

The August 1993 Monthly Report for James A. Love

Looking back over the month of August I can report significant progress on the projects assigned. These projects consists of making M/700 receiver from 788 steel, powder coating the detachable magazine parts, marking of the 700 bolt body, a re-design of the 522 sear left heat striating fixture, fitting the Miyano with an ejector drilling system, the infrared oven project, tooling improvements for the 522 breech bolt, powder coating the M/7 SS trigger guard assembly, cleaning of the powder coating racks, and assisting production with machine difficulties.

Making the M/700 receiver from 788 Steel: This project is complete. Production now has the ability to supplement receiver production with the 788 steel when the need arises. The advantage of this process is to drill the 0.703 Dia. hole off-line. This removes the most time consuming machining operation, thus increasing overall output.

Powder Coating of the Detachable Magazine Parts: The parts that need to be coated are the trigger guard and the magazine box. The process to coat the trigger guard is complete. The viability of the process was proven during the T&P and was verified by coating 201 parts. The coating quality and thickness were within specification. The process for the magazine box will require some work. A method for preventing the coating from getting on the underside of the floor plate needs to be found. I am currently looking at using a high temperature vinyl gasket.

Marking of the M/700 Bolt Body: This project is complete. The last 4 digits of the serial number will now be marked on the bolt body using the Dot Peen Marking Machine. The necessary changes to the Process Records are under-way and will be complete in the next few weeks.

Design of the 522 Sear Left Heat Striating Fixture: This project is complete. The fixture is being made. The design was done so that the fixture could be placed into production. The old fixture had small hand wheels and did not provide room to remove the parts. Completion of the fixture should be in the next few weeks.

Fitting the Miyano With an Ejector Drilling System: The project proposal was written and given to Dan Shumway. The Miyano will require a new coolant pump and tool holders. This project will decrease total cycle time by about 2 minutes per part.

Infrared Oven Project: The project proposal was written and given to Dan Shumway. This project will increase line speed by about a factor of 2. This project consists of a infrared oven and new application equipment. It is my hope that the oven will be installed during the December shutdown.

Tooling Improvements for the 522 Breech Bolt: I am currently trying to find a new tool used for drilling the 0.313 holes. The current tool is expensive and hard to re-grind. I hope to complete this project by the end of September.

Powder Coating the M/7 SS Trigger Guard Assembly: The process for coating the assembly has been developed and was tested using 20 parts. The T&P of the M/7 SS will verify the process using a larger number of parts. The process records have been changed.

Cleaning of the Powder Coating Racks: I am currently finding a method to meet the particle emission requirements and re-formulating the powder. I hope to have a solution and final proposal by the end of October.