

Remington Arms Company, Inc.
Manufacturing Process Document

Document ID: XMF EA TRIG ASSY 700 7
Product Line: C/F

Effective Date: 23-May-14
Origination Date: 10-Feb-05

General Instructions:

Use the Control Buttons above and below to access the various sections of this process. If your screen is not wide enough to display all the section data, use the arrows at the lower right to pan the desired data into view. Simply click on a tab or a button to move to that section of the document.

Process Routing Table:

Click on the button below containing the operation number you wish to view.

Demagnetize Springs
Ultrasonic Clean & Rinse
Assemble Trigger Assembly - Stage 1
Assemble Trigger Assembly - Stage 2
Adjust Trigger Assembly on Comparator 100%
Function Check Complete Trigger Assembly 100%
Repair Rejected Trigger Assemblies

MCNEIL 0960

5 Demagnetize Springs

Step Operation / Step Description

Demagnetize Springs

Procedure:

1. Place Sear Springs, Safety Detent Springs, and Trigger Pull Springs in separate non-metallic pans not to exceed 6"x3"x2" in size.
2. Turn demagnetizer "ON".
3. Pass pan across the effective area located between the handles. Start the pan over the right side and pass to the left side and remove.
4. Turn Demagnetizer "OFF". Do not turn switch off with pan in contact with demagnetizer, " THIS MAY MAGNETIZE PARTS ".

Tool Number Tooling Description

STD. PAN 6"x3"x2"

Std. Machine-Electr-Matic Type A13

MCN0011 0961

8 Ultrasonic Clean & Rinse

The below components must be Ultrasonically Cleaned before applying Loctite and Prior to Assembly.

300660	RH Blocker
306365	TRIGGER HOUSING ASSY PLATED
300664	BLOCKER ADJUSTMENT SCREW
300914	TRIGGER POLL ADJUSTMENT SCREW
300696	TRIGGER ENGAGEMENT SCREW
300662	LH blocker
306366	LH TRIGGER HOUSING ASSY PLATED

Step	Operation / Step Description
1	Allow tanks to reach temperature.
2	Place parts in appropriate basket.
3	Place Basket in Wash Tank.
4	Turn on Ultrasonic Control on Blue Ultrasonic Generator.
5	Leave in Wash Tank for 5 Minutes.
6	Lift basket from wash solution, hold for short period to drain the cleaner from the parts.
7	Turn Off Blue Ultrasonic Genetator.
8	Place in Hot Water rinse moving basket up and down several times.
9	Lift basket out of the rinse and allow to drain for short period.
10	Remove basket from hot water rinse tank and dump parts on to bench top to cool.
11	Place parts into oven at 120F for 15-20 min to ensure dry
12	<u>DO NOT BLOW OFF WITH COMPRESSED AIR.</u> Compressed air contains oil and this oil can contaminate the parts and interfere with the Loctite operation.
13	When the wash operation is complete for the shift turn off and unplug Ultrasonic Wash and Hot Water Rinse tank.

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Tool

Tooling Description

Ultrasonic Cleaning Bath

Generator setting - 50

Temperature - 150°F

Cleaner - Wintech 758 Concentration 8% (12 Parts Water 1 Part Wintech 758)

Soak Time - 5 Min.

TANK TO BE DUMPED AND RECHARGED PRIOR TO EACH OPERATING SHIFT.

Hot Water Rinse

Temperature Setting - 180°F

TANK TO BE DUMPED AND RECHARGED PRIOR TO EACH OPERATING SHIFT.

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10 Assemble Trigger Assembly - Stage 1

Parts listed below need to be clean and dry prior to Loctite Application and Assembly.

Loctite cannot be applied on the screws and threaded in the hole until final settings.
Loctite can be applied separately.

Tooling:

Fixture press: D-55465 Used for press fit pins, RH

D-56271 Used for press fit pins, LH

Retaining ring tool: C-56251 Used for retaining ring assembly.

Loctite

306365	TRIGGER HOUSING ASSY PLATED	
300664	BLOCKER ADJUSTMENT SCREW	660
300914	TRIGGER PULL ADJUSTMENT SCREW	NONE
300696	TRIGGER ENGAGEMENT SCREW	660
306366	LH trigger housing assy plated)	

(24484, m7 bolt stop pin used in place of slave pins for all settings)

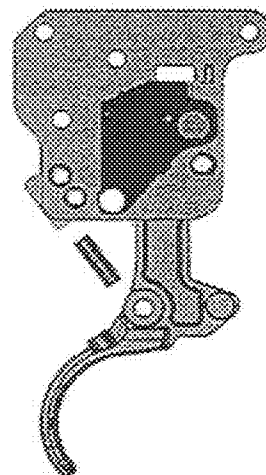
Install the Trigger and Secondary Trigger Pull Spring into the Trigger Housing

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1. Insert the secondary trigger pull spring into hole in the rear spacer of the trigger housing. Insert the trigger from the bottom as shown in Figure 1. The spring must be positioned between housing and trigger prior to insertion of the trigger pivot pin.

Figure 1



Trigger Pivot Pin Installation

2. Insert the trigger pivot pin through the lower hole in the blocker, the right hand side plate, and the trigger. The secondary trigger pull spring must remain captured between rear spacer and trigger. Align the hole in the blocker with the shoulder

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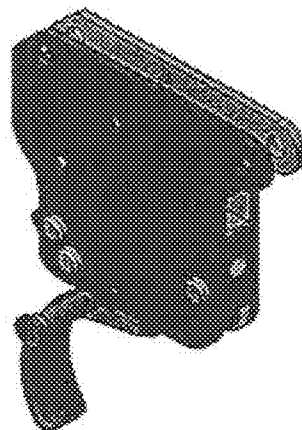
on the trigger pin before pressing the pin into the hole in the left hand side plate
See Figure 3.

Fixture press:

D-55465, RH

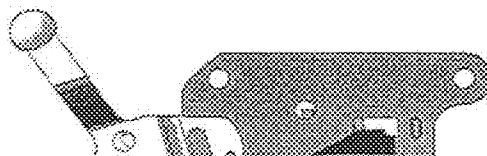
D-56271, LH

Figure 2



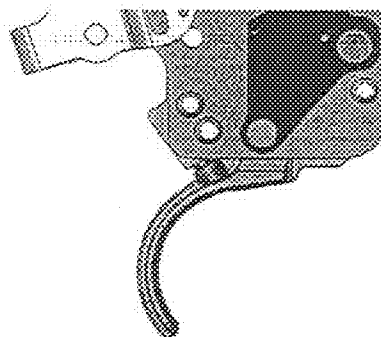
Insert the Safety

3. Slide the safety assembly into the opening at the rear of the trigger housing as shown in Figure 4. Bias the camming leg of the safety against the inside surface of the right hand side plate of the trigger housing. Insert a bolt stop pin thru the pivot hole to temporarily secure the safety to the housing (if necessary).



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Figure 3



Insert the Safety Detent Spring

4. Slide the safety assembly's offset leg over the post on the blocker. Before allowing the post to snap into the slot on the safety, insert the short leg of the **safety detent spring** into the hole in the blocker and align the long leg of the spring with the small hole in the safety assembly as shown in Figure 5.

