

To: Ken Soucy
 From: David Findlay
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 Subject: M/522 April Monthly Report

MODEL 522 VIPER

On March 17, the decision was made to hold off introduction of the rifle for the 1993 model year and introduce the gun at the 1993 SHOT Show. The current production and trail and pilot schedule is to build a 100+ rifle design acceptance sample sometime in May 1992. These guns will be built by engineers and technicians. The components will either be made with production or vendor tooling rather than Tool Room parts. The original plan called for these rifles to be built in the first full week in May, but, other project priorities (Stainless Steel 700, and Camo guns) have delayed the assembly of these rifles.

A full production run of rifles for the trail and pilot sample is scheduled to be run in the fourth quarter. This will give the Test Lab a large sample of rifles for re-testing the production process with production operators. This will give us a high degree of confidence in the first guns we make and will point out any problems related to new operators, forgotten techniques, etc.

The main process concern still revolves around the magazine box from Metal Injection Molding (MIM). MIM recently supplied a 40+ piece sample off their new tooling. Inspection of these components revealed that these boxes have been some of the best to date in terms of magazine lip dimensional stability and warping. While there still exists a cracking problem at the foot of the box, MIM is indicating that they believe this problem will be resolved. ^{TESTING?}

Production still is awaiting try out of their magazine box sizing and dimpling fixture. Successful try out and development of this fixture for the May design acceptance test is the long lead item needing resolution in order to build guns.

Lastly, the finalized draft for the patent application of the M/522 has been completed, signed, and turned over to the legal department for submission.

NCS/11-87 Product Improvement

Work has been initiated to develop a lower cost and improved endurance life gas system for the Model 11-87. It is conceivable that a New Concept Shotgun (NCS) will still utilize a variant of the M/11-87 Gas Compensation system. Efforts revolve around three major approaches:

1. An investigation and redesign of the current 2 piece steel piston and piston seal to utilize a lower cost steel or change in process of the current design.
2. The design of a stamped "heat shield" stainless steel piston and synthetic plastic piston seal design to reduce cost and improve endurance life.
3. The design of a one piece steel stamping to act as both the piston and piston seal.

Initial prototype drawings for all three approaches have been designed and were submitted to the tool room for fabrication on April 23.