

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

Ilion, New York
November 6, 1972

To: S.M. Alvis
From: C.B. Workman
Subject: Technical Services
Staff Meeting
10/30/72

Present: J.J. Bechard A.A. Hugick
W.M. Curry R.J. Sanzo
W.R. Googin R.L. Sassone
D.S. Hardy C.B. Workman

Discussion:

N/C ENGRAVING

Presently we are awaiting approval of The 3200 Trap Gun - 1 of 1000 engraving pattern(s). Approved pattern is required for start of machine programming by November 1. (Still waiting for approved pattern(s).)

N/C CHECKERING

M/870 "All American" stocks and fore-ends are in full production at Ilion. October production quota has been met. Presently November production is in process. Approximately 270 sets of wood are required to meet the month's schedule.

The 3200 Shotgun fore-end checkering is in full production at Ilion with approximately 75 fore-ends being produced to date. Prove out of the dual machine software, which enables the operation of a pair of machines by a single controller, was successful. Machine table stops currently are being fabricated and upon completion full production will begin.

Work at Wilmington is continuing on proving out The 3200 Shotgun and Model 541-S stock programs. Preliminary prove out on The 3200 stock, left side, is complete; only final editing remains. However, limited production could be run. Prove out of right side is in process and should be ready shortly. Preliminary prove out of the fore-end pattern on the M/541-S stock is complete. Arrangements have been made to checker the fore-end section at Wilmington. Prove out of the grip pattern is proceeding with priority given to The 3200 Shotgun stock program.

Discussion (Continued)

MEASUREMENT/TEST LAB

- Remington 3200 Shotgun

1. Design test reports - no change.
2. Two (2) Remington 3200 Pre-Pilot Lot Test Guns in live test.
Gun 4254 - 5 K Shoulder - 5 K Jack Shooting
Gun 4234 - 5 K Shoulder - 5 K Jack Shooting
Testing approximately 95% with R-P Target Loads.
3. One (1) Remington 3200 Pre-Pilot Lot Test Gun is in Dry Cycle Test.
Gun 4240 - 50,000 Cock and Fire Dry Cycles
Evaluating ejector design changes -- inertia effect in ejector's head area.
4. Solenoid fired of Remington 3200 Shotgun results in single firing or doubles.
5. I will prepare Phase II test report (A.A. Hugick).

- Model 742-X

1. Accuracy shooting of 742-X in 7mm continues.
2. Received 7mm Federal ammunition for 742-X accuracy work.
3. Received 22 - 250 Winchester ammunition for 742-X accuracy work.
4. Order sample of 25-06 Winchester ammunition for 742-X accuracy work.
5. Accuracy shooting of 742-X trunnion system mock-up on M/700 continues (Disc tolerance and disc design).

Discussion (Continued)

MEASUREMENT/TEST LAB (Continued)

- C.B.C. Pellet Gun Evaluation
No change.
- M/1100 - 20 Ga. Light Weight
 1. No test activity.
 2. Expect testing during November, 1972.
 3. Test program - test cost estimate reviewed with C.B. Workman/W.R. Googin and turned over to L. Hagen.
- M/700 Left Hand - Pilot Lot Test No. 1
 1. No change since 10/20/72 staff notes.
 2. Reviewed 700 sear with R.E. Carr (dry cycle test sear due in a couple of weeks for evaluation).
 3. Pilot Lot Test No. 1 -- needs to be written.
 4. Dry cycle test report to follow.
- Japanese Ammunition - Japanese Gun
 1. Test firing completed.
 2. Test report needs to be written.
- Polyethylene Duck Plug Evaluation
 1. More testing requested per C.B. Workman.
 2. Final results needed by 11/8/72.
- "Ducks Unlimited" Gun Testing
 1. Eight (8) more guns have been jack fired tested with 1 7/8 oz. loads.
 2. Preliminary strain measurements have been made.

Discussion (Continued)

MEASUREMENT/TEST LAB (Continued)

- Short Stock Assembly Torque

Summary report being reviewed.

