Remington Arms Company, Inc. Manufacturing Process Document

Document ID: Product Line: Trig Assy 700ML Centerfire Rifle Effective Date: Origination Date: 29-Nov-05 8-Aug-95

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.

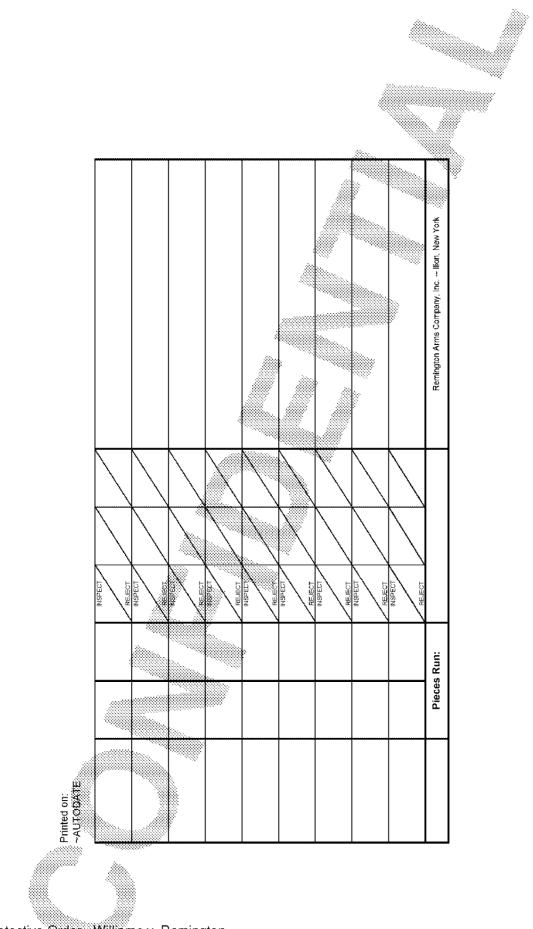
Demagnetize Springs Tap Hole in Trigger Housing Inspect Connector 100% - Inspect Trigger 100% Assemble Trigger Assembly Stage Two Adjust Trigger Assembly on Comparator 100% No bolt release to be assembled for 700ML Function Check Complete Trigger Assembly 100% Trigger Assembly with Assemblers Identification Repair Rejected Trigger Assemblies

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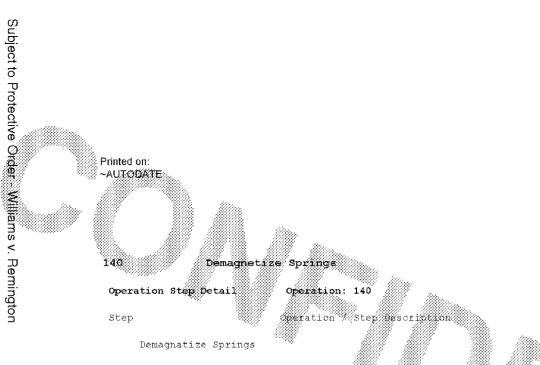


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Subject to Protective Order Williams v. Remington	Printed on: ~AUTOBATE				Revision Date:				¢essed by			
	PROCESS CO						29-Nov-05					
	Part No:	Part Name:	Trig Assy 700M	IL	Centerfire Rifle			D	ue (3/14/2006		
	Operation No: (Enter Oper a	f) Operation:	(Enter the Oper	ation Name in this	s field)			W	ork Center:			×
	Prod. Qty:	Prod. Order #:			Operator		Setup inspected by					i Militan
	Gage Description and Characteristic	Gage Number	Gage Frequency	1st Shift	2nd Shift	3rd Shift		Remarks, Ca	uses, Action Tr	aken, Etc.		
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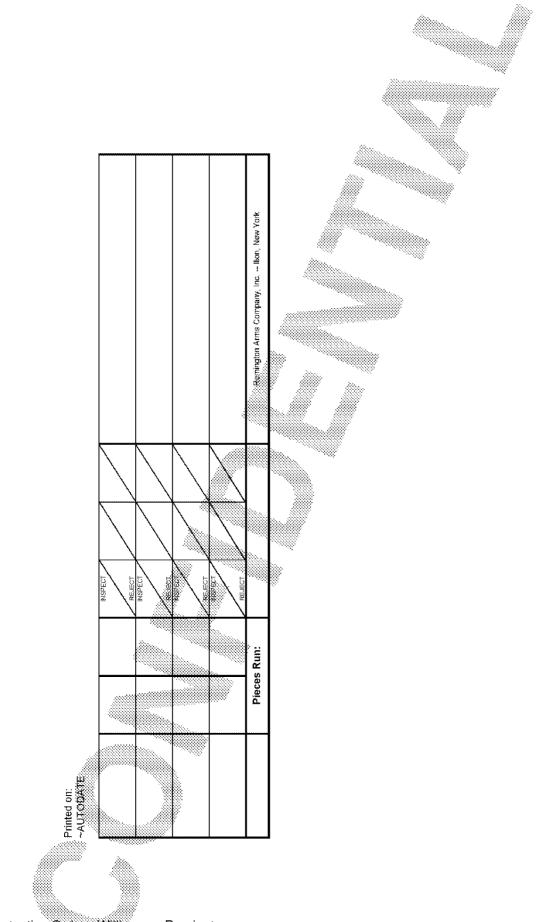
Procedure:

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

Operation Tool	Detail	Operation: 140	
Tool Number		Tooling Description	
STD.	PAN	6"X3"X2"	
Std.	Machi	ine-Electr-Matic Type Al3	

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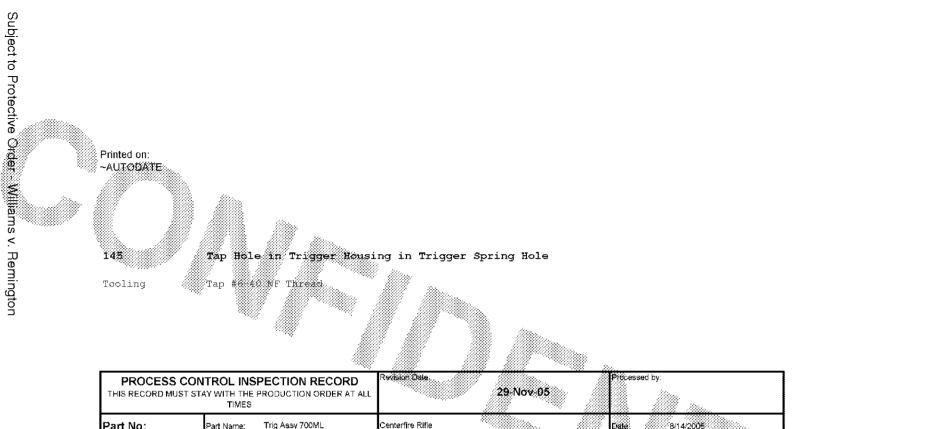
PROCESS CO THIS RECORD MUST S	TAY WITH THE F			Revision Date:		29-Nov-05	Process	ed by:			
Part No:	TIMES Part Name	Trig Assy 700M		Centerfire Rifle			Date:	8/14/20	06		
Operation No: 140	Operation	Demagnetize Sc	prings				Work C	enter:			
Prod. Qty:	Prod. Order#			Operator		Setup inspected by & Date:					
Gage Description and Characteristic	Gage Number	Gage: Frequency	1st Shift	2nd Shift	3rd Shift	Rem	arks, Causes,	Action Taken, E	tc.		
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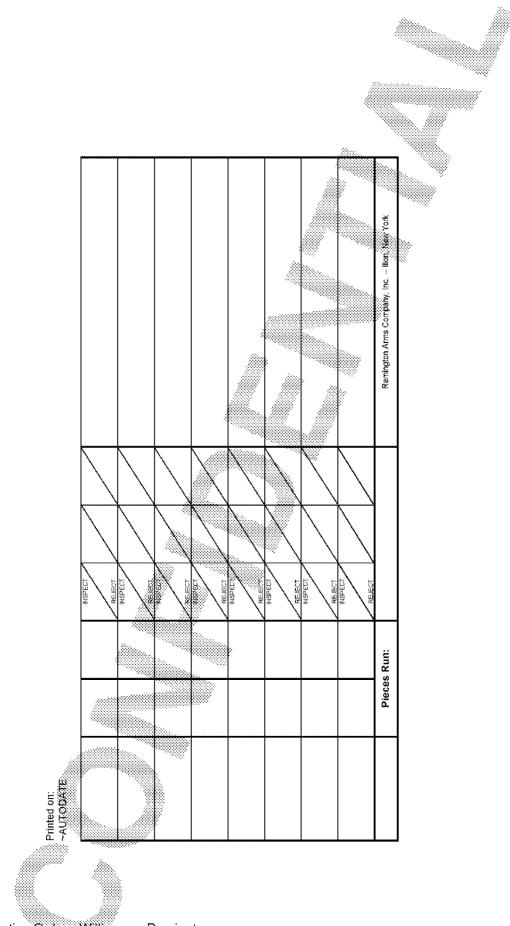
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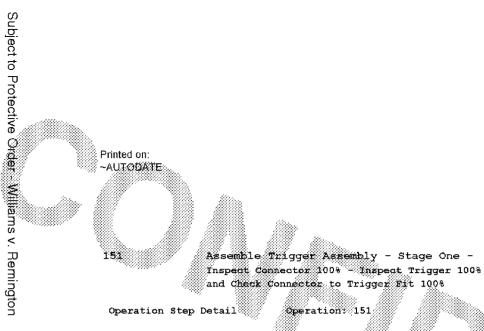


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Part No:	Part Name:	Trig Assy 700№	۱L	Centerfire Rifle	888 		Date: 8/14/2006		
Operation No: 145	Tap Hole in Trig	gger Housing in 1	Frigger Spring Ha	B					
Prod. Qty:	Prod. Order #:			Operator		Setup inspected by & Date:			
Gage Description and Characteristic	Gage Number	Gage Frequency	1st Shift	2nd Shift	3rd Shift	Remarks,	Causes, Action Taken, Eld.		
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Step

Operation / Step Description

*** See Sketch

Assemble Trigger Assembly - Stage One Inspect Connector 100%, inspect Trigger 100~ and check Connector to Trigger fit 100%.

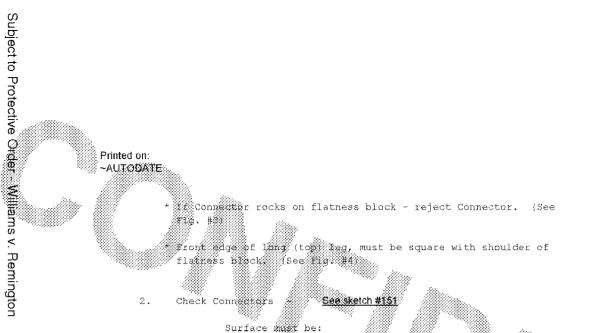
NOTE: Do all elements 100% and use white paper background

 Inspect long inside Connector surface, and inside surface of long (top) leg for flatness.

Hold Connector against flatness block with light finger pressure.

- * If no light shows between inside surfaces of back and long leg of Connector and block surface, Connector is good.
- * If light gap shows, measure gap with a .006 shim. If gap accepts shim without moving Connector - Reject Connector. (See Fig. #2)

NOTE : .006 Shim - Make new shim as required



- * Smooth
- * Smooth
- * Burr Free at top and bottom corners and boile.
- * Dead flat within 1/32" (Minimum of ends)

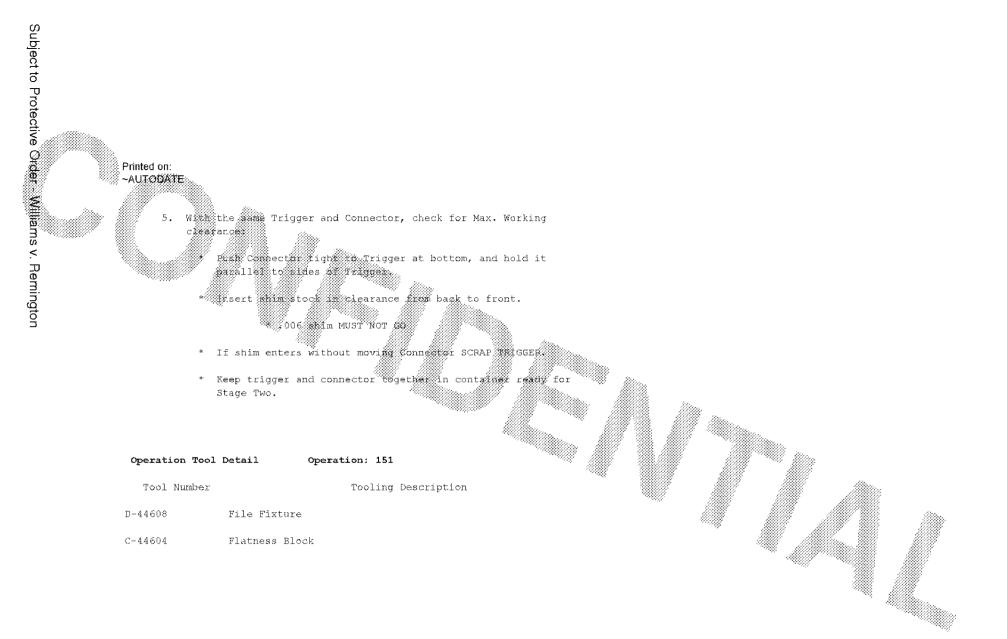
Check for burrs and smoothness with fingertip

3. INSPECT TRIGGER.

Trigger Must Have:

- * Good black color
- * No bleed out (white material on surface)
- * No burrs
- * No cracks or damage at pivot hole.
- Fit passed Connector to passed Trigger and check for MIN. WORKING CLEARANCE, (Slip Fit)
 - * Connector must rotate freely around bottom (short) leg, without binding on top of Trigger.

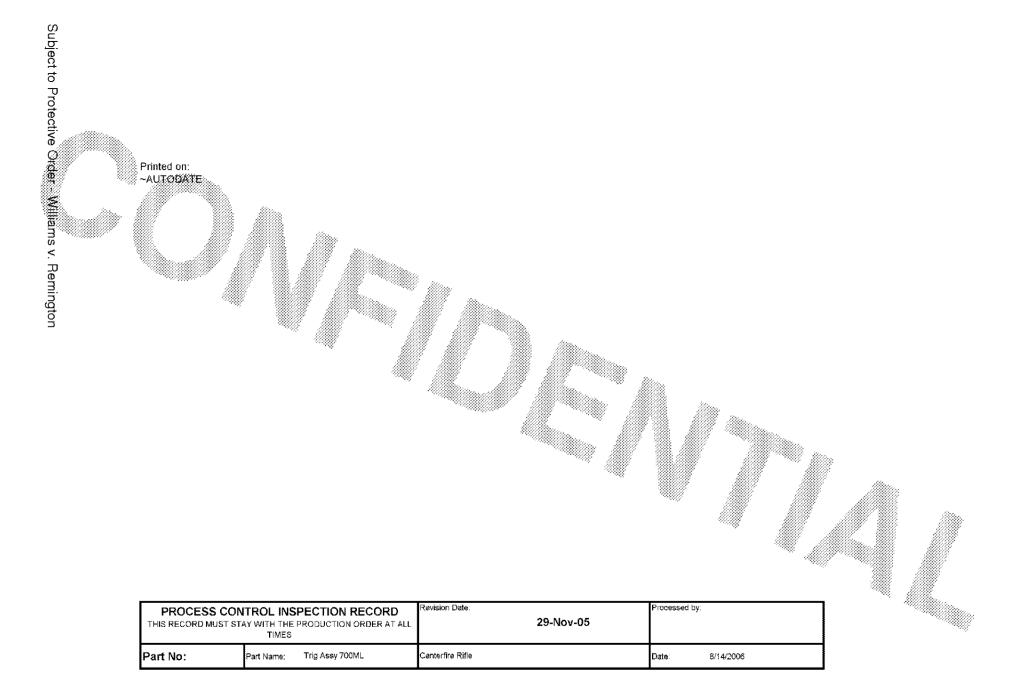
* If additional clearance is needed, file bottom notch on Trigger. Filed surface must be FLAT and SQUARE with sides of trigger. Use filing fixture only. DO NOT FILE FREE HAND.





