

REMINGTON ARMS COMPANY, INC.
APPROPRIATION REQUEST

Department Research & Development Works Ticon

Project No. AD XP-700-2

Request for \$ 180,300

Date January 23, 1962

Category Expanded Facilities - Established Product

Title MODEL XP-700 SINGLE SHOT PISTOL AND
MODEL XC-13 CENTER FIRE RIFLE

	Previous Part	This Part II	Total
Construction	\$ -	\$180,300	\$180,300
Supporting Research	62,300	30,000	92,300
Operations	-	399,100	399,100
	\$ 62,300	\$609,400	\$871,700

This project is included in Forecast No. <u>1</u> in the amount of \$ <u>95,000</u>	Approved or Authorized <u>/s/ D.E. Miller</u>	Date <u>1/26/62</u>
	<u>/s/ G.M. Calhoun</u>	<u>1/29/62</u>
To be commenced when authorized.	Approved or Authorized <u>/s/ H.K. Faulkner</u>	Date <u>2/2/62</u>
To be ready for use XP-700 2/1/63 XC-13 5/1/63	Approved or Authorized <u>/s/ Gail Evans</u>	Date <u>2/6/62</u>
To be physically completed Aug. 1, 1963	Approved or Authorized <u>/s/ R.H. Coleman</u>	Date <u>2/20/62</u>
Estimate prepared by Methods & Standards, P.E. & C. and R&D	Approved or Authorized <u>/s/ M.R. Warden</u>	Date <u>2/21/62</u>
<u>1/22/62</u>	President and General Manager	
Approved as to form, accounting aspects, and rules compliance	Authorized <u>BOARD OF DIRECTORS</u>	Date <u>3/2/62</u>
<u>/s/E.M. Stoessel</u>	<u>H.M. Stoesel</u>	Secretary
Treasurer or Assistant Treasurer	Date <u>2/14/62</u>	

Preliminary approvals:

Date

Date

REMINGTON ARMS COMPANY, INC.

PROJECT NO. AD XP-700-2 - ILION WORKS

SUMMARY OF ESTIMATED EXPENDITURES

	<u>Total</u>
<u>Construction Project</u>	
Direct Manufacturing Facilities Equipment	\$177,800
Provision for Advancing Wages and Material Prices and Allowance for Unforeseen Items	<u>2,500</u>
Total	<u>\$180,300</u>
<u>Other</u>	
Product Development	\$ 87,800
Tooling	295,500
Other	71,900
Provision for Advancing Wages and Material Prices and Allowance for Unforeseen Items	<u>36,200</u>
Total	<u>\$491,400</u>
Total Expenditures	<u>\$671,700</u>

ACCOUNTING DISTRIBUTION OF EXPENDITURES

	<u>Expenditures This Project</u>	<u>Adjusting Entries</u>	<u>Final Net Results In Accounts</u>
<u>Construction Project</u>			
Permanent Investment	\$180,300	-	\$180,300
<u>Other</u>			
Operations	399,100	-	399,100
Supporting Research	<u>92,300</u>	-	<u>92,300</u>
Total	<u>\$491,400</u>		<u>\$491,400</u>
Total	<u>\$671,700</u>		<u>\$671,700</u>

(Subdivision 2)

GENERAL INFORMATION

PROJECT NO. AD XP-700-2 - ILION WORKS

INTRODUCTION

Under Part I of this project \$82,300 was authorized and designs were developed and models built for test and evaluation for the new pistol and center fire rifles.

XP-700 PISTOL

The changing patterns of public interest in shooting have created a modest but new opportunity for increased Remington firearms business. The specific market conditions affecting this project are national growth of pistol and revolver shooting indicated by increased sales (estimated 500,000 annually) of both domestic and foreign handguns, our steadily increasing sales of center fire pistol and revolver ammunition, and consumer preferences for handguns having high power and high velocity (357 Magnum - 44 Magnum - 22 Remington Jet).

