

F-136

REMINGTON ARMS COMPANY, INC. LIMITED

INTER-DEPARTMENTAL CORRESPONDENCE



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Ilion, New York
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TO: R. E. FIELTZ
FROM: T. L. CAPELETTI *TC*
SUBJECT: HIGHLIGHTS FOR STAFF MEETING

Model Seven Lightweight

Testing is in progress on the 222 caliber to verify improved feeding of the prototype no-bind magazine followers.

Model 7400 Carbine, .223 Caliber

Twenty (20) rifles are being built for design acceptance testing.

Design work is continuing on magazine box refinements such as the bolt release, bolt release slot, and increased capacity (15 shot). Testing is required on the new, thinner fore-end.

Bolt Action Rifle

Bob Emmons has received the revised Model 700 receiver from Pete Grisel. However, that receiver is being returned to Grisel for further revision. Emmons should have this rifle, the fourth sample, completed in February.

Preliminary design of the rotary magazine is complete and fabrication of a prototype has started. New barrel blanks and third generation receivers are being fabricated. Initial testing of the new extraction system should be completed by the middle of December.

Model 1100 Special

Five (5) 12 Ga. and one LT-20 special field samples have been completed. Metal and wood components for 35 guns for marketing field personnel will be assembled in January.

A design package has been given to Process Engineering to begin preliminary tool design. A complete drawing transmittal can be made as soon as successful testing of the magazine cap detent and fore-end reinforcement are complete.

Injection Molding of Metal and Ceramic Components

Alloy development is progressing. A special Remington blend of 53% iron, 29% nickel, and 18% cobalt has been processed with excellent results. A 95% theoretical density has been achieved. This particular blend was chosen in response to an inquiry for Kovar, a special material with good glass sealing characteristics.

Research is also finding that it may be possible to skip the thermal binder extraction step of the process and use solvent extraction only. This has a significant advantage for certain applications. For example, the thermal extraction step brings a high risk for oxidation, which is disastrous when processing stainless steel.

Cut Checkering Machine Development

The Research project is now in Bridgeport to provide funds for a prototype low cost checkering system. If the CNC machine portion of the system can be ordered in January, it will be delivered in time to relieve Production's anticipated overburdening of existing equipment next summer.

Form-Rolling

Industrial Engineering has reported a \$365M annual savings and an infinite return on investment by using this technology to produce small, solid, cylindrical parts.

A Research Appropriation Request is circulating to purchase the form-rolling equipment and to begin development.

TLC:ws
Ilion Research Division