

M/710 Review

January 19, 2000

Attendance: M. Golemboski, T. Cook, M. Jiranek, M. Keeney

The objective of the meeting was to review the M/710 program in preparation for the Design Acceptance Testing (DAT) and submission of purchase orders for production tooling. Using the partslist as a guideline, a brief discussion of the individual part design and status ensued. The discussions involved verification of material specifications, potential design changes, DAT component responsibility, production process development, and production status. The following is a summary of the discussions.

Barrel Assembly Complete

Cosmetic markings of the Barrel Assembly remain unspecified. Conf. call with Marketing required, resolution required by 01/31/00.

Responsibility -- Keeney/Golemboski

Barrel

Tensile testing of 4137 material barrel sections to be completed by 01/31/00

Responsibility -- Urbon

Material specification required, chemical and mechanical specifications. Formalized logging procedure to be implemented. R&D will retain responsibility for issuing and maintaining material specifications.

Responsibility -- Jiranek

Material code required, dimensional specifications of incoming material stock. R&D responsible for initial specification, Manufacturing to maintain specifications.

Responsibility -- Jiranek/Zajk

Receiver

Manufacturing indicated Drawn Over Mandrel (DOM) material specification was forwarded to Free Markets. Auction to be completed on Tuesday, Jan. 25.

Receiver Insert

Production inspection fixture and program delivery delayed. Upon completion, will be used to verify receiver insert dimensions prior to initial production order.

Responsibility -- Zajk

Adhesion testing of threaded insert ultrasonic weld required. Manufacturing to provide samples, R&D to perform evaluation.

Responsibility -- Zajk/Cook

Safety

Cosmetic approval of "button" geometry required.

Responsibility -- Keeney/Russo

Dimensional verification of DAT parts required, correction of hard "fire to safe" movement required.

Responsibility -- Keeney

Safety Spring

DAT springs to be .035" wire diameter versus previous samples at .030" wire diameter. Drawing complete and forwarded to Manufacturing.

Recoil Bracket

Vendor requested material change from AISI 1010-1020 to AISI 1008 and thickness specification from .200 to .187. Changes have been completed and forwarded to Manufacturing.

Bolt Body/Bolt Handle Geometry

Manufacturing currently developing brazing process, dimensional changes may be required to obtain adequate braze adhesion. Manufacturing to specify changes as required.

Responsibility -- Sacharnoski

Bolt Handle

Manufacturing requested rapid prototype samples of bolt handle geometry.

Responsibility -- Keeney

Bolt Head

Manufacturing to purchase semi-machined bolt heads, finish machine lug geometry in house. This process will require re-dimensioning of part based on new datums.

Responsibility -- Zajk/Keeney

Ejector

Vendor requested material change from AISI 1215 to AISI 12L14, change complete, drawings forwarded to Manufacturing.

Firing Pin

Vendor requested material change from AISI 1215 to AISI 12L14, firing pins to be tested via dry cycle machine to evaluate impact deformation. Change dependent on test results, required by 02/18/00.

Responsibility -- Keeney

Bolt Plug Insert

Vendor requested geometry change from slots to full width flats. Change complete, drawings forwarded to Manufacturing.

Tumbler Plunger

Manufacturing requested review of M/597 and M/710 plungers to develop a common part.

Responsibility -- Keeney

Firing Pin Head

Mechanical analysis to be completed to verify MIM material selection. During analysis, bolt opening forces to be quantified.

Responsibility -- Keeney/Jiranek

Stock

Verify fit of recoil pad and stock geometry.

Responsibility -- Keeney/Cook

Latch

Explore rapid prototyping of synthetic samples for DAT.

Responsibility -- Keeney/Cook

Swivel Stud

To be common part used on M/597, partslist correction required.

Responsibility -- Keeney

Instruction Manual

Development of manual required.

Responsibility -- Keeney/Russo

A brief discussion of the DAT plan followed the design review. Present during the DAT discussion were M. Golemboski, S. Franz, J. Snedeker, and M. Keeney. J. Snedeker presented the test plan flow chart. As presented, the DAT will be broken down into two parts, A and B, due to the availability of test stocks. Part A of the test will be a complete evaluation of (15) M/710 barreled action samples utilizing three aluminum stocks currently available. Part B will consist of requalification of the design incorporating 83 production quality synthetic stocks. Production synthetic stocks are expected by the end of May, 2000. Following successful completion of the DAT, Manufacturing will provide a minimum of 300 T&P samples for selection and evaluation. Expected T&P firearm availability is by the end of June, 2000.