

To: Richard Jackson
From: David Findlay
Subject: Progress Report (10-27-93)

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

Samples of the two piece cantilever design were shown at the Writer's Seminar and marketing requested some design changes to improve the eye relief, cantilever height, and scope fit. These modifications have been detailed and parts have been sent out for alteration. Design acceptance testing (strength, accuracy, and endurance testing) will commence upon receipt of the altered cantilevers.

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

Computer surface modeling and detail drawings of the M/11-87 stock, M/11-87 fore end, M/870 fore end, and M/870 Police fore end are complete. Molds for these components are out for re-quote and the drawings have been turned over to the CAD group for transmittal and parts list changes.

M/870 Synthetic Trigger Plate

Sample parts in four different materials were received from Dave Foss on October 25. These components will be now undergo evaluation and measurements. Testing will include live firing endurance, dry cycle, impact, and environmental.

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 surface coatings, 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. Five additional samples will be built and tested. 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.

cc. R. Orf