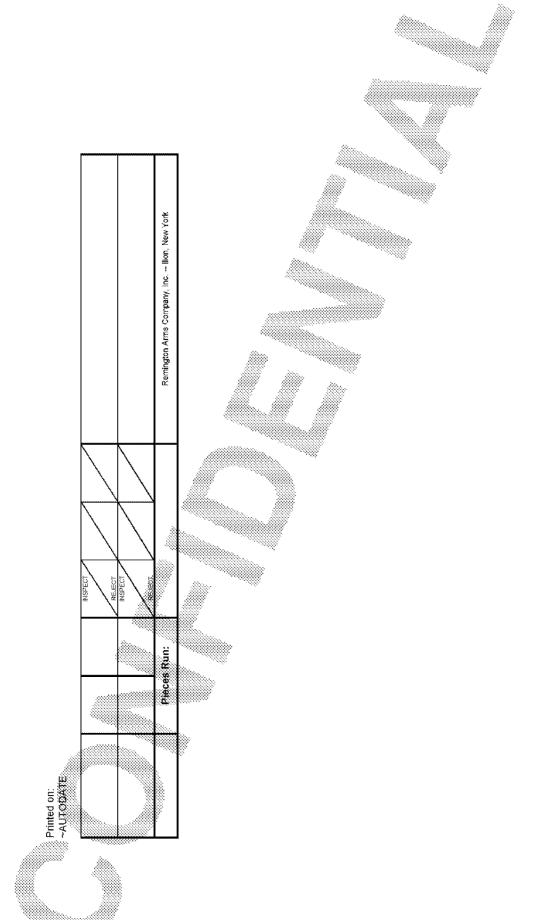


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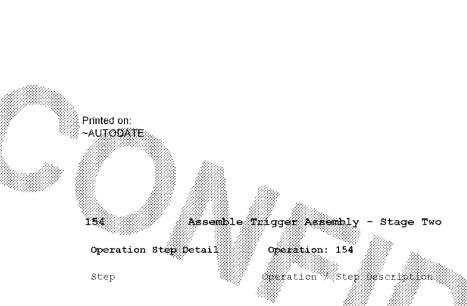
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Operation No: 151	Operation	Assemble Trigg	er Assembly - St	age One -			Work Center:		
Pröd. Qty:	Picci Order #			Operator		Setup inspected by & Date:			
Gage Description and Characteristic	Gage Number	Gage Fitsquency	1st Shift	2nd Shift	3rd Shift	Remarks.	Causes, Action Take	n, Etc.	
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Assembly Trigger Assembly - Stage Two

- 1. Inspect Trigger Housing:
 - * Black color
 - * No bleedout (White Material)
 - * Check inside Housing No burrs at holes.
 - * Clean and free of excess oil and foreign material.
 - * Parts should have a light coating of "Steelgard" and be free of foreign material.
- 2. Position Trigger in Housing and install Trigger Pin:

*** See Sketch ***

- * Use fixture B-37211 to hold Housing.
- * While holding the Connector on the Trigger in the assembled position(see sketch#151-3), dip the long leg of the Connector and top of the Trigger into Molykote powder, dry, Type "Z".

- * Use Pin holding punch A-35645 to start the Trigger Pivot Pin in the housing after locating Trigger and Connector.
- * Assemble Trigger and Connector into the Housing by driving the Pin by hammer until it is flush to the Housing on the Safety detent side.

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3.

Grip Trigger and rotate housing around Trigger Pin. Trigger must rotate freely in housing without bind.

Install: *** See Sketch ***

* Trigger Stop Screw Flush with hole.

- * Itigger Spring
- * Trigger Strew Front Flush with hole or below. (There must be epring furce on Connector while adjusting Trigger Engagement Screw.)
- Trigger Engagement Screw flush with hole.
 Screw should have been precoded with loctite sealant before assembly - see PROCESSEE.

PROCEDURE FOR COATING TRIGGER ENGAGEMENT SCREW WITH LOCTITE SEALANT:

- 1. Place approximately 1000 clean, dry screws in a plastic bag.
- Pour sufficient loctite sealant into bag to evenly coat screws with a thin film of sealant.
- 3. Agitate bag by hand to coat all screws.
- 4. Visually inspect screws to see if coating is adequate. Remove: 5 coated screws from the bag and compare to a dry uncoated screw under a 5X magnifying lamp:
 - a) All threads must be entirely coated with Loctite.
 - b) Threads should not be dripping excess Loctite.
 - c) Threads should not be filled completely from the base(root) of the thread to the top(O.D.) of the thread.
- 5. If screws are not entirely coated;
 - a) After full agitation(determined by the visual inspection), add more sealant to the bag of screws and re-agitate.
 - b) If screws have excess coating of Loctite after full agitation, add more screws to the bag and re-agitate.
 - c) Visually inspect in the same way indicated in step 4 after any re-agitation.

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Screws may be used immediately or stored if required. The Loctite scalar is agaerobic and will only dry in the absence of air.

- 4. Install Sear Spring and *Sear Safety Cam using Two Dummy Pins.
 - Dee drop gage C-44922 to inspect for straightness. Any sear safety came that do not pass through the gage are to be scrapped.
 - * Visually inspect Sear Safety Com. This must have a sharp, burr-free, square edge at the connector contact surface.(Look for a sharp ground surface on the verticle side of this edge.)
 - * Depress Sear Safety Cam nust move treely
 - * Sear must not have dimple.
 - * Sear Safety Cam Part #15666 does not have a recensed dimple.

Operation Tool Detail Opera

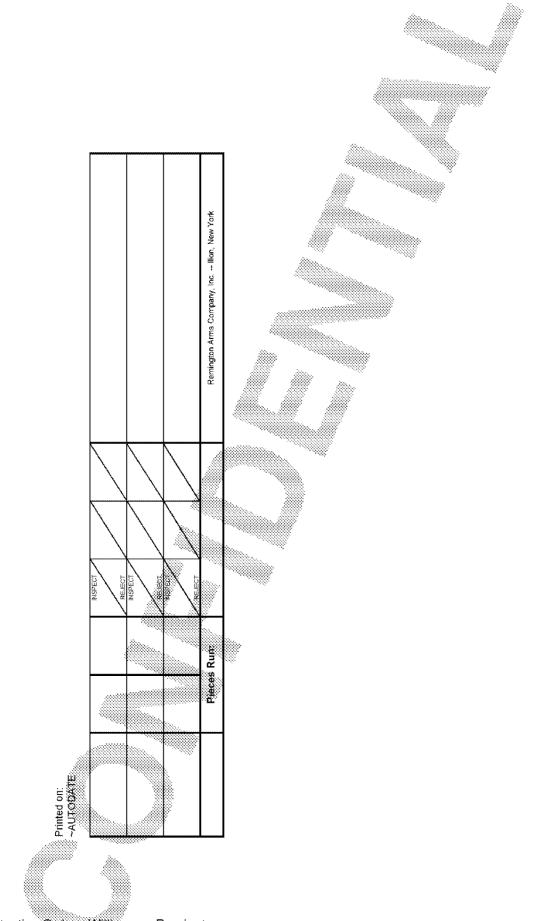
Operation: 154

Tool	Number	Tooling Description
B-37211 A-35645 A-51468 Std.		Housing Fixture Pin Holder Drive Punch Dummy Pins 5% magnifying fluorescent lamp
Std.		Hammer - Stanley Compo-Cast 8oz.

C-44522-A	Drop g	gage for	Sear	Safety	Cam	Width.
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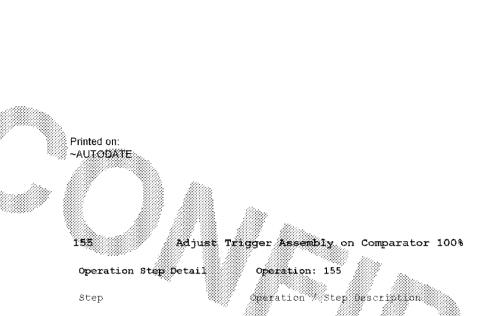
PROCESS CON THIS RECORD MUST ST	NTROL INSI TAY WOTH THE P TIMES		RECORD ORDER AT ALL	Revision Date:		29-Nov-05	Processed by	r,	
Part No:	Part Name	Trig Assy 700	ML.	Centerfire Rifle			Date:	8/14/2006	
Operation No: 154	Operation	Assemble Trig	ger Assembly . S	tage Two			Work Center:		
Prod. Qty:	Prod. Order#			Operator		Setup inspected by & Date:			
Sage Description and Characteristic	Gage Number	Gage Frequency	1st Shift	2nd Shift	3rd Shift	Rema	arks, Causes, Actio	n Taken, Etc.	
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Drop gage for Sear Safety Cam Width.	C-44522-A	100%	INSPECT REJECT					Wires.	
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* Align set edge on master (E-42271-A) to horizontal centerline on comparator screen C-700-CL-170.

Adjust Trigger Assembly on Comparator 100%

- Pick Trigger Sub-Assembly. Position in comparator fixture and clamp:
 - * Housing must properly contact all locators.
 - * Top of Housing must be flat on fixture.
 - Push with thumb on rear of Trigger (toward left)
 This seats Trigger firmly against end of Trigger Adjusting Screw.
- 2. Adjust fixture to locate Sear on "set" line of comparator screen.
- Adjust Sear/Connector engagement (.016 .020), to correct comparator screen line by turning Trigger Engagement Screw SLOWLY CLOCKWISE (to reduce engagement).
 - * Trigger must fall within min./max. trigger lines on comparator screen.

AFTER CORRECTLY ADJUSTING SEAR/CONNECTOR ENGAGEMENT

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- 4. Hang dead weight roller assembly in radius of trigger.
- Adjust trigger pull by turning Trigger Adjusting Screw slowly downter clockwise turnil Sear just disengages (fires).
 - Comparator fixture dead weight 4 lbs.
- 6. Remove dead weight assembly from Trigger.
- 7. Hold Trigger in fired position firmly with finger and:
 - * Set OVER-TRAVEL by turning Trigger stop Screw SIGWLY CLOCKWISE, until Trigger Connector touckes correct line in comparator screen.
- 8. Remove Trigger Sub-Assembly from comparator rizonre.
- 9. Seal all three screws with "Duco" Cement, including strew shots.

Operation Tool Detail Operation: 155

Tool Number

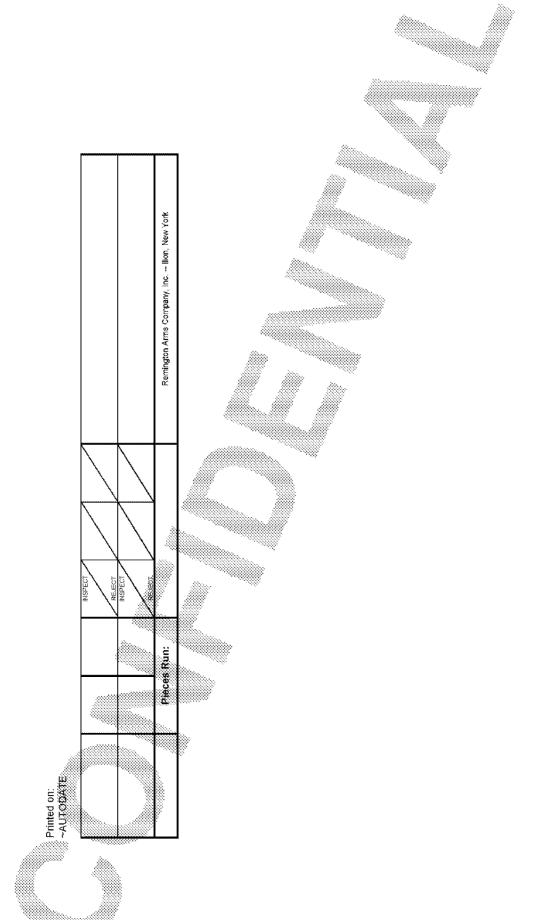
Tooling Description

Std.	DELTRONIC 14" COMPARATOR (50x)	
E-42271	Comparator Fixture	
E-42271-A	Set block	
C-700-CL-170	Comparator Screen	

PROCESS CONTROL INSPECT	ION RECORD Revision Date:		Processed by:
THIS RECORD MUST STAY WITH THE PRODU TIMES	CTION ORDER AT ALL	29-Nov-05	

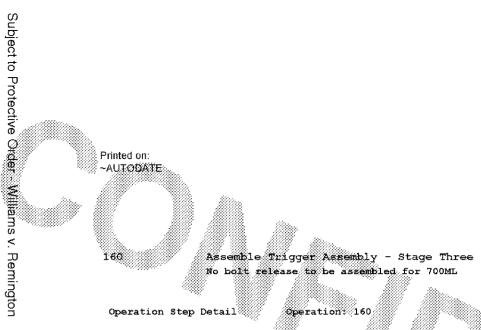
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» }	Part No:	Part:Name:	Trig Assy 700M	L	Centerfire Rifle			Date:	8/14/2006	
	Operation No: 155	Operation:	Adjust Trigger A	ssembly on Con	nparator 100%			Work Center:		
13	Prod: Qty	Phod. Order#:			Operator		Setup inspected by & Date:			
	Characteribic 20000	Gage Number	Gage Frequency	1st Shift	2nd Shift	3rd Shift	Remarks,	Causes, Action 7	Taken, Elc.	
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Step

Operation / Step Description

*** See Sketch ***

Assembly Trigger Assembly - Stage Three

1. Pick correctly adjusted Trigger Sub-Assembly.

2. Assemble:

NO Bolt Stop Release to be assembled for 700ML Trig Assy.

Safety Assembly - Check minimum width of "U" bend between safety arm and cam with .140" plug, 100%.

