

**REMINGTON ARMS COMPANY, INC.**

INTER-DEPARTMENTAL CORRESPONDENCE



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Ilion, New York  
November 21, 1985

TO: W.H. COLEMAN, II

FROM: *JWB* J.W. BOWER

**MONTHLY REPORT - NEW PRODUCTS RESEARCH  
NOVEMBER - 1985**

**SHOTGUN DEVELOPMENT**

**Model 1100 Functional Improvements**

Alternative concepts to improve the endurance life of the piston and seal and carrier latch have been designed. Testing will be started during the first half of December.

Four guns have been placed at Remington Farms, and two additional ones in Wilmington for field evaluations.

Tests are in progress to determine if the pressure - vent gas system is required on the Model 1100 - 20 Ga. In a one-gun sample, a field gun operated with a terminal bolt velocity of 175 in/sec. A 3" magnum barrel was modified with a second orifice to allow operation with skeet loads. Results with this gun, and additional results with the field gun:

	<u>Terminal Bolt Velocity (in/sec.)</u>		
	<u>Skeet Load</u>	<u>Field Load</u>	<u>Magnum</u>
Field	176	221	391
Magnum	156	223	369

If these results are representable, and endurance is not a problem, the pressure-vent gas system will probably not be needed. The next step will be to repeat the above tests with 26" and 21" barrels. Assuming favorable results with these length barrels, endurance testing will be done.

#### Model 870 Functional Improvements

Field function and 4000 round endurance testing is complete on 30 improvement and 10 control guns. Test results are still being analyzed. Preliminary indications are that program goals for ejection improvements and reducing opening/closing forces have been met. More complete results should be available within two weeks.

The parts lists and drawings package will be ready to transmit to Production by December 6.

#### New Concept Shotgun

Product Development Services has demonstrated direct and indirect firing mechanisms that were both able to fire primed cases. The size of the direct firing mechanism will have to be reduced to fit in a receiver of current size.

Hydraulic dampers supplied by Gas Spring Company, to reduce terminal bolt velocity, were too efficient, causing short stroking with magnum loads, and failure to open with 1-Oz. target loads. Revised dampers will be tried.

**RIFLE DEVELOPMENT**

**New Bolt Action Rifle**

Components for the engineering test rifles are progressing through the Model Shop. Receivers are the critical path items, and are expected by mid-December. Guns should be assembled, ready for test, by the middle of January.

Marketing and Research will witness focus panels reviewing styling features. Panels are scheduled for December 9 in Seattle, December 10 in Kansas City, and December 11 in Dallas.

**XP-100 - .223 Caliber**

Addition of the .223 Caliber to the XP-100 line was transmitted to Production on October 31.

**Miscellaneous**

Area layouts have been approved for the consolidation of Firearms Process Research and New Products Research in Building 52-4 A&B. This consolidation will reduce overhead costs and facilitate the coordination of new products and processes. Consolidation should be complete by the end of the year.

JWB:js