

Test Lab Request Form Instructions

- The TLW request form can be found on the second worksheet (tabs at bottom of the screen) of this file.
- Please fill in all required fields as noted in red. Please fill in all other fields if applicable / possible. Instructions for each field will appear when you click on the field. The procedure field is an embedded MS Word object which will allow you to use formatting features not possible in Excel (i.e. paragraphs, bullets, numbering, etc).
- If possible, create your desired data table and/or graph formats in the additional worksheets of this file. This is preferred over extensive written procedures.
- If the request is for High Speed Video, specify any desired parameters (i.e. frame rate, resolution, etc.) in the "HSV Setup" tab. If not specified, the videographer will document the parameters that they chose to use.
- Once the form is completed, save this file on your personal computer using the following format:
TLW#### - Brief Description
 Try to keep the description as concise as possible. Your name in the filename is no longer necessary.
- Email the file to Phillip Reesor (primary) and Mark Hammond (secondary). Phillip will return your email with the assigned number and the assignee

Test Lab Work Request Form

Engineer: Vince Norton

Project #: 241493

Date Submitted: 12/10/2008

Test Description:

Assemble new receiver insert assemblies in a Model 770 action and measure safety on/off forces

Test Procedure:

- 1. Continue test from TLW-2645. Use the same numbered receiver insert assemblies for this test.
 - 2. Assemble a receiver insert assembly into a Model 770 action.
 - 3. With the bolt closed measure safety on and off forces. Take 3 measurements and record each one.
 - 4. Cycle the safety on and off 50 times and then record forces again.
 - 5. Cycle the safety on and off 50 more times and then record forces again.
 - 6. Reverse the orientation of the safety pivot pin and insert it from the opposite side.
 - 7. Record safety on off forces with the pivot pin in this orientation. Take 3 measurements of each one.
 - 8. Repeat this on 6 assemblies.
 - 9. Take one of these receiver inserts and run it up to 3000 cycles on the cycle fixture.
 - 10. Measure the safety on/off forces after every 500 cycles.
 - 11. Measure sear lift after 3000 cycles.
- **The following steps are to be performed on a current receiver insert assembly
- 12. Assemble a current receiver insert assembly into a Model 770 action.
 - 13. With the bolt closed measure safety on and off forces. Take 3 measurements and record each one.
 - 14. Cycle the safety on and off 50 times and then record forces again.
 - 15. Cycle the safety on and off 50 more times and then record forces again.
 - 16. Repeat this on 5 assemblies.
 - 17. Take one of the new trigger block receiver inserts

Test Lab Work Request Form

TLW #: 2656

Requested Completion Date: 12/18/2008

Test from TLW-2645. Use the same numbered receiver insert for this test.

Insert receiver insert assembly into a Model 770 action.

With closed measure safety on and off forces. Take 3 tests and record each one.

Safety on and off 50 times and then record forces again.

Safety on and off 50 more times and then record forces again.

Change orientation of the safety pivot pin and insert it from the right.

Safety on off forces with the pivot pin in this orientation. Take 3 tests of each one.

Run on 6 assemblies.

Run these receiver inserts and run it up to 3000 cycles on the dry fire.

Record safety on/off forces after every 500 cycles.

Run after 3000 cycles.

Steps are to be performed on a current receiver insert assembly.

Insert current receiver insert assembly into a Model 770 action.

With closed measure safety on and off forces. Take 3 tests and record each one.

Safety on and off 50 times and then record forces again.

Safety on and off 50 more times and then record forces again.

Run on 5 assemblies.

Run the new trigger block receiver inserts

- 14. Cycle the safety on and off 50 times and then record forces again.
- 15. Cycle the safety on and off 50 more times and then record forces again.
- 16. Repeat this on 5 assemblies.
- 17. Take one of the new trigger block receiver inserts

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safety on and off 50 times and then record forces again.
safety on and off 50 more times and then record forces again.
on 5 assemblies.
if the new trigger block receiver inserts

- 15. Cycle the safety on and off 50 more times and then record forces again
- 16. Repeat this on 5 assemblies.
- 17. Take one of the new trigger block receiver inserts

Test Lab Work Request Form

Special Requirements:

Supplies Availability:

Results Required:

*****This section to be completed by Test Lab Manager*****

Assigned To:

Kratzwald, Jeff

Start Date:

Assigned Date:

12/11/2008

Completion Date:

Comments:

Test Lab Work Request Form

safety on and off 50 more times and then record forces again.
on 5 assemblies.
if the new trigger block receiver inserts

	Data Only
	Formal Report

Test Lab Work Request Form

Double click to edit.