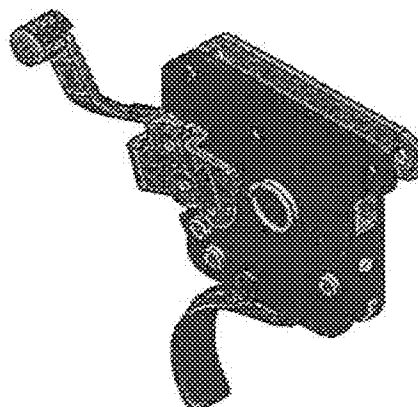


Figure 4

Install Trigger Pull Screw and Trigger Pull Spring

5. Insert the trigger pull screw and primary trigger pull spring through the hole

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in the front spacer of the trigger assembly as shown in Figure 6. Adjust them inward until the screw head is 2 to 3 turns below the outer edge of the spacer.
(No loctite used on this screw, Duco cement after final setting at final assembly)

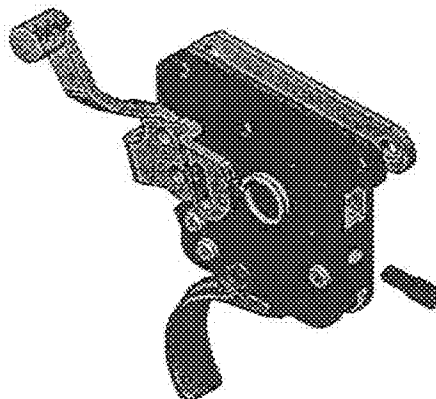


Figure 5

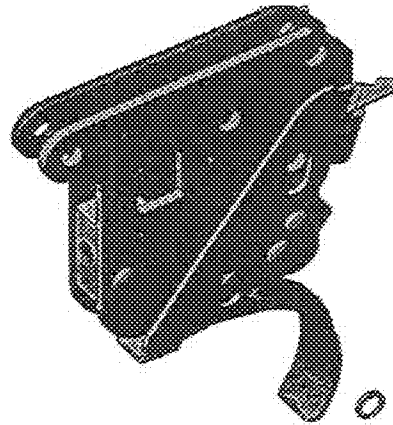
Install Bolt Stop Release and Trigger Pivot Pin Retaining Ring

6. Place the bolt stop release against the left hand side plate such that its upper hole is aligned with the safety pivot hole in the trigger housing and the lower hole is over the end of the trigger pin. Insert the trigger pivot pin retaining ring over the trigger pivot pin, use assembly tool C-56251.

NEVER REUSE TRIGGER PIVOT PIN AND RETAINING CLIP AFTER REMOVING THEM.



Figure 6



MCNRTL 0969

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Assemble Trigger Assembly - Stage 2

Tooling:

Safety Retainer tool: C-56220 Used for retaining ring assembly.

Loctite Application Block: B-67959 used to roll screw in loctite.

Assembly Fixture RH: C-67957

Assembly Fixture LH: C-67958

Assemble the Sear Safety Cam into the Trigger Housing

7. Place the front end of sear safety cam into the trigger housing as shown in Figure 8. Insert a M7 bolt stop pin through the trigger housing and sear pivot hole to retain the sear safety cam in the trigger housing.

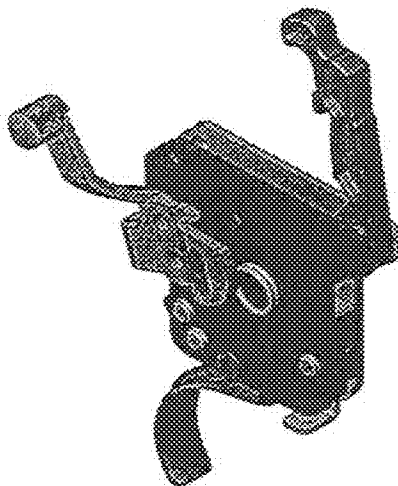


Figure 7

Insert the Sear Spring

8. Place the sear spring on the sear spring support in the trigger housing as shown in Figure 8. - Rotate the tail of the sear safety cam downward until

it passes the rear trigger assembly mounting hole and insert a M7 bolt stop pin to hold it down. Check to ensure the sear spring is properly located in the housing and on the sear safety cam.

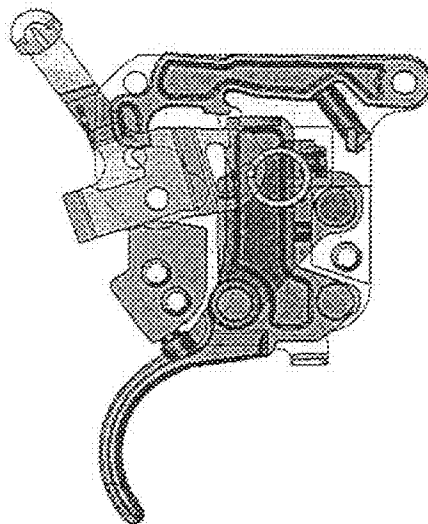


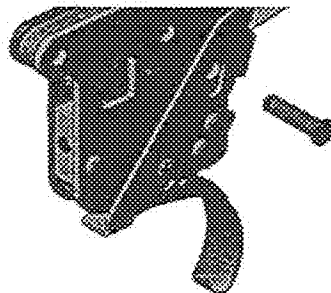
Figure 8

Install Safety Pivot Pin

9. Insert the safety pivot pin through the holes in the bolt stop release, trigger housing and safety and push it until the shoulder contacts the left hand side plate of the trigger housing as shown in Figure 10. The bolt stop release pin will be pushed out of the trigger housing.



Figure 9



Add Safety Retainer

10. Install the safety retainer on the safety pivot pin. Orient the safety retainer so that the legs stick up away from the safety assembly as shown in Figure 11. Use hand assembly tool C-56220 to seat safety retainer. Make sure the all of retainer's legs are snapped into the groove in the safety pivot pin or the retainer can come off.
NEVER reuse the retainers after removing them

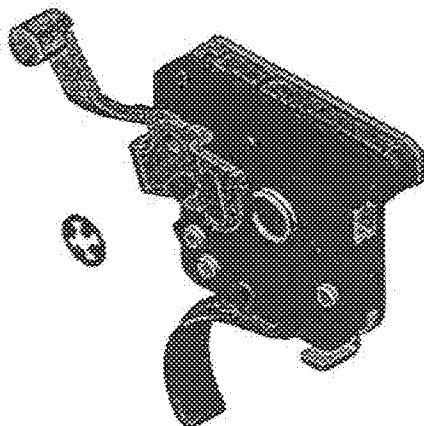


Figure 10

Insert the Trigger Engagement Screw

11. Insert the engagement screw into the rear hole of the trigger housing as shown in Figure 11. Use permanent Loctite (660) to secure the screw (DUCCO

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cement after Final setting).

NOTE: ROLL ENTIRE LENGTH OF THREAD IN LOCTITE 660 TO INSURE FULL APPLICATION.

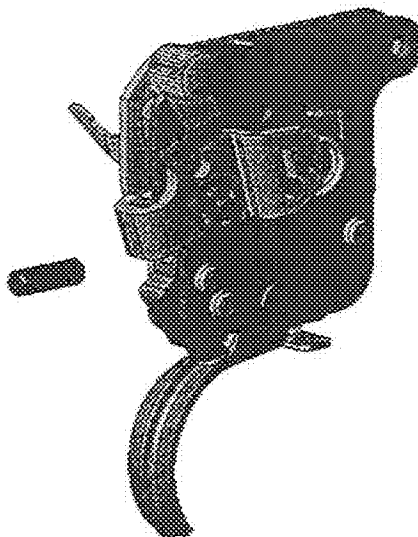


Figure 11

Loctite Blocker Screw

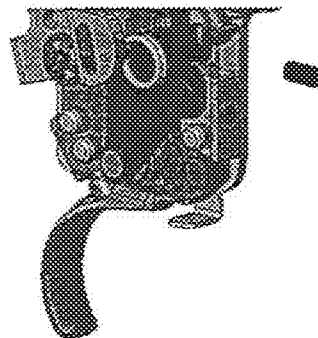
12. Thread the blocker screw into the blocker as shown in Figure 13. Use permanent Loctite (660) to secure the screw, the screw must be clean as noted in Operation 10.

