

TO: KEN SOUCY

FROM: MICHAEL KEENEY

DATE: 06/30/92

TOPIC: JUNE 1992 PROGRESS REPORT

o PROCESS DEVELOPMENT/RESEARCH OF NEAR:

The development and evaluation of an EDM operation to produce a three lug locking system, has been completed. A complete report from Ingersoll Gmbh, consisting of electrode wear, cycle time, process controllability and component quality, along with the test samples, are expected by July 10. The GFM mandrel developed as a contingent process to the EDM operation had been sent out for quotes. The quotes are due by July 13.

Due to back log of work waiting to be processed through the tool room, the components required to produce the bolt assembly for the two piece test action have not been completed. The barrel and receiver components are 85% complete. Testing should be complete by mid August.

o M/7400 OPERATING HANDLE/BOLT CARRIER ASSEMBLY:

I have requested, from Production, operating handles without the current retaining pin clearance cut. The next production run of operating handles is scheduled for mid July. Alterations and assembly of the handles should be completed by mid August with testing to follow.

o M/7400 M.I.M. OPERATING HANDLE:

Endurance testing is continuing at the Lonoke facility.

o XP-100 WOOD STOCK:

Although written confirmation has not been received, the verbal results of the projects' economic evaluation were received on 6/23/92. The written confirmation is expected by July 8, with project submittal to be completed by July 15. The drawing package and Design Change Request (DCR) have been completed. The preliminary test guns are currently in production, assembly is scheduled to begin by July 15.

o ECM of CENTERFIRE RIFLING:

During the previous assignment in Process Engineering, I began an investigation of an alternate rifling process known as ECM or Electro Chemical Machining. Although this process had been reviewed by Remington in the past, the renewed interest is a result of "Just In Time" and "Build to Order" production philosophies. Utilizing an ECM rifling process would allow barrels to become more generic throughout the process. Final determination of caliber would be one of the last operations prior to assembly, thus reducing lead time as well as cost.

Currently there are ten ECM rifled barrels assembled into M/700 Varmint actions and ten standard M/700 Varmint actions undergoing endurance and accuracy testing. The test consists of 5,000 rounds of endurance with accuracy testing at 100, 500, 1000 and each 1000 rounds there after. Before accuracy is shot, each barrel is inspected for bore and groove dimensions as well as visual deterioration of the rifling. Testing is currently approaching the 500 round endurance level.

As another possible application of ECM, Cation, the company that has processed the ECM test barrels, has been requested to develop an ECM operation to finish ream rifle as well as shotgun barrels. Developmental work is scheduled to begin by early August.