When these market conditions are considered together with our Nylon molding experience, success of and performance characteristics of our center fire bolt action rifles, particularly in 222 Remington caliber, we find an opportunity to offer handgun shooters a varmint shooting bolt action single shot pistol of unique design and performance for long-range firing.

We are not recommending entry into the general field of pistol and revolver business at this time. The current profit opportunities are not favorable due to price competition and foreign imports. This condition has apparently led three handgun manufacturers (High Standard, Ruger, Colt) to enter the center fire rifle field.

Nevertheless, we believe a pistol of the unique design proposed will sell at a profitable value and price level. No competitive handgun compares with the field performance of the proposed design for hunting woodchucks, fox, coyote and similar varmints. It will also be useful to trappers, cattle and sheep ranchers, and it is basically a target pistol of the "free pistol" category used in International Matches. The single-shot type minimizes legal restrictions and a favorable ruling has been obtained by the Patent Attorney from the U. S. Treasury Department.

The action is of the turning bolt type with a form fitting free pistol type of stock suitable for use for either right or left hand shooters. The bottom of the grip is flared for added stabilization during firing. The stock is designed for nylon molding and can be integrated into the Ilion operations. The stock and action provide a center of gravity very close to the center line of the barrel, which significantly reduces the muzzle jump and recoil effect so prominent in conventional designs.

The action is a short receiver version of the basic Model 700 and thus adaptable to many of the existing operations and equipment. At the same time it offers a distinct sales advantage in that it is the strongest action ever used in a

(Subdivision 3)

Page 1

INTRODUCTION (Continued)

bolt action rifle and the first commercial type of bolt action to be used in a handgun.

The best results for accuracy and high velocity with low trajectory have been achieved through use of a Caliber .222 Remington barrel. However, consideration is also being given to an alternate design of the bolt and extractor to accommodate the Remington "Jet" cartridge.

XC-13 CENTER FIRE RIFLE

Remington has no center fire rifle to compete in the price range of the Winchester, Marlin, and Sears lever action rifles (\$69.95 to \$83.95). Many thousands of these competitive rifles are sold annually. Remington's lowest retail price for a center fire rifle is \$114.95.

There is a definite market for a bantam weight high power bolt action carbine rifle of Remington quality at a competitive price. Such a rifle can be produced in combination with the proposed pistol. Its weight would be about 5-1/4 pounds and length only 37 inches.

The appearance and handling qualities are good and sample guns have been favorably received in preliminary showings to the Sales Department.

The rifle stock may be either molded or of the conventional wood, in which case it is proposed to utilize the newly developed custom checkering. This, together with the smaller sized wood blank, will result in significant savings. Other savings and improvements in processing for the barrel, receiver and bolt have resulted in further reductions in manufacturing cost, thus providing greater marketing potential.

In addition to the smaller varmint calibers, the carbine rifle will also be capable of handling cartridges up to and including Caliber .308, thus providing distinct advantage in power as compared to other so-called saddle guns.

The Sales Department has recommended that serious consideration be given to including the Caliber 30-30 which has always been a relatively high volume seller in competitive rifles. This being a rim type cartridge, it will present design problems requiring development of a new extractor, and also some means will have to be provided to accomplish feeding of this type of round from a box magazine. It is therefore planned to do further work in an effort to accommodate the 30-30 cartridge but at the same time not delay introduction of the rifle, which can already handle the rimless type ammunition.

Based on forecast third-year sales, as shown below, the proposed selling prices and estimated operative earnings are:

	<u>Proposed</u>		
	<u>XP-700</u>	<u>XC-13</u>	<u>Combined</u>
	<u>Pistol</u>	<u>C. F. Rifle</u>	<u>Average</u>
Sales quantity	3,000	15,000	18,000
Retail selling price	\$75.00	\$85.00	\$83.33
Net selling price	\$40.37	\$45.74	\$44.85
Operative earnings	\$ 4.76	\$ 4.21	\$ 4.30
% of net selling price	11.8%	9.2%	9.6%

(Subdivision 3)
Page 2

DESCRIPTION OF PROPOSED WORK

It is proposed to complete the development of the models and procure tooling and equipment necessary for production of the Model XP-700 Pistol in .222 Remington short magnum with a Nylon stock. The Model XC-13 Center Fire Rifle will be offered with a wood stock in Calibers .222 Remington, .308 and 30-30.