NOTE: ROLL ENTIRE LENGTH OF THREAD IN LOCTITE 660 TO INSURE FULL APPLICATION.

WIPE LOCTITE FROM SCREW END PRIOR TO INSERTION. REMOVE EXCESS LOCTITE FROM CONTACT SURFACE OF TRIGGER.



Figure 12



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30 Adjust Trigger Assembly on Comparator 100%

Tool Number	Tooling Description
E-55423	Comparator fixture RH SPL
E-55466	Comparator fixture LH SPL
D-700-CL-252, Rev 3	Comparator Screen, RH
D-700-CL-254	Comparator Screen, LH

"Loctite will start to cure in 3 to 7 minutes"

"Make sure final settings are complete before loctite starts to cure"

Note: Use 50X magnification for making all adjustments using Comparator

14. Mark correctly assembled and adjusted trigger assembly with adjuster's identification
Locate trigger assembly on stamping fixture.

NOTE: MAKE SURE STAMP POSITION ON HOUSING DOES NOT DEFORM HOUSING (i.e. PLACE STAMP OVER A SPACER BLOCK)

Stamp adjusters identification on the right hand side to the right of the top rivet.

Stamp should also be as close to the rivet as possible. See op 40 for visual of location.

*Holding block for stamp B-53512

*Use 1/16" size character

*Op 30 adjuster's ID stamp to be assigned by supervisor

15. Setting Trigger / Sear Engagement - Use the Upper Zone on Comparator Screen as Marked
The trigger to sear engagement setting is done with the safety in the FIRE position.
When mounting the trigger assembly in the comparator fixture, use thumb pressure to push the assembly firmly against the rear stops before engaging the toggle clamp.

- 15a. With the sear held against the trigger, focus the screen image and align the sear edge front face to the set edge line on the comparator screen. Without adjusting the fixture location, re-focus the comparator for a sharp image of the trigger. Turn the engagement screw to position the trigger edge within the .021" MAX and

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0.019" MIN lines on the comparator screen. See Figure 15.

Note: For all screw settings, the tools must be removed carefully to prevent unwanted adjustments.

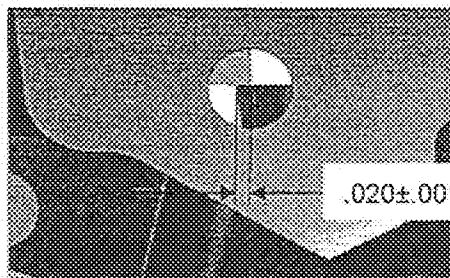


Figure 15

.020±.001 Trigger / Sear Engagement

16. Setting Minimum Trigger Pull Force - Use the Upper Zone on Comparator Screen as Marked
Adjust the trigger pull force with the sear held against the trigger and the safety in the FIRE position. Hang a 2.5 pound load from the trigger and adjust the primary trigger pull screw until the trigger rotates from underneath the sear safety cam, allowing the sear to drop. See Figure 16.

Direction and location for setting trigger pull

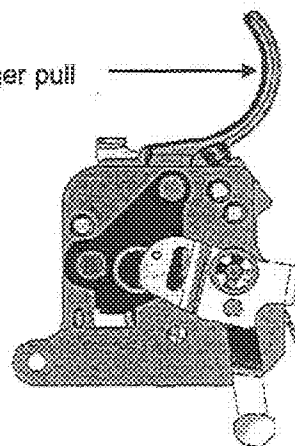


Figure 16

17. Cycle and Recheck

Remove the weight from the trigger, release the toggle clamp, and allow the sear and trigger to re-engage. Dry cycle the fire control a minimum of 3 times. Recheck

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engagement and trigger pull using a spring scale and adjust as necessary. Use a Chatillion 6 lb x 1 oz scale, model IN-006M for this measurement. Measured trigger pull should not be less than 2.5 lbs.

18. Setting the Blocker Screw - Use the Lower Zone on Comparator Screen as Marked
- Release the toggle clamp and move the safety to the SAFE position. Remount the assembly in the fixture and bring the trigger edge to a sharp focus. Align the trigger with the set edge for blocker screw adjustment as marked on the comparator screen. Adjust the blocker screw inward until there is 0.003" MIN to 0.006" MAX visible motion of the trigger when pulled with a 7 pound load. Ideally, the blocker screw setting should be made to show visible trigger motion just past the MIN position line on the comparator screen. Recheck and adjust as necessary. See Figure 17.

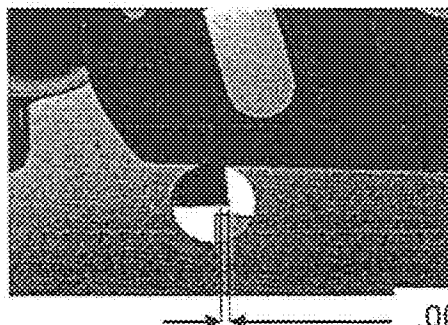


Figure 17

.006" Max Movement with 7 lb Load on Trigger

19. Inspection

Return the safety to FIRE. Check engagement. Adjust as needed.

Recheck trigger pull using a spring scale. Adjust as needed. MEASURED TRIGGER PULL SHOULD NOT BE LESS THAN 2.5 LBS.

Use a Chatillion 6 lb x 1 oz scale, model IN-006M for this measurement.

Move the safety to the SAFE position. Check blocker screw setting. Adjust as needed.

NOTE: An adjustment for one setting dictates the other setting must be re-checked.

Always check the blocker screw setting last, do not adjust safe arm position again until the Loctite cure cycle is complete.

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20. Loctite Cure Time

Allow LOCTITE 660 to cure for a minimum of 24 hours at room temperature or 2 hours at 120° before performing function checks. Note: mark cure cycle information on all loads.

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40 Function Check Complete Trigger Assembly 100%

Step Operation / Step Description

Function check completed Trigger Assembly 100%

NOTE: Do All Elements 100%, but not until after completion of LOCTITE 660 cure cycle,
as defined in previous operation: 24 hours at room temperature, or 2 hours at 120 Deg.

1. Apply Molycoat to top surface of trigger. With the Safety in the "FIRE" position,
also apply Molycoat to side of trigger where contacted by blocker screw .
2. With Safety in "FIRE" position.

Check for:

TRIGGER RETRACTION

Pull Trigger and release:

* Trigger must return freely to original position
WITH SPRING FORCE.

CONFIRM ABSENCE OF EXCESS LOCTITE BETWEEN TRIGGER AND BLOCKER

Using a shim or blade, swipe between the blocker and trigger.

BLOCKER SCREW MOVEMENT

Using a 1/16" allen wrench and 2 finger pressure, lightly torque the blocker screw
in each direction. No screw movement is allowed.

TRIGGER ENGAGEMENT SCREW MOVEMENT

Using a 1/16" allen wrench and 2 finger pressure, lightly torque the trigger engagement screw
in each direction. No screw movement is allowed.

