

Test Lab Work Request Form

Engineer: Ronkainen

Project #: 241285

Date Submitted: 8/29/2007

Test Description:

Audit XMP (X-Mark Pro) trigger pull forces for marketing on approximately 50 production firearms from OHL utilizing two different methods: (1) using a production spring scale and (2) the Dvorak TriggerScan unit.

Test Procedure:

- Trigger Pull Audit Plan
- Verify calibration of the Dvorak TriggerScan per the User Manual's procedure. *(DONE)*
  - Verify calibration of the production spring scale prior to starting the and as needed during the course of the audit.
- Trigger Pull Measurement Process
- Unpack guns from multi-packs one gun at a time.
  - Have no more than two guns unpacked at any one time to minimize possibility of parts getting lost or mixed up.
  - Handle the guns with extreme care as they are salable product and be returned to the warehouse after completion of the trigger pull fo audit.**
  - Assemble the gun's bolt to the action. After verifying the action is c of ammunition, manually verify trigger function by dry firing the rifl several times in a safe direction.
  - Record the appropriate information for the gun on the datasheet (SK1 S/N, etc.) prior to conducting any testing.
  - Mount the gun securely in a non-marring gun vise or cradle.
  - Measure and record trigger pull of the gun with the spring scale per t current production process indicated in the process records. *This*

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TLW #: 2358

Requested Completion Date: 9/14/2007

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Measurement Process  
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- possibility of parts getting lost or mixed up.
3. **Handle the guns with extreme care as they are salable product and be returned to the warehouse after completion of the trigger pull for audit.**
  4. Assemble the gun's bolt to the action. After verifying the action is clear of ammunition, manually verify trigger function by dry firing the rifle several times in a safe direction.
  5. Record the appropriate information for the gun on the datasheet (SK, S/N, etc.) prior to conducting any testing.
  6. Mount the gun securely in a non-marring gun vise or cradle.
  7. Measure and record trigger pull of the gun with the spring scale per the current production process indicated in the process records. *This measurement will be made by someone from Ilion using a production spring scale from Ilion.*
  8. Carefully remove the gun from the gun vise or cradle.
  9. Carefully disassemble the action from the stock setting aside the stock and trigger guard components so that they will not be damaged.
  10. Mount the action in the Dvorak TriggerScan fixture with the barrel bracket tight against the front surface of the V-block and with the top clamp's hold down screw tip approximately aligned with the rearmost scope plug screw on the front receiver bridge. Ensure the trigger's slide is centered on the V-roller on the TriggerScan arm so that both sides of the roller's V contact the trigger and then tighten the clamping screw. ***Make sure the clamp's screw does not contact the top of the receiver; it may mar it.*** When properly secured in the TriggerScan fixture, the action cannot move with respect to the fixture.

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*: the clamp's screw does not contact the top of the receiver or  
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not move with respect to the fixture.

- 8. Carefully remove the gun from the gun vise or cradle.
- 9. Carefully disassemble the action from the stock setting aside the stock and trigger guard components so that they will not be damaged.
- 10. Mount the action in the Dvorak TriggerScan fixture with the barrel bracket tight against the front surface of the V-block and with the top clamp's hold down screw tip approximately aligned with the rear most scope plug screw on the front receiver bridge. Ensure the trigger's slide is centered on the V-roller on the TriggerScan arm so that both sides of the roller's V contact the trigger and then tighten the clamping screw. ***Make sure the clamp's screw does not contact the top of the receiver it may mar it.*** When properly secured in the TriggerScan fixture, the action cannot move with respect to the fixture.

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Special Requirements:

Returned to the warehouse after completion of the trigger pull force audit.

Supplies Availability:

Guns for this test will be ordered by marketing from OHL for delivery to Etown. I will provide the exact delivery date(s) as soon as they are available.

Results Required:

Data Only

\*\*\*\*\*This section to be completed by Test Lab Manager\*\*\*\*\*

Assigned To:

Wade, Steve

Start Date:

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	Data Only
	Formal Report

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Assigned Date:	8/30/2007	Completion Date:
Comments:		

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- Trigger Pull Audit Procedure (cont'd).
11. Enter the appropriate firearm information for the rifle into TriggerScan program (fill in all fields on the computer screen).
  12. With the safety in the ON or SAFE position, close the bolt and gently move the safety to the OFF or FIRE position. Make 5 trigger pull measurements cycling the safety between each pull. Take care to lower the safety in the same manner each time to maintain uniform measurements.
  13. Save the TriggerScan results for each gun as a separate \*.trg file using the gun's S/N as the unique file identifier. Save the file in the directory associated with this TLW on the server.
  14. Also save the TriggerScan results for each gun as a separate \*.csv file using the gun's S/N as the unique file identifier. Save the file in the directory associated with this TLW on the server (same directory as previous step).
  15. Trigger pull force data should be copied and pasted from the \*.csv file directly into the data form supplied with this TLW. Do not transcribe and enter the measurement data into the datasheet manually.
  16. Carefully remove the action from the TriggerScan fixture and visually verify that no damage was done to the action. If the scope plug screw is visibly damaged, replace it.
  17. Reassemble the action to the stock. Verify that the magazine and trigger guard are properly seated. Cycle the action to verify it functions properly.
  18. Have two qualified gun handlers verify the gun is unloaded before repacking the rifle in its shipping box.
  19. Remove the bolt from the action and place it in the appropriate location inside the packing box.
  20. Repack the gun in its original packing box. Verify the firearm's serial number is the same as that shown on the box end label before sealing the box with fiberglass reinforced packing tape. Place a sticker on the box end label to identify the firearm as having had its trigger pull force checked.
  21. Repack and reseal the multi-pack of guns after all guns from the pack have been measured.
  22. After all of the guns in a multi-pack have been measured, get another multi-pack of guns and continue the test.
  23. Repeat this procedure from step 1 again until all firearms have been measured.

Cont'd Procedure

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Cont'd Procedure

Gun #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SKU Description S/N																				
Tester																				
TP1 TP2 TP3																				
Avg SD	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
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Tester																				
TP1 TP2 TP3 TP4 TP5																				
Avg SD	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
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