

M/TBI ENDURANCE
TEST - 1952

Endurance gun.

No mal. & Type Break ages.

~~5~~ 5 failed to extract.
 3 " " adverse train)
 7 failed to fire. " (death)
 35 ~~failed to extract~~
 14 ~~failed to eject~~
 41 ~~failures to extract~~
 5 ~~failed to eject~~
 1 stem chamber
 4 ~~failed to extract~~
 17 ~~failures to eject~~

129 - 2.15%

$1 - 100 = 1\%$
 $10 - 1,000 = 1\%$
 $100 - 10,000 = 1\%$

extract failed to eject stem.

5	17	1
35	5	
41	14	
4	36	1
<u>85</u>		

2.15%
 $6000 / 12900.00$
 12000
 9000
 6000
 30000
 30000

adverse conditions
 3 failed to extract main
 4 failures fire death.

85
 37
 122
 1

MODEL 721 30-06DATE 10-2-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unloading	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	5440 <i>previous</i>												QUALITY AND ENDURANCE TEST ENDURANCE GUN #199805
Pet 150 M.C.P.	5480												OK
	5520				111								Ext. dropped shell.
Win 150 M.C.P.	5560												OK
	5600												OK
	5640												OK
Win 110 M.	5680												OK
	5720												OK
	5760												OK
													9-3-52
													9-5-52
180 B.P.	5800											OK	Failed to fire first two rounds.
Win 180 ST	5840												OK
Win 150 ST	5880												OK
Win 220 ST	5920												OK
Win 150 M.C.P.	5960												Ext. dropped shell
Win 180 B.P.	5980												OK
	5990												Defective Ammo Test.
													9-18-52
													SUB Zero Test (-40°F)
West. 110 S.P.													Failed to fire first two rounds.
													Third and fourth rounds fired, fifth and six didn't.
													9-19-52
													10,000 dry cycles. No broken parts.
													End of Test
													(5)

MODEL 721 30-06DATE 9-29-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unloading	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	4960 previous												QUALITY AND ENDURANCE TEST. ENDURANCE GUN. #199805
				<u>RAIN TEST</u>									
Wm 180 S.T.	4980			III									Ext. dropped shell
				<u>DUST TEST</u>									
Pet. 180 P.S.P.	4985	III		Gun failed to fire after the pet. was fired. Bolt was sticky and hard to work back and forth. Slide control had grit inside which prevented the trigger from releasing the firing pin.									
				Cleaned and oiled.									
	4990			(5) P. proof rounds									OK
Pet. 180 P.S.P.	5000												OK
Pet. 180 S.P.	5040												OK
	5080												OK
	5120												OK
				Unloading cam surface on bolt battered over making bolt stiff to unlock.									
Wm. 220 S.T.	5160												OK
	5200												OK
				9-2-52									
Rem 150 B.P.	5240												OK
	5280												OK
	5320												OK
Rem 220 S.P.	5360												OK
	5400												OK
	5440												1 Bolt stop pin worked out causing bolt stop to fail to hold bolt
													(7)

MODEL 721-3006DATE 8-15-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	4040												END TEST # 199805 END GUN
Rem 110 M	4180				1								Ext Drops Shell
	4120				1								" " "
Rem 220 SP	4160												OK
	4200				1								Ext Drop Shell
	4240				1								" " "
					Bolt Release Binds								
					8-25-52								
Rem 150 Mc	4280												Ext Drop Shell
	4320												" " "
Win 220 ST	4360												OK
	4400												OK
	4440												OK
Win 150 ST	4480												OK
	4520												OK
	4560												OK
Win 150 SP	4560												OK
	4600												OK
					8-29-52								
Win 150 Exp	4640												OK
"	4680												OK
Rem 150 MC	4720				14	12							Ext drop Shell + ejection fail to eject
Rem 110 MUSH	4760					1							" " "
Win 150 ST	4800					1							" " "
Rem 150 SP	4840				1								Ext. dropped Shell
Rem 110 MUSH	4880				1								" " "
Win 150 ST	4920				1								" " "
Rem 150 M.C.	4960				3	8							" " "
													(49)

MODEL 721 30-06DATE 6-6-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	3240												Quality and ENDURANCE TEST #199805 ENDURANCE Gun
Um 110 S.P.	3241- 3280												OK
	3320												OK
													6-26-52
3rd 180 M.C.	3321- 3360												fail to extract
	3400												" " " "
3rd 180 B.P.	3401- 3440												" " "
	3480												" " "
	3520												" " "
													7-8-52
Wet 180 ST	3560												OK
	3600												" " "
	3640												" " "
													7-14-52
REM 180 BP	3680												OK
	3720												OK
	3760												OK
PETER 180 SP	3800												OK
	3840												OK
	3880												EXT. DROP SHELLS
REM 220 SP	3920												EXT. DROP SHELLS
	3960												" " "
REM 150 MC	4000				4								" " "
	1												PROOF ROUND
													OK
REM 150 MC	4040				1								EXT. DROP SHELLS
													Failed To EXT
													(41)

