

Ilion, New York  
January 6, 1966

TO: C.B. WORKMAN  
FROM: W. COOGIN

ACCURACY

M/700 - 22-250

At your request, five M/700's - Cal. 22-250 were picked at random from the warehouse for a standard production rifle accuracy test. The work order requested three ten shot groups per rifle.

All rifles were tested in the following order:

- A) Trigger pull and firing pin indent.
- B) All barrels wire brushed and cleaned prior to accuracy.
- C) During the firing of accuracy, trouble developed with the Lyman 20X Fine Dot Scope. A Lyman 10X Large Dot was used as a replacement and test re-started and completed with the 10X.

The 20X scope was repaired and test repeated to establish a comparison.

- D) During the firing of the groups, it was noticed that after the fifth round the balance of rounds were consistently spreading from the main point of impact, even with a time elapse of approximately 20-25 seconds between each round.
- E) To try to determine if the groups were changing to any extent because of the heating of the barrel, all rifles were shot three five shot groups, first with the Lyman 20X L.D. and then the Lyman 10X L.D.

Most groups improved between 3/10" and 6/10" compared with the ten shot groups.

The statistical correlation between five and ten shot groups should be approximately 1/3" bigger in most bull gun ammo tests. Figures were obtained from Research Custom Gun Shop.

(F) Two more tests were conducted:

- 1) Fired three groups - five shots per group, one shot every thirty sec.
- 2) Fired three groups - ten shots per group, one shot every thirty sec.

In both tests, all bullets were plotted as to point of impact.

Plotted groups showed that fliers occurred, usually after the fourth round, and continued through the rest of the group.

(G) All groups were averaged and recorded.

RESULTS COMPUTED BY: T.S. PLUNKETT

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