

**Model 710 DAT Phase II**  
**Chronology of Events**

• **Saturday 9/9/00**

- Received 30 DAT Sample Rifles + 1 extra (8:05 AM, S. Truax)
- Started Preliminary Measurements after dividing into 3 groups of 10 guns
- Observations during Preliminary Measurements
  - ✓ Some guns would not fire when the trigger was pulled.
  - ✓ Safety levers would move during dry firing.
  - ✓ Indents were low on some guns.

Mike Keeney observed that assembly of the new Insert Support Bracket was not correct. The tapped hole in the Receiver on about half the guns were either in the wrong position and/or not collinear with the centerline of the Bracket hole. This caused the screw to bias the fire control housing to one side when tightened which bound the Sears on some guns, resulting in failure to release the Sear Safety Cams when the trigger was pulled. Pictures were taken of two guns and this information was relayed to Mayfield personnel immediately. Mayfield screened receivers to find acceptable receivers. E-town determined that 10 of 30 guns were ok to use. These 10 guns were to be used for the Abuse Tests.

Further investigation by Mike Keeney indicated that Sear Safety Cams were hitting the Safety Levers. The clearance cut added to the Safety was not adequate on some guns. One Safety Lever was modified by E-town and retested. No contact now occurred between Sear Safety Cams and Safety Levers. Indents also increased on that gun. The Safety Levers on the 10 Abuse Test guns were removed and additional clearance added if needed to eliminate interference with the Sear Safety Cam.

- Completed Preliminary Measurements on the 10 Abuse Test Guns

• **Sunday 9/10/00**

- Abuse Test started on 10 guns (SAAMI Jar-Off, Drop & Rotation completed)
  - ❖ Broke 1 insert
  - ❖ Broke 1 bolt handle (swapped bolt body w/handle from another gun)
- Boxed 20 guns for return to Mayfield
- Returned 20 guns to Mayfield for replacement of Receivers & rebuild (Keeney, Danner)
  - ❖ Mayfield screened receivers for tapped hole for support bracket
  - ❖ Mayfield disassembles 20 guns
  - ❖ Mayfield assembles original barrels to new receivers & recolors assembly

• **Monday 9/11/00**

- Mike Keeney supervises rebuilding of 20 guns in Mayfield
- Received 20 guns from Mayfield at 1:00 PM (Keeney, Danner)
- Broke in two groups of ten and started Preliminary Measurements
- Magnafluxed the 10 Abuse Test guns bolt heads (No Indications)

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- Abuse Test continues (Started Extended Jar-Off Test)
  - ❖ 1 gun fires at 2 feet with gun horizontal, bottom down
- **Tuesday 9/12/00**
  - Magnafluxed the 20 remaining guns bolt heads (No Indications)
  - Completed Preliminary Measurements on 20 guns
  - Started Detailed Measurements on 10 guns
  - Started 200 rd. Jack Function Test
    - ❖ Magazine box spot welds breaking, notified Mayfield
    - ❖ Box bottoms a some guns fell off during shooting (repaired)
    - ❖ Used Mag. boxes from non shooting guns to continue testing
    - ❖ Top Front of box bending outward
    - ❖ Front of box dimpling from rounds in box (Recoil)
  - Measured shear strength of spot welds on Instron (Jiraneck)
    - ❖ Measured 5 magazine boxes (3 DAT, 2 Current Prod.)
    - ❖ Current Production strength 3X that of DAT samples
  - Mayfield to send new production magazine boxes
- **Wednesday 9/13/00**
  - Received 84 production magazine boxes (not colored)
  - Completed 200 rd. Jack Function Test
    - ❖ Welds still breaking on new production boxes
  - Measured shear strength on new production magazine boxes
    - ❖ Large variation in shear strength measured
  - Started Shoulder Function Test with production boxes (still breaking)
  - Had 18 boxes TIG welded
  - Completed Shoulder Function Test with TIG welded boxes (no box failures)
  - Mayfield informed of production box performance
  - Mayfield working on improving weld, new boxes expected early next week
  - Extended Jar-Off Test Continues
    - ❖ Additional guns fire at 4 foot (Did not fire via over-ride)
    - ❖ Broke 2 more inserts (Note: did not fire when broke)
  - Completed POI Test
    - ❖ Can't zero one gun (shooting high and rear sight all the way down)
    - ❖ Bolt Stop not working on some guns
  - Started Cold Test
    - ❖ Put gun/ammo in storage overnight
  - Detailed Measurements on 10 guns continuing
- **Thursday 9/14/00**
  - Started Accuracy
  - Completed Extended Jar-Off Test (replaced inserts on last two guns)
  - Started Extended Drop Test

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- Cold Test Continues
  - ❖ Of first 20 rounds shot, 1<sup>st</sup> FTF, 19 remaining fire OK
- Detailed Measurements on 10 guns completed

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