

## LIMITED DISTRIBUTION

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## OPERATIONS COMMITTEE MEETING

Bolt Action Quality and Product Improvements

An active design program is being pursued to improve the function and reliability of our bolt action fire controls.

Mohawk 600

The detent safety action on the Mohawk 600 rifle has been improved by modifying the M/700 trigger housing to fit both rifles. This design alteration is being implemented into production and will reduce costs due to the increased volume.

Model 700

The M/700 fire control assembly is also being redesigned to make it more competitive with improved features. The proposed fire control assembly will be adjustable for pounds pull within safe limits without disassembling the rifle. The rifle will be able to be unloaded with the safety in the "on safe" position. The trigger pull characteristics will be improved especially on varmint and target models. These changes will be made in light of trying to reduce the cost of the assembly.

M/788, M/580s, 541-S and 540-XR

These fire controls are being redesigned to improve their functional performance. On the present design the force required to put the rifle in the "on safe" position varies with the tolerances of the component parts. The force to position the safety from the "on safe" to "off safe" is on the low side.

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M/788, M/580s, 541-S and 540-XR - Continued

A new design is being worked on which will give us a safety with uniform "on safe" forces and increased "off safe" forces. The design will also improve the attachment of the assembly to the rifle. This fire control assembly would be adaptable to all the above listed rifles.

All of these fire control designs are complicated by our desire to improve the present system with a minimum of alterations and to reduce the cost while improving the functional reliability of the system.

Traps

There has been an active product improvement program on the electrical traps over the last year. The performance of the 4100 traps in the field has been monitored and a number of significant design improvements have been made to improve the functional reliability of these traps. We feel that the significant problems on these traps have been resolved and our level of product support activity will be greatly reduced in the coming ~~year~~.

MODEL 1100A

Testing is continuing on this model. With limited testing, all systems are functioning satisfactorily with light and medium loads; however, 2 3/4 inch magnum loads produce a chronic "fail to lock open" malfunction. This is now under investigation. Gun #01 has been fired approximately 2000 rounds including a 200-round proof test.

M/742-760 NEW GENERATION

A new batch of firing pins has been obtained for extended dry cycle testing. The .308 is functioning satisfactorily with 150 and 180 grain loads; however, final determination of orifice and nozzle sizes is being delayed due to availability of 110 and 125 grain loads.

Magazine box development is continuing. Design of a new box is complete. The vendor has attempted to make a sample of our present box from heavier material (.042") but had failure with the bottom tearing out. He will again attempt to make some by reducing the stock to .036. The present box is produced from .031". In making the box from heavier material we will have better control on the feeding lips.

NYLON 66 FUNCTIONAL IMPROVEMENTS

The barrel mounted scope mount has been reviewed by our vendor who suggested some minor changes for easier fabrication. Drawings will be changed and sample parts ordered.

The bolt lock is due from the Model Shop on September 30, 1977. Testing will commence in October.

A proposed front sight material change from powder metal to fiberglass reinforced nylon has shown a net cost savings of \$4710 with a 154% ROI on total capital required.

MODEL 1100 PRODUCT IMPROVEMENTS

Endurance life of plated Piston and Seal is erratic. Work is continuing. Preliminary results with a one-piece stainless steel stamping used on the 1100A2 are encouraging.

Vendor samples of the Carrier Latch Retainer are due in early October. Implementation is expected during the fourth quarter.

Designs for the interlocking Disconnecter for common Trigger Plate models are at the vendor. Simultaneous addition of this feature to all applicable models is expected during the first quarter of 1978.

Layout work is under way to develop an access hole in the Butt plate that will eliminate the need to loosen the Butt Plate when removing and assembling the Stock.

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