

REMINGTON ARMS COMPANY
RESEARCH DEPARTMENT
AMMUNITION RESEARCH DIVISION
MONTHLY PROGRESS REPORT - NOVEMBER, 1980
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SHOTSHELL

New Unibody Shotshell Process

High and low base 12 gauge product, assembled and loaded at Lonoke, was tested. Several product problems were uncovered and corrective action is being taken. Target loads are scheduled for evaluation in December.

Body Performance Improvement

Selection of a polymer to solve the body cutoff problem has not been successful. Changes to the process which may improve body strength and tolerance to polymer variability are being evaluated. Data permitting assessment of possible success with this approach will be available by January, 1981.

Asbestos Elimination

Product and process difficulties continue to be encountered with 8 gauge plastic basewad conversion. Tooling modifications have corrected extruder variability but slug cutoff and heading problems remain. Heading pin tip geometry changes are being made in an attempt to improve basewad sealing.

21MM Seismic

The November commitment of 50,000 rounds was warehoused. Debugging of the production dry assembly equipment is underway and a pilot run is scheduled for early December. The vendor supplying components is behind schedule and in-house banks of components are being increased to offset the delay.

Low Cost Component Wad

Wads were produced with single cavity tooling on Research equipment. Very limited testing indicates that the compression column is not as stable as desired. Corrective revisions to the tooling are being made.

Paper Covered Flash Hole Shotshell Primer

Development of a permanent facility for the Lonoke plant continues. The anvil set-up machine and anvil/battery cup assembly equipment are complete and have been delivered to Lonoke. The paper blank and insert machine will be delivered in February. Full production start-up is estimated early second quarter, 1981.

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CENTER FIRE7mm Mauser 140 Gr. PSP

A second experimental run was conducted to verify that specified pressure and velocity data could be met. An early December production run is scheduled.

7mm BR Rem Case

An experimental run to produce this shell was completed. Taper-trim of 30,000 shells was accomplished with 10-15% scrap versus 50% predicted. In testing, case splits at the mouth anneal transition point occurred after eight reloads. The cause of the deficiency was identified and the problem has been resolved.

7mm 140 Gr. PSP Bullet

The experimental run to produce this bullet is in progress. Ten thousand lead cores and stepped jackets have been made in preparation for a bullet assembly run later this month. Hand loaded cartridges with the new bullet were forwarded to Bridgeport for down range ballistics evaluation.

357 Rem Max 158 Gr. SJHP

Production has been requested to schedule an experimental loading run on this cartridge. In addition to normal performance evaluation, samples will be tested for creep and accuracy in the hand guns. A quantity of these cartridges will also be made available to Ruger for evaluation.

RIM FIREScorpion Cartridge

Plant loading tests using a larger sample of the Hercules powder anticipated to give greater velocity were unsuccessful. Both Hercules and DuPont are being consulted in an effort to locate a rim fire propellant with improved ballistic properties.

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PRIMERS

Integral Anvil Battery Cup

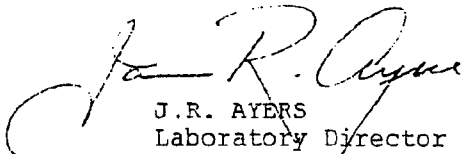
Four coils of preplated stock have been run on the press with a minimum of problems. Bare steel from Edgecomb will be run next.

117 Primer

Tests on the 117X (.019" soft primer cup) continued to indicate significant off-center sensitivity improvement with no incidence of piercing, both as primers and primed 20 gauge "RXP" shells. Both 12 and 20 gauge "RXP" loaded rounds, primed with the 117X, are being prepared for angled, off-center pendulum gun evaluation.

TLX Priming Mixtures

After obtaining marginal results, the addition of antimony sulfide to the candidate TLX shotshell mixture, in conjunction with the Lachaussee battery cups, has produced excellent off-center sensitivity.


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