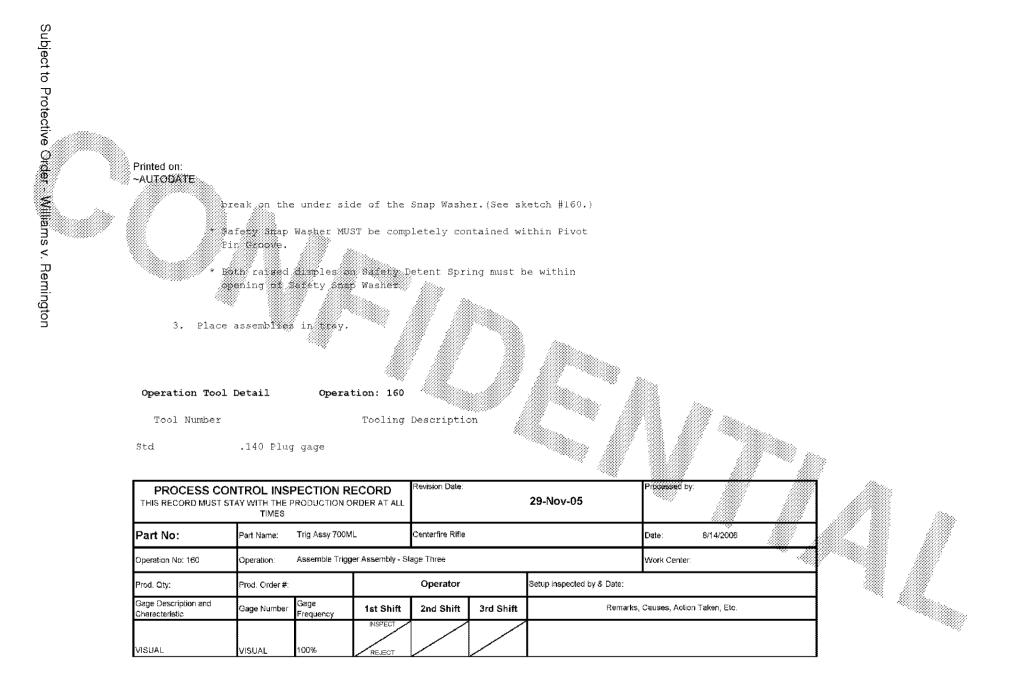
Safety Detent Ball

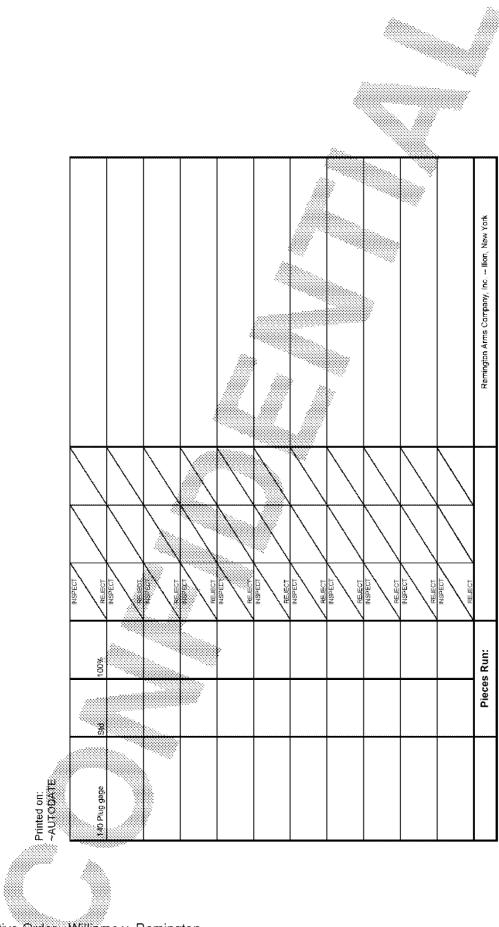
Safety Detent Spring - Visually check for the presence of 2 dimples.

Safety Pivot Pin

Safety Snap Washer

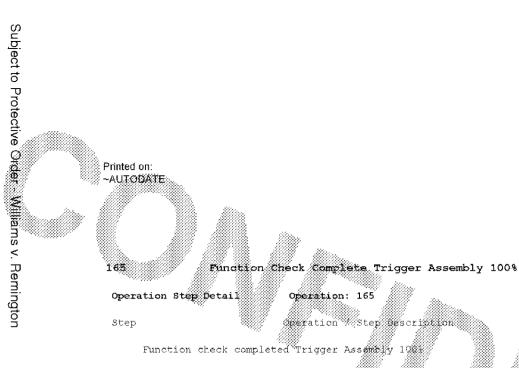
* Orient the Snap Washer such that the notched side of the Pivot Pir channel is on the left after assembly. This places the die





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NOTE: Do Steps 1&2 100%

1. Put Safety in "OFF SAFE" position.

Check for:

TRIGGER RETRACTION Pull Trigger and release:

* Trigger and Connector must return freely to original position WITE SPRING FORCE.

SEAR FREEDOM Pull Trigger and hold. Depress Sear FULLY and release:

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

2. Operation of Safe

Push Safety Thumb Piece fully forward beyond detent position:

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Safety must spring-return rearward to detent position.

Push Safety Thumb Piece fully rearward beyond detent position:

Safety must spring-return forward to detent position.

Move Safety from "ON SAFE" to "OFF SAFE" position and back. Do this TWICK:

* Safety must spring forward into "OFF SAFE" position when pushed.

* There must be no hang-up or hesitation between detent persitions.

3. Check Sear Lift

- check 10 - per tray, if any are found out of spec then check entire tray, 100%.

Sear lift must be between .008 min and .018 max.

* Place Trigger Assembly in gage, pump locating pins into position and clamm. Zero the dial and pull safety to "On" or "S" position and read dist.

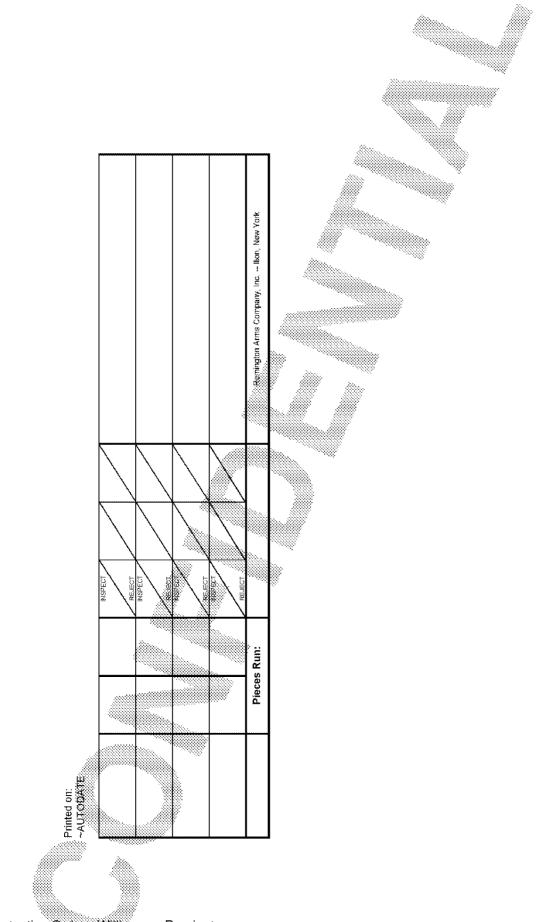
Tool Number

Tooling Description

D-42614

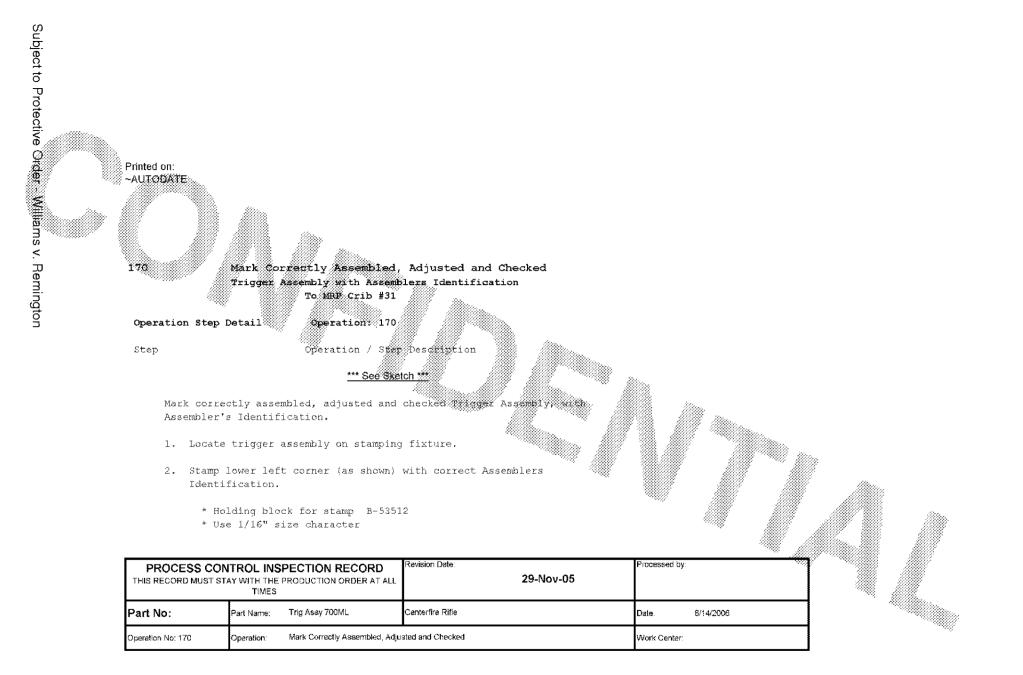
Dial Base Gage - "Sear Lift" .008 to .018

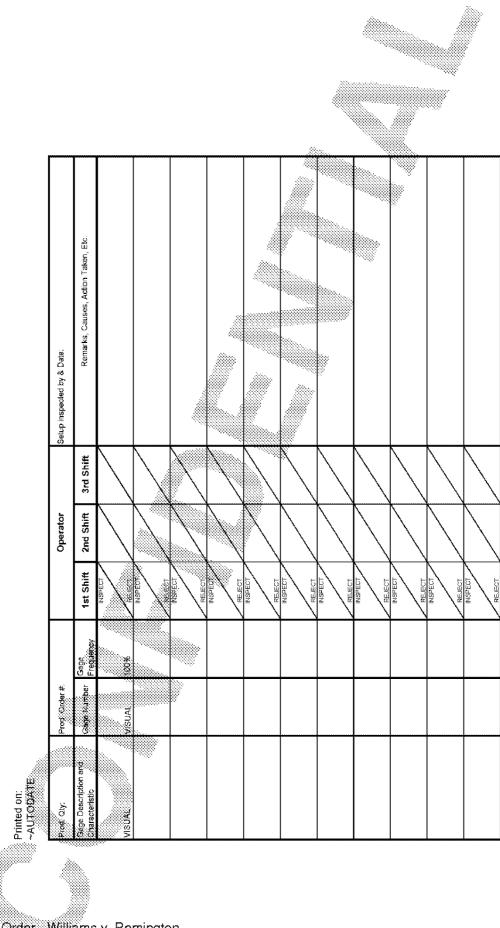
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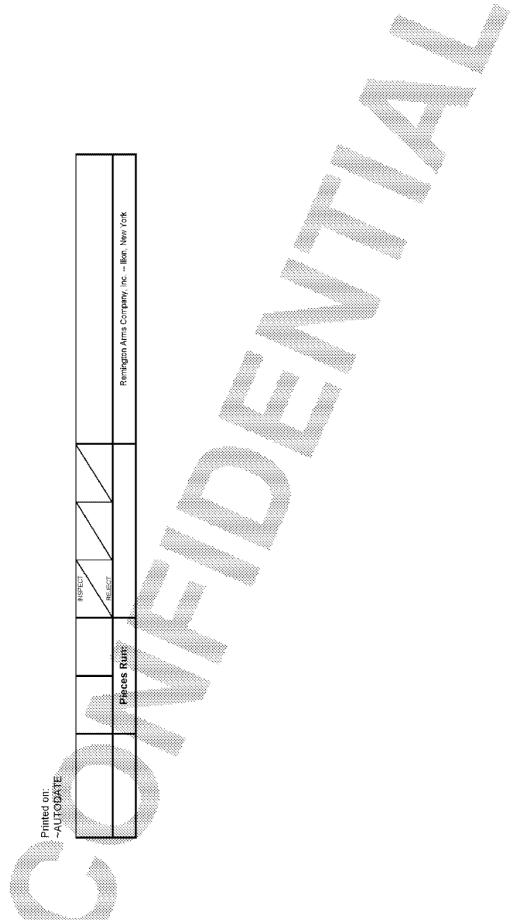
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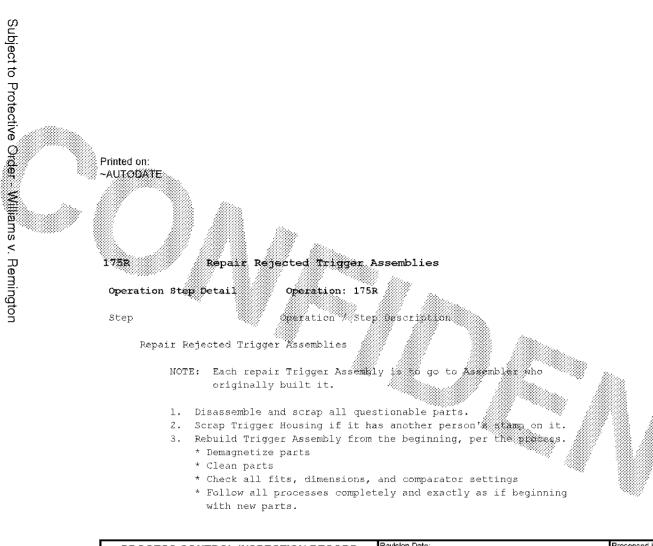


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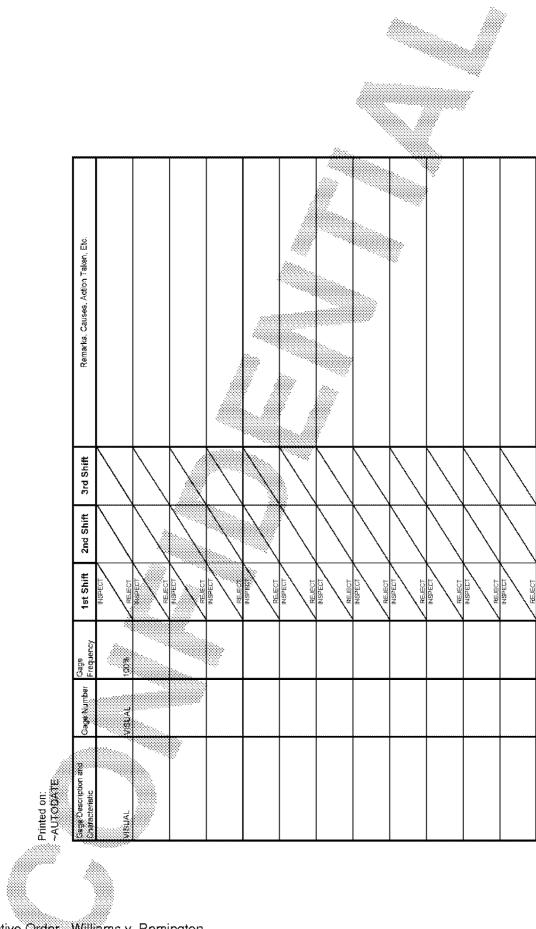


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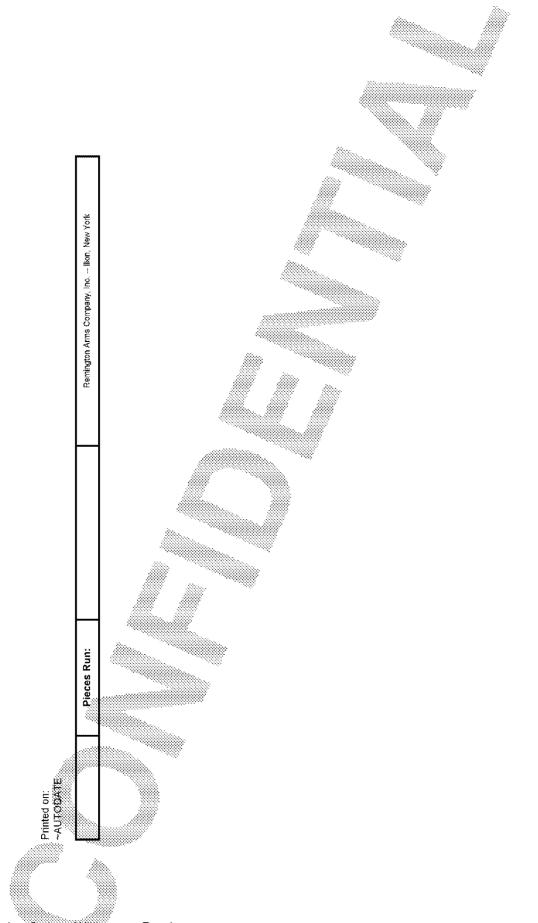