SEAR FREEDOM

Pull Trigger and hold. Depress Sear FULLY and release:

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* Sear must move freely in housing without binding. The Sear must return upward under Sear Spring force.

3. Put Safety in "SAFE" position.

Apply finger pressure to trigger. No movement of trigger from under sear should be visible.

4. Operation of Safety

Move Safety from "SAFE" to "FIRE" position and back.
Do this TWICE.

5. Visual Inspection of Safety Retainer

Make sure the all of retainer's legs are snapped into the groove in the safety pivot pin.

6. Visual inspection of Safety Detent Spring

Make sure each end of spring is securely located in the holes in the blocker and safety.

7. Visual inspection of Bolt Stop Release

The bolt stop release should be free to move the entire range of the slotted holes.

8. Visual inspection Blocker Hold Down Stud and Trigger Pivot Pin

The head of each pin should be flush against the outer surface of the Blocker

9. Apply sealing layer of DUCO cement to the head of the Trigger Engagement Screw and Blocker Screw.

10. Apply 1 or 2 drops of REM OIL to the contact point of the Safety Slot and the Blocker Post.

11. Mark trigger assembly with inspector's identification stamp.
Locate trigger assembly on stamping fixture.

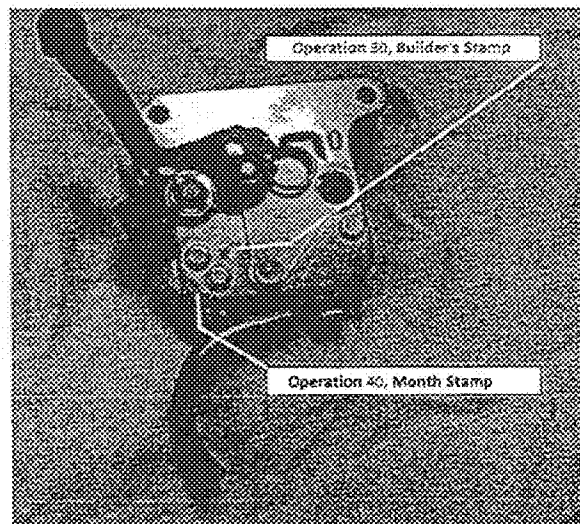
MCNEIL 0980

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NOTE: MAKE SURE STAMP POSITION ON HOUSING DOES NOT DEFORM HOUSING (i.e. PLACE STAMP OVER A SPACER BLOCK)
Stamp inspector's identification on the right hand side below the top rivet and to the left of the bottom rivet. Stamp should also be as close to the rear of the assembly as reasonable.

- *Holding block for stamp B-53512
- *Use 1/16" size character
- *Op 40 Inspector's ID stamp to be "BLACKPOWDERX" month designation

January	B
February	L
March	A
April	C
May	K
June	P
July	O
August	W
September	D
October	E
November	R
December	X



12. Insert Secondary Trigger Pull Screw into Trigger. Tighten 2-3 turns only, do not compress secondary trigger pull spring.
NOTE: Visually inspect secondary spring. Move Safe Arm to "Fire" position, and pull trigger. No evidence of compression of secondary spring should be evident. If Spring appears to compress, re-position spring to ensure end is within counterbore on trigger.

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Date:	Reason for Revision:	Eng:	Log #:
15-Jul-08	NEW	CSB	322594
08-Aug-08	Corrected P/N's on Routing Page	CSB	322601
17-Oct-08	Delete P/Ns 300660, 300662 and 300666 from Operation and resequenced all steps. Removed same P/Ns from BOM. These P/Ns added to process XMP EX TRA 7.700 after Plate.	CSB	322606
20-Feb-09	Operation 30, section 19, add note to check blocker screw setting last.	CSB	323905
24-Sep-09	Add note to Op 20 to clean Loctite from Blocker Screw Head and side of Trigger, Add note to Op 40 to apply Molycoat to side of trigger	CSB	324896
30-Apr-10	Add note to Op 40, step 12, for visual inspection of secondary spring compression.	CSB	327126
09-Jan-13	ADDED P/N 408490 TRIGGER ASSY EXT 700 RH BLACK PER NFP 2013-37	MLW	333295
15-Oct-13	Add note to Op 20, section 11 to use C-56220. Created tool list for Op 20 Added Tool C-56251 to Op 10	NBK	334464
10-Dec-13	Added Loctite Application Block B-67959 to Op 10 & 20	NBK	334734
23-Jan-14	Op 8: Added step 11 to dry parts in oven. Op 10: Updated Figures 1 & 2. Removed blocker assembly step. Op 40: Added step to verify excess loctite removal.	NBK	334895
18-Mar-14	Op 30: Change location of builder's stamp. WAS "Above top rivet and below safe arm, as close to rear of housing as reasonable." Op40: Change location of inspector's stamp. WAS "On left side plate above top rivet and below safe arm, as close to rear of housing as reasonable." Op40: Change significance of inspector's stamp to BLACKPOWDERX. WAS builder specific stamp. Op40: Updated visual.	NBK	335084
23-May-14	*****OBSOLETE PROCESS***** *****REPLACED BY "NEW 2014 KNE EA TRIC ASSY 700 70"*****	NBK	335416

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Manufacturing Process Document

Document ID: XMP TRIG ASSY 700 7
Product Line: C/F

Effective Date: 23-May-14
Origination Date: 10-Feb-05

General Instructions:

Use the Control Buttons above and below to access the various sections of this process. If your screen is not wide enough to display all the section data, use the arrows at the lower right to pan the desired data into view. Simply click on a tab or a button to move to that section of the document.

Process Routing Table:

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Demagnetize Springs
Ultrasonic Clean & Rinse
Assemble Trigger Assembly - Stage 1
Assemble Trigger Assembly - Stage 2
Adjust Trigger Assembly on Comparator 100%
Function Check Complete Trigger Assembly 100%
Repair Rejected Trigger Assemblies

MCNEIL 0983

5 Demagnetize Springs

Step Operation / Step Description

Demagnetize Springs

Procedure:

1. Place Sear Springs, Safety Detent Springs, and Trigger Pull Springs in separate non-metallic pans not to exceed 6"X3"X2" in size.
2. Turn demagnetizer "ON".
3. Pass pan across the effective area located between the handles. Start the pan over the right side and pass to the left side and remove.
4. Turn Demagnetizer "OFF". Do not turn switch off with pan in contact with demagnetizer, " THIS MAY MAGNETIZE PARTS ".

Tool Number Tooling Description

STD. PAN 6"X3"X2"

Std. Machine-Electr-Matic Type A13

MCNELL 0984

8 Ultrasonic Clean & Rinse

The below components must be Ultrasonically Cleaned before applying
Loctite and Prior to Assembly.

300660	RH Blocker
306380	TRIGGER HOUSING ASSY PLATED
300664	BLOCKER ADJUSTMENT SCREW
300914	TRIGGER PULL ADJUSTMENT SCREW
300696	TRIGGER ENGAGEMENT SCREW
300662	LH blocker
306381	LH TRIGGER HOUSING ASSY PLATED

Step	Operation / Step Description
1	Allow tanks to reach temperature.
2	Place parts in appropriate basket.
3	Place Basket in Wash Tank.
4	Turn on Ultrasonic Control on Blue Ultrasonic Generator.
5	Leave in Wash Tank for 5 Minutes.
6	Lift basket from wash solution, hold for short period to drain the cleaner from the parts.
7	Turn Off Blue Ultrasonic Genetator.
8	Place in Hot Water rinse moving basket up and down several times.
9	Lift basket out of the rinse and allow to drain for short period.
10	Remove basket from hot water rinse tank and dump parts on to bench top to cool.
11	Place parts into oven at 120F for 15-20 min to ensure dry
12	DO NOT BLOW OFF WITH COMPRESSED AIR. Compressed air contains oil and this oil can contaminate the parts and interfere with the Loctite operation.
13	When the wash operation is complete for the shift turn off and unplug Ultrasonic Wash and Hot Water Rinse tank.

