# LIMITED DISTRIBUTION

## REMINGTON ARMS COMPANY, INC.

۰.

NEW PRODUCTS RESEARCH

MONTHLY PROGRESS REPORT - FEBRUARY, 1984

|      |          | Distribution |      |         |
|------|----------|--------------|------|---------|
| J.W. | BOWER    |              | J.C. | HUTTON  |
| W.H. | COLEMAN, | II           | R.L. | SASSON  |
| R.E. | FIELITZ  |              | W.L. | TOMEK   |
| D.S. | FINDLAY  |              | С.В. | WORKMAI |
| P.S. | HEBERT   |              |      |         |



## FIREARMS

New Product Development - Shotgun

Model 870 Special Field

Research has approved 20 gauge Production trial and pilot samples.

Model 870 - 1100 Waterfowl

Prototype testing of the Model 1100 Waterfowl gun is complete. Samples are available for Marketing. Cost estimates have been requested from Production.

New Product Development - Centerfire

Model 700 Mountain Rifle

Research testing of model guns has been completed with good results.

Current Products

Model 870P Riot Gun

Sample stamped carriers have been received from the vendor. They will be processed and into test by the end of February.

Ten Model Shop slides, slide blocks, and carriers have been given to Marketing for field testing.

#### Model 700 Magazine Follower

Function and endurance testing of the injection molded follower are complete and satisfactory. A model drawing transmittal will be forthcoming.

- 1 -

Research Department

February, 1984

## AMMUNITION

#### New Unibody Process

Product development for 8 ga., 28 ga. and 16 ga. will be completed using production bodies and headed and loaded by Research. A schedule is being prepared. Process development, however, will be delayed indefinitely due to the disconnecting of the #4 Simplex AH&P machine for transfer to Lonoke.

Testing of 12 ga. 2-3/4" product headed with the redesigned heading pins has been completed. Primer retention and cap to body integrity was excellent. However, product fired in oversize chamber guns at -20°F had a small incidence of base fractures. These fractures coincided with the location of corner tears in the bodies. ARD has implemented a tooling change to eliminate these tears that will be evaluated in late February by Production.

20 ga. rifled slug lot acceptance testing has been successfully completed. A release to ship is expected to be signed in February.

## "Premier" Shotshell

All "Premier" and "Nitro Magnum" work has been delayed pending resolution of ballistics problems. A contingency plan is being developed which includes alternate powders, powder sources and modifications to our existing component system.

## 12 Ga. 3" SP Large Volume Shell

The overall performance of the experimental large volume SP shell with thin wall body and plastic basewad is equivalent to the large volume New Unibody process body. However, some permanent cap distortion occurred when fired in the M1100 excess headspace/oversize chamber gun at -20°F which appears to have no effect on the body integrity.

A Technical Data Package has been prepared and sent to Bridgeport and Lonoke PE&C.

## 20 Ga. Steel Shot 1 oz. Load

This load in the New Unibody shell using #4 steel shot is not possible due to internal volume limitations. A 15/16 cunce payload can be obtained but this is not competitive with Winchester and Federal 1 cunce offerings.

This will be reviewed with Marketing in February.

Research Department - 2 - February, 1984

## ABC Primer

Modified tooling for the four flash hole product design has produced acceptable anvil tip height and geometry. Some shaving at the anvil base from fifth anvil draw was observed. A modified draw die will be evaluated in March.

## "Premier" Centerfire

.30 cal. secant ogive bullet tools have been shipped to Lonoke for testing in modified bullet assembly machine.

Chemically polished brass cases have been received from R.H. Miller Company that have a greatly improved surface finish. Additional testing indicates the metal removal rate is higher than previously determined. Additional samples with reduced metal removal will be prepared for comparison and analysis by ETL in March.

## Consolidation

General layout of the Ilion Research Department has been approved and a purchase order has been issued to prepare bid packages. Layout details are being reviewed by Research as drawings are prepared, and the package is scheduled for completion by mid-March.

Research Department

- 3 -

February, 1984

# CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER KINZER V. REMINGTON

R2517382

## NEW PRODUCTS RESEARCH

. .....

.

. . . . . ...

