

Test Lab Work Request Form

Date Submitted: 13 May 2003	Tracking #: Tlr 1216	STRAIN
Project #: 241314	Engineer: Franz	

Test Objective:

300 Win Mag, verify M/710 Mag barrels will change or not when subjected to repetitive proof rounds. References: Tlr 896 // 904// 1172

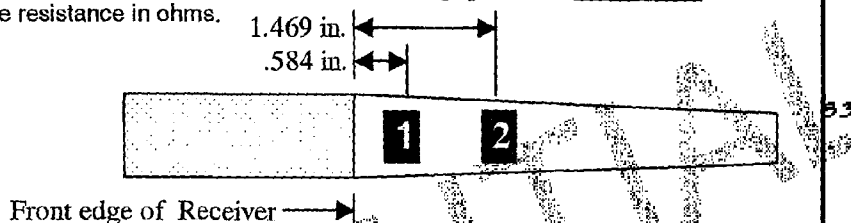
Test Description:

➤ **Gun:**

- 300WM, M/710 Mag barrels, two each (SN: 71126327 & 71125368).
- Record headspace for each gun, pre and post shooting.
- Measure barrel outside diameter at gage locations, pre & post shooting.

➤ **Gages:**

- Two tangential gages on each barrel at the locations shown, from the edge of the receiver.
- Use gages EA-06-125BT-120. Record Gage Factor for the lot of gages used 2.100+- .5%.
- Record pre & post gage resistance in ohms.



➤ **Shooting:**

- Do not rebalance once started.
- Record first 20 shots:
 - Calibration, pre & post, 1v = 1,000 ue.
 - Standard level, pre & post.
 - Each shot fired, O-Scope.
 - Multimeter voltage level readings, both gages, both guns.
 - Headspacing per every shot, after 20 every 10 shots, both guns.
- Shoot 100 rds each gun.

Required Materials/Parts/Equipment (include quantities):

.300 Win Mag. SN: 71126327 & 71125368 // proof rounds // strain gage equipment // Blow up room

Start Date: 22 July 03

To: Gary L. Howell

Completion Date: 24 July 03

Assigned: 21 May 03

Report Date: 25 July 03

Received: Not

Results:

Guns:	Gage 1 Hoop			Gage 2 Hoop			Pre:	Post:	
	Max-Avg	Max	M-Meter Max	Max-Avg	Max	M-Meter Max			
SN: 71126327	1.09	1.15	1.38	.922	.990	.125	Gage 1 327	119.8	119.7
SN: 71125368	1.08	1.15	.142	.960	1.01	.118	Gage 2 327	119.7	119.6
Avg. of 20 rds.							Gage 1 368	119.7	119.8
All in volts							Gage 2 368	119.9	119.9
1v = 1000ue							Gage 1 OD 327	1.225	1.226
							Gage 2 OD 327	1.215	1.216
							Gage 1 OD 368	1.223	1.225
							Gage 2 OD 368	1.215	1.214
							Headspace 327	.004	.008
							Headspace 368	.000	.004

