

**CONFIDENTIAL**

Remington Arms Company Inc.  
RESEARCH & DEVELOPMENT TECHNICAL CENTER  
315 WEST RING ROAD  
ELIZABETHTOWN, KY 42701

**TLW 1012**

- Move the Safety to the "Fire" position; the rifle must not discharge.
- Return the Safety to the "On-Safe" position.
- Carefully remove the rifle from the holding device and with the muzzle pointed in a safe direction, put safety in the "Off-Safe" position, pull the trigger, the firing pin must fall.
- Re-cock the firing pin.
- Using the plug gauges measure the minimum clearance between the rear of the trigger and the inside rear of the trigger guard with the firing pin fully cocked.
- Measure the trigger pull, engagement and over-travel to insure that they have not changed from the beginning of the test.

Data required:

- Rifle serial number
- Measurements of Trigger pull, engagement, over-travel and trigger/trigger guard clearance before and after loading.
- Note that the rifle "fired" or did not fire when the safety was pushed to the "Fire" position.
- Note that the rifle did "fire" when the trigger was pulled.
- TLW Number
- Testers' Names

**TLW1012N - Measure Sear / Firing Pin Head Engagement & Trigger / Sear Engagement:**

(See additional procedures for setting engagements in Appendix I)

The Sear/Trigger Engagement will be measured. The amount of engagement must be measured between .018" and .020" measured with the bolt in the fully closed and locked position.

The vertical engagement of the contact between the firing pin head and sear will be measured. The minimum vertical engagement is to be 0.020". (Note: Nominal is 0.030")

Method for measuring Sear/Trigger Engagement:

- The 30" Optical comparator will be used to measure the engagement at 50X magnification.
- Take the action out of the stock
- With the barreled action held firmly in position, the barreled action will be aligned such that the action is held perpendicular to the lens in both the horizontal and vertical planes.
  1. Set the comparator to 50X
  2. With the action secured in the fixture on the comparator, position the action so that the thumbscrew can be used to move the trigger.
  3. Close the bolt in the receiver and put the safety in the "Off Safe" position.
  4. Put the crosshairs on the top back (left hand) edge of the trigger and set the horizontal reading on the comparator to zero.
  5. Move the crosshairs to the right (move the part to the left) 0.018".
  6. With the thumbscrew on the fixture move the trigger out of engagement with the sear. The sear should break when the trigger is at the crosshairs plus or minus 0.001".
  7. If engagement does not fall in this range notify Engineering.

Method for Measuring the Sear/Firing Pin Head Engagement:

- Use digital height gauge and one-inch dial indicator attachment.
- Visually check to ensure the firearm is unloaded.
- Clamp firearm in portable vise and set on top of granite table.
- Remove the bolt assembly.
- Use a small bubble level to level the top of the receiver relative to the granite table.

J.R. Snedeker

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Subject to Protective Order - Williams v. Remington