LIMITED DISTRIBUTION

ILION RESEARCH DIVISION

PROGRESS REPORT - HIGHLIGHTS

OCTOBER 1983

Distribution List

R. E. Fielitz
W. H. Coleman, II
R. L. Hall
C. B. Workman
J. W. Bower
J. W. Brooks
D. S. Findlay
J. C. Hutton
J. S. Martin
R. S. Murphy
C. E. Ritchie
R. J. Sanzo
R. L. Sassone

Remington Arms Company, Inc.

NEW PRODUCT DEVELOPMENT

MODEL 1100 Special Field Shotgun (D. S. Findlay, T. P. Powers)

The elastomer buffer fore-end design has been transmitted to the Plant and tooling and part fabrication for trial and pilot has been initiated. Production deliveries to the warehouse are currently scheduled to begin in March.

Model 870 Special Field Shotgun (D. S. Findlay, F. H. Smith)

Samples for Marketing evaluation and catalog pictures are complete. Trial and pilot samples for testing and evaluation are started pending Research approval with initial warehouse deliveries scheduled for February, 1984.

Model 870 Restyle 12 Gauge (D. S. Findlay, K. L. Calkins)

The Model 870 Restyle is being developed to replace the current Model 870 in 1985. Specifications include a 3" chamber, new fore-end design, and medium gloss wood finish with cut checkering.

A complete drawing package and parts list has been sent to Process to start work on the cost and capital estimates. Marketing samples and test guns have been completed and endurance testing has been started in the Test Lab.

Model 870/1100 Deer Gun (D. S. Findlay, F. H. Smith)

It is planned to introduce a new deer barrel in 1985 to replace the current offering. This redesigned barrel in both models in 12 Gauge will feature a 21" barrel and a rear sight base capable of mounting a long eye relief scope with a variety of mounts. Drawings for estimating by Production have been completed and samples will be completed by November 30.

Model 870P Police Shotgun (A. A. Hugick)

Occasionally a shotgun shell can jam between the carrier and slide assembly of a Model 870 Riot Gun making the shotgun very difficult to operate. Several design modifications have been developed to either

prevent the malfunction or make it easy to correct. Cost estimates for these designs will be available for review in November.

Model 700 Mountain Rifle (R. S. Murphy, F. E. Martin)

A drawing package, complete with a preliminary stock drawing has been sent to Process for estimating. A total of 36 barreled actions have been built and the stocks are being processed. These guns will be used for the final Research accuracy and function testing.

Sportsman 74, Sportsman 76 (R. S. Murphy)

The drawing package for the Sportsman 74 is nearly complete. The parts list has been sent to PE&C for estimating. Process Engineering will be building all rifles for testing and evaluation. Work on the Sportsman 76 will begin Monday, October 24.

CURRENT PRODUCT DEVELOPMENT (J. W. Brooks)

Model Seven Lightweight - .308 and 7mm-08 Caliber
(D. E. Bullis)

Parts list and drawings of the aluminum trigger guard, floor plate cover, and other parts required with this change have been transmitted to Process Engineering.

Sensitivity testing of ten (10) prototype aluminum assemblies has been completed and results are satisfactory.

Model Sportsman 12 Pump (T. J. Plunkett)

Transmittal complete.

Model Sportsman 78 (T. J. Plunkett)

Transmittal complete.

MATERIALS AND PROCESS DEVELOPMENT (J. W. Bower)

Injection Molding - Firearms Components
(M. J. Topolski, K. C. Rowlands, B. Panagian)

Additional M/700 magazine followers, showing various types of

surface finishes, have been given to Marketing. Function and endurance testing will begin as soon as a finishing sample is approved.

Alterations to the centerfire rear sight base mold are complete. A pilot run will begin November 7.

A pilot run of Model 7400 magazine latches will begin October 31.

Injection Molding - Commercial Applications - Metals

(J. A. Lawrence, B. Panagian, K. C. Rowlands, M. J. Topolski)

Alterations to the lyophilization stopper mold are being made following a visit to West Co. Shipment of approval samples is now scheduled for December.

Delivery of the crimping anvil mold for AMP is expected by October 28.

A purchase order has been placed for a mold for Chrysler. Mold delivery is scheduled for November 30.

The latest run of stainless steel produced parts with good mechanical properties, and corrosion resistance better than powder metal but not as good as wrought. Samples have been made available to Marketing for customer evaluation.

Injection Molding - Ceramics Pilot Line

(K. C. Rowlands, M. Tasovac)

The Sweco mill will now be installed in Ilion. EDL has decided they do not have the space for it.

A purchase order has been placed for a Haake mixer.

Quotes have been received for a laboratory kiln. A purchase order will be issued.

Injection Molding - Commercial Applications - Ceramics

(B. Panagian, K. C. Rowlands, M. Tasovac)

PZT (lead zirconia titanate) samples have been supplied to Sandia Labs for firing and evaluation. A review with Sandia is

expected in November.

An order has been received from Abbott Labs. This development contract will include injection molding alumina orifices and applying a glass coating. The coating technology is available at CR&D and Chestnut Run.

Cut Checkering Machine Development (R. J. Balaska, D. J. Finfrock, A. M. Makowski, E. R. Owens)

The pilot run of Model Four stocks on the Bostomatic is complete. Production reviewed the stocks and found unacceptable fuzziness on 9%, which were all corrected with a subsequent brushing operation. The cutter development work now in progress is expected to improve the fuzziness condition and eliminate the need for the subsequent brushing operation. Currently being evaluated is a fine-grained, three-fluted, spiral cutter purchased from Ekstrom-Carlson. This cutter has checkered and bordered sixty-five stocks with no fuzziness, and is still in test.

Based on the results of the pilot run, and the favorable progress with cutter development, Research has recommended to Production that additional checkering capacity be added through Bostomatic machines rather than the currently used 3-spindle N/C machines.

N/C Development (R. J. Sanzo, W. M. Curry)

The first direct numerical control (DNC) application at Ilion has been completed in the Research N/C Shop. Programs may now be transferred directly between the Matsuura machine control and the microprocessor tape preparation system without the need to make a conventional punched tape. Part programs already in residence in the machine control memory may be transferred to the tape preparation system for editing or permanent storage.