

STANTON O. BERG

FIREARMS CONSULTANT

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TOLTZMAN

M/700

Date: 5 September 1982

FIREARMS EXAMINATION WORKSHEET

1. IDENTIFICATION. Source: Ms. Maureen Murphy, Day & Gross, 107 N. LaSalle St.,
Spencer, Wisconsin 54479 on 21 June 1982.
Make: REMINGTON Caliber: 7mm REM.MAG.
Model: 700 Type: Rifle Action: Bolt action.
Magazine: Box magazine (Capacity-3 rounds) Serial No.: A6568699
Special Markings: Left side barrel: "REMINGTON ARMS CO. INC. ILION, N.Y. MADE IN U.S.A
7MM REM.MAG. 1Q 56" Right side barrel: "A" (REP) J" Left side receiver: "A6568699
REMINGTON MODEL 700" End of rubber recoil pad: "REMINGTON".
(SEE attached article from American Rifleman 9/69 for history of rifle)
2. PRELIMINARY DATA. Case or Holster: Received in leather case.
Description: Brown leather, cloth lined, zippered case with brown plastic end.
Position of Safety: OFF Loaded or unloaded: Unloaded.
Barrel or Cylinder residues: Heavy residues-combination of combustion
residues, rust and dirt. (Residues collected.)
3. CONDITION. Grips or stocks: Walnut hardwood stock-Stock overall in good con-
dition. There are a few minor nicks, scratches, dents and abrasions. Surface
finish appears to be intact. No apparent cracks. Stock also has leather sling/stra
with quick release swivels.
Metal Parts: Exterior metal parts appear to be in good condition. Blued surface
appears to be intact. A number of abrasions on bottom of magazine floor plate. A few
other minor nicks & scratches. ** Screw Heads: Some slight minor burring of slots,
most are in good condition.
Missing or altered parts: No apparent missing or altered parts.
Scope sights have however been installed-Original iron/open sights are intact.
Scope sight is variable (3-9), set at 9.
4. Barrel Rifling: Right twist- 6 grooves. Condition: Overall fair to good.
Some rusting of bore. Barrel length: Approx. 24".
Sights: Front sight-hooded gold bead on blade ramp. Rear sight-notch on ramp
adjustable for elevation and windage. Scope sight is a BUSHNELL "ScopeChief VI"
** Right side barrel has white abrasion mark (Paint?) about 1/3 way back from muzzle

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REMINGTON Model 700, 7mm Rem.Mag.No.A6568699

Weight: 9 lbs.-4 ounces
(Unloaded)Trigger Pull: Approx. 4.0 lbs.at trigger ti
Approx. 5.25 lbs. normal posi

Breech Face: Bolt head is deeply counterbored.Breech face of bolt head has circular tool marks-fine and coarse. Extractor is horseshoe shaped and contained in counterbored head.Ejector is spring loaded plunger in bolt head

5. SAFETY: The SAFETY is a thumb operated safety on the right rear side of the action. It is a rotating lever. To place on SAFE one must rotate safety leve to the rear stop position. This will also lock the bolt handle. Trigger pres sure will not release the firing pin when in this position.To place in FIRE position, the safety lever is rotated forward to the front stop position.Bol handle is also unlocked in this position and the trigger is free to release the firing pin through sear action. The safety can be placed on only when th firing pin has been cocked. The firing pin is cocked on raising the bolt han dle due to camming action of the bolt sleeve on the firing pin head.(SEE NOT)

6. TEST FIRING. Ammunition: REMINGTON 7mm Rem.Magnum(R-P) primed but unloade

ca.were used in a series of special experiments as noted in this report.

Ejection: To the right side approx. 4' (1 ejected to right rear, 2 to the right front and 1 about straight to the side.)

Mechanical Operations: Loading,firing,extraction & ejection all

without malfunction.

