

28 April '92

To: Ken Soucy  
From: Tom Powers  
Subject: Monthly Report for April '92

M/OU Barrels & Vent Rib

The tool room is having difficulty making models of the current barrel spacer design. This condition is not expected to improve when the product goes to production. Therefore, various backup designs of barrel spacers are being considered. The most likely candidate, from Process Engineering's viewpoint, features a front and rear spacer (similar to the open-barrel design) and two side ribs which will be assembled after color with press-fit pins. The appearance of this design is very similar to that of the current one-piece spacer. The thickness of the rear spacer has been reduced. When all the above changes are complete, the change in weight will be calculated. Since the improperly heat-treated monoblock failed during the last ultimate strength test, the integrity of the new heat-treated barrel profile has yet to be confirmed. The cosmetic samples of the exposed vent-rib-welding projection will be available in May. A sample quantity of AISI - 4140R will be available in mid-May for making barrel prototypes.

M/11-87 Sporting Clays

No change on new choke tube development. Work on General Schwarzkopf's gun has stopped due to the unavailability of left-hand barrels of the correct profile.

M/11-87 Machined Gas Seats

This is complete except for the identification marks. Tooling for the marks should be in house now.

Turkey Choke

This project has reverted to the development stage per a request by Mark Eisenhart for significant pattern improvement. A formal quote for the previous design has been received from the vendor. We will be investigating three new choke-constriction geometries and straight rifling for pattern improvement and additional customer appeal. A 10GA. version will mimic the best 12GA. design.

#### M/870 & M/11-87 Upgrades

We will issue a new barrel assembly drawing to account for processing procedures. The chamber rollmark has been revised to indicate Light Contour barrels and warn against modifying. We are producing barrels with it now. A revision to the owner's manual, warning against overboring and polishing, will be made. In the interim, a single page warning notice is being packed with each gun and extra barrel.

#### M/870 & M/11-87 Magazine Follower

The cracking of the latest production design is due to the duck plug impacting the mold-gate area of the part. The latest proposal, to prevent cracking, will feature the internal geometry of the previous follower (which prevented the duck plug from impacting the gate) and the external geometry of the new part. Prototypes of the thicker wall configuration only, molded from a more impact resistant grade of Delrin, have been tested. Initial results are good. More testing has been scheduled in the Lab.

#### Detachable Recoil Pad

No change. Per product team meeting last month, this project will be moved to '94 introduction.

#### Mil-Spec 870

Samples of the new sear spring and magazine follower have been received. Dry-cycle testing of the follower was conducted to see if it would deform the shell stop surface inside the magazine tube. After 50K cycles neither the stop surfaces nor the follower had any significant wear. The current material for this part is steel. Aluminum may be acceptable.