

cc: S. M. Alvis - W. E. Leek  
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MEMORANDUM

Ilion, New York  
March 20, 1964

TO: C. B. WORKMAN

FROM: W. R. GOOGIN *W.R.G.*

MODEL 600 - CALIBER .222 - PILOT LINE TEST NO. 2

Ten Model 600 - Caliber .222 rifles were withdrawn for pilot line test. Detailed results are tabulated on attached sheet.

Summary of Test:

- |                                |                                                                                                                                                     |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Headspace                   | All satisfactory.                                                                                                                                   |
| 2. Trigger Pull                | All satisfactory.                                                                                                                                   |
| 3. Accuracy                    | From shoulder - 20X scope at 100 yds.<br>Bench rest. 3 - 5-shot groups<br>Measured center to center.                                                |
| 4. Function Test from Shoulder | Three guns exhibited feeding difficulties.<br>These are tabulated on attached sheet.<br>All malfunctions occurred while working<br>the bolt slowly. |

*W. R. Googin*  
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Firearms Design Test Lab

W. RG:T  
Attach.

M 600 - Cal. 222  
Pilot Line Test - No. 2

| Gun<br>Serial<br>No. | Headspace |          | Ammu-<br>nition | Rounds | No. Malf. | Type of Malfunction                                                          | Trigger Pull<br>(lbs.) |      |      | Accuracy (Inches) |      |      |      |                   |       |        |
|----------------------|-----------|----------|-----------------|--------|-----------|------------------------------------------------------------------------------|------------------------|------|------|-------------------|------|------|------|-------------------|-------|--------|
|                      | Go        | No<br>Go |                 |        |           |                                                                              | Avg.<br>of 10          | Max. | Min. | Shoulder          |      |      |      | Firing Pin Indent |       |        |
|                      |           |          |                 |        |           |                                                                              |                        |      |      | 5-Shot Group      |      |      | Avg. | Min.              | Max.  | Avg. 5 |
|                      |           |          |                 |        |           |                                                                              |                        |      | 1    | 2                 | 3    |      |      |                   |       |        |
| 4140                 | OK        | OK       | Rem.            | 20     | 0         |                                                                              | 4.95                   | 5.25 | 4.50 | 1.45              | 1.25 | 1.95 | 1.71 | .019              | .019  | .019   |
| 4541                 | OK        | OK       | Rem             | 20     | 0         |                                                                              | 4.25                   | 4.50 | 4.0  | 1.7               | 1.6  | .85  | 1.38 | .019              | .020  | .0195  |
| 4352                 | OK        | OK       | Rem             | 20     | 0         |                                                                              | 4.5                    | 5.0  | 4.5  | 1.2               | 1.2  | 1.3  | 1.23 | .019              | .020  | .0192  |
| 4511                 | OK        | OK       | Rem.            | 20     | 0         |                                                                              | 4.125                  | 4.5  | 4.0  | 1.15              | 1.15 | 2.05 | 1.45 | .019              | .019  | .0193  |
| 4133                 | OK        | OK       | Rem             | 20     | 1         | Stem High<br>Tight under head                                                | 4.325                  | 5.0  | 4.25 | 2.3               | 1.6  | .85  | 1.58 | .019              | .0195 | .0192  |
| 4075                 | OK        | OK       | Rem.            | 20     | 2         | Stem Low and jumped out<br>ahead of bolt causing rd<br>to stem. mal. feeding | 4.35                   | 5.0  | 4.0  | 2.3               | 2.0  | 1.55 | 1.95 | .0185             | .019  | .0189  |
| 4365                 | OK        | OK       | Rem.            | 20     | 0         |                                                                              | 4.7                    | 5.0  | 4.5  | 1.35              | 1.4  | 2.35 | 1.7  | .0185             | .019  | .0188  |
| 4375                 | OK        | OK       | Rem             | 20     | 1         | Stem Low - same as<br>above gun # 4075                                       | 4.8                    | 5.0  | 4.5  | 1.15              | 1.35 | 1.35 | 1.28 | .019              | .0185 | .0172  |
| 4340                 | OK        | OK       | Rem             | 20     | 0         |                                                                              | 4.1                    | 4.5  | 3.75 | 1.05              | 1.0  | 1.25 | 1.1  | .0185             | .0195 | .018   |
| 4520                 | OK        | OK       | Rem             | 20     | 0         |                                                                              | 4.05                   | 4.25 | 4.0  | 1.75              | 1.55 | 1.85 | 1.71 | .017              | .018  | .0174  |