

**TITLE: SEAR SAFETY CAM**

**Process Header**

**Process Header**

|                                    |                                      |
|------------------------------------|--------------------------------------|
| Document ID: SEAR SAFETY CAM XP100 | Remington Arms Company               |
| Part Name: SEAR SAFETY CAM         |                                      |
| Product Line: C/F RIFLE            | Effective Date: 09-NOV-1992-09:00:00 |
| Engineering Group: RIFLE           | Origination Date: 31-OCT-1992        |

**Process Revision Reasons**

| Date:       | Reason For Revision:                                 | Eng Log #: |
|-------------|--|------------|
| 17-OCT-1992 | RETYPE PROCESS FROM 290373 - REPLACES OLD PAPER COPY | ERF 293175 |
| 06-Nov-1992 | Chg. Description Op.#59                              | GLC 293323 |

**Process Approval List**

| Approved By: | Badge #: | Date: | Designation: |
|--------------|----------|-------|--------------|
| JACKSORA     |          |       |              |

**Process General Notes**

**Notes:**

**Process Material**

| Part Number | Qty | Description             |
|-------------|-----|-------------------------|
| 14269       | 1   | SEAR SAFETY CAM - XP100 |
| 91919       | 1   | POWDER METAL BLANK      |

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**Process Routing**

| pt   | Oper | Operation Description  | Part Numbers |
|------|------|--|--------------|
| 8575 | 35   | MILL SPRING SEAT   | 14269        |
| 8575 | 40   | DEBURR   | 14269        |
| 8575 | 42   | MILL RADIUS  | 14269        |
| 8575 | 43   | DEBURR   | 14269        |
| 8551 | 45   | MICROCARB HARDEN   | 14269        |
| 8551 | 50   | LINDBERG DRAW  | 14269        |
| 9257 | 55   | INSPECT FOR ROCKWELL HARDNESS  | 14269        |
| 9279 | 56   | SAND TUMBLE  | 14269        |
| 8574 | 58   | SURFACE GRIND CONNECTOR SURFACE AND LABEL<br>PAN WITH RED TAG MARKED "READY FOR PLATE" | 14269        |
|      | 59   | TO MRP CRIB 11 - TO BE SENT TO VENDOR FOR<br>CHROME PLATE - INSPECT UPON RETURN        | 14269        |
| 8567 | 61   | INSPECT FOR FLATNESS   | 14269        |
| 8567 | 62   | GRIND CONECTOR SURFACE (DIP IN STEELGARD)  | 14269        |
| 8567 | 63   | DEMAGNETIZE  | 14269        |
|      |      | TO MRP CRIB #14  |              |

**Operation Step Detail**

Operation: 35

**Step**

**Operation / Step Description**

|   |                  |
|---|------------------|
| 1 | MILL SPRING SEAT |
|---|------------------|

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Operation Tool Detail

Operation: 35

| Tool Number | Tooling Description            |
|-------------|--------------------------------|
| B-85029     | WISE JAWS                      |
| STD.        | 3" VISE                        |
| STD.        | ARBOR 1" DIA.                  |
| A-85361     | FORM CUTTER                    |
| C-85031     | DIAL BASE GAGE "A" = .235/.225 |
| A-85032     | TEMPLATE "B" = .945/.935       |

Operation Procedure Notes

Operation: 35

Description

\*\*\*\*\*SKETCH NEEDED\*\*\*\*\*

Operation Step Detail

Operation: 40

Step

Operation / Step Description

BURR

Operation Tool Detail

Operation: 40

| Tool Number | Tooling Description |
|-------------|---------------------|
| STD.        | FILE                |

Operation Step Detail

Operation: 42

Step

Operation / Step Description

MILL RADIUS

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**Operation Tool Detail**

**Operation: 42**

**Tool Number**

**Tooling Description**

B-45453

WISE JAWS

A-45462

ARBOR CUTTER

C-XP100-CL-35

COMPARATOR SCREEN

**Operation Step Detail**

**Operation: 43**

**Step**

**Operation / Step Description**

BURR

**Operation Tool Detail**

**Operation: 43**

**Tool Number**

**Tooling Description**

STD.