	ROCESS CONTROL INSPECTION RECORD RECORD MUST STAY WITH THE PRODUCTION ORDER AT ALL TIMES		Revision Date:	29-Nov-05	Processed by:			
Part No:	Part Name:	Trig Assy 700M	L	Centerfire Rifle		Date:	8/14/2006	
Operation No: 175R	Operation:	Operation; Repair Rejected Trigger Assemblies						
Prod. Qty:	Prod. Order #:			Operator	Setup inspected by & Date:			



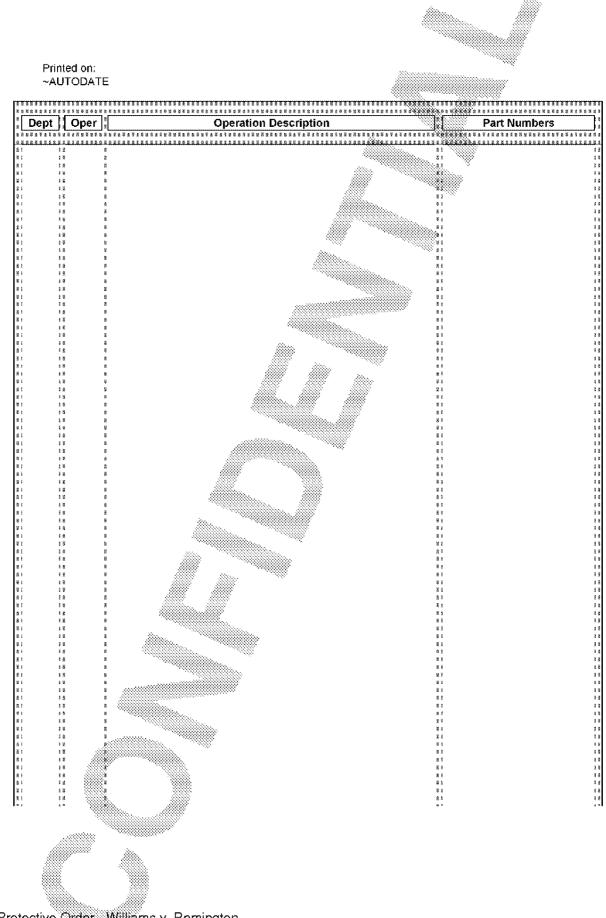
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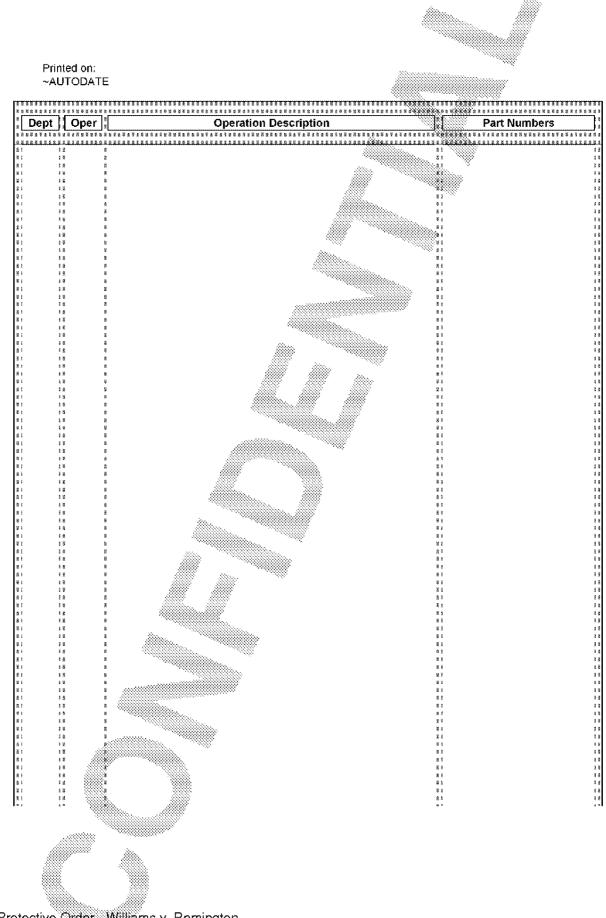


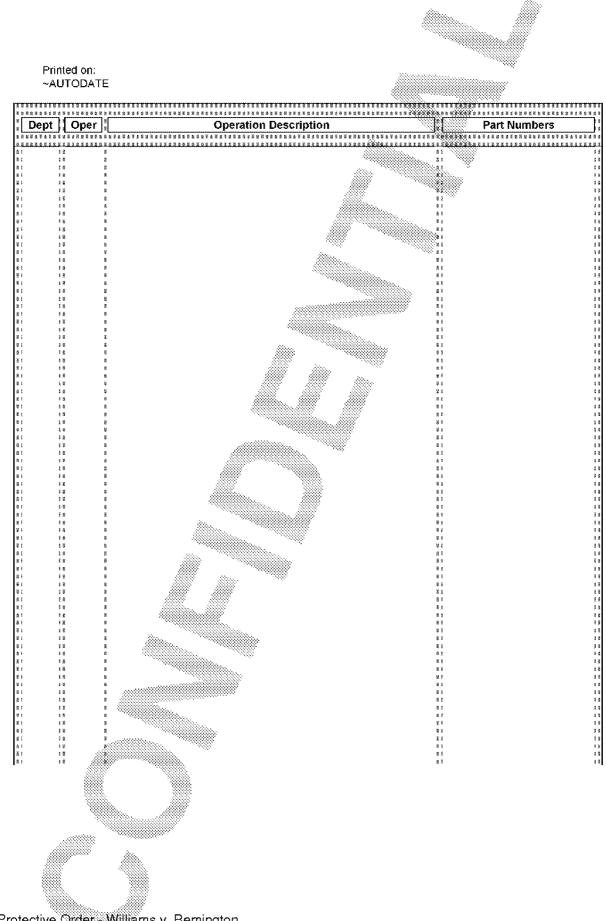
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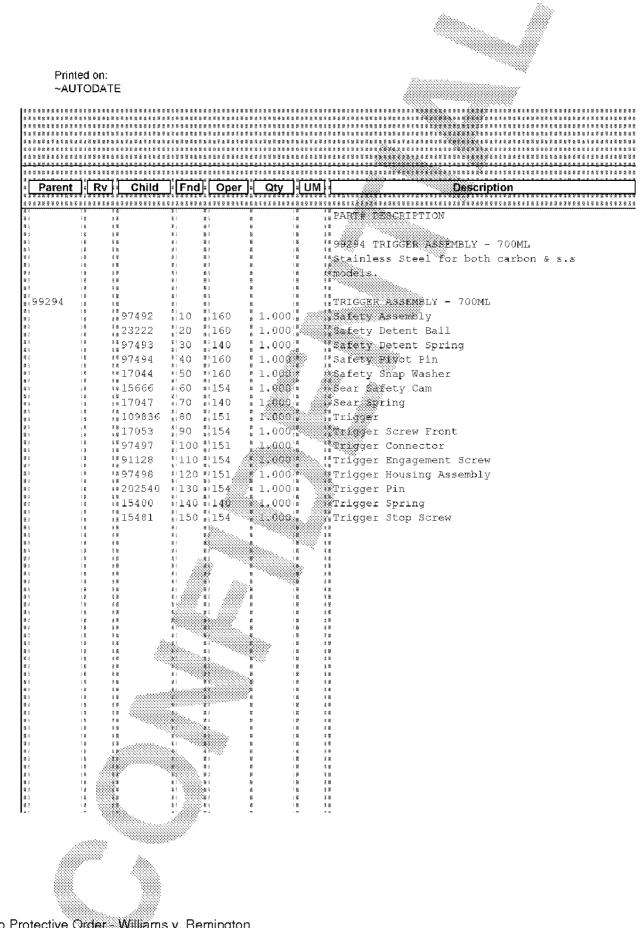


Dept	Oper	Operation Descript	ion	Part Numbers
9132	*001	TARKSTONE FOR Crib	**********	*99294
*	* /			•
8773	140	Demagnetize Springs		99294
8773	*145	Tap Hole in Trigger Housing		99294
8773	151	Assemble Trigger Assembly - Sta	ge One -	99294
1 1	10 11 11 11	Inspect Connector 100% - Inspect		
	10 11 10 11 10 12	and Check Connector to Trigger	Eit .100%	
1	154	Assemble Trigger Assembly	de Tŵô	** 99294
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8773	155	Adjust Trigger Assembly on Comp	arator 1803	99294
8773	160	Assemble Trigger Assembly Sta	TA TRAD	* * 99294
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8773	165	Function Check Complete Trigger	Assembly 100%	1 99294 1
8773	170	Mark Correctly Accepted, Adjus	ed and Checked	99294
8 3		Trigger Assembly with Assembler		1 1 1 2 2
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8773	175R	Repair Rejected Trigger Assembl	ies	₩ [99294
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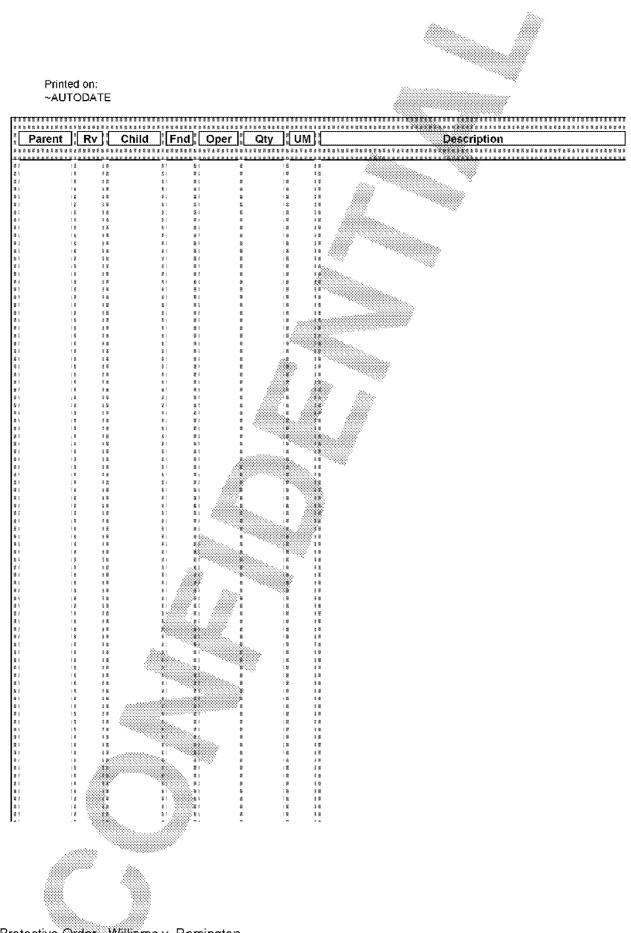


