

**REMINGTON ARMS COMPANY INC.
ILION, NY PLANT SITE
TEST & MEASUREMENTS LAB**

**DESIGN ACCEPTANCE TEST
PROCEDURE DRAFT #1
M/332 12ga. O/U**

April 5, 2002

To: Dale Danner, Scott Franz & Ilion Technical
From: Jim Hennings

Dale:

Due to current workload, I have requested that some of the M/332 DAT testing be conducted at E Town. This firearm is basically the M300 Ideal with changes to the frame and fore end iron plus minor changes to others and cosmetics. The majority of the DAT on the 300 Ideal was conducted at E Town with some aspects of the test being conducted at Ilion. After our conference call today, I have modified the original test plan per our comments and also included who is going to do what. Please review and we will conference next Tuesday.

The following Test Categories will be addressed during the DAT.

- A. Dimensional Certification: **Note**—Ilion has not yet approved the set of drawings provided by E Town. If there are changes, this should be completed prior to any measurements.
- B. Preliminary Measurements:
- C. Field Cycle Test:
- D. Pattern Test:
- E. Endurance Test:
- F. Drop Test:
- G. Intentional Abuse Test:

Dimensional Certification: (ILION) These dimensions to be determined by Technical.

- Dimensions on frame that relate to function and locking will be measured to certify compliance to print. These dimensions to be determined by Technical.
- Dimensions of fore end iron assembly that relate to the operation of the firearm and those that were modified are to be measured.
- Dimensions that relate to top lever function to be measured.
- Dimensions on mono block assembly that relate to fit and function. This to include radius fits - mono block/frame sidewalls- that would induce stress marks on frame sidewalls.
- Also covered under this area would be the surface finish and contact coverage of the sear and hammer. Sear and Hammer notches as well as pivot pin hole location measurements.

Preliminary Measurements: (ILION)

- Measurements such as headspace, trigger pull, firing pin indent, bore and choke tube measurements
- Also included would be gun weight, overall length, barrel length and stock dimensions.

Field Cycle Test: (ILION)

- Test to be conducted outdoors in simulated field environment.
- A minimum of four shooters firing a variety of 12ga. 2 3/4" and 3" ammunition of Remington and competitive in manufacture.
- Malfunctions that occur are to be tabulated by firearm, shooter and ammunition type.
- Eight (8) firearms to be evaluated.

Pattern Test: (ILION & E'TOWN)

- Test to be conducted at 40yd. indoor range using only the full choke tube in each barrel. Pattern density with other tubes could be conducted during T & P at Ilion.
- A minimum of three and preferably five patterns per barrel will be fired.
- POI and pattern density to be determined within 30" circle.
- Ammunition to be used is Remington 2 3/4" Target 3 - 1 1/8 - 7 1/2 shot.
- Three (3) firearms to be evaluated. One of each barrel length being offered.

Endurance Test: (ILION & E'TOWN)

- Testing to be conducted indoors in shooting jack under controlled conditions.
- Ilion to fire the first 500rds. on each firearm to determine initial function. One firearm of each barrel length to be tested.

- E'Town will complete endurance testing on all three firearms.
- Gun cooling cycle will be every 100rds.
- Headspace and trigger pull to be taken at 0 rds., 500rds. and every 1,000rds. during test.
- At 500rds. and every 1,000rds. after, firearm will be cleaned and visually inspected for abnormal wear and indications of cracks.
- Chambers to be cleaned every 500rds.
- Ammunition will be combination of 25% -3" Magnum & 2 3/4" Magnum and 75% - 2 3/4" field loads.
- Three (3) firearms to be tested. All three to 5,000rds each. Continue two to 10,000rds. Note: One for each overall length. (3)

Drop Tests: (E'TOWN)

- Testing to be conducted on three (3) firearms with 0 rounds previous.
- One firearm for each overall length. (3)
- Drop Test procedures to be in complete compliance with S.A.A.M.I. Drops at one foot and four foot, all six positions following S.A.A.M.I. procedures for placement of safety.
- Rotational tests to be conducted also.
- Prior to drop test, gun weight, trigger pull and hammer/sear engagement dimensions to be conducted and recorded.

Intentional Abuse: (ILION or E'TOWN)

- Four (4) firearms to be evaluated.
- Firearms would be subjected to a handloaded charge determined by pressure work-up to be in the range of 51,000psi to 53,000psi.
- This round would be fired in the top barrel of two firearms and the bottom barrel in the others.
- In all cases, photographs of the set-up and results will be taken.