST

SERIAL# 71053525 30.06

ENGAGEMENT AT START - .0203

TRIGGER PULL AT START - 4.125

PASSED ALL DROPS.

ENGAGEMENT AT END - .0205

TRIGGER PULL AT END - 4.083

SAAMI JAR-OFF, DROP, AND ROTATION TEST

SERIAL# 71050327 270

ENGAGEMENT AT START - .021

TRIGGER PULL AT START - 3.958

PASSED ALL DROPS

ENGAGEMENT AT END - .0202

TRIGGER PULL AT END - 3.916

SAAMI JAR-OFF, DROP, AND ROTATION TEST

SERIAL# 71051201 270

ENGAGEMENT AT START - .0206

TRIGGER PULL AT START - 4.041

PASSED ALL DROPS . REAR TAKE DOWN SCREW WELL BROKEN OFF.

ENGAGEMENT AT END - .0203

TRIGGER PULL AT END - 4

SAAMI JAR-OFF, DROP, AND ROTATION TEST

SERIAL# 71051543 270

ENGAGEMENT AT START - .0204

TRIGGER PULL AT START - 3.916

PASSED ALL DROPS.

ENGAGEMENT AT END - 3.958

TRIGGER PULL AT END - 3.958

83

ET31352

PROJECT# 241230

TLW'S 0822

M/710 HOLELESS CONNECTOR EXTENDED JAR-OFF TEST

4/4/2002

SERIAL# CAL

71053525 30.06

BARREL HORIZONTAL BOTTOM OF STOCK UP AT 48" (GUN FIRED)

SERIAL#

71053520 30.06

PASSED ALL DROPS WITH NO PROBLEMS.

SERIAL#

71053564 30.06

BARREL HORIZONTAL BOTTOM OF STOCK UP AT 48" (GUN FIRED)

SERIAL#

71050327 270

BARREL HORIZONTAL BOTTOM OF STOCK UP AT 48" (GUN FIRED)

SERIAL#

71051543 270

PASSED ALL DROPS WITH NO PROBLEMS.

SERIAL#

71048705 270

PASSED ALL DROPS WITH NO PROBLEMS.

83

ET31353

PROJECT# 241230

TLW 0822

M/710 HOLELESS CONNECTOR TEST GUNS 100 ROUND FUNCTION TEST.

AMMO - R30062 30.06 AND R270W2 .270

GUN	CAL	COMMENTS
A-4	30.06	NO PROBLEMS
A-5	30.06	NO PROBLEMS
A-6	30.06	NO PROBLEMS
A-7	30.06	NO PROBLEMS
A-8	30.06	NO PROBLEMS
A-11	270	NO PROBLEMS
A-12	270	NO PROBLEMS
A-13	270	NO PROBLEMS
A-14	270	NO PROBLEMS

ALL GUNS SHOT WITH NEW SCOPE RAIL SCREWS. NONE OF THE
SCREWS CAME LOOSE DURING THIS TEST. GAVE SCREWS TO S. FRANZ.

83

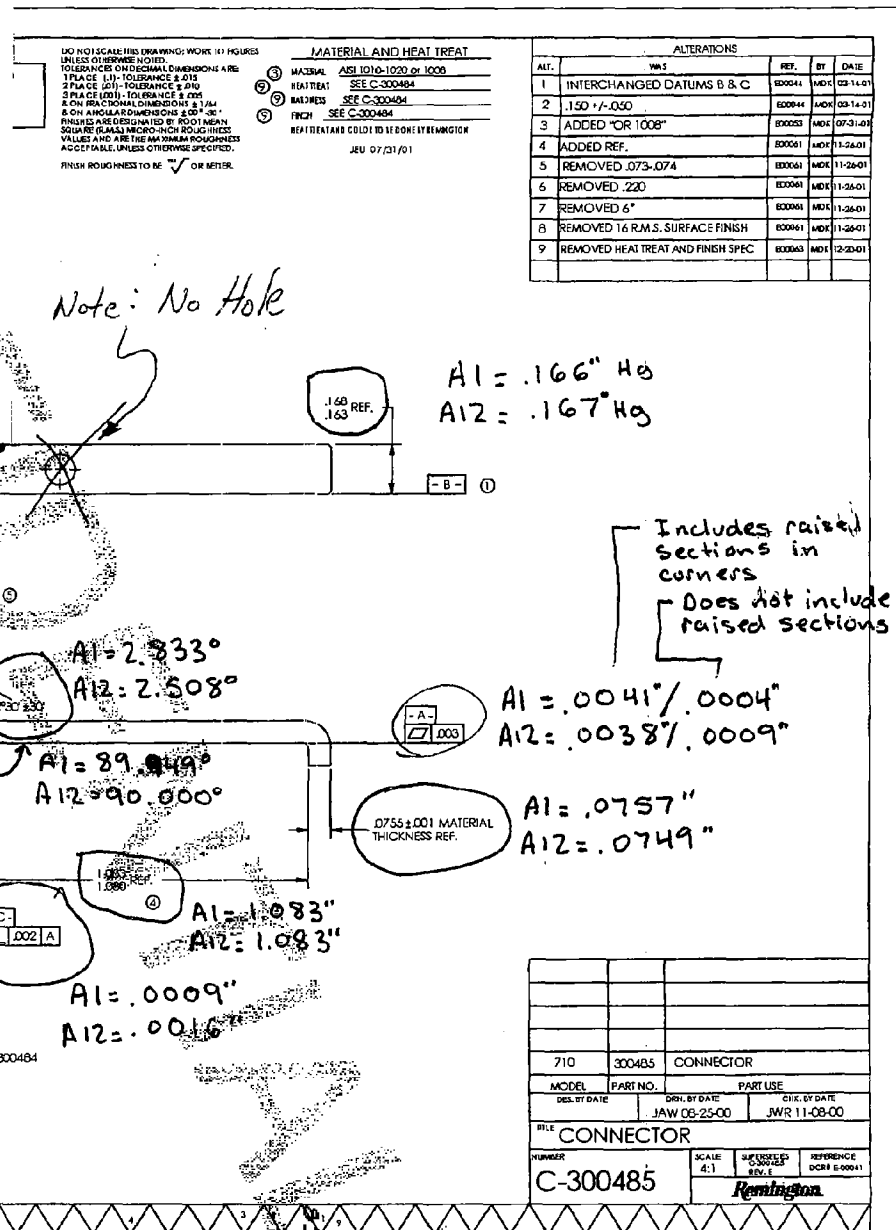
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ET31354