ET28275

300 WM Strains 710 Brl.

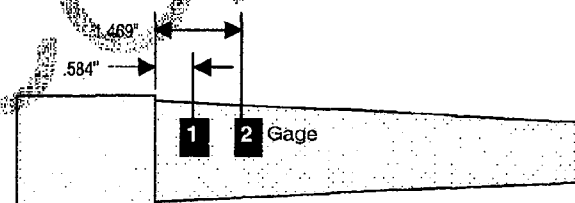
Tlr 1216	O'Scope		MultiMeter		Head	Gun: 71126327	22-24 July 03	
Shot:	Gage 1	Gage 2	Gage 1 After	Gage 2 After	Space Go	Scope:	Notes:	Load:
PreCal	.990	.990	.962	.962	.004	500mv / 5ms 300mv		NA
PreStd	.050	.030	.000	.000	.004	500mv / 5ms 300mv		NA
1	2.09	2.03	.040	.031	.005	500mv/500us 300mv	Spike / Hammer tap to open all	Proof
2	1.05	.880	.055	.042	.005	500mv/500us 300mv		Proof
3	1.07	.890	.067	.052	.006	500mv/500us 300mv		Proof
4	1.09	.910	.077	.059	.006	500mv/500us 300mv		Proof
5	1.09	.910	.082	.064	.006	500mv/500us 300mv		Proof
6	1.09	.930	.096	.078	.006	500mv/500us 300mv		Proof
7	1.11	.930	.104	.084	.007	500mv/500us 300mv		Proof
8	1.07	.910	.104	.084	.007	500mv/500us 300mv		Proof
9	1.09	.910	.102	.082	.007	500mv/500us 300mv		Proof
10	1.11	.930	.109	.088	.007	500mv/500us 300mv	Break 15 min.	Proof
11	1.07	.890	.098	.074	.007	500mv/500us 300mv		Proof
12	1.05	.870	.101	.080	.007	500mv/500us 300mv		Proof
13	1.05	.890	.102	.080	.007	500mv/500us 300mv		Proof
14	1.11	.950	.107	.086	.007	500mv/500us 300mv		Proof
15	1.09	.930	.110	.089	.007	500mv/500us 300mv		Proof
16	1.07	.910	.113	.094	.007	500mv/500us 300mv		Proof
17	1.07	.910	.115	.095	.007	500mv/500us 300mv		Proof
18	1.09	.910	.115	.094	.008	500mv/500us 300mv		Proof
19	1.09	.910	.116	.096	.008	500mv/500us 300mv		Proof
20	1.11	.950	.116	.099	.008	500mv/500us 300mv		Proof
30	1.09	.930	.123	.104	.008	500mv/500us 300mv		Proof
40	1.15	.970	.128	.112	.008	500mv/500us 300mv		Proof
50	1.15	.990	.133	.118	.008	500mv/500us 300mv		Proof
60	1.11	.950	.133	.120	.008	500mv/500us 300mv		Proof
70	1.15	.970	.138	.125	.008	500mv/500us 300mv		Proof
PostStd	.170	.150	.120	.109	.008	500mv / 5ms 300mv		NA
PostCal	1.13	1.11	1.055	1.074	.008	500mv / 5ms 300mv		NA

> Ref: Tlr 895/904/1172.xls for Test # 1 & 2 & 3

> Hammered bolt open every shot

> Shot 100 proof rds

All in volts

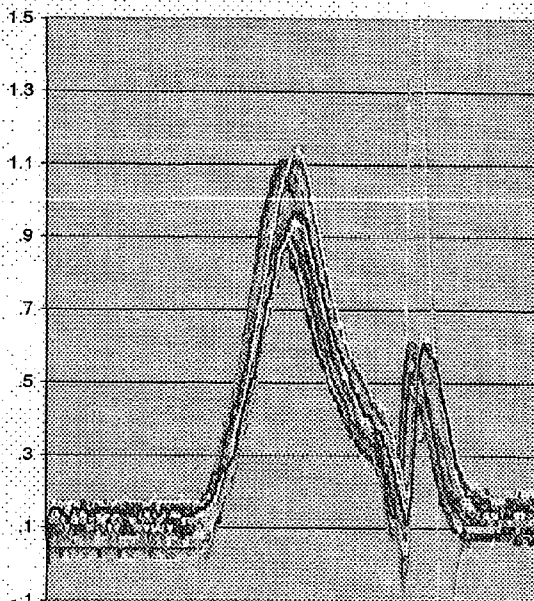


Measurement:	Pre:	Post:	
1 Outside Dia.	1.225	1.226	Inches
2 Outside Dia.	1.215	1.216	Inches
Headspace	.004	.008	Inches
Gage 1	119.8	119.7	ohms
Gage 2	119.7	119.6	ohms

Gage 1 Hoop			Gage 2 Hoop		
Max-Avg	Max	M-Meter Max	Max-Avg	Max	M-Meter Max
1.09	1.15	.138	.922	.990	.125