FILE

**Operation Step Detail**

**Operation: 45**

**Step**

**Operation / Step Description**

MICROCARE HARDEN

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**Operation Procedure Notes      Operation: 45**

**Description**

**PROCESS RECORD - HEAT TREAT SPECIFICATION**

**MATERIAL & SPECIFICATION: HD2020**

**TEMPERATURE: 1650 deg. 3 1/2 HRS. .90C POTENTIAL**

**MAXIMUM LOAD:**

**TIME:**

**QUENCH:**

**REMARKS:**

**INSPECT FOR:**

**HEAT TREAT INSPECTION:**

**STANDARD PRACTICE NO:**

**HARDNESS LIMITS:**

**APPEARANCE OF PARTS:**

**Operation Step Detail      Operation: 50**

**Step      Operation / Step Description**

**LINDBERG DRAW**

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**Operation Procedure Notes      Operation: 50**

**Description**

**PROCESS RECORD - HEAT TREAT SPECIFICATION**

**MATERIAL & SPECIFICATION:    HD2020**

**TEMPERATURE:    350 deg. F**

**MAXIMUM LOAD:**

**TIME:**

**QUENCH:**

**REMARKS:**

**INSPECT FOR:**

**HEAT TREAT INSPECTION:**

**STANDARD PRACTICE NO:**

**HARDNESS LIMITS:**

**APPEARANCE OF PARTS:**

**Operation Step Detail      Operation: 55**

**Step      Operation / Step Description**

**INSPECT FOR ROCKWELL HARDNESS**

**Operation Tool Detail      Operation: 55**

**Tool Number      Tooling Description**

**STD.      ROCKWELL HARDNESS TESTER**

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**Operation Procedure Notes      Operation: 55**

**Description**

**PROCESS RECORD - HEAT TREAT SPECIFICATION**

**MATERIAL & SPECIFICATION:    HD2020**

**TEMPERATURE:**

**MAXIMUM LOAD:**

**TIME:**

**QUENCH:**

**REMARKS:**

**INSPECT FOR:    ROCKWELL HARDNESS**

**HEAT TREAT INSPECTION:**

**STANDARD PRACTICE NO:**

**HARDNESS LIMITS:    FILE HARD RC50 MIN**

**APPEARANCE OF PARTS:**

**Operation Step Detail      Operation: 56**

**Step      Operation / Step Description**

**SAND TUMBLE**

**Operation Tool Detail      Operation: 56**

**Tool Number      Tooling Description**

**STD.**

**BAIRD BARREL**

**(TIME 1 hr.)**

**(PCS: 1000 )**

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Operation Step Detail

Operation: 58

Step

Operation / Step Description

SURFACE GRIND CONNECTOR SURFACE AND LABEL PAN WITH RED TAG MARKED-  
(READY FOR PLATE)

Operation Tool Detail

Operation: 58

Tool Number

Tooling Description

STD. GRINDING WHEEL

STD. 1" MICROMETERS  
(.346 / .341 )

Operation Procedure Notes

Operation: 58

Description

\*\*\*\*\*SKETCH NEEDED\*\*\*\*\*

Operation Step Detail

Operation: 61

Step

Operation / Step Description

INSPECT FOR FLATNESS 100%

Operation Tool Detail

Operation: 61

Tool Number

Tooling Description

C-44522 WIDTH GAGE - PASS SEAR SAFETY CAM THRU 100%

Operation Procedure Notes

Operation: 61

Description

REJECT ALL COMPONENTS WHICH DO NOT PASS GAGE

Operation Step Detail

Operation: 62

Step

Operation / Step Description

GRIND CONNECTOR SURFACE (DIP IN STEELGARD)

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**Operation Tool Detail**

**Operation: 62**

| Tool Number | Tooling Description |
|-------------|---------------------|
|-------------|---------------------|

|         |  |
|---------|--|
| B-41453 | GRINDING FIXTURE   |
| STD.    | NORTON WHEEL (WHITE SAUCER)<br>6" X 7/16" X 1 1/4"<br># 38A100 M8VBE |

**Operation Procedure Notes**

**Operation: 62**

**Description**

\*\*\*\*\*SKETCH NEEDED\*\*\*\*\*

NOTE: USE HORIZONTAL DRESSER TO GRIND AT 6 deg. ANGLE

USE A MIXTURE OF STEELGARD & STODDARD SOLVENT (1:10 RATIO)

DIP A LOAD OF SEAR SAFETY CAMS AFTER GRINDING CONNECTOR SURFACE TO PRVENT RUSTING.

DRAIN THE EXCESS OIL

**Operation Step Detail**

**Operation: 63**

| Step | Operation / Step Description |
|------|------------------------------|
|------|------------------------------|

|   |             |
|---|-------------|
| 1 | DEMAGNETIZE |
|---|-------------|

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