PATENT STATUS

Consideration of the designs for both the pistol and rifle indicates that no patent infringement will be involved.

A design patent application will be filed to cover the appearance of the pistol when all features of the molded stocks, ribbed barrel, etc., are stabilized. In view of a search conducted on the fire control mechanism of the pistol as shown in a detailed drawing and photograph submitted to the Patent Attorney, it is believed that this control has some novelty and will support a patent application.

REMARKS

Investigation into the feasibility of the 30-30 Caliber has not progressed to the point where a model has been made. It is, however, anticipated that feeding, extracting and chamber problems will be involved due to the rim cartridge in this caliber. Therefore, a high-spot estimate of \$49,000 has been included for this caliber and charged to operations.

Subdivision 5 indicates an estimated increase in net earnings of \$144,280 in the third year of operation, resulting from this project, equivalent to a net return of 21.8% on investment. The estimated increase in net earnings in the first year of operation is \$134,670, equivalent to a net return of 21.1% on investment.

(Subdivision 3)
Page 3

REMINGTON ARMS COMPANY, INC.

ESTIMATED EARNINGS AND RETURN ON INVESTMENT
PROJECT NO. AD XP-700-2 - ILION WORKS
INCREASED MANUFACTURING FACILITIES FOR
M/XC-13 RIFLE AND M/XP-700 PISTOL
CATEGORY: EXPANDED FACILITIES - ESTABLISHED PRODUCT

	<u>Third Year of Operation</u>		
	<u>Present</u> <u>Operation</u>	<u>Results</u> <u>From this</u> <u>Project</u>	<u>Operation</u> <u>After this</u> <u>Project</u>
QUANTITY	372,700	18,000	390,700
<u>SALES</u>	\$18,547,090	\$807,210	\$19,354,300
Less: Mill cost	13,116,070	480,480	13,596,550
Selling expense)			
Administrative expense)	1,761,970	-	1,761,970
Technical activities expense	463,680	-	463,680
	<u>\$15,341,720</u>	<u>\$480,480</u>	<u>\$15,822,200</u>
<u>OPERATIVE EARNINGS</u>	\$ 3,205,370	\$326,730	\$ 3,532,100
Less: All other expense:			
All other 8%; Federal tax 52%	<u>1,789,880</u>	<u>182,450</u>	<u>1,972,320</u>
<u>NET EARNINGS</u>	<u>\$ 1,415,490</u>	<u>\$144,280</u>	<u>\$ 1,559,780</u>
<u>INVESTMENT</u>			
Project expenditures	\$ -	\$180,300	\$ 180,300
Manufacturing and service facilities (Allocated)	11,998,300	-	11,998,300
Working capital	<u>12,277,000</u>	<u>481,000</u>	<u>12,758,000</u>
Position A: Total capital required including facilities to be retired	<u>\$24,275,300</u>	<u>\$661,300</u>	<u>\$24,936,600</u>
Facilities to be retired (Deduct)			<u>-</u>
Position B: Total investment after completion of this project			<u>\$24,936,600</u>

(Subdivision 5)
Page 1

REMINGTON ARMS COMPANY, INC.