All in volts

1v = 1000ue



ET28276

300 WM Strains 710 Brl.

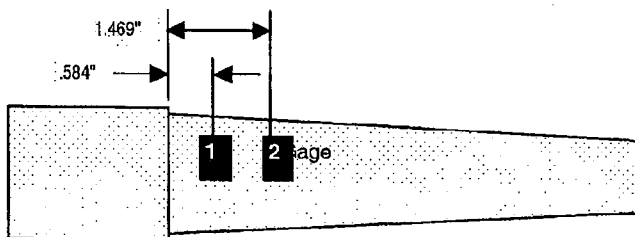
Tlr 1216	O'Scope		MultiMeter		Gun: 71125368	22-23 July 03	
Shot:	Gage 1	Gage 2	Gage 1 After	Gage 2 After	Head Space	Scope:	Notes:
Pre-Cal	1.01	.990	.962	.961	.000	500mv / 5ms 300mv	NA
Pre-Std	.050	.030	.002	.000	.000	500mv/500us 300mv	NA
1	1.05	.930	.063	.049	.001	500mv/500us 300mv	Proof
2	1.09	.930	.076	.060	.001	500mv/500us 300mv	Proof
3	1.05	.910	.081	.067	.002	500mv/500us 300mv	Proof
4	1.07	.930	.086	.072	.002	500mv/500us 300mv	Proof
5	1.07	.930	.088	.075	.003	500mv/500us 300mv	Proof
6	1.15	1.01	.100	.085	.003	500mv/500us 300mv	Proof
7	1.07	.930	.104	.089	.003	500mv/500us 300mv	Proof
8	1.09	.950	.107	.093	.003	500mv/500us 300mv	Proof
9	1.09	.970	.110	.097	.003	500mv/500us 300mv	Proof
10	1.11	.970	.113	.100	.003	500mv/500us 300mv	Proof
11	1.05	.930	.091	.086	.003	500mv/500us 300mv	Break 15 Min
12	1.07	.950	.096	.090	.003	500mv/500us 300mv	Proof
13	1.09	.950	.099	.093	.003	500mv/500us 300mv	Proof
14	1.07	.970	.101	.085	.003	500mv/500us 300mv	Proof
15	1.05	.950	.102	.096	.003	500mv/500us 300mv	Proof
16	1.11	.990	.106	.099	.003	500mv/500us 300mv	Proof
17	1.11	.990	.108	.102	.003	500mv/500us 300mv	Proof
18	1.09	.970	.112	.105	.003	500mv/500us 300mv	Proof
19	1.11	.990	.113	.106	.003	500mv/500us 300mv	Proof
20	1.07	.970	.115	.108	.003	500mv/500us 300mv	Break 15 Min
30	1.05	.950	.114	.092	.003	500mv/500us 300mv	Break 15 Min
40	1.09	.990	.132	.116	.003	500mv/500us 300mv	Break 15 Min
50	1.09	.990	.135	.110	.004	500mv/500us 300mv	Break 15 Min
60	1.13	1.01	.141	.118	.004	500mv/500us 300mv	Break 15 Min
70	1.03	.952	.129	.096	.004	500mv/500us 300mv	Break 15 Min
80	1.08	.992	.142	.113	.004	500mv/500us 300mv	Break 15 Min
90	1.02	.904	.108	.100	.004	500mv/500us 300mv	2nd Day
100	1.07	.960	.118	.113	.004	500mv/500us 300mv	Break 15 Min
Post-Std	.064	.104	.091	.044	.004	500mv/500us 300mv	NA
Post-Cal	1.02	1.06	1.050	1.000	.004	500mv/500us 300mv	NA

1v = 1000ue

All in volts

- > Ref: Tlr 896/904/1172.xls for Test # 1 & 2 & 3
- > Hammered bolt open every shot.
- > Shot 100 proof rounds.

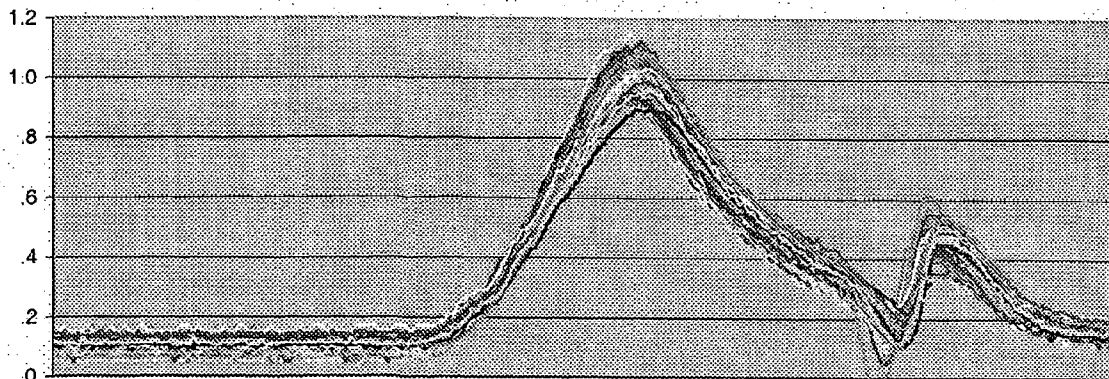
Measurement:	Pre:	Post:	
1 Outside Dia.	1.223	1.225	Inches
2 Outside Dia.	1.215	1.214	Inches
Head Space	0	0.004	Inches
Gage 1	119.7	119.8	ohms
Gage 2	119.9	119.9	ohms



Gage 1 Hoop			Gage 2 Hoop		
Max-Avg	Max	M-Meter Max	Max-Avg	Max	M-Meter Max
1.08	1.15	.142	.960	1.010	.118

All in volts

1v = 1000ue



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