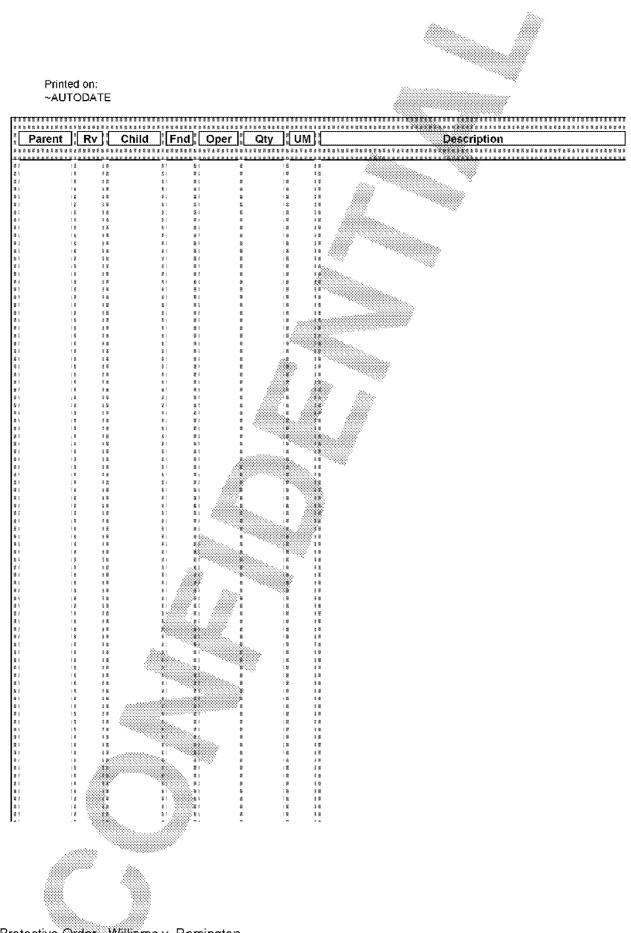


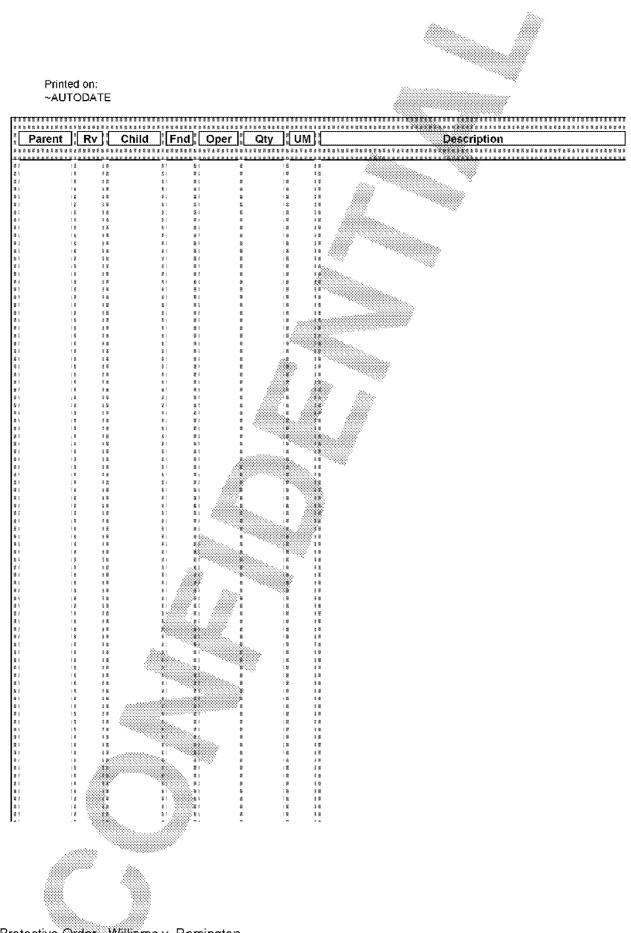


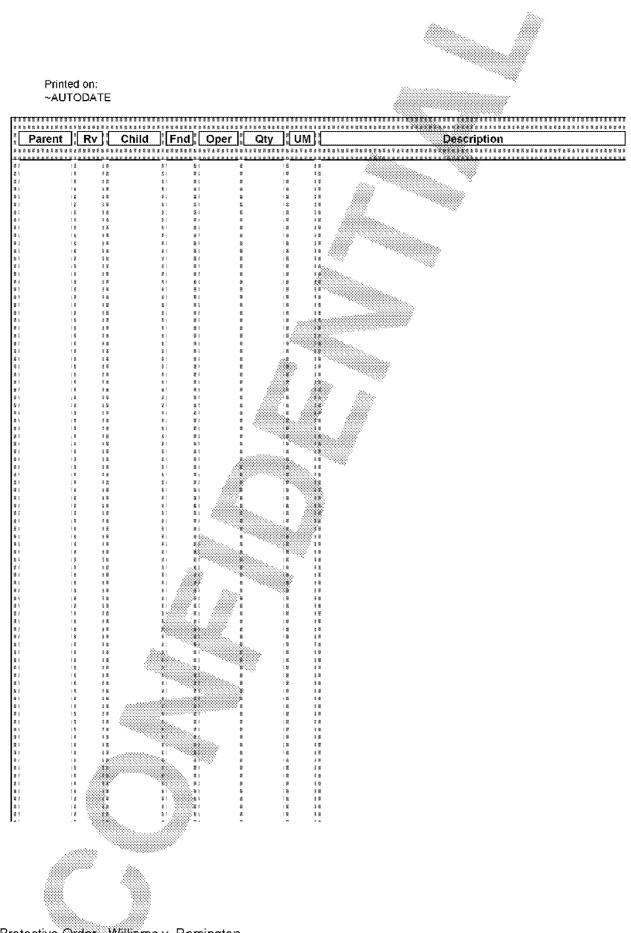


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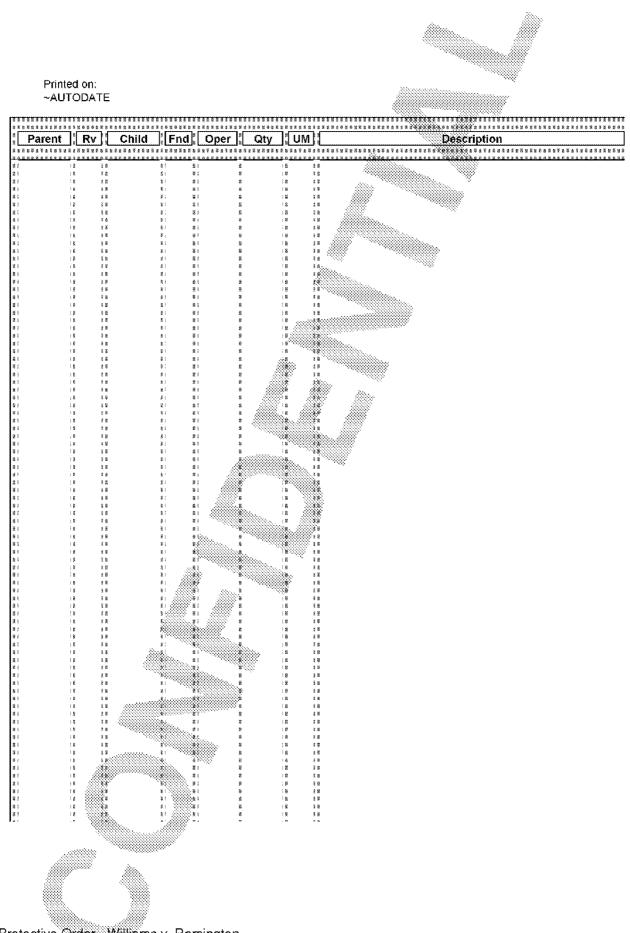


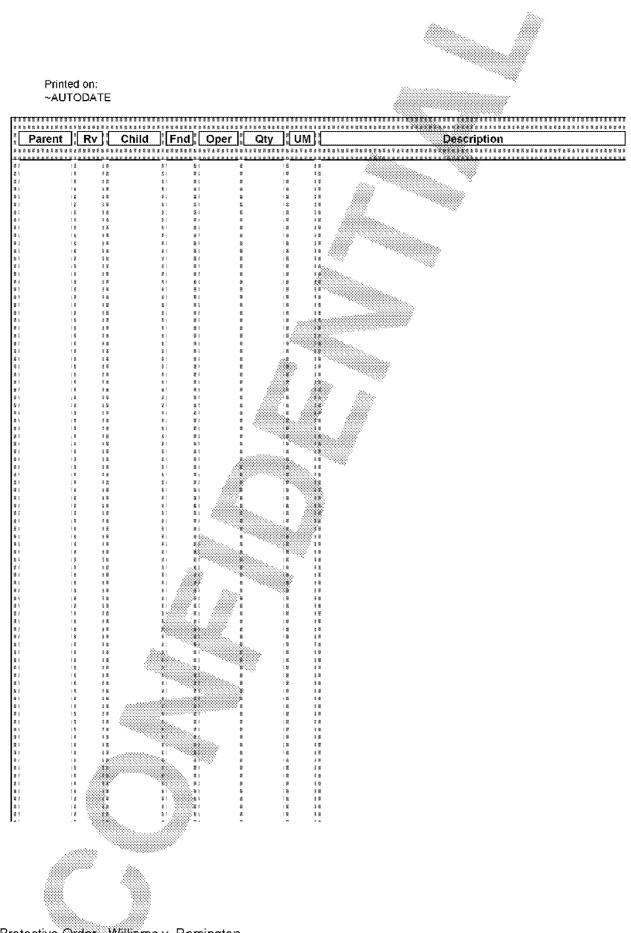


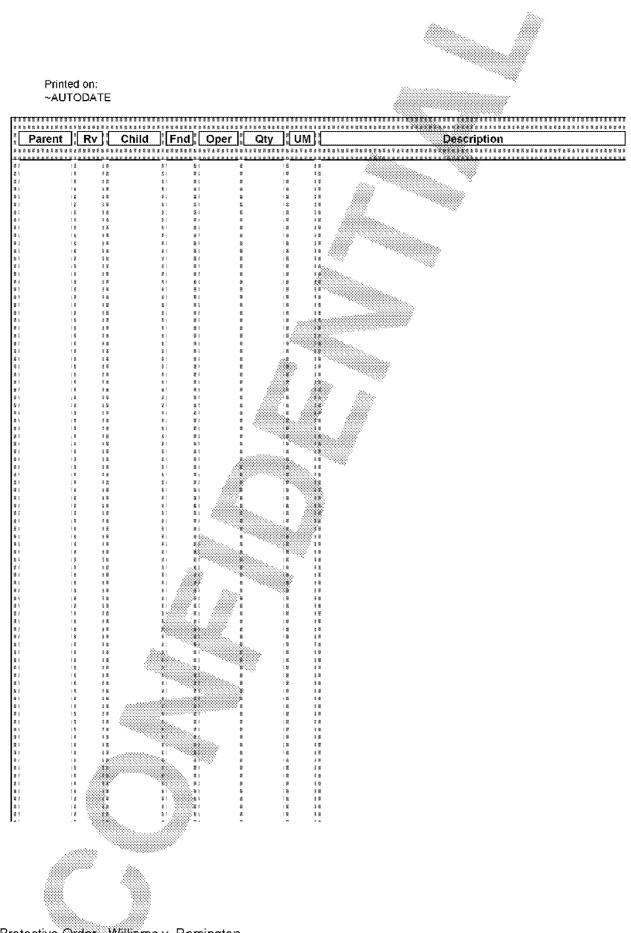


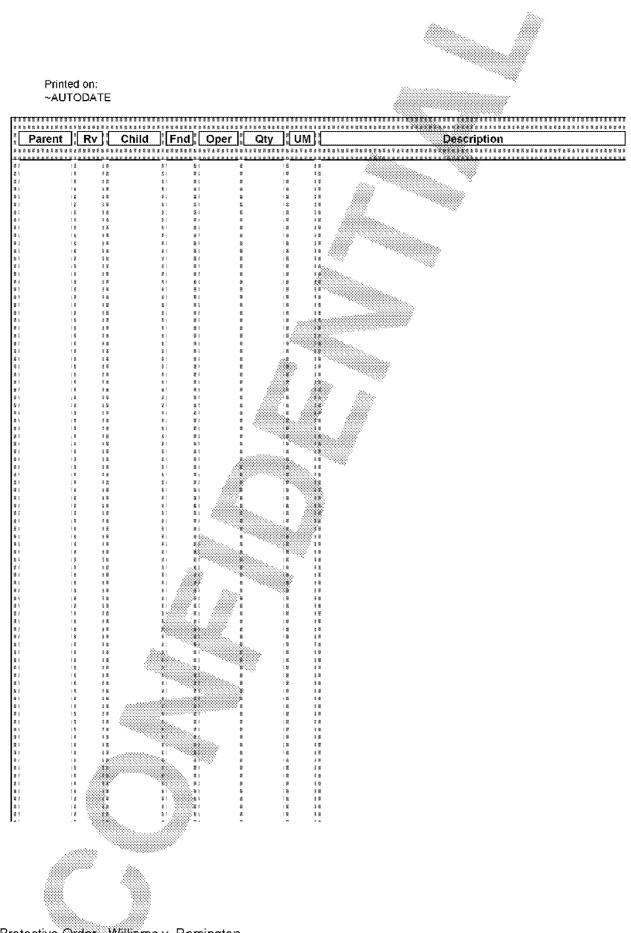


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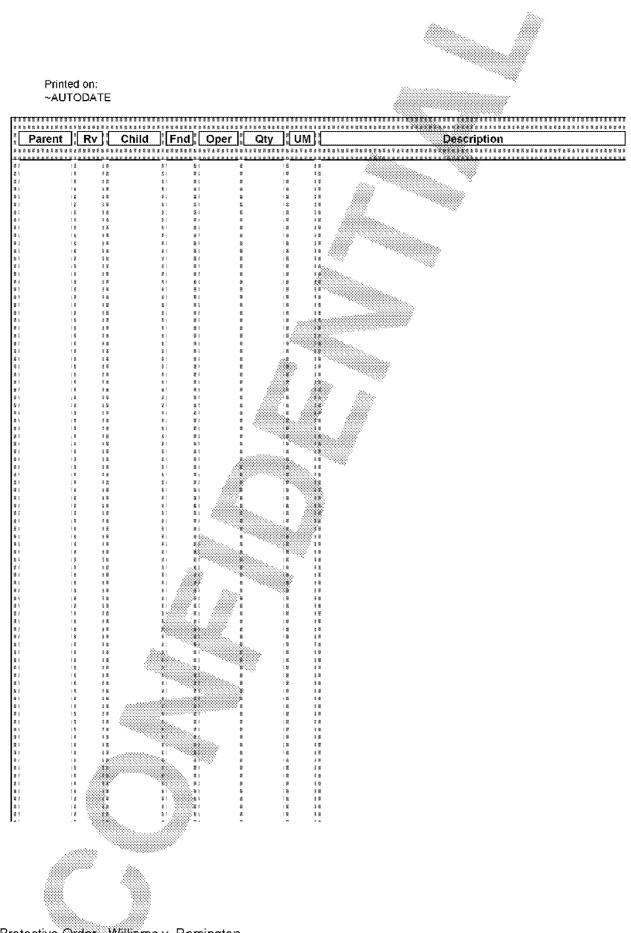


