REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington DU PONT PETERS DU PONT

"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"

CC: L. Fox
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Ilion, New York
October 27, 1972

L. J. BOYLE (2)

RE: SUMMARY OF STATUS OF MODEL 700 SEAR SAFETY CAM PROBLEM

A problem has recently been recognized with regard to constancy of Trigger pull on Model 700 rifles after dry cycling of up to 5000 cycles. Practice has been to "lap" the Connector bearing surface, then chrome plate. The Sear Safety Cam is a coined powdered metal part, heat treated and chrome plated. It is then used in the fire control without lubrication.

Up to a short time ago, this Sear Safety Cam was pressed using HVA powder which is no longer obtainable. It was then changed to A. O. Smith #1000 powder. Recent investigation has indicated that the coined surface of the part pressed from #1000 powder after heat treating and chrome plating shows an RMS of 25-30 as compared to 8-10 RMS for parts made of the HVA powder.

We are presently manufacturing a production run of Sear Safety Cams from HVA powder which should be available about November 10 to confirm that our problem is the result of the new material. If such is proven out, we will immediately proceed to test some of the Japanese powders for use in this part as they are more nearly comparable to HVA than the A. O. Smith powder. Until such time as this is possible, we will use HVA powder which we have some stock of on hand.

Further, we are pursuing the feasibility of "lapping" this surface on our present Lapmaster machine to determine if a better surface on parts of #1000 powder would be acceptable.

Until these new Sear Safety Cams are available, we are lubricating the Connector - Sear Safety Cam surface with Molybdenum DiSulphide. Dry cycle testing up to 5000 cycles has shown this procedure to be reasonably effective.

E. R. Carr, Supervisor
Process Eng.-Current Products

ERC:I