Malfunctions: None

7. ADDITIONAL NOTES AND COMMENTS: SAFETY CONT.: The Safety can then be placed ON Once the firing pin is cocked by raising the bolt handle the safety can be er gaged or placed on. This can be done without any rearward movement of the bol or opening the bolt other then the verticle raising of the bolt handle. Once the bolt handle is closed, the bolt becomes locked if the safety is engaged. The trigger is the single-stage design and it is adjustable for weight of pul and for overtravel. Screws for making such adjustments are accessible if the action is removed from the stock. The safety when ON locks the SEAR(SEAR SAFE TY CAM) upwards into the FIRING PIN sear engaging cam or sear notch. When the safety is OFF or in FIRE position, the trigger connector is blocking the bot tom of the SEAR but is free to move out of blocking position by being pivoted out of the way by(rotated)the trigger motion. Placing the SAFETY ON and apply in strong trigger pressure does not release the cocked firing pin. Also plac ing the safety half on and half off and applying strong trigger pressure does not release the cocked firing pin.(NOTE: There is a letter "F" on the receive to indicate the OFF or "FIRE" position of the safety and a letter; "S" to in dicate the SAFE position of the safety lever.) An experiment was conducted ir which the action was worked through the complete cycle for cocking,firing(fir ing pin release)cocking,extraction/ejection,loading etc. 100 times to note if the firing pin would be accidentally released without trigger pressure. At Nc time did the firing pin release before trigger pressure was applied to do so.

Safety was at all times in the OFF or FIRE position.(Note:While the safety c be applied as soon as the bolt handle is raised and before the round is extr Stanton O. BERG cted and ejected and a new round loaded into the chamber, the bolt handle /bolt would then be locked so that a continuous unloading opera tion could not be completed with safety left on and bolt being operated

(SB 5/69)
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An additional series of special experiments were conducted.:

T-1- A primed but unloaded case was placed in the rifle chamber with the firing cocked and the safety OFF. The action area (Scope had been removed), rear of the receiver, sides, front and bolt were struck several sharp blows with a rubber hammer. The firing pin was not released and the primed case did not fire.

T-2- The primed case was again used with the firing pin cocked and the safety OFF. This time the gun was dropped on the butt from a height of 12" 2 times. (1 time done was made on indoor/outdoor carpeting over concrete. The 2d drop was done on bare concrete. The firing pin was not released and the cartridge case did not fire.

T-3- A similar test to above except that the drop height was increased to 18". 2 drops were again made, 1 on the indoor/outdoor carpeting over concrete and the 2d drop directly onto bare concrete. (Butt of the gun has a rubber recoil pad.) Again the firing pin was not released and the primed case did not fire.

T-4- A similar test to above except this time the drop height was increased to 22". 2 drops were again made similar to above. The results were the same. The firing pin was not released and the primed case did not fire.

(Further drops were not made from greater heights for fear of possible damage to the gun.)

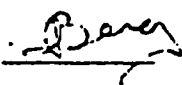
The gun was then dis-assembled sufficient to note and inspect the sear and trigger engagement points and to inspect the trigger assembly.

SEAR (SEAR SAFETY CAM) Appears to be in good condition. It is not broken, chipped or significantly worn. Appears to have normal profile. The width at top of sear engaging surface is approx. .120". (NOTE: When the safety lever is rotated to the rear and placed on, an arm on the left side of the lever rotates into position under the rear of the sear to lock it upwards in position against the firing pin sear cam/notch.)

FIRING PIN SEAR CAM (SEAR NOTCH) Appears to be in good condition. It is not broken, chipped or significantly worn. It appears to have normal profile. Overall width is approx. .170". The bottom edge (engaging surface) is approx. .120" because of the edge being removed at this point. The overall height of the sear cam engaging surface is approx. .085-.090". The shine from wear or engagement suggests that actual engagement takes place on a little more than $\frac{1}{2}$ of this height.

TRIGGER ASSEMBLY: Appears to be in good condition. The adjustment screws are all sealed at the factory. These seals are all unbroken. The adjustment screws consist of Trigger stop screw (Top front), Trigger adjusting screw (bottom front) and the trigger engagement screw. (Bottom rear.) The trigger pull is adjusted by the trigger adjusting screw. The trigger travel is adjusted by the trigger stop screw. The trigger engagement screw provides the correct amount of supporting trigger connector surface beneath the sear. There are observation holes on the right and left sides to show the engagement of the trigger connector with the sear. The 2 engaging surfaces appear to be angular/square and sharp. Approx. .020" of engagement was measured on the left side. The safety lever pivots on the right side of the trigger assembly and appears to be in good condition. (An upper arm of the safety on the right side engages the bolt under the bolt handle to lock it.) There is also a small button just ahead of the trigger that releases the bolt so that it can be removed from the receiver. The overall thickness of the assembly is approx. .305". The thickness of the spacer between the 2 sides is approx. .175". There does not appear to be any binding of the trigger in the assembly.

See attached factory parts list and parts diagram and instructions.

 P.S. It should be noted that there is a binding or pinching between the top of the bolt handle knob and the bottom right side of the scope sight (When you grasp the bolt knob in the normal manner, you grasp the sides of the knob one can operate it without pinching thumb. Clearance between knob and scope sight is only .535".)