

Test Lab Work Request Form

Date Submitted: 10 March, 2000

Tracking #: TLW 0010C

Project #: 241095

Engineer: J.R.SNEDEKER

Test Objective:**TLW0010C – Re-Measure Headspace after Proof**

All test samples will be re-measured for headspace after proof and before being tested in either the jack or shot from the shoulder. The chamber, bolt face & locking block/locking notch will be inspected for the presence of dirt or debris. If dirt or debris that could affect headspace measurement is present then these areas of the firearm will be thoroughly cleaned before using the gauges.

Test Description:Method:

- The graduated headspace gauges based on Remington chamber dimensions (Ref.: Remington Gauge Drawing # 41560 ...A (min.), ...B (+.005), ...C (+.007), & ...D (+.009)) will again be used and the headspace measurements will be recorded to the nearest .001" increment as indicated by the gauge. The .30-06 Remington chamber drawing LB-153 will be used for chamber dimensions and LB-154 will be used for chamber drawings for the .270 caliber.
- The headspace measurement taken prior to the proof test should be less than min. + .005". If, after proof, the growth of the headspace is more than + .002" from the pre-proof condition, then stop and review the results with the test manager before continuing to the next phase of the test.

In no case should the measurement for headspace after initial proof test be greater than min.+007" for a new firearm.

- If at any time during the test program the headspace exceeds a maximum of Min. + .009" do not continue to fire the rifle, tag the gun with a label reading "Do Not Shoot This Firearm – Exceeds Maximum Allowable Headspace" and return the firearm to the Test Manager for disposition.

Data Required:

- Rifle serial number
- Record and note any headspace growth and round level.

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Resource Usage:
Manpower Requirements - 1 TECH.
Facility Requirements -

Test Results Required:
Formal Report: Data Only: X
REQUESTED Completion Date:
12 MARCH 2000

Required Materials/Parts/Equipment (include quantities):

Test Parts Availability Date: 12 MARCH 2000

Start Date: 9/9/00
Completion Date: 9/11/00
Report Date:

Test Assigned To: Steve Wndr
Jeff Wndr

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PROJECT# 241095		D.A.T. 2			
TLW 0010A,B,C					
HEAD SPACE, 1 PROOF RD, HEAD SPACE					
DATE -	9-9-00 — 9-11-00				
GUN#	SERIAL#	HEAD SPACE	PROOF RD.	HEAD SPACE	COMMENTS
B-1	1074	MIN. +.003	Yes	MIN. +.004	
B-2	1346	MIN. +.002	Yes	MIN. +.002	
B-3	1070	MIN. +.002	Yes	MIN. +.002	
B-4	1338	MIN. +.004	Yes	MIN. +.005	
B-5	1340	MIN. +.002	Yes	MIN. +.003	
B-6	1328	MIN. +.001	Yes	MIN. +.002	
B-7	1333	MIN. +.002	Yes	MIN. +.003	
B-8	1083	MIN. +.003	Yes	MIN. +.004	
B-9	1063	MIN. +.001	Yes	MIN. +.002	
B-10	1069	MIN. +.001	Yes	MIN. +.003	
B-11	1345	MIN. +.001	Yes	MIN. +.002	
B-12	1341	MIN. +.001	Yes	MIN. +.002	
B-13	1337	MIN. +.002	Yes	MIN. +.002	
B-14	1062	MIN. +.001	Yes	MIN. +.002	
B-15	1068	MIN. +.002	Yes	MIN. +.003	
B-16	1060	MIN. +.002	Yes	MIN. +.003	
B-17	1331	MIN. +.001	Yes	MIN. +.002	
B-18	1065	MIN. +.002	Yes	MIN. +.004	
B-19	1059	MIN. +.003	Yes	MIN. +.004	
B-20	1064	MIN. +.002	Yes	MIN. +.003	
B-21	1322	MIN. +.002	Yes	MIN. +.003	
B-22	1278	MIN. +.002	Yes	MIN. +.003	
B-23	1075	MIN. +.001	Yes	MIN. +.002	
B-24	1046	MIN. +.001	Yes	MIN. +.001	
B-25	1049	MIN. +.002	Yes	MIN. +.002	
B-26	1025	MIN. +.001	Yes	MIN. +.002	
B-27	1308	MIN. +.002	Yes	MIN. +.002	
B-28	1311	MIN. +.002	Yes	MIN. +.002	
B-29	1313	MIN. +.001	Yes	MIN. +.002	
B-30	1302	MIN. +.002	Yes	MIN. +.003	