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Printed on:
11/14/2014

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Sheet 2 of 2

Tool

Tooling Description

Ultrasonic Cleaning Bath

Generator setting - 50

Temperature - 150°F

Cleaner - Wintech 758 Concentration 8% (12 Parts Water 1 Part Wintech 758)

Soak Time - 5 Min.

TANK TO BE DUMPED AND RECHARGED PRIOR TO EACH OPERATING SHIFT.

Hot Water Rinse

Temperature Setting - 180°F

TANK TO BE DUMPED AND RECHARGED PRIOR TO EACH OPERATING SHIFT.

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10 Assemble Trigger Assembly - Stage 1

Parts listed below need to be clean and dry prior to Loctite Application and Assembly.

Loctite can not be applied on the screws and threaded in the hole until final settings.
Loctite can be applied seperately.

Tooling:

Fixture press: D-55465 Used for press fit pins, RH
D-56271 Used for press fit pins, LH
Retaining ring tool: C-56251 Used for retaining ring assembly.

		Loctite
306380	TRIGGER HOUSING ASSY PLATED	
300664	BLOCKER ADJUSTMENT SCREW	660
300914	TRIGGER PULL ADJUSTMENT SCREW	NONE
300696	TRIGGER ENGAGEMENT SCREW	660

(24484, m7 bolt stop pin used in place of slave pins for all settings)

Install the Trigger into the Trigger Housing

1. Insert Trigger into the trigger housing from the bottom as shown in Figure 1.

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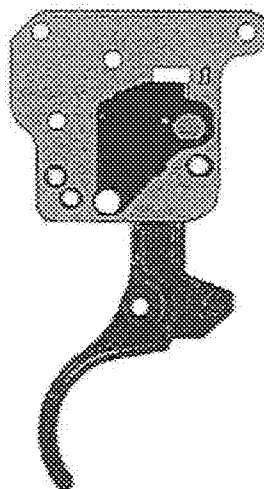


Figure 1

Trigger Pivot Pin Installation

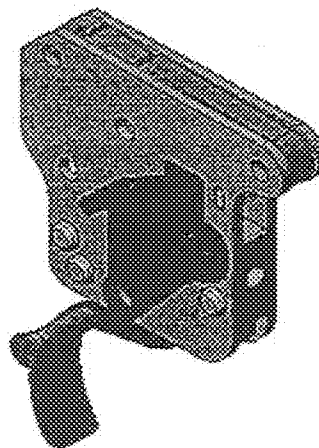
2. Insert the trigger pivot pin through the hole in the blocker, the right hand side plate, and the trigger. Align the hole in the blocker with the shoulder on the trigger pin before pressing the pin into the hole in the left hand side plate

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See Figure 3.

Fixture press:
D-55465, RH
D-56271, LH

Figure 2



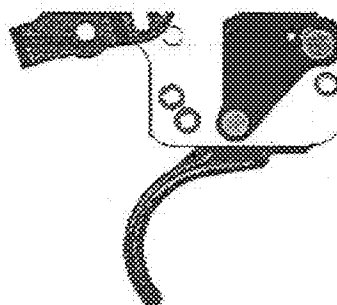
Insert the Safety

3. Slide the safety assembly or into the opening at the rear of the trigger assembly as shown in Figure 4. Bias the camming leg of the safety against the inside surface of the right hand side plate of the trigger housing. Insert a bolt stop pin thru the pivot hole to temporarily secure the safety to the housing.



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Figure 3



Insert the Safety Detent Spring

4. Slide the safety assembly's offset leg over the post on the blocker.
Before allowing the post to snap into the slot on the safety, insert the short leg of the safety detent spring into the hole in the blocker and align the long leg of the spring with the small hole in the safety assembly as shown in Figure 5.

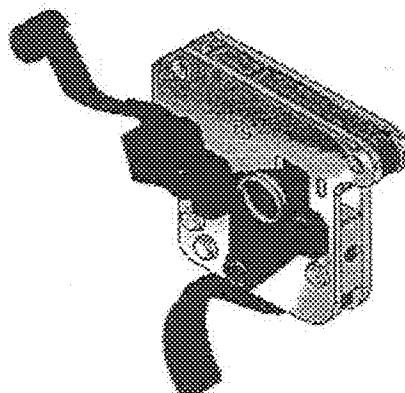


Figure 4

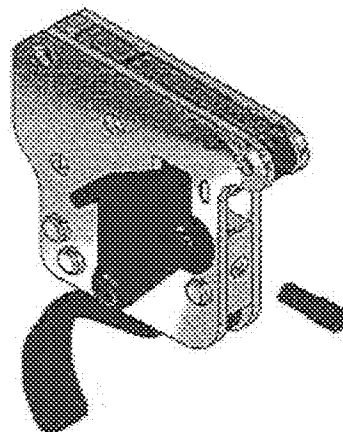
Install Trigger Pull Screw and Trigger Pull Spring

5. Insert the trigger pull screw and trigger pull spring through the hole in the front spacer of the trigger assembly as shown in Figure 6. Adjust them

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inward until the screw head is 2 to 3 turns below the outer edge of the spacer.
(No loctite used on this screw, Duco cement after final setting at final assembly)

Figure 5



Install Bolt Stop Release and Trigger Pivot Pin Retaining Ring

6. Place the bolt stop release against the left hand side plate such that its upper hole is aligned with the safety pivot hole in the trigger housing and the lower hole is over the end of the trigger pin. Insert the trigger pivot pin retaining ring over the Trigger Pivot Pin, use assembly tool C-56251.

NEVER REUSE TRIGGER PIVOT PIN AND RETAINING CLIP AFTER REMOVING THEM.



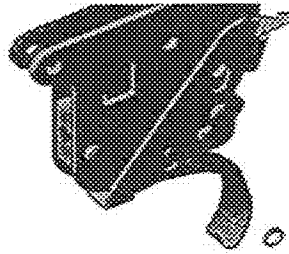
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Figure 6



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20 Assemble Trigger Assembly - Stage 2

DO NOT USE LOCTITE ON ASSEMBLY #403288.

Tooling:

Safety Retainer 1C-56220 Used for retaining ring assembly.

Loctite Application Block: B-67959 used to roll screw in loctite.

Assemble the Sear Safety Cam into the Trigger Housing

7. Place the front end of sear safety cam into the trigger housing as shown in Figure 7. - Insert a m7 bolt stop pin through the trigger housing and sear pivot hole to retain the sear safety cam in the trigger housing.

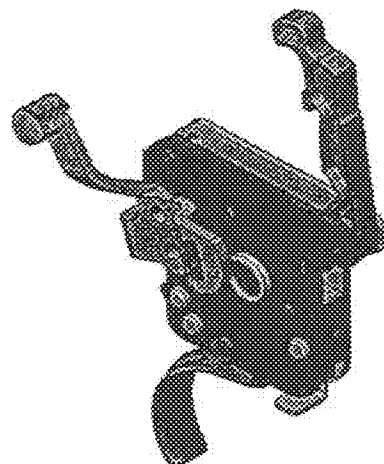


Figure 7

Insert the Sear Spring

8. Place the sear spring on the sear spring support in the trigger housing as shown in

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Figure 8. - Rotate the tail of the sear safety cam downward until it passes the rear trigger assembly mounting hole and insert a m7 bolts stop pin to hold it down. Check to ensure the sear spring is properly located in the housing and on the sear safety cam.