Cont'd Procedure

<autofile>

Request Form

<autofill>

Cont'd Procedure

Canon 20D

HIGH SPEED VIDEO SETUP RECORD	
ARCHIVE:	
TLW	

Camera Operator:

File Names:

Convention:

Purpose of Test:

Camera:	APX-RS	1024PCI
		Resolution (WxH, pixels):

Lens:

Equipment Height (in. above or below subject, no entry = in-plane with subject)

Equipment
Camera
L1 1000W
L2 1000W
L3 8-Bulb PAL

Set-up Diagram (w/linear dimensions)

	not to scale.
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ALL FILES

REPRESENTATIVE FILE(S)

NO ARCHIVE

File Name:

2656

Date:

Project No.:

TLWNo Description.avi i.e. [TLW2162 Shot 1 18in bbl GB.avi], [TLW2162 Shot 2 18in bbl GB.avi]

1024PCI

Canon 20D

Shutter Speed:

Frame Rate (fps):

Type (C or F):

f-stop used:

Focal Length (mm):

zoom used (mm):

Position	Target	Symbol	Equipment	Position	Target	Symbol
		□				
		▽1				
		▽2				
		▽3				

Fire Control #1

Note: Testing began with safety pivot pin having clip on left side.

Zero round level			50 round level			100 round level		
	Off	On		Off	On		Off	On
1	4.12	7.36	1	3.82	7.50	1	3.82	7.70
2	3.78	7.14	2	3.90	7.48	2	4.00	8.20
3	3.86	7.24	3	3.88	8.30	3	4.12	9.20
avg	3.92	7.25	avg	3.87	7.76	avg	3.98	8.37

Reverse orientation of safety pivot pin

	Off	On
1	3.66	7.76
2	3.80	7.84
3	3.78	8.74
avg	3.75	8.11

500 round level			1000 round level			1500 round level		
	Off	On		Off	On		Off	On
1	3.46	7.20	1	4.08	7.72	1	4.50	6.98
2	3.48	7.18	2	4.34	7.56	2	4.22	6.74
3	3.18	7.16	3	3.92	7.46	3	4.46	6.58
avg	3.37	7.18	avg	4.11	7.58	avg	4.39	6.77

2000 round level			2500 round level			3000 round level		
	Off	On		Off	On		Off	On
1	5.10	7.66	1	4.73	7.72	1	4.26	7.18
2	4.82	8.60	2	4.54	7.13	2	4.06	7.46
3	4.91	7.94	3	4.63	7.02	3	4.04	6.50
avg	4.94	8.07	avg	4.63	7.29	avg	4.12	7.05

Fire Control #2

Note: Testing began with safety pivot pin having clip on left side

Zero round level

	Off	On
1	3.78	6.48
2	3.56	6.82
3	3.82	7.60
avg	3.72	6.97

50 round level

	Off	On
1	4.18	7.92
2	4.28	8.62
3	4.24	9.40
avg	4.23	8.65

100 round level

	Off	On
1	4.56	10.76
2	4.52	12.84
3	4.18	12.82
avg	4.42	12.14

Reverse orientation of safety pivot pin

	Off	On
1	4.16	10.70
2	4.22	10.12
3	4.20	11.32
avg	4.19	10.71

500 round level

	Off	On
1	5.36	7.20
2	6.60	7.64
3	5.44	7.60
avg	5.80	7.48

1000 round level

	Off	On
1	6.68	8.32
2	6.84	8.38
3	7.12	8.64
avg	6.88	8.45

1500 round level

	Off	On
1	5.96	7.68
2	5.82	7.84
3	6.08	7.76
avg	5.95	7.76

2000 round level

	Off	On
1	6.36	10.76
2	5.46	9.80
3	5.68	9.08
avg	5.83	9.88

2500 round level

	Off	On
1	6.68	10.02
2	6.68	10.56
3	7.12	9.80
avg	6.83	10.13

3000 round level

	Off	On
1	6.84	10.34
2	5.80	9.72
3	6.56	10.02
avg	6.40	10.03

Fire Control #3

Note: Testing began with safety pivot pin having clip on right side

Zero round level			50 round level			100 round level		
	Off	On		Off	On		Off	On
1	4.20	6.06	1	4.20	6.18	1	4.32	6.64
2	4.34	5.84	2	3.90	7.48	2	4.48	6.92
3	4.76	6.04	3	3.84	6.62	3	3.14	8.58
avg	4.43	5.98	avg	3.98	6.76	avg	3.98	7.38