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Confidential - Subject - 5.22.06r0001119

Williams v. Remington

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PII - TLW0010C - RE-
MEASURE HEADSPACE

ET06951

PROJECT# 241095

TLW 0010D

FIRING PIN INDENTS, TAKEN WITH COPPER CRUSHERS

9/11/00

MEASUREMENTS BY JODY CARSON

GUNS B-1 TO B-20 ARE REPLACEMENT GUNS

GUNS B-21 TO B-30 WERE SELECTED FROM THE ORIGINAL 30 GUNS

INDENTS				
GUN#	1	2	3	AVERAGE
B-1	0.017	0.017	0.019	0.0177
B-2	0.018	0.018	0.019	0.0183
B-3	0.016	0.015	0.017	0.0160
B-4	0.017	0.017	0.017	0.0170
B-5	0.015	0.017	0.017	0.0163
B-6	0.015	0.016	0.016	0.0157
B-7	0.016	0.017	0.016	0.0163
B-8	0.018	0.019	0.017	0.0180
B-9	0.016	0.016	0.017	0.0163
B-10	0.017	0.018	0.016	0.0170
B-11	0.016	0.017	0.018	0.0170
B-12	0.014	0.016	0.015	0.0150
B-13	0.017	0.017	0.017	0.0170
B-14	0.018	0.018	0.016	0.0173
B-15	0.017	0.017	0.016	0.0167
B-16	0.018	0.017	0.018	0.0177
B-17	0.017	0.016	0.018	0.0170
B-18	0.017	0.017	0.018	0.0173
B-19	0.015	0.016	0.016	0.0157
B-20	0.016	0.02	0.019	0.0190
B-21	0.016	0.016	0.016	0.0160
B-22	0.019	0.018	0.018	0.0183
B-23	0.017	0.018	0.017	0.0173
B-24	0.019	0.019	0.018	0.0187
B-25	0.017	0.018	0.018	0.0177
B-26	0.018	0.018	0.02	0.0187
B-27	0.017	0.019	0.019	0.0183
B-28	0.019	0.017	0.019	0.0183
B-29	0.018	0.018	0.019	0.0183
B-30	0.018	0.016	0.016	0.0167

TEST AVG.= 0.0172

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Worksheet size: 100000 cells

Descriptive Statistics Phase II - Firing Pin Indent TLW0010D

Variable	N	Mean	Median	TrMean	StDev	SE Mean
C1	30	0.01722	0.01715	0.01724	0.00103	0.00019