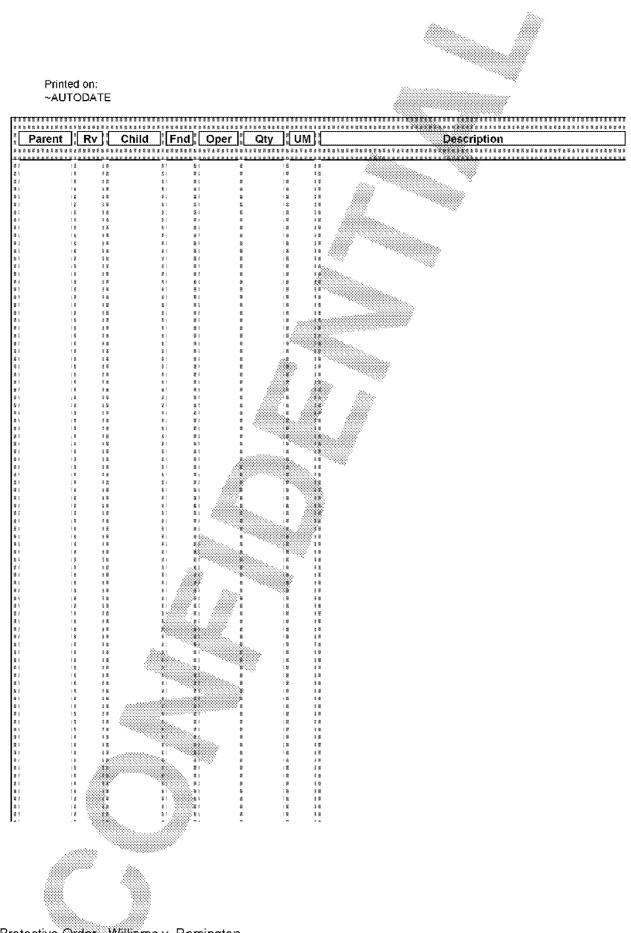


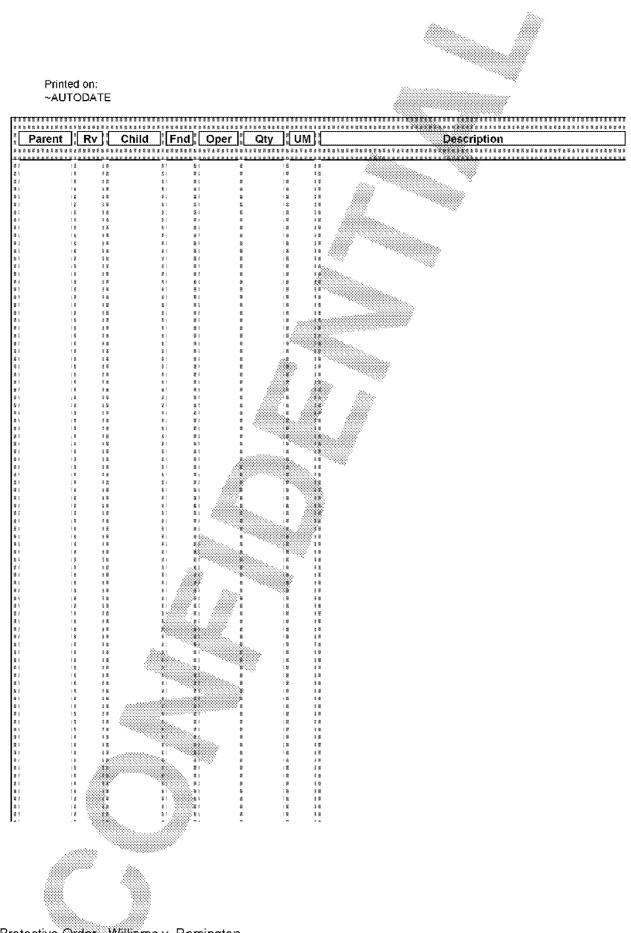


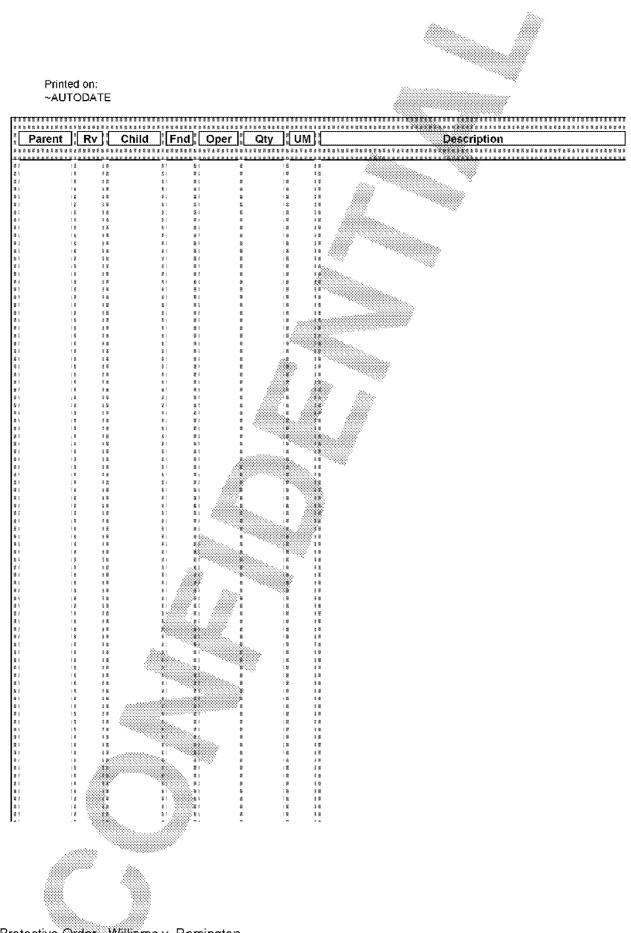


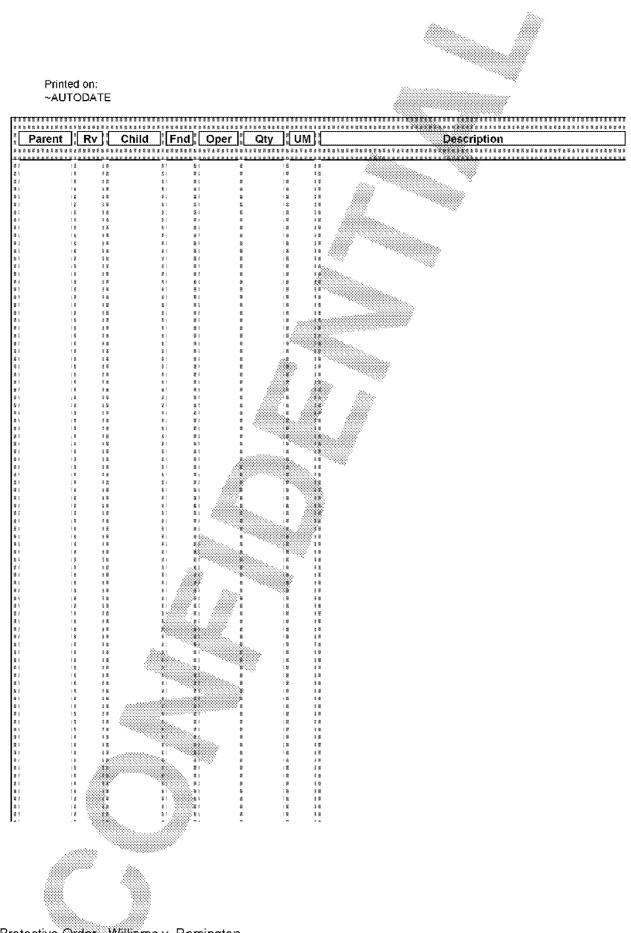
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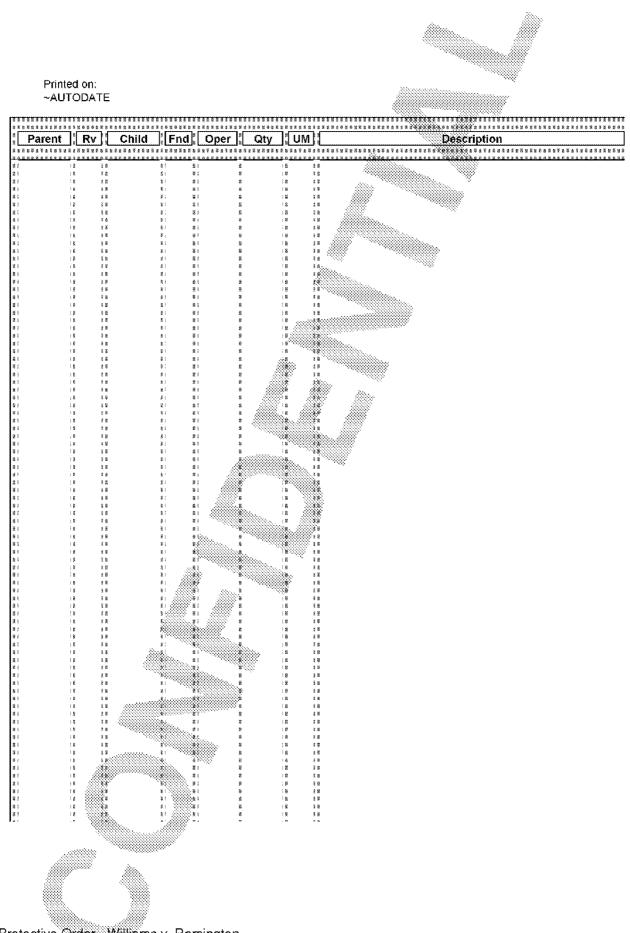