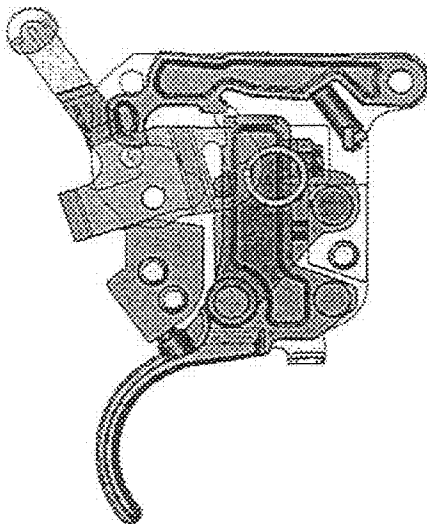


Figure 8

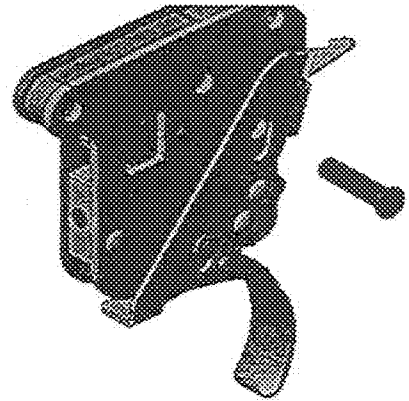
Install Safety Pivot Pin

9. Insert the safety pivot pin through the holes in the bolt stop release, trigger housing and safety and push it until the shoulder contacts the left hand side plate of the trigger housing as shown in Figure 9. The bolt stop release pin will be pushed out of the trigger housing.



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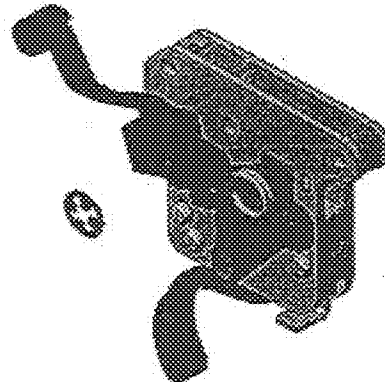
Figure 9



Add Safety Retainer

10. Install the **safety retainer** on the safety pivot pin. Orient the safety retainer so that the legs stick up away from the safety assembly as shown in Figure 10.
Use hand assembly tool C-56220 to seat safety retainer.
Make sure the all of retainer's legs are snapped into the groove in the safety pivot pin or the retainer can come off
NEVER reuse the retainers after removing them

Figure 10



Insert the Trigger Engagement Screw

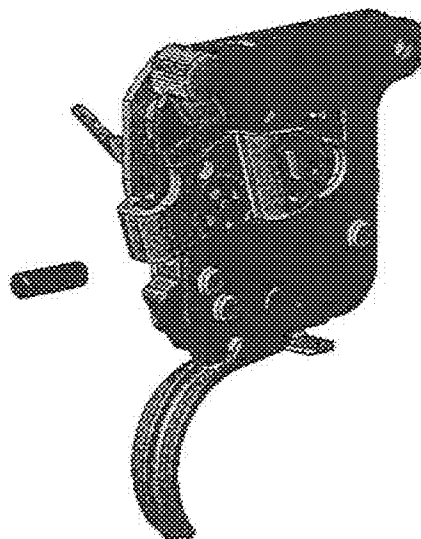
11. Insert the engagement screw into the rear hole of the trigger housing as



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shown in Figure 11. Use permanent Loctite (660) to secure the screw(DUCO cement after Final set)
NOTE: ROLL ENTIRE LENGTH OF THREAD IN LOCTITE 660 TO INSURE FULL APPLICATION.

Figure 11



Loctite Blocker Screw

12. Thread the blocker screw into the blocker as shown in Figure 12.

Use permanent Loctite (660) to secure the screw, the screw must be clean as noted in Operation 10.

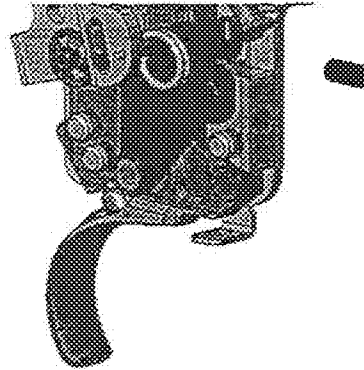
NOTE: ROLL ENTIRE LENGTH OF THREAD IN LOCTITE 660 TO INSURE FULL APPLICATION.

WIPE LOCTITE FROM SCREW END PRIOR TO INSERTION. REMOVE EXCESS LOCTITE FROM CONTACT SURFACE OF TRIGGER.



MCNETH 0996

Figure 12



MCNEIL 0997

30 Adjust Trigger Assembly on Comparator 100%

Tool Number	Tooling Description
E-55423	Comparator fixture RH SPL
E-55466	Comparator fixture LH SPL
D-700-CL-252, Rev 3	Comparator Screen, RH
D-700-CL-254	Comparator Screen, LH

DO NOT USE LOCTITE ON ASSEMBLY #403288.

"Loctite will start to cure in 3 to 7 minutes"

"Make sure final settings are complete before loctite starts to cure"

Note: Use 50X magnification for making all adjustments using Comparator

14) Mark correctly assembled and adjusted trigger assembly with adjuster's identification

Locate trigger assembly on stamping fixture.

NOTE: MAKE SURE STAMP POSITION ON HOUSING DOES NOT DEFORM HOUSING (i.e. PLACE STAMP OVER A SPACER BLOCK)

Stamp adjusters identification on the right hand side to the right of the top rivet.

Stamp should also be as close to the rivet as possible. See op 40 for visual of location.

*Holding block for stamp B-53512

*Use 1/16" size character

*Op 30 adjuster's ID stamp to be assigned by supervisor

15) Setting Trigger / Sear Engagement - Use the Upper Zone on Comparator Screen as Marked

The Trigger and Sear engagement setting is done with the safety in the FIRE position.

When mounting the Fire Control in the comparator fixture, use thumb pressure to push the assembly firmly against the rear stops before engaging the toggle clamp.

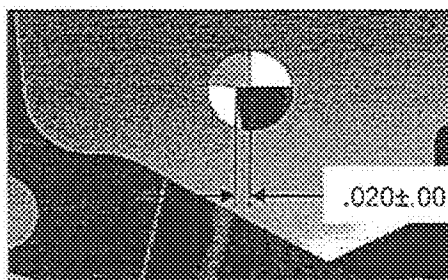
15a) With the Sear held against the trigger, focus the screen image and align the Sear edge front

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face to the set edge line on the comparator screen. Without adjusting the fixture location, re-focus the comparator for a sharp image of the trigger. Turn the engagement screw to position the trigger edge within the .021" MAX and 0.019" MIN lines on the comparator screen. See Figure 13.

Note: For all screw settings, the tools must be removed carefully to prevent unwanted adjustments.