DATE 5-26-52

[illegible]

MODEL 721-30-06DATE 5-20-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	2000 Primers												Quality And Endurance Test Endurance Gun # 199805
		Cold Test -20°F											
Rem	180 BP 2020												OK
		ICE TEST -20°F											
Win 110	SP	Had to hammer bolt home. Trigger wouldn't work											
		Waited until it thawed before I could shoot it											
	2040												OK
Rem	180 BP 2080												OK
"	2120			1									fail to extract
"	2160				1								" " "
"	2200												OK
"	2220												OK
Win 110 SP	2240												OK
"	2280	loosened back pin on fire control causing bolt stop to drop allowing bolt to ride free, out of the break!											
Win 110	2320												OK
SP	2360												OK
"	2400												OK
"	2440												OK

MODEL 721 30-06DATE 5-14-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	1000												QUALITY AND ENDURANCE TEST. ENDURANCE GUN. #199805
Test 150 M.C.P.	1000 1040					1							fail to eject.
	PROOF ROUND												OK
Run 220 SP.	1040 1080												OK
"	1120												OK
"	1160												OK
Test 180 S.T.	1160 1200					1							fail to eject
"						1							fail to extract.
"	1240												OK
"	1280												OK
Win 110 SP	1320					1							OK
"	1360												OK
"	1400												OK
Run 180 BP	1440												OK
"	1480												OK
"	1520					1							fail to eject.
Test 150 ST.	1560												OK
"	1600												OK
"	1640												OK
Win 220 ST.	1680					1							fail to eject.
"	1720												OK
"	1760												OK
Run 150 MC	1800					1							fail to eject
"	1840					1							fail to extract
"	1880					1							" " eject
Win 180 SP	1920												OK
"	1960												OK
"	2000												OK
Replaced bolt assembly with													
1000 rounds on it. (broke wither while firing)													
removing firing P. 1													

MODEL 721 30-06DATE 5-9-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	320												QUALITY AND ENDURANCE TEST. AVERAGE GUN. #199805
Rem 220 S.P.	360												OK
	400												OK
West 180 S.P.	440					1							fail to eject
	480					"							" " " "
Win 150 S.P.	520												OK
	560												OK
Position of ejected rounds - right side of shooter at 45 degree to the gun.													
Rem 110 M.	600												OK
	620												OK
Win 220 S.T.	640												OK
	680												OK
5-13-52													
Pet 150 M.C.	680												OK
	720												OK
Win 150 M.P.	760												OK
Pet 180 S.P.	800												OK
	840												OK
Rem 150 M.C.	880												OK
	920												OK
West 110 S.P.	960												OK
Rem 180 S.P.	1000												OK
Picked for endurance test. cleaned and oiled.													
(13)													
(13)													

MODEL 721 30-06DATE 5-7-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	0												QUALITY AND ENDURANCE TEST.
													# 191205
Win 220 S.P.	1-20					Jack							OK
Run 150 B.P.	40												OK
Win 150 H.P.	60												OK
Run 110 MUSH	80												OK
Win 180 S.P.	120					1							Fail to eject
P 220	140												OK
Win SP	160												OK
Bot 20 B.P.E.	200												OK
Win 220 S.P.	220					Fail	25" (Shoulder)						OK
Win 180 ST	240												OK
Run 110 M	260												OK
Win 220 S.P.	280												OK
Win 180 ST	300												OK
Run 110 M	320					Jack							OK
① heading up of truck causing hard opening of bolt picked for continued test ① ①													

STANDARD ENDURANCE TEST
CENTER FIRE RIFLES

MODEL 721 30-06

GUN NO. 199805

To Be Performed Every 1000 Rnds.

Clean and Oil

Head Space (Min-Max)

Trigger Pull

Firing Pin Indentation

Bolt Opening-Cocked

Bolt Opening-Cocking

Safety Mech. Test

Jar Off Test

To Be Performed Every 2000 Rnds.

