

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington
CLIPPER

PETERS
CLIPPER

Xc: J. J. Bechard
W. M. Curry
P. H. Eccleston
W. R. Googin
D. S. Hardy
A. A. Hugick
F. G. Hart
R. J. Sanzo

non. file

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Ilion, New York
February 8, 1974

TO: W. E. LEEK
FROM: C. B. WORKMAN
SUBJECT: TECHNICAL SERVICES STAFF MEETING - Feb. 11
(Last Meeting Held January 28, 1974)

CURRENT STATUS:

N/C ENGRAVING

Model 3200 "One of a Thousand"

All patterns approved and in production.

COMPUTER AIDED DESIGN

The high speed range is operational and has been used to generate Internal Ballistic curves for design.

Uniapt has been installed.

1. Uniapt Post-processor

- A. Eb
Tape is received and accepted.
- B. Richardson
Tape is received and is ready for machine prove-out and debug.

COMPUTER AIDED DESIGN (Continued)

1. Uniapt Post - processor (continued)

C. EXUM 01 - Ex-Cell-010 B-E Work Center

The origin and trans problems have been solved. Output from this post-processor is now good. Further changes were found to be necessary after installation of the machine. These are: the cancellation of canned cycles and tool offsets at the beginning of each program, turning the coolant off before each tool change, returning to positioning mode before each tool change, and the output of the tool offset group number after each tool change. A new tape, with the above changes and the addition of full 3-axis contouring and 40 tool offsets, has been received and is awaiting debug.

D. Bostomatic Post-processor.

Awaiting quote from United Computing.

A tape duplicating and verifying program has been written to allow faster and better tape processing.

A computer program which will calculate machining costs of various metals has been converted to our system and is available.

A meeting with John Breggar to discuss RAMPS (Resource Allocation Multi-Project Scheduling) was held on Nov. 21. Output from RAMPS has been received.

A program to calculate center of gravity and moments of inertia has been converted and is available for use.

A program to optimally fit a set of data points to a mathematical equation and then plot that equation has been written and developed. A description and user's manual will be written and distributed as time permits.

Gun motion, shooter force, etc. can now be analyzed on our digital computer much the same as any analog computer. If the equations of motion can be written, then a program to print out various displacements, forces, etc., as a function of time can then be developed. This is currently being done for the M/3200 trap and for test lab jack design.

MEASUREMENT / TEST LAB

M/3200 Over and Under Shotgun

1. 12 Ga. - 3" - New top tang design - 1 7/8 load.
 - A. Gun 19999 - 10,000 rounds - test completed.
 - B. Gun 20163 - 10,000 rounds - test completed
(seperation of braze at frame dove tail joint).
2. Developing 12 Ga. R-W-F target ammo internal ballistic data via high speed system.
3. Have request for clay bird trajectory data.

M/742-X New Design Autoloading Rifle

1. Generated 7mm dressure time data for chamber and experimental gas system (OSC).

M/1100-X New Design Autoloading Shotgun

1. SN 000 1 post 15,000 round (L.L.)
Modification activity - headspace, bolt velocity
(400 TB with 4 - 1 1/2), started 75/25 endurance,
- gun is in design.

M/1100 Product Improvement

1. Tested longer design magazine cad plug per request of design
2. Four M/1100 - 12 Ga. - 3" Quality Audit Test Completed,
report written, orifice reduction recommended.
3. Current 20 Ga. R-P target ammo inventory at 106,000 rounds.
RXP scheduled for production start UD 1/74.
4. Assisting Production with 12 Ga. skeet gun don't blow back.
5. Assisting production with locking block endurance testing.

MEASUREMENT / TEST LAB (Continued)

Miscellaneous Lab Activity

1. Quality audit finished with M/700 Var. 6mm, 243, and 25-06,
2. S.A.A.M.I. gas 4 groove P/U test balance scheduled.
3. M/700 - 264 Win. Mag. barrel erosion test at temporary bind.
4. Dry cycle testing M/700 extractors.
5. Gun test box (1) scheduled to be fabricated.
6. De-bugging M/1100 dry cycle machine.
7. A. Hugick out four (4) days for seminar.
8. Process of summarizing 12 Ga. high pressure data work.
9. Test experimental gas system assembly per C. B. Workman.

AAH:bd

SPECIFICATIONS, TECHNICAL INFORMATION & SERVICE

1. Package Label Art Work Program:
 - a. 870 Deer Guns - completed
 - b. 788 with scope - completed
 - c. 870 AP Grades
 - d. 870 Police/Folding Stock - completed
 - e. XP-100
2. New Owner's Manual for 540-XR. Mechanicals and exploded view 80% complete. Holding for possible changes.
3. 40-XR and 40-XC parts lists completed.
4. 540-XR Standards complete.
5. 3200 "One of 1000 Skeet" Standards complete.
6. 40-XR and 40-XC Standards to be done.

FGH:bd

N/C MAINTENANCE

Allen'Bradly Eb

Eb machine will be down a week for control modifications , a minor repair.

A-B Co. has agreed to cover on the CRT display unit failure on warrenty.

XLO 108E

The UMAC 7 control is down for electrical repairs to be performed by Sperry-Rand field service

Positool 900

The positool 900 retrofited control is fully operational.

REPORTS ATTACHED

Model Shop Work Load
Numerical Control Work in Progress
Plastics Research Lab

C. B. Workman:bd
Illion Research Division
Attached