

M504HB-17HMR: September 18, 2006
The length of the rear shoulder of the firing pin was increased .002" to fill the slot in the FP body plus the material was changed to 4350. The 4350 firing pins (10) averaged 2300 dry cycles compared to 300 dry cycles for the 1095 material. Live fire consisted of 8,000 rds fired with 9 guns with no failures.

T&P Accuracy is .802" @ 100 yards.
The Drawing package has been sent to Mayfield for review and signing.
Mayfield will begin production after 7/19/06.

Etown will shoot five guns verifying production firing pins.

M504-17HMR (Sporter)
The sporter version of the 504 will be built in Ilion supported by Mayfield until 2500 walnut stocks are used. Barrels will made by Shilen. Only concern is that Shilen does not cut the out contour by holding the barrel on centers. They require a flat area usually larger than was is supplied by the M504 Sporter contour. Shilen will try to make the contour to print.

M710 7mm08 and 308:
T&P type testing was conducted with no function problems except accuracy concerns. A five shot group accuracy test for the 7mm08 averaged 2.53" at 100 yards. The specification for the 7mm-08 five shoot group with no one group bigger than 2.7" @ 100. We had several groups over 3 inches. The accuracy test was conducted again with different shooters varying the data. Mayfield qualified these guns on a shooting jack. Their data does not have any one group bigger than 2.6". Bore, twist and chamber measurements will be completed on test guns. The current accuracy spec for a 5 shoot group is Max group no greater than 2.7")
Guns were sent back to Mayfield and re-shot from jack. All guns below spec except one. Mayfield will shoot the lot of ammunition that was used in Etown.

Note:

The current production schedule does not show a build for the 7mm-08 or 308 in 2006. Mayfield understood something different at the PT. Marketing said they would take the 7mm-08 and 308 ASAP.

New M710 Modular Stock:

Modeling complete and prototype approved by Marketing as of July 12th. Changes from the Zunda prototype include molded swivel studs (saved \$0.32 per stock), shorter comb cut, plus the height of the check piece was reduced. A synthetic swivel stud standard swivel stud tensile test was conducted. The standard metal swivel stud failed 225lbs. The synthetic swivel stud failed at 177Lbs of force. A side load test was conducted. The metal swivel stud failed at 177lbs while the synthetic failed at 107lb. We understand the metal swivel stud is different than the synthetic stud we do not know how much tensile strength is required.

Tool to be complete in January 07.

M710 Extractor Change (Jack Kast design):

No progress has been made to date. We will put a plan together and forward it on to you.

M710 SPL FC:

Capital approval was obtained. A decision was made not to implement the SPL FC in 2007. Reason is unknown.

M710 Hard to Cam:

The new design has been prototyped. Five Bolts received. This version does help but not as much as hoped. Three (3) Un-harden barrels were sent to Kellems for modification of the lug cut. The front edges of the lug cuts were broken. Barrels were sent back to Mayfield to be finished out. The gun will be routed to all parties for opinions, etc.

M597 17HMR Pressure Relief:

Six (6) M597 with new chamber Extended throat by .090" was tested (accuracy, function, chamber measurements, etc.) with no ill effects. We could not see any effects on accuracy or function. The casting reviled that the rifling was not completely removed by the new reamer. Discussions with Mayfield will involve making the throat cut on the reamer as deep as we can until accuracy is affected, etc.

Note:

Extending the throat for a 17HMR UR barrel yielded a reduction in pressure of 1500psi. Increasing the temperature of a 17HMR round to 150 degs will increase the chamber pressure by 2500psi.

M504 Center Fire (22 & 17 Hornet):

We have shot cnc 22 Hornet prototype. It was found that the web thickness for the extractor cuts were 0.010" thicker than

designed. Live rounds would extract with one gun but dummy rounds would not. The barrels were returned to Shilen for repair. We received the repaired barrels the 24th of August. The 504 (20) test guns will be built in Sept.

M798 Synthetic stock:

The M798 model was approved Marketing. A non-functional prototype is being made. Completion date will be the 19th of September. The prototype will incorporate Remington's M/700 Light weight stainless fluted barrel. The receiver was nickel plated to look like stainless.

M710 Magazine Latch Material change:

Mayfield issued a Devotion for vendor to change the M710 magazine latch material from Ultem 100 to GE VALOX 412E grater than PBT 20% GF. The new material will provide us with better solvent resistants. The Drawing change will be transmitted along with the M597 chamber change.

M710 or M770 22-250

Cost estimate was received from Mayfield (see attachment) for the production requirement for adding a 22-250, .223 Rem, 270WSM, 7mm WSM, 300WSM, 7mm SARUM, and 300 SARUM.

We do not believe we will have to change the magazine for the 22-250. It is possible that the WSM and larger calibers will require a new magazine, box bottom, follower and spring.

We are currently working with Mayfield for a Timeline. If we go by what was done for the M/10 Short Action the timing may look like the following:

Barrel work: 12wks
Magazine Prototype tool & Test 16wks
DAT 4 wks
Production Magazine Tool & Gage 12wks
T&P 4 wks

Total = 32 to 44wks