Figure 13



.020±.001 Trigger / Sear Engagement

16) Setting Trigger Pull Force - Use the Upper Zone on Comparator Screen as Marked

Adjust the Trigger pull force with the sear held against the trigger and the safety in the FIRE position. Hang a 5.0 pound load from the trigger and adjust the Trigger Pull Screw until the Trigger rotates from underneath the Sear Safety Cam, allowing the Cam to drop. See Figure 14

Direction and location for setting trigger pull force

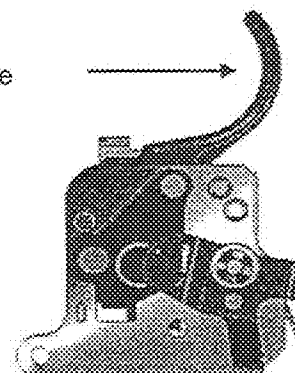


Figure 14

MCNEIL 09999

17) Cycle and Recheck

Remove the weight from the Trigger, release the toggle clamp, and allow the Sear and Trigger to re-engage. Dry cycle the fire control a minimum of 3 times. Recheck engagement and Trigger pull and adjust as necessary.

18) Setting the Blocker Screw - Use the Lower Zone on Comparator Screen as Marked

Release the toggle clamp and move the Safety to the **SAFE** position. Remount the assembly in the fixture and bring the trigger edge to a sharp focus.

Align the Trigger with the set edge for Blocker Screw Adjustment as marked on the Comparator screen. Adjust the Blocker Screw inward until there is 0.003" MIN to 0.006" MAX visible motion of the trigger when pulled with a 7 pound load. Ideally, the blocker screw setting should be made to show visible trigger motion just past the MIN position line on the comparator screen. Recheck and adjust as necessary. See Figure 15

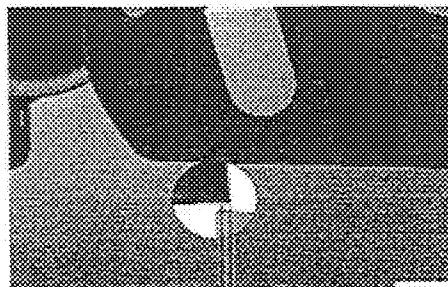


Figure 15

.006" Max Movement with 7 lb Load on Trigger

19) Inspection

Return the Safety to FIRE. Check engagement. Adjust as needed.

Recheck trigger pull at 5.0 lbs. Adjust as needed.

Move the Safety to the SAFE position. Check blocker screw setting. Adjust as needed.

NOTE: An adjustment for one setting dictates the other setting must be re-checked.

Always check the blocker screw setting last, do not adjust safe arm position again until the Loctite cure cycle is complete.

20) Loctite Cure Time

Allow LOCTITE 660 to cure for a minimum of 24 hours at room temperature or 2 hours at 120 Deg before performing function checks. Note: mark cure cycle information on all loads.

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40 Function Check Complete Trigger Assembly 100%

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

	Function check completed Trigger Assembly 100%
--	--

NOTE: Do All Elements 100%, but not until after completion of LOCTITE 660 cure cycle, as defined in previous operation: 24 hours at room temperature, or 2 hours at 120 Deg.

1. Apply Molycoat to top surface of trigger. With the Safety in the "FIRE" position, also apply Molycoat to side of trigger where contacted by blocker screw .
2. With Safety in "FIRE" position.

Check for:

TRIGGER RETRACTION

Pull Trigger and release:

- * Trigger must return freely to original position
WITH SPRING FORCE.

CONFIRM ABSENCE OF EXCESS LOCTITE BETWEEN TRIGGER AND BLOCKER

Using a shim or blade, swipe between the blocker and trigger.

BLOCKER SCREW MOVEMENT

Using a 1/16" allen wrench and 2 finger pressure, lightly torque the blocker screw in each direction. No screw movement is allowed.

TRIGGER ENGAGEMENT SCREW MOVEMENT

Using a 1/16" allen wrench and 2 finger pressure, lightly torque the trigger engagement screw in each direction. No screw movement is allowed.

SEAR FREEDOM

Pull Trigger and hold. Depress Sear FULLY and release:

MCNEIL 1002

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* Sear must move freely in housing without binding. The Sear must return upward under Sear Spring force.

3. Put Safety in "SAFE" position.

Apply finger pressure to trigger. No movement of trigger from under sear should be visible.

4. Operation of Safety

Move Safety from "SAFE" to "FIRE" position and back.
Do this TWICE:

5. Visual Inspection of Safety Retainer

Make sure the all of retainer's legs are snapped into the groove in the safety pivot pin

6. Visual inspection of Safety Detent Spring

Make sure each end of Spring is securely located in the holes in the Blocker and Safety

7. Visual inspection of Bolt Stop Release

The bolt stop release should be free to move the entire range of the slotted holes.

8. Visual inspection Blocker Hold Down Stud and Trigger Pivot Pin

The head of each pin should be flush against the outer surface of the Blocker

9. Apply sealing layer of DUCO cement to the head of the Trigger Engagement Screw and Blocker Screw.
DO NOT USE DUCO CEMENT ON ASSEMBLY #403288.

10. Apply 1 or 2 drops of REM OIL to the contact point of the Safety Slot and the Blocker Post.

11. Mark trigger assembly with inspector's identification stamp.

CONFIDENTIAL 1003

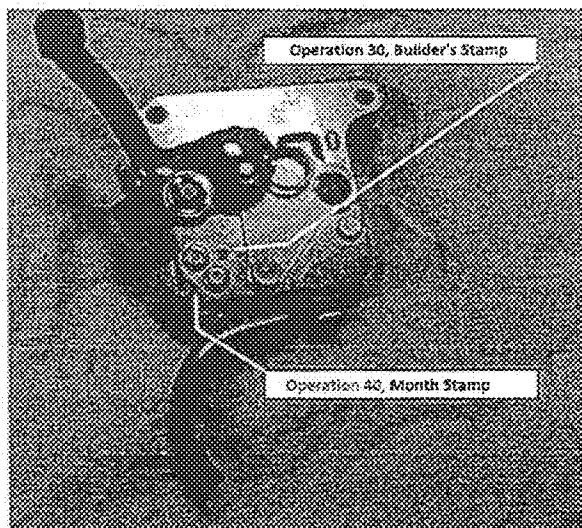
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Manufacturing Process Document

Locate trigger assembly on stamping fixture.

NOTE: MAKE SURE STAMP POSITION ON HOUSING DOES NOT DEFORM HOUSING (i.e. PLACE STAMP OVER A SPACER BLOCK)
Stamp inspector's identification on the right hand side below the top rivet and to the left of the bottom rivet. Stamp should also be as close to the rear of the assembly as reasonable.

