

September 30, 1993

TO: Dick Jackson
FROM: Jim Ronkainen

SUBJECT: September Progress Report

M/700 DM

Phase I of the M/700 DM trial and pilot was built and tested the first week in September. The standard caliber rifles did well in testing, while the magnum calibers exhibited a tendency to jump magazine during feeding. Ed Ford and Dennis Thomas of the Test Lab made several high speed videos of the magnum rifle feeding and were able to capture the shells jumping from the magazine. Based on the videos, the jump shell malfunction appears to be caused by the front of the feed lip not "controlling" the front of the shell when the bolt is cycled, letting the front of the shell slip out from under the feed lip and jump the magazine. Three different feed lip options have been designed and sent to the vendor for prototyping. We are currently cutting the flat blanks for the magazine boxes in the Tool Room to alleviate a bottleneck at the vendor's wire EDM. Timing for the finished prototypes from the vendor is pending. The short action magazine box design has been updated to extend the release point of the feed lip forward to stiffen the sides of the magazine box. Timing for prototypes from the vendor is also pending.

The design of the trigger guards is in the process of being altered to improve the ejection of the parts from the die cast tooling. The draft on both ends of the magazine well has been increased from 1° to 2°. The first 4000+ parts will require a secondary machining operation to open the overall length of the magazine well to print. New inserts for the magazine wells in the die casting tools are being made at the vendor to cast the parts to size and eliminate the secondary machining. We are also having the vendor quote altering the outside form of the guard by the front guard screw to better match the shape of the wood and synthetic stocks. Until the vendor revises the tooling, we will machine that area of the guard to match the stocks.

MIM magazine latches are in test in the R&D Test Lab. We plan to use MIM latches for production rifles starting in November. The mold for the latches is being revised to add a fillet radius to the back sides of the parts to prevent cracking of the parts at sinter.

Phase II of the trial and pilot is scheduled for build this week. The cut-away rifle for the catalog was shipped to Lyons on 9/20/93.

M/700 Synthetic Stock

Jim Smith devised a solution to deaden the hollow sound in the butt of the synthetic stock. Jim found that wrapping scrap Jiffy Foam into a roll and inserting it into the stock cavity noticeably quieted the stock. The design is being formalized and will be implemented in the next month. The camo synthetic stocks will be made using Six Enterprises stocks for the remainder of the 1993 model year. The stocks will be changed to Remington stocks for the 1994 model year.

M/700 Classic - 6.5x55 Swedish

The rifle from the African safari has been returned to Ilion, but time has not permitted the rifle to be examined.