Reverse orientation of safety pivot pin

	Off	On
1	4.26	6.50
2	3.93	6.78
3	4.32	6.84
avg	4.17	6.71

500 round level			1000 round level			1500 round level		
	Off	On		Off	On		Off	On
1	5.66	7.00	1	5.78	7.02	1	4.88	7.12
2	4.66	6.94	2	6.68	7.94	2	6.44	7.54
3	6.26	7.94	3	7.66	8.10	3	6.14	7.32
avg	5.53	7.29	avg	6.71	7.69	avg	5.82	7.33

2000 round level			2500 round level			3000 round level		
	Off	On		Off	On		Off	On
1	5.94	7.24	1	6.80	7.88	1	5.80	7.42
2	6.62	6.84	2	6.08	7.24	2	6.34	7.26
3	6.18	7.14	3	6.44	7.72	3	6.72	7.56
avg	6.25	7.07	avg	6.44	7.61	avg	6.29	7.41

Fire Control # 4

Note: Testing began with safety pivot pin having clip on right side.

Zero round level			50 round level			100 round level		
	Off	On		Off	On		Off	On
1	3.72	6.38	1	3.92	6.76	1	4.16	9.38
2	3.66	6.86	2	4.50	7.10	2	3.78	10.24
3	3.92	7.14	3	3.80	7.23	3	3.82	10.78
avg	3.77	6.79	avg	4.07	7.03	avg	3.92	10.13

Reverse orientation of safety pivot pin

	Off	On
1	3.14	7.28
2	3.08	7.58
3	3.58	7.56
avg	3.27	7.47

500 round level			1000 round level			1500 round level		
	Off	On		Off	On		Off	On
1	6.08	8.56	1	5.22	7.88	1	6.00	7.82
2	6.14	8.73	2	5.70	8.20	2	5.52	7.36
3	6.70	8.93	3	6.20	7.86	3	6.30	7.58
avg	6.31	8.77	avg	5.71	7.98	avg	5.94	7.59

2000 round level			2500 round level			3000 round level		
	Off	On		Off	On		Off	On
1	5.70	7.02	1	6.16	7.54	1	5.78	8.82
2	5.96	7.06	2	6.10	7.46	2	5.48	8.10
3	5.44	7.40	3	6.08	7.32	3	5.94	8.50
avg	5.70	7.16	avg	6.11	7.44	avg	5.73	8.47

Fire Control # 5

Note: Testing began with safety pivot pin having clip on right side.

Zero round level			50 round level			100 round level		
	Off	On		Off	On		Off	On
1	3.98	7.44	1	3.92	7.78	1	4.08	8.08
2	3.76	7.02	2	3.88	7.96	2	3.76	8.26
3	3.76	7.16	3	3.82	7.70	3	3.78	8.38
avg	3.83	7.21	avg	3.87	7.81	avg	3.87	8.24

Reverse orientation of safety pivot pin

	Off	On
1	4.06	7.80
2	3.72	8.14
3	4.02	8.08
avg	3.93	8.01

Fire Control # 6

Note: Testing began with safety pivot pin having clip on right side.

Zero round level			50 round level			100 round level		
	Off	On		Off	On		Off	On
1	3.62	7.58	1	4.04	10.48	1	4.32	11.42
2	3.46	7.30	2	3.98	10.30	2	4.20	10.20
3	3.94	7.44	3	3.88	10.14	3	4.16	9.42
avg	3.67	7.44	avg	3.97	10.31	avg	4.23	10.35

Reverse orientation of safety pivot pin

	Off	On
1	4.44	9.98
2	4.18	9.42
3	4.00	9.58
avg	4.21	9.66