- *Holding block for stamp B-53512
- *Use 1/16" size character
- *Op 40 Inspector's ID stamp to
be "BLACKPOWDERX" month designation

January	B
February	L
March	A
April	C
May	K
June	P
July	O
August	W
September	D
October	E
November	R
December	X



MCNEIL 1004

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Date:	Reason for Revision:	Eng:	Log #:
10-Feb-05	NEW	GLC	313771
15-Mar-05	REWROTE OPERATION DETAIL INFO FOR OP#20, 30, 40, & 50	GLC	314153
17-Mar-05	REVISE OPERATION STEPS OF OP#20 & 30	GLC	314154
18-Mar-05	REVISE OPERATION STEPS OF OP#20 & 30	GLC	314158
08-Apr-05	DEPT 8772 WAS 8579	GLC	314361
29-Aug-05	DEPT#8773 WAS 8772	GLC	315338
20-Dec-05	PT#305570 305571 305574 305575 & 305576 - TRIGGER HOUSING ASSY PT#306380 WAS 305590 PT#305572 & 305573 - TRIGGER HOUSING ASSY PT#306381 WAS 305591	GLC	316386
27-Jun-06	ADD DETAIL INFO TO OP#20	GLC	316531
16-Mar-06	Added new loctite and ultra sonic cleaner pre loctite 262 for blocker screw is now 660 242 for engagement screw is now 660 242 for trigger pull screw is now 648	JFD	311936
22-Mar-06	Added fixture press in op 20 for pressing pins	JFD	311937
27-Mar-06	Removed loctite on trigger pull screw at op 20 Added wording to duco cement engagement and trigger pull screw after final settings in op 20	JFD	
13-Apr-06	OP 20 Changed wording to move trigger pull final settings to final assembly. Moved trigger assembly settings from op 20 to proper location in op 30 Removed old fire control steps and terminology	JFD	311939
24-Apr-06	Increase blocker adjustment from .003" Max to .006" Max and .003" Min	JFD	311940
27-Apr-06	Added molykote to op 30 and increased pull settings to 4.5# Added .030" shim for blocker assembly to aid in op 20 Removed duco cement to trigger pull screw in op 30	JFD	311941
18-May-06	Clarified wording in op 30 to apply duco on trigger pull screw at final assembly	JFD	311942

MCNEIL 1005

Remington Arms Co., Inc. Manufacturing Process Document

Date:	Reason for Revision:	Eng:	Log #:
	Op 30, Slave pins removed from process Increase trigger pull weight from 4.5# to 5# to assist setting at final assembly in op30		
30-Jun-06	Op 20, Molycoat to be applied to trigger in step 4 Op 30, Trigger pull setting moved ahead of blocker adjustment, Op 40, Add note to allow for 4 hour Loctite cure before function checks.	CSB	315858
19-Jul-06	Moved all assembly content contained in Op 30 to Op 20, and added section headers for each individual step. Op 30 - Noted zones on comparator screen for each adjustment step, added section 16, cycle and re-check and section 18, inspection. Op 40 - Add visual inspection of Safety Retainer	CSB	315859
22-Aug-06	Renumbered Op 10 - Demagnetize Springs as Op 5. Revised assembly sequence per Industrial Engineering study and split content into 2 stages designated as Op 10 and 20.	CSB	315862
24-Aug-06	Updated Routing Page to Match Previous Revision	CSB	315683
29-Aug-06	Comparator Screen D-700-CL-252 now at Rev 3	CSB	317649
07-Oct-06	PT#305570 305571 305572 305573 305574 305575 & 305576: TRIGGER PIVOT PIN - GROOVED PT#301516 WAS TRIGGER PIVOT PIN - PT#300693 ADD RETAINING RING - PT#301517	GLC	318036
10-Oct-06	XMP WAS SPL (X-MARK PRO NEW NAME FOR SAFETY PIVOT LOCK)	GLC	318039
01-Nov-06	Operation 10, Remove molycoat, add staking of Trigger Pin and temporary use of bolt stop pin to secure safety. Operation 20, Reverse sequence of Blocker and Engagement Screws. Operation 30, Add adjuster's identification stamp and increase trigger pull screw weight from 5 to 7 lbs Operation 40, Add molycoat and visual inspection steps 6, 7, 8, and 9. Delete Operation 50, (ID stamp added to Operation 30)	CSB	317653
02-Nov-06	Operation 40 Add check for blocker screw movement	CSB	317654
15-Nov-06	Operation 20 - Add note on Loctite application Operation 30 - Change trigger pull weight to 5.5 lbs Operation 40 - Add check for engagement screw movement Operation 40, Step 9 Add DUCO cement to Blocker Screw	CSB	317655

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Date:	Reason for Revision:	Eng:	Log #:
06-Dec-06	Operation 10 - Add use of 0.119" pin to step 4 - Add Blocker Hold Down Stud.	CSB	317658
31-Jan-07	Added Operation # 8 Ultrasonic Clean & Rinse	RJG	318647
20-Mar-07	Operation 10 -Add installation of trigger pivot pin retaining ring and bolt stop release. Also added note about not reusing retaining ring and trigger pivot pin after removal.	CSB	317674
21-Mar-07	Added QTY 0.100 of 24484 Bolt Stop Pin to Assemblies 305570, 305571, 305572, 305573, 305574, 305575, 305576 for inventory control.	CSB	317675
26-Apr-07	Operation 10 - Add LH press fixture. Operation 30 - Add LH comparator screen. Operation 30 - Add option of 2 hour, 120 degree cure cycle for LOCTITE 660. Add requirement for marking cure cycle information on each load.	CSB	317683
15-Jun-07	Adjust QTY 0.500 of 24484 Bolt Stop Pin to Assemblies 305570, 305571, 305572, 305573, 305574, 305575, 305576 for inventory control per request of Production	CSB	319589
19-Sep-07	Add Step 10, REM OIL to Operation 40	CSB	320016
04-Oct-07	PT#305570 305571 305572 305573 305574 305575 305576 REPAIR SEAR SAFETY CAM - PT#401559 WAS SEAR SAFETY CAM PT#300685	GLC	320505
21-Jan-08	Op 30, step 20, add check of 5.5 Lb trigger pull. Op 40, Add step 11, inspector's stamp	CSB	320555
14-Mar-08	Part #s 305570 305571 305572 305573 305574 305575 305576 Sear Safety Cam - Part #401623 Was Repair Sear Safety Cam Part # 401559 in BOM	CSB	320560
10-Oct-08	Remove Insertion of Blocker and Blocker Hold Down Stud from Op 10 and re-sequence each step. Delete P/Ns 300660 RH Block, 300662 LH Blocker and 300666 Block Hold Down Step from BOM. Blocker assembly now in process for XMP THA 7 700 after Plate.	CSB	322605

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Date:	Reason for Revision:	Eng:	Log #:
20-Feb-09	Operation 30, section 16, 5.0 lbs was 5.5 lbs, Operation 30, section 19, Add note to check blocker movement last, 5.0 lbs was 5.5 lbs.	CSB	323904
03-Aug-09	Added part #403288 per ECO #09-0119.	MFS	324372
24-Sep-09	Add note to Op 20 to clean Loctite from Blocker Screw Head and side of Trigger, Add note to Op 40 to apply Molycoat to side of trigger	CSB	324897
17-Mar-11	Added part #405460 per ECO #11-0078.	MFS	329258
15-Oct-13	Add note to Op 20, section 11 to use C-56220. Created tool list for Op 20 Added Tool C-56251 to Op 10	NBK	334463
10-Dec-13	Added Loctite Application Block B-67959 to Op 10 & 20	NBK	334735
23-Jan-14	Op 8: Added step 11 to dry parts in oven. Op 10: Updated Figures 1 & 2. Removed blocker assembly step. Op 20: Updated Figures 7,8,9,11,&12 Op 40: Added step to verify excess loctite removal.	NBK	334896
18-Mar-14	Op 30: Change location of builder's stamp. WAS "Above top rivet and below safe arm, as close to rear of housing as reasonable." Op40: Change location of inspector's stamp. WAS "On left side plate above top rivet and below safe arm, as close to rear of housing as reasonable." Op40: Change significance of inspector's stamp to BLACKPOWDERK. WAS builder specific stamp. Op40: Added visual.	NBK	335085
23-May-14	*****OBSOLETE PROCESS***** *****REPLACED BY "NEW 2014 XMP TRIG ASSY 700 70"*****	NBK	335417