Test Lab Work Request Form

Rev.3 –20 April, 2000

Date Submitted: 10/27/00	Tracking # : TLW0344
Project # : 241095	Engineer: S. Franz for M. Keeney

Test Objective: A number of issues were identified in DAT Phase II that resulted in design changes. The purpose of this test is to determine if design changes made satisfactorily solve those deficiencies. Successful completion of this test will give a green light for T & P build and test activity to commence. Some of these issues have already been tested. For instance the magazine box weld strength was increased through weld parameter optimization and then subsequently tested via a tensile test run in the Metallurgical Lab. More specifically this test will focus on the following:

- Locking lug cam surface geometry changes and effect on bolt opening/closing
- Bolt stop location and detent(stock) support changes
- 2 bolt plug designs will be tested
  - ✓ Design #1: DAT design with material changed to nylon
  - ✓ Design #2: New design with material changed to nylon
- Stock mold alterations to bring stock within model drawing (i.e. no shims)
- Permanent recoil lug attachment to the stock (shimmed and glued)

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Test Description:

Test Plan:

- 10 guns
  1. System operation/bench check
  2. Measure trigger pull 9 (3 measurements/gun)
  3. Measure bolt opening and closing force (3 measurements/gun)
  4. Measure bolt stop opening and closing force (3 measurements/gun)
  5. Confirm proper fit between stock and receiver (no shims)
  6. Confirm permanent attachment of recoil lug to stock
  7. Headspace, Proof, Headspace
  8. 200 round jack function test (all 10 guns)
- 8 guns
  1. ISS abuse test (See S. Franz)
- 1 gun
  1. 500 round jack function test

Resource Usage:	**Test Results Required:**
Manpower Requirements –	**Formal Report: X Data Only:**
Facility Requirements –	**Requested Completion Date: 10/31/00**

Required Materials/Parts/Equipment (include quantities): Ten guns will be delivered. Five will have bolt plug design #1 and the remaining five bolt plug design #2.

Test Parts Availability Date: 10/27/00

Start Date: 30 Oct 2000	**Test Assigned To: Jesse Arnold, Bob Lee & Jody Carson** J. Carson L.
Completion Date: 30 Oct 2000	
Report Date:	**Assignment Date:10/30/00**

ET06650

Harold J. Carson TLW0344 30 October 2000

	Opening Force				Closing Force		Forward Force
	Dummy Cocked	Un-Cocked	No Dummy Cocked	Un-Cocked	Dummy	No Dummy	No Dummy
A1	4.14	12.48	2.76	11.62	See Note	See Note	38.50
71001297	3.76	12.78	2.50	11.66			39.20
	4.78	12.52	2.76	11.58			38.40
Average	**4.23**	**12.59**	**2.67**	**11.62**			**38.70**
A2	3.24	13.60	2.80	13.52	See Note	See Note	32.80
71001282	3.40	14.10	2.64	13.32			33.12
	3.64	13.56	3.08	13.54			32.64
Average	**3.43**	**13.75**	**2.84**	**13.46**			**32.85**
A3	2.46	13.30	2.34	13.42	See Note	See Note	35.62
71001280	2.42	13.06	3.08	12.60			35.94
	2.56	13.10	2.60	12.36			34.78
Average	**2.48**	**13.15**	**2.67**	**12.79**			**35.45**
A4	4.06	11.54	3.58	10.66	See Note	See Note	34.72
71001176	4.14	11.78	3.10	10.64			33.98
	3.46	11.56	3.34	10.56			34.42
Average	**3.89**	**11.63**	**3.34**	**10.62**			**34.37**
A5	3.36	13.36	2.40	12.62	See Note	See Note	34.68
71001175	3.04	14.00	2.58	12.42			34.86
	3.74	13.26	2.68	12.02			34.92
Average	**3.38**	**13.54**	**2.55**	**12.35**			**34.82**
A6	3.04	12.16	2.60	11.62	See Note	See Note	33.68
71001167	3.74	11.48	2.58	11.48			34.22
	3.00	11.42	2.42	11.52			33.36
Average	**3.26**	**11.69**	**2.53**	**11.54**			**33.75**
A7	2.94	14.96	2.50	15.08	See Note	See Note	33.00
71001156	2.98	14.90	2.58	15.12			32.98
	2.98	14.78	2.68	15.06			32.84
Average	**2.97**	**14.88**	**2.59**	**15.09**			**32.94**
A8	3.18	15.14	3.32	14.90	See Note	See Note	40.30
71001153	3.36	14.68	3.04	15.18			40.84
	3.30	14.02	2.92	14.84			37.90
Average	**3.28**	**14.61**	**3.09**	**14.97**			**39.68**
A9	3.02	12.14	3.42	11.34	See Note	See Note	29.92
71001149	3.58	11.52	3.48	10.80			30.18
	2.88	11.74	3.28	10.96			31.66
Average	**3.16**	**11.80**	**3.39**	**11.03**			**30.59**
A10	3.66	10.34	3.60	9.66	See Note	See Note	29.80
71001147	3.88	9.84	3.58	10.24			30.12
	3.56	9.90	3.44	9.58			30.58
Average	**3.70**	**10.03**	**3.54**	**9.83**			**30.17**

Note: Consistent closing forces could not be obtained.

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