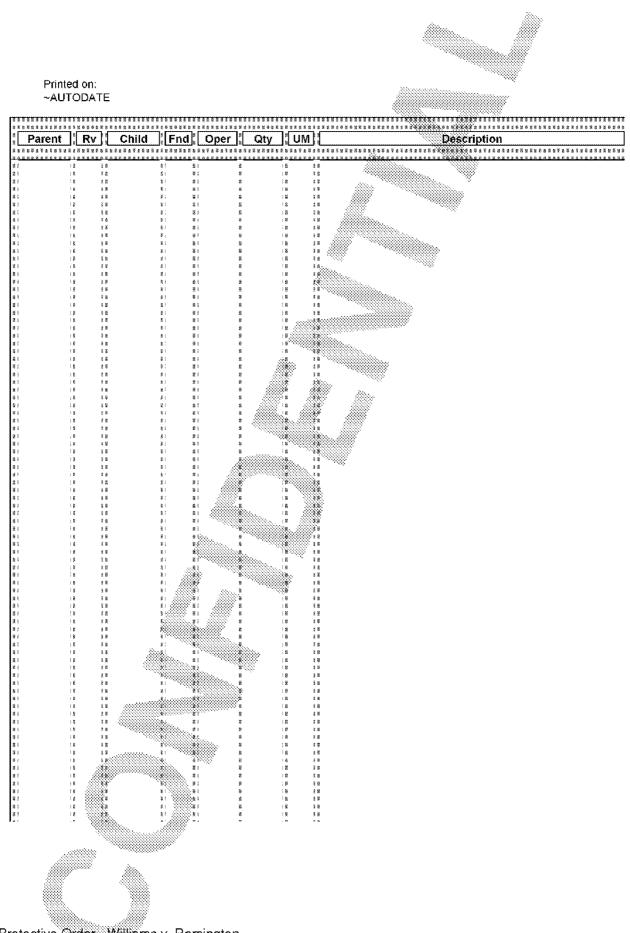


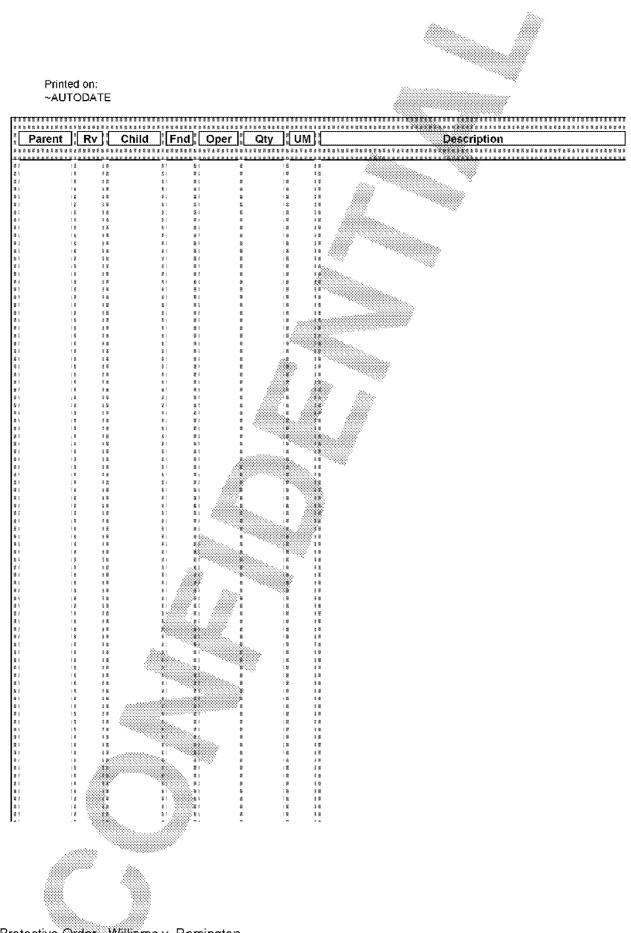


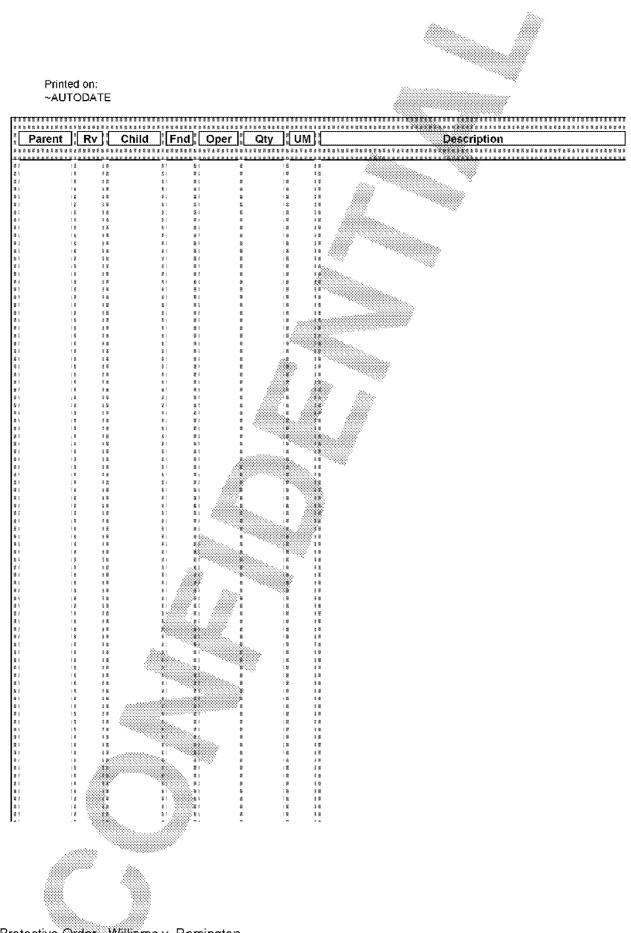




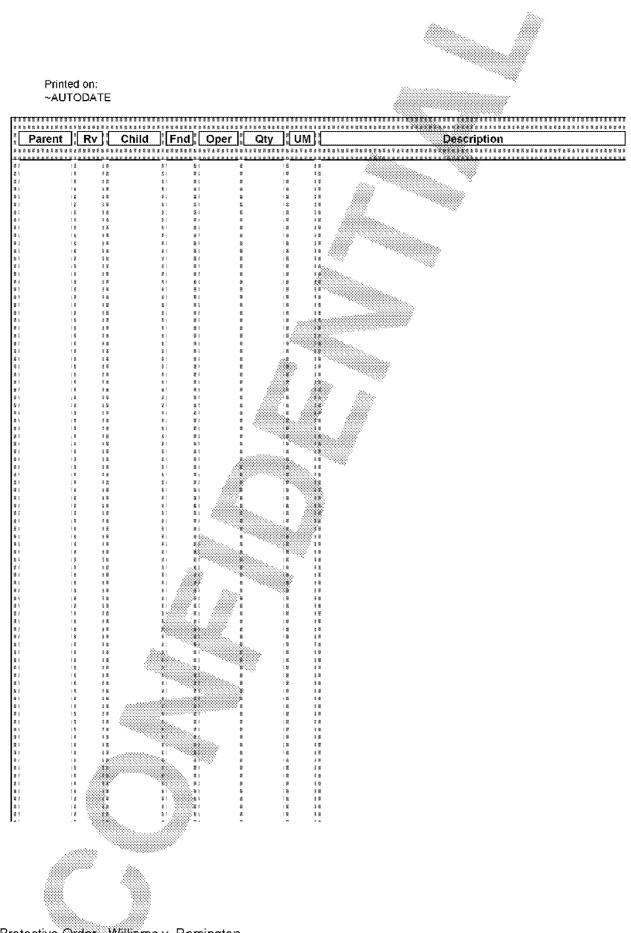




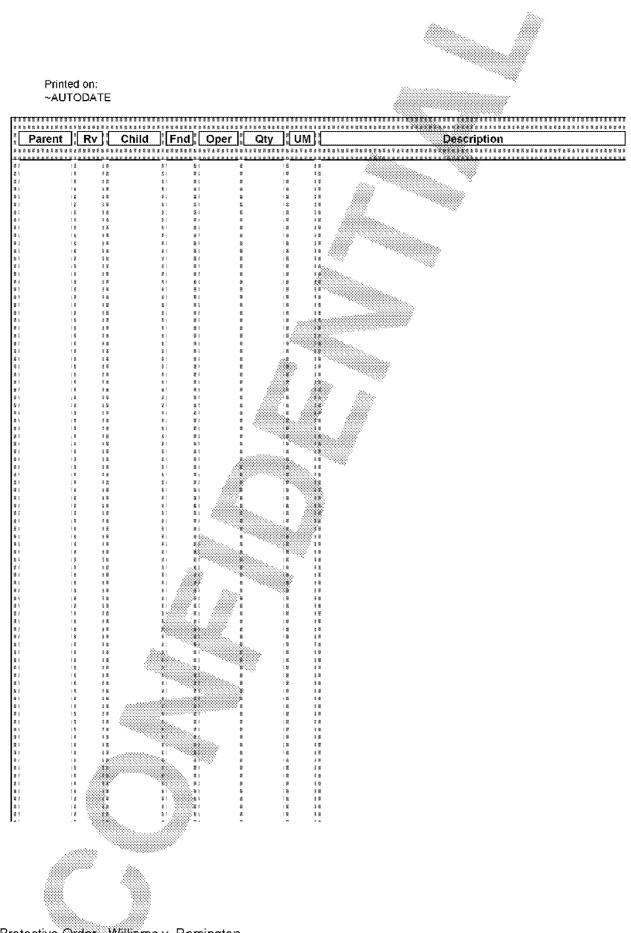


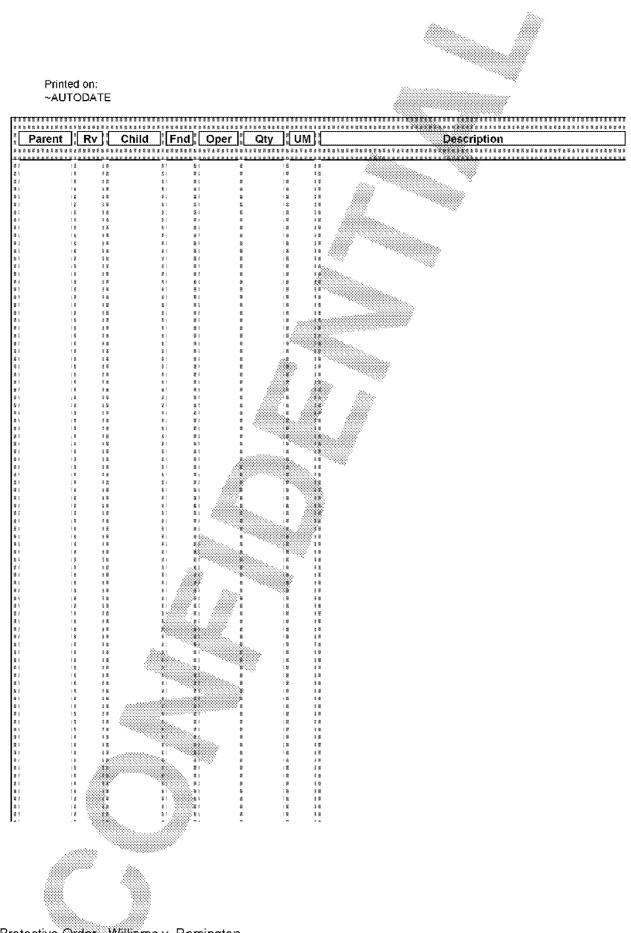


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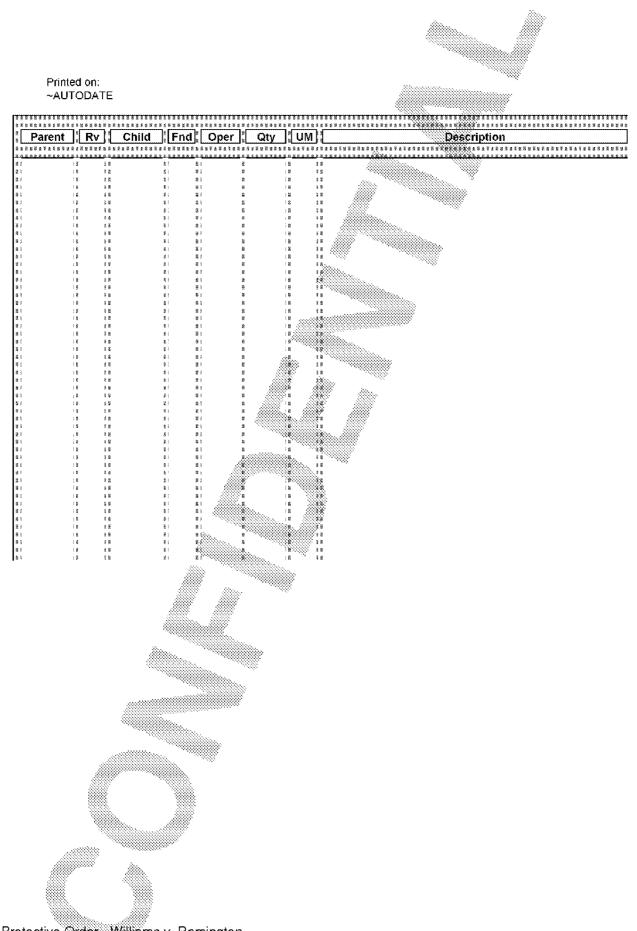


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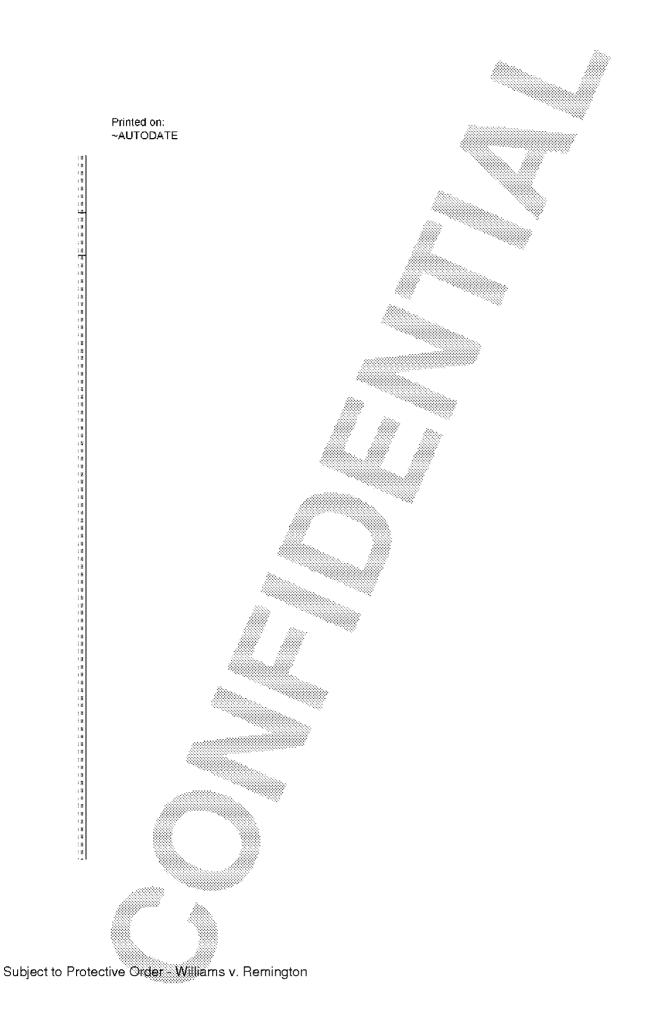


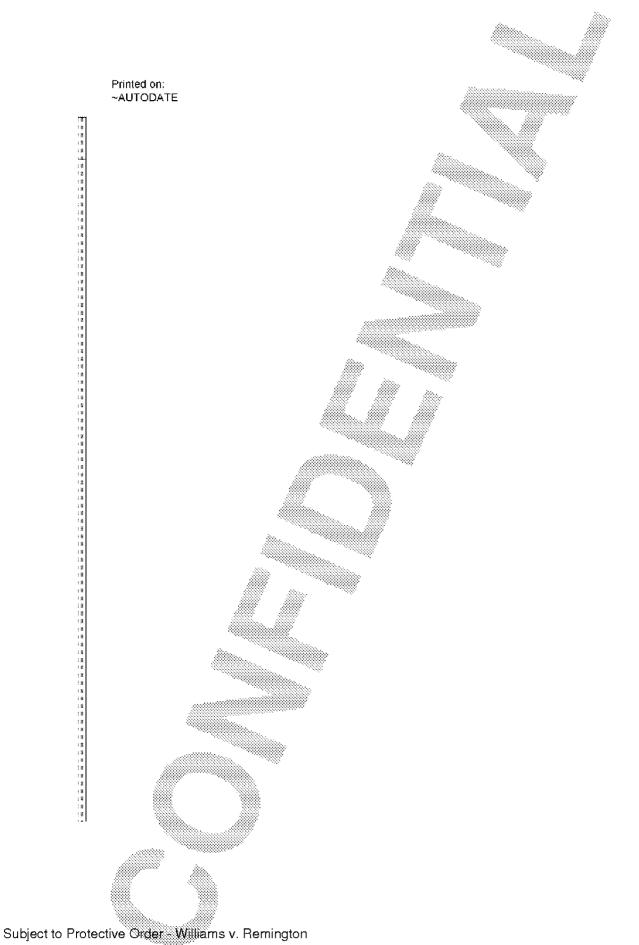


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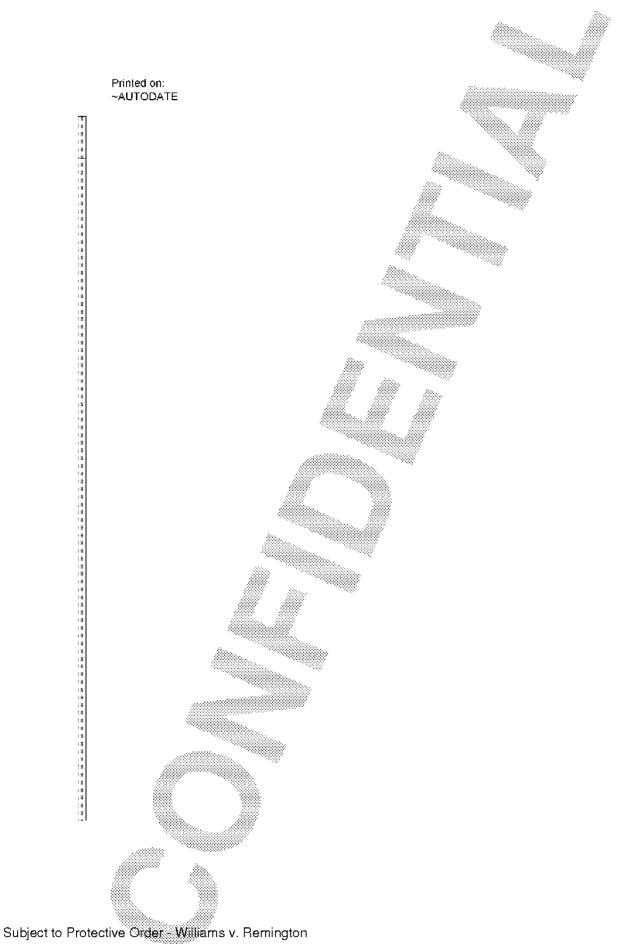
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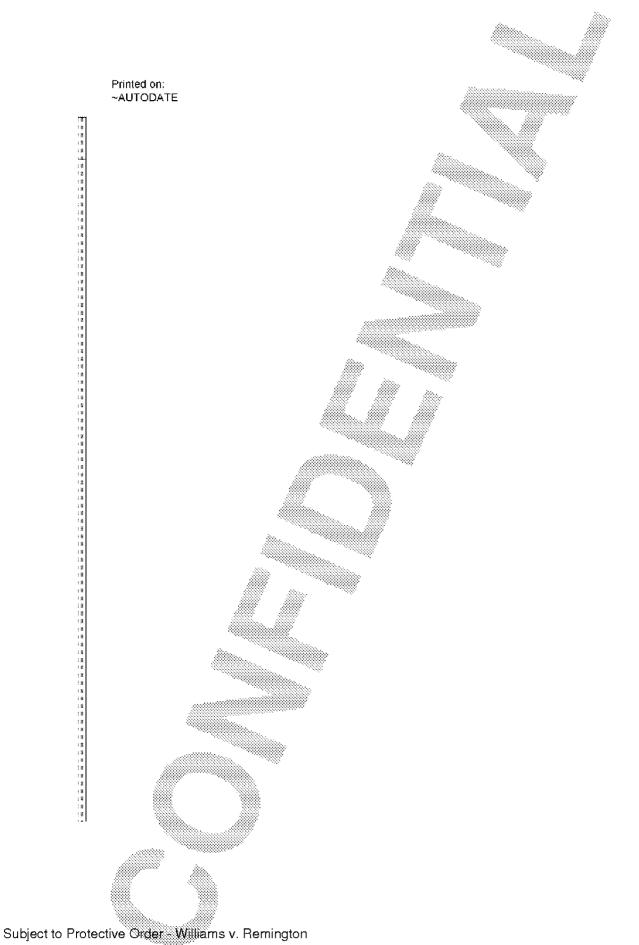


