M E M O R A N D U M

DATE: May 24, 2006

TO: Jim Rabbia

FROM: Mike Santillo

RE: M/710 Rev 2 High Spot Estimate Review meeting - 8/26/98

CC: J. Mead, D. Diaz, M. Keeney, J. Swanson, W. Zarnoch, M. LeMay, J. Parkhurst

The following is a synopsis of the brainstorming meeting held on August 25, 1998, in Ilion. The premise of the meeting was to review the original high-spot estimate done by Ilion on 6/9/98, identify potential cost savings and to review the proposed design concept for changes. The goal is to lower the manufacturing cost to the target range of $100-$106. Below are the items discussed with significant points pertaining to each. Each item is then summarized with a path forward.

Barrel - Summary

- Cold Forge of rough chamber and/or locking lugs as a possibility
- Concern expressed around selective Heat Treat of breech end - Needs Clarification
- Defined secondary machining of locking notches
- Elimination of threads @ hub end - Press fit with receiver
- No spin polish matte finish (Express Finish)
- No finish heading - Interchangeable bolts @ Ass'y
- Mayfield to quote button rifling & machining for product differentiation

Path Forward: Ilion is to provide a rev. 2 high spot estimate to machine the barrel complete with the afore mentioned design changes, including capital money required.

Receiver - Summary

- Alter design to round receiver with straight thru-hole to accommodate use of 1010/1018 steel tubing w/ .005 total tolerance I.D. - No Tang
- C'bore breech end to press fit on barrel
- Possibility of need for secondary staking of receiver to barrel - To be determined by design acceptance testing
- Defined secondary machining operations to be performed:
  - Magazine well opening
  - Ejection Port - same as M/7600
  - Cam Screw Hole

- Scope Holes

Receiver (continued)

- Discussed alternate processing - Laser - lower cycle times, cleaner cuts, etc.
- Integration of tang with receiver - pinned/screwed to receiver, combine with stock mold
- No polish matte finish
- No heat treat

Path Forward: Ilion is to provide a rev. 2 high spot estimate to machine the receiver complete with the afore mentioned design changes, including capital money required.

Bolt Assembly - 2 Piece Bolt Body Ass'y - Summary

Bolt Plug

- Synthetic mold - Textured for matte finish
- Need to evaluate strength of Ilion Task Force samples with intentional abuse testing - Dave Findlay
- Need qualification to bolt body ass'y

Path Forward: Ilion is to provide test results to determine if synthetics can withstand pressures in order to determine feasibility

Bolt Body

- Design to be uni-diameter with straight thru-hole to accommodate use of 1010 steel tubing - No heat-treat
- Defined secondary machining of cam cut, cocking notch & bolt plug recess
- No polish matte finish

Bolt Head

- 3-lug lock-up system
- Defined secondary machining of lugs integrating 45° camming surface
- Feasibility of Seiko extraction system
- Possibility of all bolt heads machined to magnum diameter & inserted with snap spring for regular calibers - Only used in conjunction with Seiko extraction system
- Need qualification to bolt body ass'y - Press fit & pinned

Bolt Handle

- Screw machine part vs. Casting
- Method of attachment to bolt body ass'y dependent upon handle type and design

Path Forward: Ilion is to provide a rev. 2 high spot estimate to machine and assemble the bolt assembly complete with the screw machined bolt handle screwed to the bolt body assembly, including capital money required.

Fire Control - Summary

- Rev. 1 high spot estimated cost increase due to tight tolerancing, nickel-teflon coating of components, MIM vs. PM components
- Possible alternatives include: Current M/700, M/700 synthetic housing (1 or 2 piece) with current internal components, Complete re-design (DW2)
- Integrate with tang & attach to receiver - To be determined by design
- 3-position safety using cantilever spring, no detents

Path Forward: Ilion is to provide a rev. 2 high spot estimate of a synthetic housing with current components integrating the tang, including capital money required.

Stock - Summary

- Integrate tang/fire control ass'y - To be determined by design
- Integrate tang & Fire Control - To be determined by design
- Use of alternate material
- Butt Plate vs. Recoil Pad
  - Butt Plate for all ?
  - Recoil pad for use on magnums only ?
  - Can mold be adapted to provide both ? - Need definition

Path Forward: Ilion is to provide answers as to the ability of incorporating proposed design changes, including capital money required.

Magazine Box - Summary

- Current Plan is to add-use the M/7600 with possible replacement by Met-Gar in the future
- Integrate box to stock - as in XP-100 Linkage system
- 3-position safety using cantilever spring, no detents

Sights - Summary

- Current Plan is to add-use the M/700 with future replacement by synthetic components
- Use Savage system as a guide for synthetics

Path Forward: E town is to provide direction for the sight system.