ESTIMATED EARNINGS AND RETURN ON INVESTMENT
PROJECT NO. AD-XP-700-2 - ILION WORKS
INCREASED MANUFACTURING FACILITIES FOR
M/XC-13 RIFLE AND M/XP-700 PISTOL
CATEGORY: EXPANDED FACILITIES - ESTABLISHED PRODUCT

	<u>Third Year of Operation</u>		
	<u>Present</u> <u>Operation</u>	<u>Results</u> <u>From this</u> <u>Project</u>	<u>Operation</u> <u>After This</u> <u>Project</u>
<u>RETURN ON INVESTMENT</u>			
Position A	5.8%	21.8%	6.3%
Position B			6.3

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Return on total capital required including research and develop- ment and other operations charges	5.8%	12.5%	6.1%
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SUMMARY COMPARISON OF RESULTS FROM THIS PROJECT -
FIRST AND THIRD YEARS OF OPERATION

	<u>First Year</u>	<u>Third Year</u>
Quantity	17,000	18,000
Sales	\$750,730	\$807,210
Operative earnings	304,950	326,730
Net earnings	134,670	144,280
Investment		
Project expenditures	180,300	180,300
Allocated investment	-	-
Working capital	<u>457,000</u>	<u>481,000</u>
Total	<u>\$637,300</u>	<u>\$661,300</u>
Net return on investment	21.1%	21.8%

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Return on total capital required including research and develop- ment and other operations charges	11.9%	12.5%
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(Subdivision 5)
Page 2

REMINGTON ARMS COMPANY, INC.

SUPPLEMENTARY INFORMATION

PROJECT NO. AD XP-700-2- ILION WORKS

INCREASED MANUFACTURING FACILITIES FOR
MODEL XP-700 PISTOL AND MODEL XC-13 RIFLE

Research and development, project charges, and start-up costs chargeable to operations incurred prior to the first year of operation amount to \$560,600. Giving effect to amortization of such charges against earnings during the first and second years of operation, earnings and return on investment are as follows:

	<u>Operative Earnings</u>	<u>Amortization of Operations Charges Incurred Prior to First Year</u>	<u>Adjusted Operative Earnings</u>	<u>Net Earnings</u>	<u>Net Return on Investment</u>
1963	\$ 304,950	\$ 304,950	\$ -	\$ -	-
1964	326,730	255,650	71,080	31,389	4.7%
1965	326,730	-	326,730	144,280	21.8%

Remington Arms Company, Inc.

DETAIL ESTIMATE OF EXPENDITURES

PROJECT NO. AD XP-700-2 - Ilion WORKS

	Amount Previously Authorized	Requested This Part II	Total Indicated Cost
<u>Development</u>	\$ 62,300	\$ 25,500	\$ 87,800
Investigation	7,000	4,000	11,000
Design	24,000	7,500	31,500
Model Making	18,000	6,800	24,800
Design Testing	7,000	5,000	12,000
Development - Powder Metal	300	1,200	1,500
Eng.-Folders, C.of O., Stds.	4,000	1,000	5,000
Development - Custom Checkering	2,000	-	2,000
<u>Product Engineering</u>	\$ -	\$ 23,800	\$ 23,800
Process Eng. & Trial Run	-	22,500	22,500
Pilot Lot Testing	-	1,300	1,300
<u>Tooling</u>	\$ -	\$ 289,900	\$ 289,900
Design	-	35,400	35,400
Fixtures & Gauges	-	118,200	118,200
Molds	-	88,400	88,400
Perishable Tools	-	2,300	2,300
Tool Revisions	-	45,600	45,600
<u>Special Machines</u>	\$ -	\$ 37,200	\$ 37,200
Construction	-	22,500	22,500
Operation	-	9,100	9,100
Tooling	-	5,600	5,600
<u>Std. Machines & Equipment</u>	\$ -	\$ 155,300	\$ 155,300
<u>Production Aids</u>	\$ -	\$ 20,200	\$ 20,200
<u>Pilot Operations</u>	\$ -	\$ 18,800	\$ 18,800
Machine Alterations	-	5,000	5,000
Pilot Lot Manufacture	-	11,800	11,800
Component Obsolescence	-	2,000	2,000
<u>Provision for Advancing Wages and Material Prices and Allowance for Unforeseen Items</u>	\$ -	\$ 38,700	\$ 38,700
<u>Total Cost</u>	\$ 62,300	\$ 609,400	\$ 671,700

(Not submitted to Board)