

TITLE: Sear Block XP100

Process Header

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Document ID: Sear Block XP100	Remington Arms Company
Part Name: Sear Block XP100	
Product Line: C/F Rifle	Effective Date: 03-Nov-1992-09:00:00
Engineering Group: Rifle	Origination Date: 08-Oct-1992

Process Revision Reasons

Date:	Reason For Revision:	Eng Log #:
08-Oct-1992	Retype Entire Process from 283490 - Replaces Old Paper Process - Remove Op.#20 - Chg. Description Op.#25	GLC 293112

Process Approval List

Approved By:	Badge #:	Date:	Designation:
Jacksora			

Process General Notes

Notes:

Process Material

Part Number	Qty	Description
15461	1	Sear Block - XP100
15718	1	Blank

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**Process Routing**

Dept	Oper	Operation Description	Part Numbers
8575	5	Spot Drill and Ream Sear Block Pin Hole and Trigger Link Roller Hole - Spot, Drill, and Ream Sear Block Stud Hole	15461
8502	8	File to Deburr	15461
8575	10	C'Sink (3) Holes Both Sides	15461
8567	15	Grind Radius	15461
8551	25	Degrease, Carbo-Nitride (Micro-Carb), Oil Quench, Degrease	15461
8551	30	Lindberg Draw	15461
9257	35	Inspect for Rockwell Hardness	15461
		To MRP Crib #29	15461

**Operation Step Detail**

Operation: 5

**Step**

**Operation / Step Description**

	Spot Drill and Ream Sear Block Pin Hole and Trigger Link Roller Hole - Spot, Drill, and Ream Sear Block Stud Hole
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**Operation Tool Detail**

**Operation: 5**

Tool Number	Tooling Description
Std	5 Spindle Drill Press
Std	Spot Drill - (.126 Dia.)
Std	Reamer - RS-4 - (.1263 Dia.)
Std	Drill - (.122 Dia.)
Std	Drill - #42 (.0935 Dia.)
Std	Drill - #44 (.086 Dia.)
Std	Reamer - RS-2 - (.0938 Dia.)
D-85090	Drill Jig
Gages:	
B-80219-A	Plug Gage - .127/.126 - Dia. - Trigger Link Roller Hole & Sear Block Pin Hole
B-80252-H	Plug Gage - .0942/.0932 - Dia. Sear Block Stud Hole

**Operation Procedure Notes**

**Operation: 5**

**Description**

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

**Operation Step Detail**

**Operation: 8**

Step	Operation / Step Description
1	File to Deburr

**Operation Tool Detail**

**Operation: 8**

Tool Number	Tooling Description
Std	File

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**Operation Step Detail**

**Operation: 10**

**Step**

**Operation / Step Description**

C'Sink (3) Holes Both Sides

**Operation Tool Detail**

**Operation: 10**

**Tool Number**

**Tooling Description**

Std

Drill Press

Std

C'Sink - 3/16" Dia.

Std

Holding Block

**Operation Procedure Notes**

**Operation: 10**

**Description**

NOTE: .010 x 45 Degree Max. Chamfer (3) Holes Both Sides

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

**Operation Step Detail**

**Operation: 15**

**Step**

**Operation / Step Description**

Grind Radius

**Operation Tool Detail**

**Operation: 15**

**Tool Number**

**Tooling Description**

Std

#2 B&S Surface Grinder

Std

Grinding Wheel

B-85093

Grinding Fixture

Std

320 Grit Paper

D-85092

Dial Base Gage - .454/.452 - Position of Radius from  
Centerline of Sear Block Pin Hole

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Operation Procedure Notes      Operation: 15

Description

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

Note: Deburr Both Sides In Direction From Radius Toward Sear Block Pin Hole  
Using #320 Paper - See Photo Sample

Note: Grind in the Direction Towards the Sear Block Stud Hole with a Required  
Finish of 32 Microinches

Procedure:

1. Establish .453 +/- .001 Dim. After Wheel Dress
2. Raise Wheel .010 Before 1st Pass Grind
3. Feed Wheel in .002 Increments per Pass Rotation until Dim. .453 +/- .001  
is Attained

Operation Step Detail      Operation: 25

Step      Operation / Step Description

Degrease, Carbo-Nitride (Micro-Carb), Oil Quench, Degrease

Operation Tool Detail      Operation: 25

Tool Number      Tooling Description

Std      Micro-Carb Furnace

Std      Basket - 12"x20"x2" Deep

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**Operation Procedure Notes      Operation: 25**

**Description**

**PROCESS RECORD - HEAT TREAT SPECIFICATION**

**MATERIAL & SPECIFICATION: C-1018**

**TEMPERATURE: .75 Carbon Pot. @ 1700 Degrees F**

**MAXIMUM LOAD: 2000 Pcs. - 2 Baskets - 1000 Pcs per Basket**

**TIME: 3.5 Hours**

**QUENCH: Oil**

**REMARKS: Degrease**

**INSPECT FOR: File Hard to Insure Proper Quench**

**HEAT TREAT INSPECTION:**

**STANDARD PRACTICE NO:**

**HARDNESS LIMITS:**

**APPEARANCE OF PARTS: Clean & Free of Oil**

**Operation Step Detail      Operation: 30**

**Step      Operation / Step Description**

**Lindberg Draw**

**Operation Tool Detail      Operation: 30**

**Tool Number      Tooling Description**

**Std      Lindberg Furnace**

**Std      Basket - 12"x20"x2" Deep**

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Operation Procedure Notes      Operation: 30

Description

PROCESS RECORD - HEAT TREAT SPECIFICATION

MATERIAL & SPECIFICATION: C-1018

TEMPERATURE: 350 - 400 Degrees F

MAXIMUM LOAD: 2000 Pcs. - Same Baskets as Used for Heat Treat Op.

TIME: 1 Hour @ Temp.

QUENCH: Air Cool

REMARKS:

INSPECT FOR:

HEAT TREAT INSPECTION:

STANDARD PRACTICE NO:

HARDNESS LIMITS:

APPEARANCE OF PARTS:

Operation Step Detail      Operation: 35

Step      Operation / Step Description

Inspect for Rockwell Hardness

Operation Tool Detail      Operation: 35

Tool Number      Tooling Description

Std      Rockwell Hardness Tester

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Operation Procedure Notes      Operation: 35

Description

PROCESS RECORD - HEAT TREAT SPECIFICATION

MATERIAL & SPECIFICATION: C-1018

TEMPERATURE:

MAXIMUM LOAD:

TIME:

QUENCH:

REMARKS:

INSPECT FOR: Rockwell Hardness

HEAT TREAT INSPECTION:

STANDARD PRACTICE NO:

HARDNESS LIMITS: 15N - 88-92

APPEARANCE OF PARTS: Clean & Free of Oil

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