

Paul Holmberg

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington
WBAD*PSIERS*
CHBxc: P.H. Holmberg
C.B. Workman
H.K. Boyle

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Ilion, New York
July 2, 1981

E. HOOTON, JR.

MODEL 700 .17 REM. CALIBER BARRELS
ORDNANCE STEEL vs. STAINLESS STEEL

The Model 700 BDL has been offered in the .17 Rem. Caliber since 1971. Because of concern at that time over potential bore corrosion in this caliber, stainless steel was specified for the Barrel. The .17 Rem. Caliber is the only Model 700 produced with a stainless steel Barrel. The Remington catalog has never referred to the use of a stainless steel Barrel in any Model 700.

The stainless steel Barrel has always presented a problem to Production, reflected primarily in higher manufacturing costs and difficulty in maintaining quality. Because of this, Production has proposed the use of a standard steel Barrel in the .17 Rem. Caliber. In support of this proposal, thirty .17 Rem. Caliber Model 700's were produced, using standard steel Barrels, and given to Research for testing. Since completing the tests, Research indicates that standard steel Barrels are satisfactory for use in the .17 Rem. Caliber.

Cost Considerations

A cost comparison study, issued November 3, 1980, concluded that the use of standard steel Barrels would reduce Model 700 .17 Rem. factory costs by \$15.25 per gun. Major factors contributing to the cost difference are:

- o Material Cost - Stainless steel costs approximately six times as much as standard ordnance steel.

To: E. Hooton, Jr.

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Cost Considerations - Contd.

- o Machining - Because stainless does not machine well, scrap and rework are excessive. Also, tool breakage is very high.
- o Coloring - Although Ilion's stainless steel coloring process is the best the industry has to offer, it is a marginal process. Significant amounts of rework are necessary to achieve good color. Because stainless steel requires separate coloring facilities, most of the material handling is done manually.

Quality Considerations

The use of standard steel will improve overall quality in the following areas:

- o Color - Barrels and Receivers will be colored in the same process, resulting in an improved color match.
- o Stock/Action fits - Repolishing and recoloring the stainless Barrel sometimes results in a poor fit with the Stock.
- o Accuracy - Because stainless does not machine well, a good surface finish in the bore is difficult to maintain, which can effect accuracy. Research tests indicate that accuracy is improved by the use of a standard steel Barrel.

R.L. Hall, Plant Manager

By:

J. H. Linde
J. H. Linde, Superintendent
P E & C Section

GBC:js