

FIREARMS

Model 1100 Weighted Lt-20, 28 & 410 Ga. Skeet Sets—

Completed prototypes of weighted skeet guns duplicating both the large receiver 20 gauge and the .410 gauge gun have been sent to Marketing for their evaluation.

Preliminary testing indicates that the present skeet sets can give the LT-20, 28 and 410 gauge guns the weight and balance of either the standard 20 gauge or 410 gauge skeet guns.

Testing on one of these sets will begin once Marketing makes a selection.

XSG

The first model of the XSG is near completion. New component parts are now being heat treated and final fitted into the model gun. The one-piece piston in the design is fixed as a part of the inertia bar assembly.

A new stainless steel one-piece gas piston has been designed. The design which allows the piston to float will alleviate the alignment and straightening problems encountered in our current gas piston-inertia bar assembly. We plan to use a stainless steel magazine tube and gas cylinder in the XSG gun to eliminate rust and corrosion problems.

The new magazine spring retainer and magazine cap detent parts are completed and will be tested on a standard M/1100 prior to installation on the XSG.

Model 3200 Skeet Sets (See October Firearms Operations Committee Report)

Preliminary testing of the first Trial and Pilot sets is complete. Pointing and handling characteristics were judged to be excellent. Stock drops and point of impact were within specification on all sets. Bottom barrel firing pin indents ran below specification although we had no misfires. We are reviewing firing pin indents with the Ammunition group.

During shooting, some "shell slips by ejector" malfunctions were seen, especially on the 28 and 410 gauge barrels. New barrel sets are to be evaluated using a below min. chamber specification.

One gun has been subjected to a 20,000 round endurance test with good results.

Models 7400-7600

Of the fifteen 7400 rifles slated for testing, twelve have been tested in the field for functional performance. Tests in-

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volved three calibers, 30-06, 243 and 308, in all available loads. Test results are being evaluated and a test summary will be released soon. The carbines in these calibers have not yet been tested.

Twenty-four of the new 7400 magazines have been processed through production. The vendor has promised followers by the end of October.

#### Nylon 66 Improvements

Three partially completed bolt handles with and without steel inserts are being tested at elevated temperatures to investigate the "creep" or bending problem which occurred during testing of the first set of handles. After one week in the heat chamber, the handle without the steel insert is showing slight bending of the shaft, while the other two show no signs of bending. At the completion of this test an endurance test will be shot using these handles.

Experimental scope mounts representing both aluminum casting and powder metal designs will be started the first week in November.

#### Model 1100 and 870 Improvements

The assembly tool for the modified latches has been made and works satisfactorily. 150 latches have been received from the vendor and are in the process of being heat treated. We expect to try these latches the last week in October.

150 carriers of thicker material are in heat treat. We expect to have these installed in fire controls by the end of October.

Testing of the spot welded M/870 fore end tubes was resumed October 23, 1978.

#### Model 870 Competition Trap

The latest drawings for this model are being furnished to Process Engineering as required. Research is having parts made for assembling an A and B grade model to the latest design. Process Engineering will have economics ready for Marketing by next month.

We found the prototype target trigger malfunctioned because the left connector was binding, causing a fail to connect. A clearance cut has been made in the trigger housing to keep the connector from binding. Other solutions are being investigated.

#### Model 700 - 600 Fire Control

New fire controls adjustable for pounds pull, fixed trigger and sear engagement, and fixed trigger overtravel are in the Test Lab.

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Test Lab models will be ready by November 15 of bolt locks that will allow the rifle to be unloaded with the safety in the "ON SAFE" position.

Model 6600 (See October Firearms Operations Committee Report)

Inspection of parts, assembly and testing of prototypes should take place by mid-December, with shooting tests following in January.

Model 600 Carbine

Marketing has reviewed the nine models prepared by Research. We are now in the process of reducing the number of rifles and consolidating features in preparation for a focus panel. One new stock will be made in walnut.

Model 788 (See October Firearms Operations Committee Report)

Cosmetics

Marketing has approved a stock design. Measurements are being taken to make a drawing.

22 Hornet

A magazine box design has been completed and sent to our vendor for schedule and cost estimates. Work has started on a receiver and barrel chambered for this caliber.

30-30 Caliber

The parts list and some drawings needing updating have been completed and are being furnished to Process Engineering for cost estimates.

Mechanical Trap

Production is obtaining quotes on parts to produce the hand cocked model. A final draft of the manual has been received and is being circulated for approvals from Legal, Marketing and Field Service.

Bench Rest Bullets

Approximately 62,000 6mm bench rest bullets have been shipped to the warehouse.

New labor and material standards have been established by Industrial Engineering to update increased material and direct labor costs.

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Fixed costs have been re-evaluated and adjustments made to allocated space and depreciation charges. Equipment and floor space not utilized for 6mm bullet manufacturing have been reallocated.

#### Process Research

##### ASEA Manipulator

Our unit is now operational and several programming tests have been run. It appears to be more accurate and have more strength than specified. A standard gripping mechanism, received with the machine, will be modified to run loading tests during November. A simulated loading of the Ajax upsetter will be tried. Sweden has modified the receiver gripper and are requesting that we test it. Production is experiencing problems with the Devine automatic polishing machines. If we could obtain a machine, some preliminary polishing tests could be run, prior to ordering production-type equipment. A visit will be made to Norton Polishing Belt Plant on October 30 to review the necessary parameters for automatic polishing.

##### Barrel Drill Line

Two lots of assembly prints have been received from the vendor. The floor plans have produced many questions and the vendor will be visited November 1 and 2 to finalize the plan. The prospective chip system vendor will also be present so that this can be finalized. The chip system must be ordered during November to meet an April-May 1979 installation date.

##### Rivetless Centerfire Extractor

Quotes have been received from H&P on the small and magnum sizes:

	<u>Current Price</u>	<u>New Quote</u>
Small	.71	.13
Magnum	.73	.13

The vendor will requote on the regular size to reflect the latest dimensional changes. Prototype samples of all three could be obtained in three months.

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