Dimensional Checks of
2 "Holeless" Connectors

H. Carson Jr.

Both parts were sent to
Mayfield for confirmation

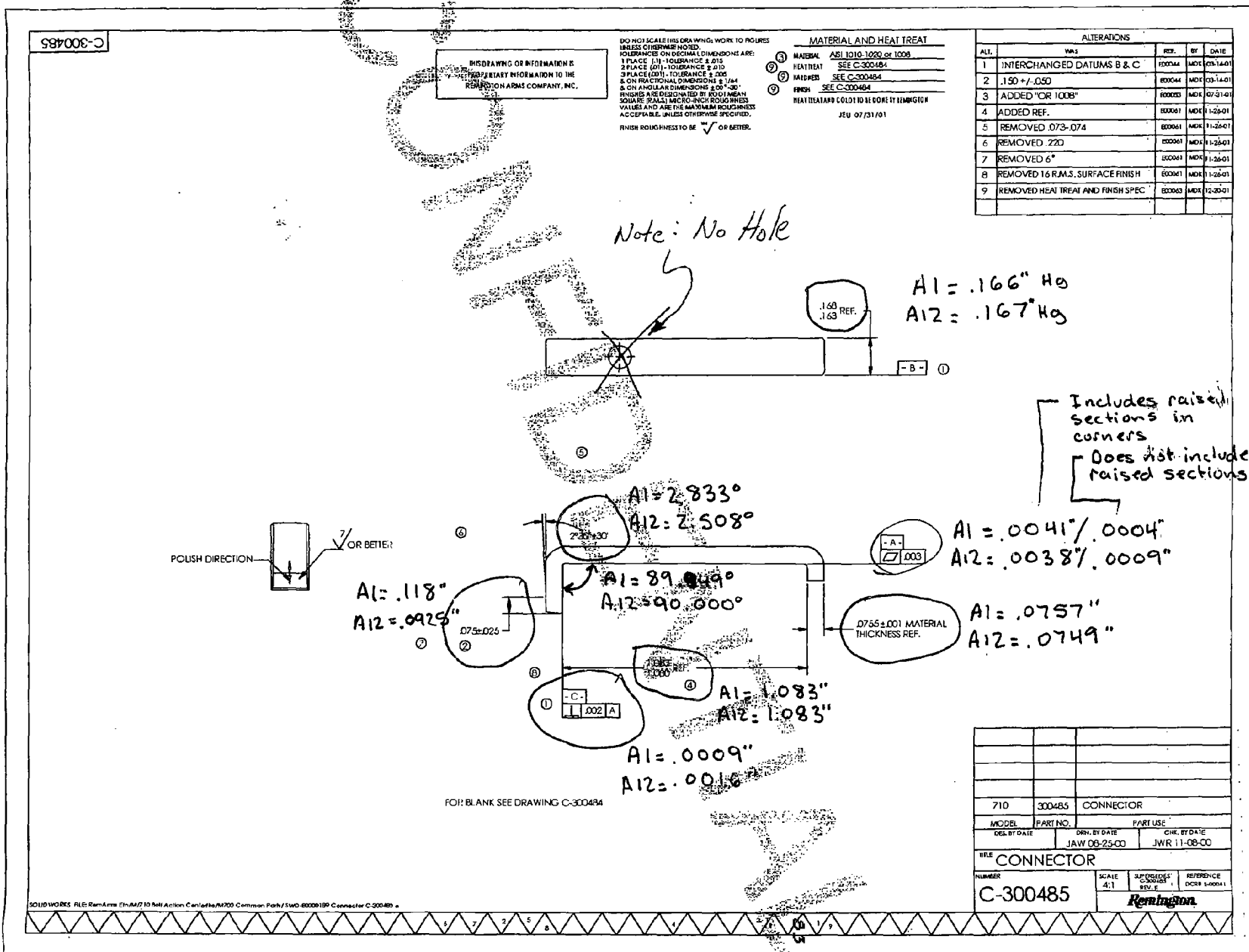


BARBER - 5.22.06r0007259

Confidential - SBAIRBER 1022.06r0007259 Order

Williams v. Remington

ET31355



ET31356

Confidential - SHARPER 1022.06r0007260 Order

Williams v. Remington