- Shotgun Extractor Testing

1. Machine is being repaired - extractor fixture block failed and being replaced with an improved material block.

- Ammunition Inventory

1. Completed and no auditing complaints.

- S.A.A.M.I. Testing

1. The S.A.A.M.I. Center Fire Round Robin Test was completed. (Approximately 375 rounds fired)

- High Speed Photography

Assisted Bridgeport(11/2/72) Research with high speed photography of gun function with center fire ammunition development.

- M/1100 Shotgun

1. To select three (3) M/1100 - 12 Ga. Shotguns for W.E. Leek's Farm Trip.
2. Three (3) M/1100 - 34" Barrals are in the Lab for pattern test.
3. Three (3) customer complaint M/1100 Shotguns were tested.
4. Received experimental M/1100 firing pin retractor spring for evaluation. Work with C.W. Stephan for better testing technique.
5. Received "ribbed" action bar assemblies for evaluation.

Discussion (Continued)

MEASUREMENT/TEST LAB (Continued)

- M/700 Product Improvement
 1. M/700 - 243 teflon pad for evaluation.
 2. Ordered 264 barrel life test ammunition.
- M/1100 - Plant Assistance
 1. Plant has power problems with the Light Weight M/1100 - 20 Ga. Shotgun.
 2. Received guns and ammunition for evaluation.
 3. No bore impulse has been finalized for 20 Ga.
- Miscellaneous
 1. Reviewed Measurement/Test Lab moving across the street.
 2. Reviewed pattern scan device specifications.
 3. Reviewed lab expenditures on Research work orders.
 4. The chimney is down!

COMPUTER AIDED DESIGN

Conversion of N/C Checkering and Engraving programs to our 4020 system is proceeding as scheduled. Expected completion dates are 11/6/72 and 11/20/72, respectively. (No change)

General Electric Hexadecimal Tape Punch System modification peripheral, etc., has been shipped 10/23/72. Installation is planned for early November. (No Change)

Works Engineering is working on recommendations for alternate to the sprinkler system in our Computer Room. F.I.A. Representative reviewed the situation and would not accept Halon System by itself. However, several alternates were suggested. (No Change)

Discussion (Continued)

COMPUTER AIDED DESIGN (Continued)

All of our programs are being converted to new systems as time and priority allow. (No Change)

Scheduled delivery date for the new system is as follows --
Biomation -- Shipped 10/23/72
(No Change)

Adapt and all post-processors have been installed. Tapver will be installed by December 1, 1972. (No Change)

G.E. is preparing a quote for a program to convert inspection machine contour tapes for cutting free-form stocks, etc. (No Change)

Additions to draw package underway (LINLIN, LNLNRD and several others). Installation will be on an "as written" basis. (No Change)

Doing preliminary work on STAR for 4020 Computer System. Hi-Speed Range is being expanded to include velocity-time and travel-time curves. (No Change)

N/C MAINTENANCE

Preliminary Testing for Pattern Scanning System

The Production 40 -Yard Range will be scheduled to give us time to run some power piston deflection tests. 220 V Single Phase is being temporarily installed by the Electrical Dept. for this testing. (No Change)

Series E_h Machine Installation - Bldg. 84-1

Preparation of main power, drip pans and other miscellaneous pre-installation requirements are proceeding and will be complete before mid-November. (No Change)

Electric Fire Control

All components acquired and assembly is in process. Completion date two (2) weeks from 10/2/72. Work being held up due to priority, etc. (No Change)

Discussion (Continued)

MISCELLANEOUS

Assembly Torque of Short Stocks

Per request of Jim Bowers, assembly torque requirements are being established. Five (5) foot-pounds is recommended and being checked through Gallery Test. (No Change)

Photography

Wiring of N/C Engraving Machine is being photographed for MacLaw Tool. (No Change)

N/C and MODEL SHOP

Reports attached.

C.B. Workman/R.L.Sassone:sp
Ilion Research Division
Attach.