

## REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE



G. M. Calhoun  
J. B. Maupin  
M. H. Walker  
H. J. Hackman  
W. E. Leek  
E. Sapp  
H. K. Faulkner

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"

Elion, New York  
March 26, 1954

TO: S. M. ALVES  
FROM: R. A. WILLIAMSON  
SUBJECT: MODEL 721-722 QUALITY  
YOUR MEMORANDUM 3-23-54

We appreciate your desire to help improve the quality of the subject gun. There are several items mentioned in your letter which we believe should have further clarification. Any action which may be taken to improve the quality should be based on:

- (1) Actual conditions at the present time, and
- (2) Cost of improvement weighed against the amount of improvement.

Your letter states the groove diameter on the present lot of .222 cal. barrels are from .002" to .005" undersize. This apparently is a typographical error and was intended to read .0002" to .0005" undersize.

The present groove diameter specifications on the 222 cal. barrels are .2240"-.2250". These were changed on March 14, 1950 from .2235"-.2250". We have on several occasions produced barrels that were not held to .2240"-.2250" on the grooves. This is a problem which ties in with heat treat and rifling plug sizes and definitely needs some attention. (The limits on other calibers using the same process are .002".)

The present lot of barrels (3,000) ran very good through rifling (.2242"-.2244"). However, the first three loads of barrels (150) after heat treat at final air gage inspection ran an average of .0002" under the min. on groove diameter. There were a couple of barrels down to .0005" under the min. which is the old dimension established with the original process. Apparently these barrels had no oxidation on the inside after heat treat and, therefore, the pickling operation did not change the dimension. The next three loads of barrels through the final air gage inspection measured .2239" to .2241" on groove diameter.

The extractors mentioned in your report effecting quality was a surprise to the writer. At the time these extractors were found, all guns in process including the gallery, etc., were held up until extensive testing was completed. The guns with the questionable extractors were found to be comparable to the regular production. These extractors had not "missed" an operation. The vendor's former had worn and the outside contour was nearer a true radius than a series of straight lines. Serious consideration was given at the time to request a change to an extractor similar to the ones in question as they actually improved some feeding problems.

RAW  
R. A. Williamson  
Production Superintendent

RAW:EFK