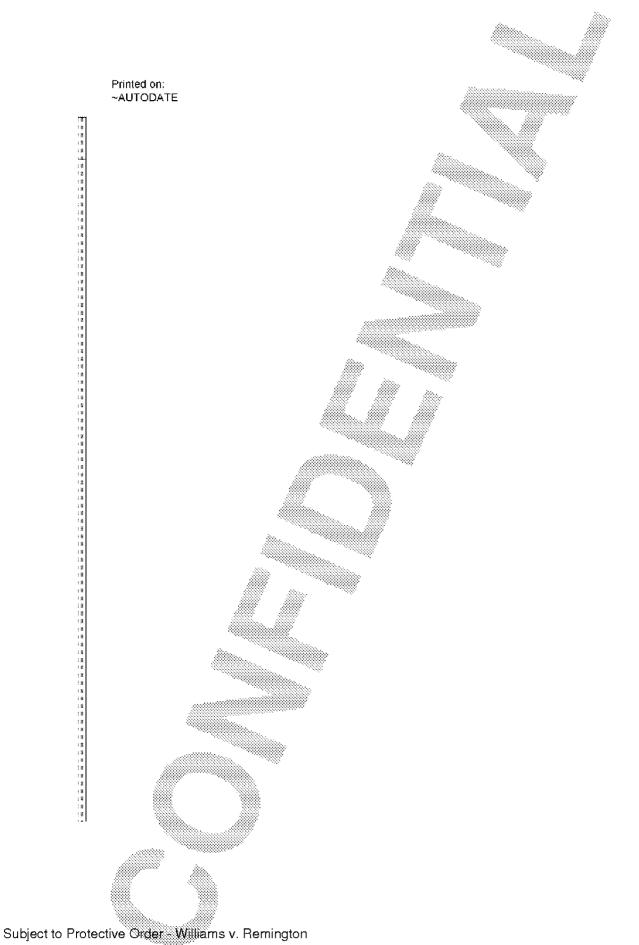


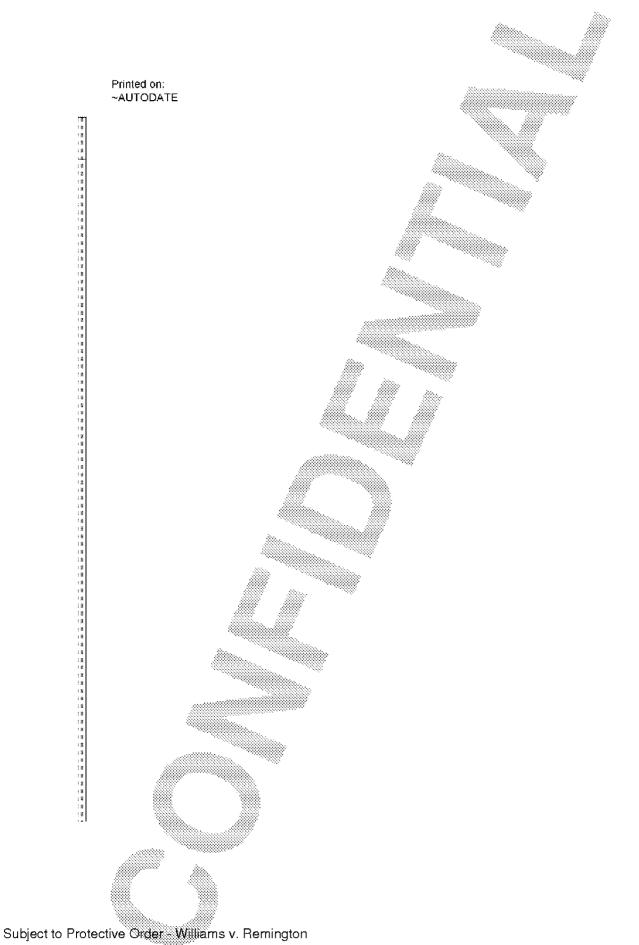














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ILE00078242



ILE00078243



ILE00078244



ILE00078245



ILE00078246



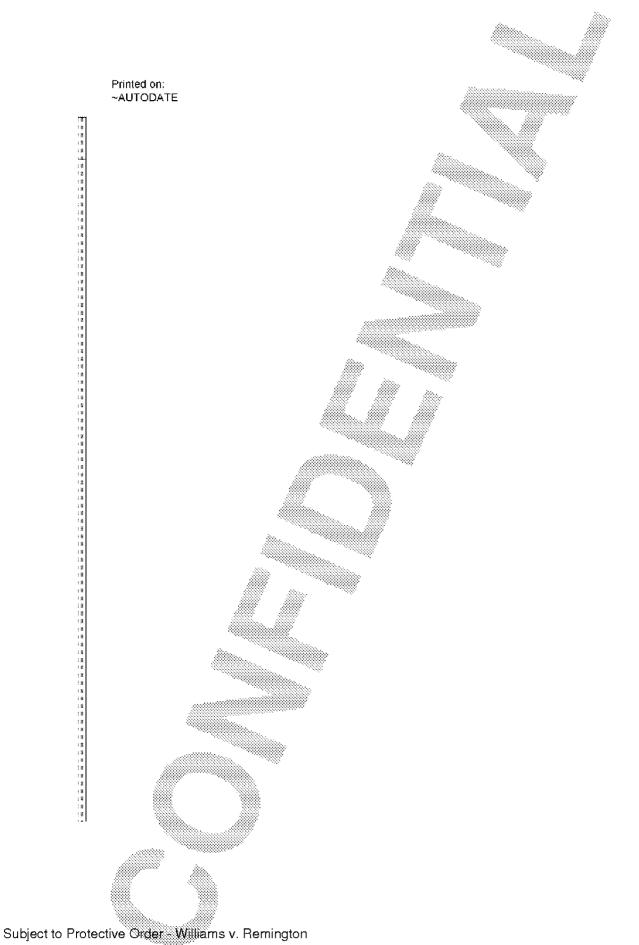


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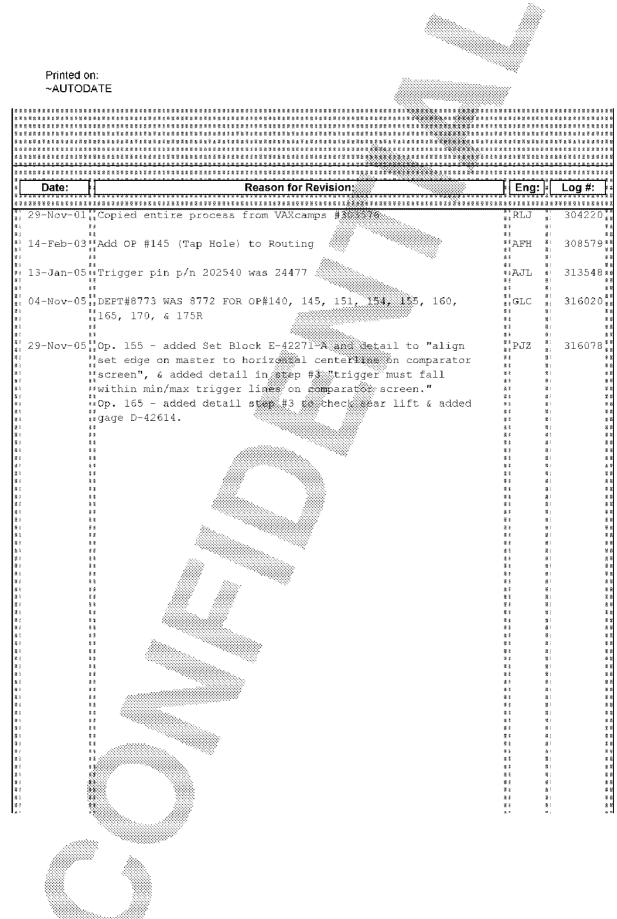


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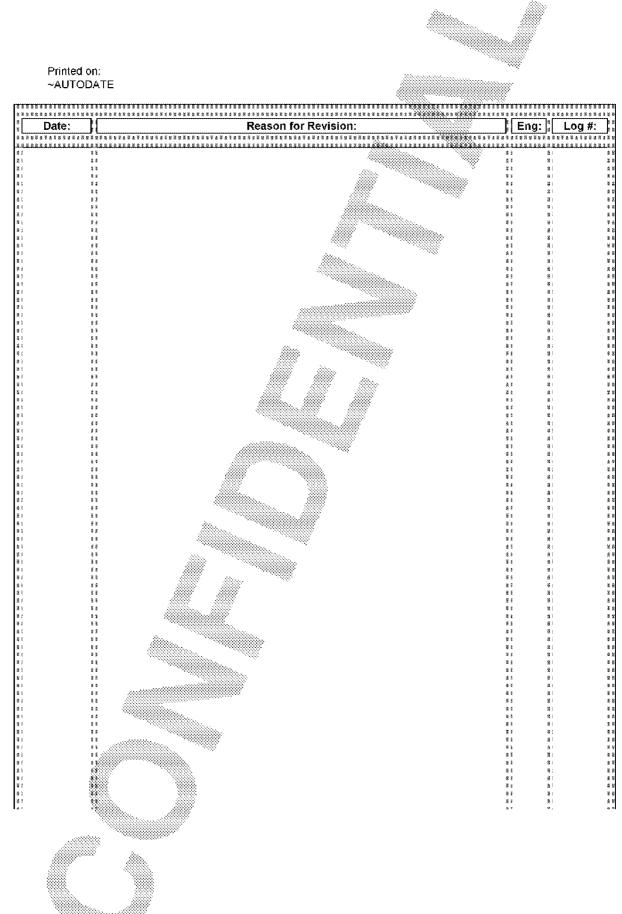




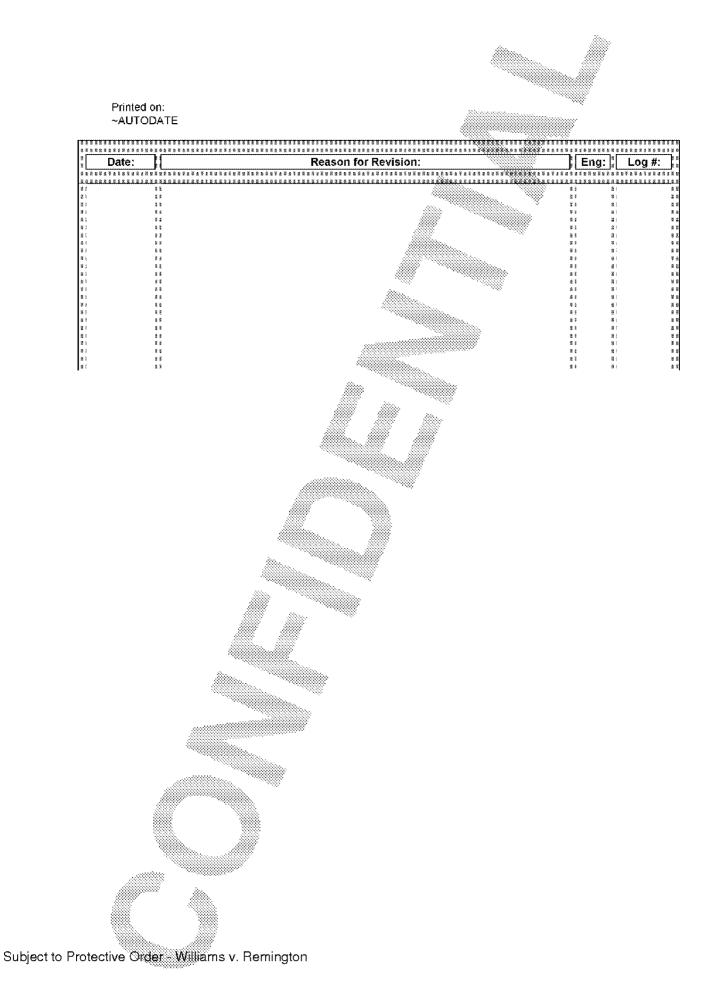
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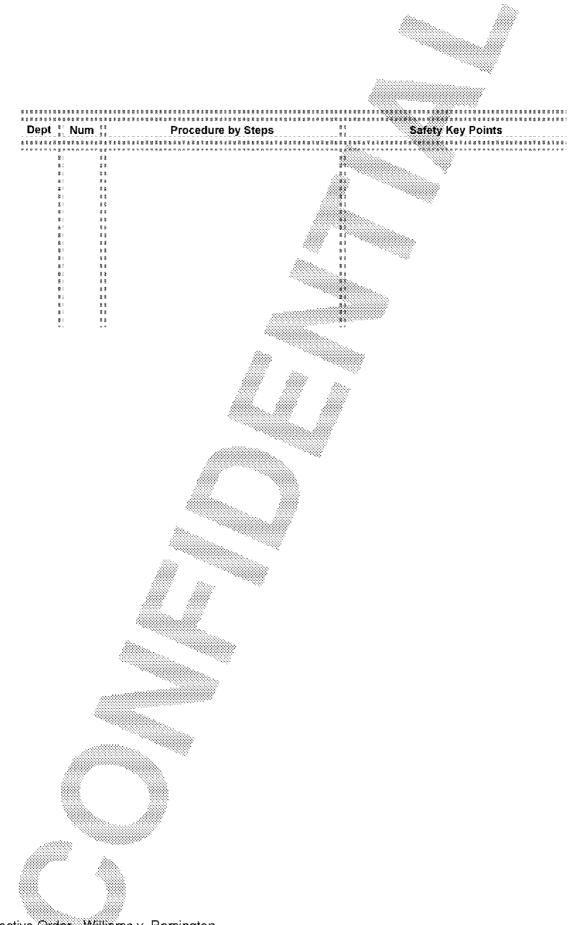


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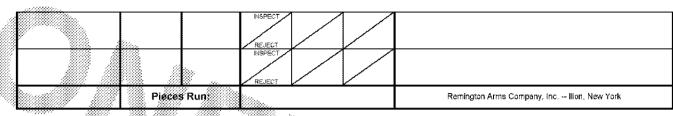
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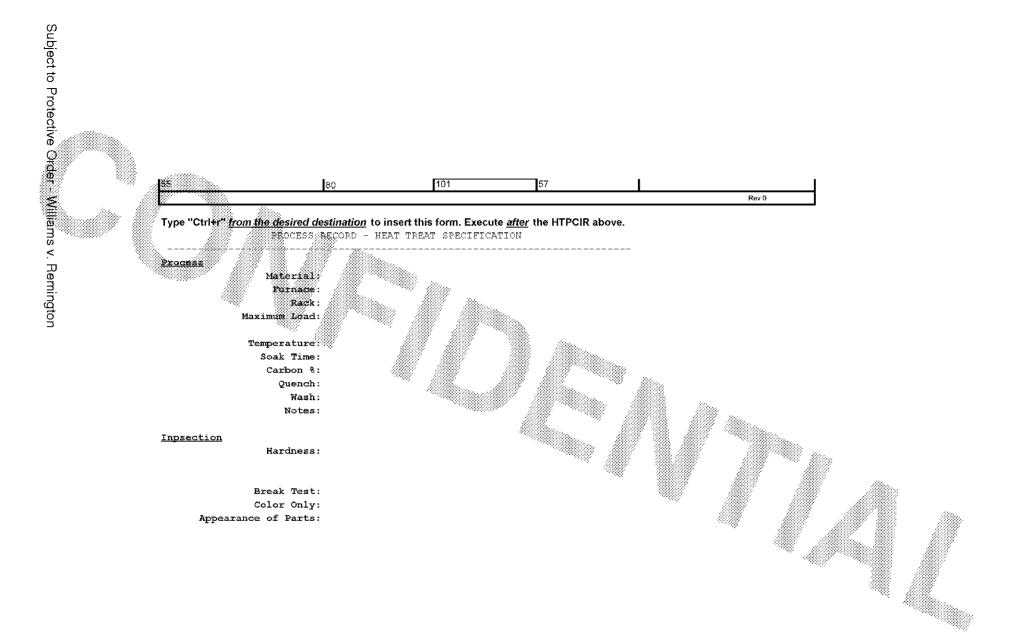
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	PROCESS CON THIS RECORD MUST STA				Revision Date:		Processed by:			
	Part No:	Part Name:	L	Centerfire Rifl	9	Date:	8/14/2006			
	Operation: No: Parl No:	Operation:	Part Name				Work Center:			
	Prod. Qity:	Prod. Order #		Operator			Setup inspected by & Date:			
Ċ	Bage Description and Characteristic	Gage Number Gage		1st Shift	2nd Shift 3rd Shift		Remar	ks, Causes, Ad	, Causes, Action Taken, Etc.	
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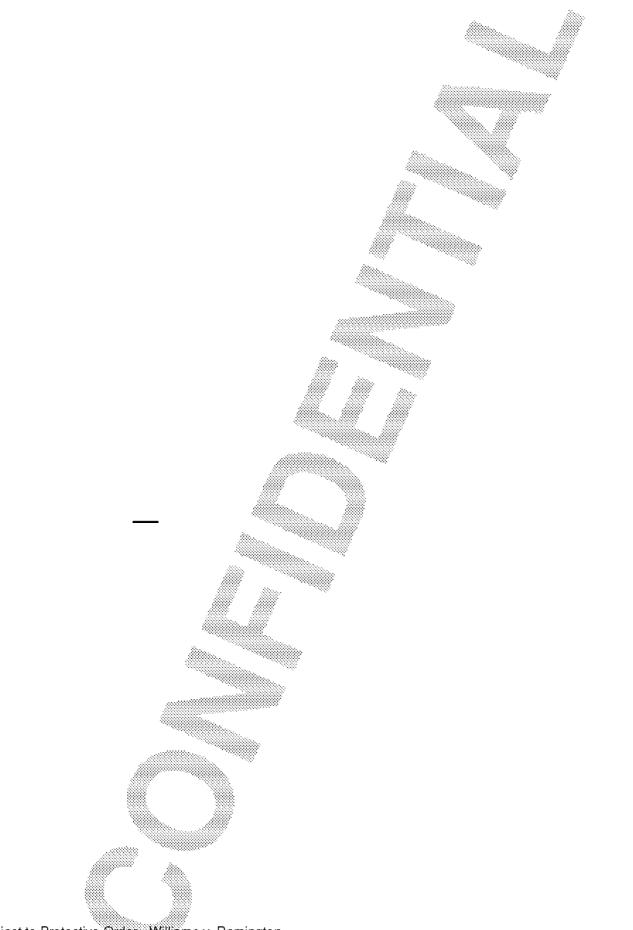
Type "Ctrl+h" from the desired destination to insert this form. Execute before the next form below.

PROCESS CONTROL INSPECTION RECORD THIS RECORD MUST REMAIN IN HEAT TREAT INPSECTION FOR ONE YEAR			Revision 29-Nov-05			Inspected by:						
			Part:No. Prod. Qty:			Production Order #:						
	Part Name:	Trig Assy 700ML		Centertire Rifl	e 🦉							
Operation No: Part No:	Operation:	Part Name:				Work Center		inspec. Date:	8/14/2006			
Furnace and Load Number	Draw Temp	Furnace Date	Hardness	Specificaton	Hardness	Specification	Hardness	Specificaton	Break	Test		
			HRc	INSPECT	H15n	INSPECT REJECT	H45n	MSPECT REJECT	NSPECT	REJECT		
HRc	•	H15n		H15n		H45n		Bre	ak Test Results (lbs)		
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54		79		100		56		3001 - 20000	27	2		





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Unassigned Button Clicked

You have clicked a button that is not assigned to a process sheet

Click the button to return to the Header Sheet