Variable	Minimum	Maximum	Q1	Q3
C1	0.01500	0.01900	0.01630	0.01830

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Gun	Received	Headspace Min. + (inches)	Proof	Headspace Min. + (inches)	Firing Pin Indents (inches)	Sear Engagement (inches)	Sear Lift (inches)	F.P. Head to Sear Engagement (inches)	In Stock Trigger Pull (lbs.)	Out of Stock Trigger Pull (lbs.)	Re-Adjusted Trigger Pull (lbs.)
B-1	9/11/00	0.003	X	0.004	0.0177	0.0210	0.0169	0.070	5.00	5.00	
B-2	9/11/00	0.002	X	0.002	0.0183	0.0254	0.0168	0.072	5.08	5.00	
B-3	9/11/00	0.002	X	0.002	0.0180	0.0249	0.0165	0.072	4.83	4.75	
B-4	9/11/00	0.004	X	0.005	0.0170	0.0243	0.0154	0.072	4.33	4.30	
B-5	9/11/00	0.002	X	0.003	0.0163	0.0222	0.0168	0.072	4.17	4.42	
B-6	9/11/00	0.001	X	0.002	0.0157	0.0243	0.0187	0.068	4.67	4.67	
B-7	9/11/00	0.002	X	0.003	0.0163	0.0275	0.0178	0.072	5.92	5.92	4.67
B-8	9/11/00	0.003	X	0.004	0.0180	0.0247	0.0155	0.075	5.58	5.58	4.92
B-9	9/11/00	0.001	X	0.002	0.0163	0.0220	0.0161	0.075	4.38	4.42	
B-10	9/11/00	0.001	X	0.003	0.0170	0.0250	0.0143	0.076	4.50	4.50	
B-11	9/11/00	0.001	X	0.002	0.0170	0.0232	0.0150	0.072	4.50	4.30	
B-12	9/11/00	0.001	X	0.002	0.0150	0.0199	0.0153	0.077	4.33	4.30	
B-13	9/11/00	0.002	X	0.002	0.0170	0.0248	0.0171	0.076	4.25	4.08	
B-14	9/11/00	0.001	X	0.002	0.0173	0.0227	0.0167	0.075	2.00	1.67	3.83
B-15	9/11/00	0.002	X	0.003	0.0167	0.0248	0.0173	0.074	4.17	4.50	
B-16	9/11/00	0.002	X	0.003	0.0177	0.0250	0.0156	0.072	4.92	5.00	
B-17	9/11/00	0.001	X	0.002	0.0170	0.0248	0.0169	0.068	4.83	5.00	
B-18	9/11/00	0.002	X	0.004	0.0173	0.0249	0.0158	0.072	5.83	5.83	4.92
B-19	9/11/00	0.003	X	0.004	0.0157	0.0222	0.0168	0.067	4.92	4.83	
B-20	9/11/00	0.002	X	0.003	0.0190	0.0242	0.0169	0.066	5.58	5.67	4.33
B-21	9/9/00	0.002	X	0.003	0.0160	0.0239	0.0165	0.073	4.92	4.83	
B-22	9/9/00	0.002	X	0.003	0.0183	0.0247	0.0114	0.071	4.50	4.67	
B-23	9/9/00	0.001	X	0.002	0.0173	0.0245	0.0122	0.071	6.67	4.92	
B-24	9/9/00	0.001	X	0.001	0.0187	0.0244	0.0180	0.071	4.83	4.50	
B-25	9/9/00	0	X	0.002	0.0177	0.0266	0.0175	0.070	4.75	4.58	
B-26	9/9/00	0.001	X	0.002	0.0187	0.0240	0.0172	0.065	4.50	4.17	
B-27	9/9/00	0.002	X	0.002	0.0183	0.0249	0.0141	0.072	4.58	4.67	
B-28	9/9/00	0.002	X	0.002	0.0183	0.0248	0.0173	0.070	4.42	4.42	
B-29	9/9/00	0.001	X	0.002	0.0183	0.0258	0.0127	0.070	5.00	4.58	
B-30	9/9/00	0.002	X	0.003	0.0167	0.0243	0.0137	0.066	4.67	4.58	
AVERAGE		0.0017		0.0026	0.0172	0.0242	0.0160	0.0714	4.7540	4.6551	
MAX.		0.004		0.005	0.0190	0.0275	0.0187	0.077	6.67	5.916	
MIN.		0		0.001	0.0150	0.0199	0.0114	0.065	2	1.67	
Std. Dev.		0.0008		0.0009	0.0010	0.0016	0.0018	0.0031	0.7728	0.7332	

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Confidential - SHARPER - 5.22.06r0001123e Order

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Indents

B1 - .017/.017/.019	B11 - .018 .016/.017/.018
B2 - .018/.018/.019	B12 - .014/.016/.015
B3 - .016/.015/.017	B13 - .017/.017/.017
B4 - .017/.017/.017	B14 - .018/.018/.016
B5 - .015/.017/.017	B15 - .017/.017/.016
B6 - .015/.016/.016	B16 - .018/.017/.018
B7 - .016/.017/.016	B17 - .017/.016/.018
B8 - .018/.019/.017	B18 - .017/.017/.018
B9 - .016/.016/.017	B19 - .015/.016/.016
B10 - .017/.018/.016	B20 - .018/.020/.019

22-161 50 SMTS
22-162 100 SMTS
22-163 200 SMTS



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~~At~~ New Indents

B22 - 1278 - .019 / .018 / .018

B29 - 1313 - .018 / .018 / .019

B21 - 1322 - .016 / .016 / .016

B23 - 1075 - .017 / .018 / .017

B24 - 1046 - .019 / .019 / .018

B30 - 1302 - .018 / .016 / .016

B28 - 1311 - .019 / .017 / .019

B26 - 1025 - .018 / .018 / .020

B25 - 1049 - .017 / .018 / .018

B27 - 1308 - .017 / .019 / .019

22-41 40 SHEETS
22-162 100 SHEETS
22-164 200 SHEETS

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PI - TLW0100 - MEASURE
PIRNG PIN INCH

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