---

· · ·

## PERSONNEL

## REMINGTON ROLL

| · · · · · · · · · · · · · · · · · · ·    | Actual<br>1/31/84 | Actual<br>2/29/84 | Forecast<br>12/31/84 |  |
|--|-------------------|-------------------|----------------------|--|
| Exempt                                   |                   |                   |                      |  |
| Ammunition Research<br>Firearms Research | 9<br><u>31</u>    | 9<br>27           | 8<br><u>33</u>       |  |
| Total Exempt                             | 40                | 36                | 41                   |  |
| Non-Exempt                               |                   |                   |                      |  |
| Ammunition Research<br>Firearms Research | 12<br>10          | 11<br><u>10</u>   | 6<br><u>12</u>       |  |
| Total Non-Exempt                         | 22                | 21                | 18                   |  |
| Wage Roll                                |                   |                   |                      |  |
| Firearms Research                        | <u>16</u>         | <u>16</u>         | 17                   |  |
| Total Wage Roll                          | 16                | 16                | 17                   |  |
|  |                   |                   |                      |  |
| Total New Products                       | 78                | <u>73</u>         | 76                   |  |
|  |                   |                   |                      |  |
|  |                   |                   |                      |  |
|  |                   |                   |                      |  |
|  | · .               |                   |                      |  |
|  |                   |                   |                      |  |
| Research Department                      | i ·               | February 1984     |                      |  |

CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER KINZER V. REMINGTON

#### RESEARCH PERSONNEL AS OF FEBRUARY 29, 1984

## Ilion Division

11 1 1 1 S

EXEMPT 27 Balaska, Robert J. Bauman, Thomas G. Bower, James W. Calkins, Kevin L. Coleman, Wm. H., II Curry, Wm., M. Eddy, Albert Findlay, David S. Franz, Scott R. Hand, Charles J. Hennings, James H. Hugick, Adam H. Hutton, James C. Kast, Jack L. Lawrence, Jeffrey A. Martin, Fred E. Murphy, Randall A. Nightingale, Richard E. Plunkett, Thomas J. Powers, Thomas P. Rankins, Edwin D. Rowlands, Kenneth Sanzo, Robert J. Sassone, Richard L. Saunders, Eugene L. Smith, Robert Yetter, Edward W., Jr.

- NON/EXEMPT <u>10</u> Eskoff, Sophie Martin, James S.,Jr. Schuster, Joyce M. Scram, Wendy L. Smith, Floyd H. Smithson, Ronald Stephens, Charles Supry, Fred Urtz, Donald Weaver, Harold E.
- WAGE ROLL 16 Baggetta, Joseph A. Beader, Robert W. Bedworth, Gary R. Butler, Richard G. Fiorentino, D.J. Harter, James D. Howe, Robert W. Jennings, Dale E. Kozakowski, Robert J. Paslak, Wm., F. Sohns, William A. Storne, Ramon Traux, Irving E., Jr. Williams, Clifford Williams, Donald Williams, Ronald R.

WAGE ROLL

0

TOTAL ILION PERSONNEL: 53

## Bridgeport Division

EXEMPT 9 Cole, William T. DesJardins, Jr. Chas.F. Dwyer, John M., Jr. Garrett, Thelma B. McDonald, A. Daniel Peterkin, Vinton A. Simpson, William R. Sroka, Lee R. Tomek, Warren L.

Alexander, Bruce R. Buccitti, Dominick C. Champine, Barry M. Frauenberger, Marion O. Green, Jeffrey R. Jackson, Charles L. Montefusco, Stanley, III Raimundo, John A. Stine, Cindy A. Stine, Gerald A. Suhy, Frederick A.

11

TOTAL BRIDGEPORT PERSONNEL: 20

Note: E. Owens (Ilion) Exempt transferred to Dept. 9091 Firearms Modernization - 2/13/84 J.S. Martin,Jr.(Ilion) was added to Non/Exempt Dept. 9093 - Jr. Programmer - 2/6/84 S. Smith (Bpt.) Non/Exempt transferred to Marketing Info. as of 2/6/84

NON/EXEMPT

## CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER KINZER V. REMINGTON