

S. M. Alvis

May 29, 1956

MONTHLY REPORT - PROCESS RESEARCH SECTION
MONTH ENDING MAY 31, 1956METAL FINISHING AND COLORINGElectro-Debur and Polish

Sportsman-58 Receivers have been processed through the new electro-debur and polish bath with excellent results. Fixtures are being fabricated to process a few Receivers each day to evaluate quality level and economics.

FIXTURE TUMBLING

A review of fixture tumbling has been made with vendor representatives and a new system of fixturing both Barrels and Receivers developed. An experimental unit is being fabricated by the vendor to prove the system and evaluate the reduction in loading and unloading time.

POWDER METALLURGY

The contamination of Pyron electrolytic iron powder with ferro-manganese and ferro-silicon has required the substitution of other powders for the parts now in production. With minor difficulties this program is proceeding successfully. Over 160,000 parts have been processed by production since Feb. 18, 1956. Parts were fabricated in the Process Research Laboratory prior to this date.

Battelle reported at the last meeting consistent results in preventing 95% of the carbon loss due to the atmosphere by mixing a small amount of natural gas with dissociated ammonia.

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POWDER METALLURGY Continued

Errors on the part of the vendor and changes in the Remington design for the experimental M/11-48 Sear necessitated extensive changes in the tooling for the laboratory #640 Stokes press.

MACHINABILITY

The dynamometer to be used for machinability and coolant evaluation was damaged in shipment and returned to the vendor. The new delivery date is about the middle of June.

Material gathered during visits to Monarch and Jones & Lamson Machine Tool Companies is being reviewed for application to machinability and coolant evaluation tests.

Experimental use of ceramic tool bits on turning test bars is progressing satisfactorily.

PARTS PRICE LIST

A visit was made to the printing vendor to discuss the project and set an effective issuance date to comply with the printing schedule. August 1st appears to be the earliest possible release date and approval of Management will be requested. The effective date will be printed on the lower corner of each (2 page) sheet.

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Process Research Section