

To: Richard Jackson
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 Subject: Progress Report (9-27-93)

M/870 - M/1187 12/20 Ga. Cantilever Scope Mount Redesign

Samples of the two piece cantilever design will be available for the Writer's Seminar and for preliminary accuracy and function testing this week. The full design acceptance sample of guns will be available for testing by mid-October. A partial drawing package will be interim transmitted by mid-October though parts list will not be available.

M/870 - M/11-87 Synthetic Stock and Fore End

Computer modeling of the M/11-87 stock is complete and is being prototyped. The fore end designs for both the M/11-87 and M/870 are complete and the M/870 design is being prototyped in wood to verify the surface model. This should be complete in October and be ready for transmittal.

M/522 Viper Improvements

Test firing of molded synthetic magazine boxes, in 4 different materials, resulted in encouraging functional performance, but unacceptable endurance life. A redesign of the lip geometry, magazine side, and gating of the mold has been completed to improve endurance life. Upon completion of the alteration of the magazine tooling, due in early November, re-testing with all 4 potential candidate plastics will resume. Research is also investigating the possibility of reducing the trigger pull. Approaches being investigated include polishing of selected surfaces, a new primary sear design, firing pin spring modification, and a re-designed disconnecter.

M/541 Improvements

Work has been initiated to incorporate several design improvements based on customer requests and complaints. The first of these is a metal magazine box. Testing of a sample MIM metal magazine box had a 0% malfunction rate through 2000+ rounds. Tool room has been requested to make 5 more test samples. A second improvement is the utilization of two takedown screws rather than the current single screw design to enhance the bedding of the rifle. Third, a change to the barrel attachment design is being investigated also to improve accuracy. Currently, the barrel is pinned to the receiver. A threaded joint is being investigated.

M/7400- M/7600 22-250 cal.

Four sample M/7400's and two sample M/7600 have been built. The M/7400 have gone through orifice work-up (.094) and have been found with acceptable performance. Magazine work is required, however, to achieve acceptable performance.

cc. R. Orf