Main Spring

~~EJECTOR~~
~~Sear Lock Plunger Spring~~

~~SEAR~~
~~Action Bar Lock Spring~~

~~Loading Door Spring~~

~~Magazine Spring~~

~~Extractor Spring~~

~~Trigger Spring~~

	0	120	1000	2000	3000	4000	5000
Clean and Oil		✓	✓	✓	✓	✓	✓
Head Space (Min-Max)		OK	OK	OK	OK	OK	OK
Trigger Pull		4 3/4"	4 3/4"	5 1/4"	4 3/4"	4 3/4"	4 1/2"
Firing Pin Indentation		.020"	.020"	.025"	.020"	.0215	.020
Bolt Opening-Cocked		4"	4"	2 1/2"	3 1/2"	3 1/2"	3 1/2"
Bolt Opening-Cocking		10"	10"	10"	12"	11 1/2"	11 1/2"
Safety Mech. Test		OK	OK	OK	OK	OK	OK
Jar Off Test		OK	OK	OK	OK	OK	OK
Main Spring		6.2"		6.2"		6.2	
EJECTOR Sear Lock Plunger Spring		1.2"		1 1/8"		1 1/16	
SEAR Action Bar Lock Spring		.55"		.50"		.50	
Loading Door Spring							
Magazine Spring							
Extractor Spring							
Trigger Spring							

NL 10/29/51

STANDARD ENDURANCE TEST
CENTER FIRE RIFLES

MODEL 721 30-06

GUN NO. 238483

To Be Performed Every 1000 Rnds.

Clean and Oil

Head Space (Min-Max)

Trigger Pull

Firing Pin Indentation

Bolt Opening-Cocked

Bolt Opening-Cocking

Safety Mech. Test

Jar Off Test

To Be Performed Every 2000 Rnds.

Main Spring

~~EJECTOR~~
~~Bar Lock Plunger Spring~~

~~SEAR~~
~~Action Bar Lock Spring~~

~~Loading Door Spring~~

~~Magazine Spring~~

~~Extractor Spring~~

~~Trigger Spring~~

0	320	1000	2000	3000	4000	5000
	✓					
	0.15					
	5.75 [#]					
	.020"					
	2.5 [#]					
	10 [#]					
	0.5					
	6.5					
	6.25"					
	1.19"					
	.55"					

NL 10/29/51

MODEL 721 30-06DATE 5-9-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	320												QUALITY AND ENDURANCE TEST. AVERAGE GUN. # 237412
REM 220 S.P.	360												OK
	400												OK
West 180 S.P.	440							III					stem chamber.
	480					I		I					" "
						I							fail to exit
Win 150 S.P.	520												blown case.
	560												" "
Position of ejected rounds - on right side of shooter at 45° angle to the gun.													
Rem 112 M.	600												OK
	620												OK
Win 220 ST.	640							II					stem chamber
	680							III					" "
5-13-52													
Ref. 150 M.C.	680-720												OK
Win 150 H.P.	760												OK
Ref 180 S.P.	800												OK
	840												OK
Rem 150 M.C.	880												OK
	920												OK
West 110 S.P.	960												OK
Rem 180 B.F.	1000												OK
(14)													

DATE 5-9-52

R2501792

DATE 5-7-52

200

STANDARD ENDURANCE TEST
CENTER FIRE RIFLES

MODEL 721 30-06

GUN NO. 237412

To Be Performed Every 1000 Rnds.

Clean and Oil

Head Space (Min-Max)

Trigger Pull

Firing Pin Indentation

Bolt Opening-Cocked

Bolt Opening-Cocking

Safety Mech. Test

Jar Off Test

To Be Performed Every 2000 Rnds.

Main Spring

~~EJECTOR~~
~~Sear Lock Plunger Spring~~

~~SEAR~~
~~Action Bar Lock Spring~~

Loading Door Spring

Magazine Spring

Extractor Spring

Trigger Spring

0	320	1000	2000	3000	4000	5000
	✓					
	OK					
	4.5#					
	.020"					
	5#					
	9.5#					
	OK					
	OK					
	6.3"					
	1.2"					
	.5"					

NL 10/29/51

DATE 5-7-52

CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER
KINZER V. REMINGTON

R2501795

DATE 5-7-52

[illegible]

DATE 5-7-52

CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER
KINZER V. REMINGTON

R2501797

MODEL 721 30-06DATE 5-7-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	0												Quality and ENDURANCE TEST.
													# 205366
Win 220 EX	20					Tack							OK
Rem 180 BP	40												OK
Win 150 HP	60												OK
Rem 110 M.	80												OK
Win 120	100												OK
Win 120	120												OK
Rem 220 SP	140												OK
Rem 180 PPEX	200												OK
Rem 180 SP	220					Field Test (Shoulder)							OK
Win 150 ST	240												OK
Rem 110 M.	260												OK
Win 220 EX	280												OK
Win 150 HP	300												OK
Rem 180 BP	320												OK
						Leading up of brush causing head opening of bolt.							

DATE 5-7-52

R.T. No.	Rounds Fired	Malfunctions											Remarks		
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	Gun Failures	Adjustments	QUALITY AND ENDURANCE TEST.
															238323
Win 220 SP	20					Jack									OK
Pum 180 BP	40														OK
Win 150 HP	10														OK
Pum 110 M.	80														OK
Win 180	100														OK
SP	120														OK
Pum 220 SP	160														OK
Pt 150 PPX	200														OK
						Field test				(Shoulder)					
Win 180 SP	220														OK
Win 180 SP	240														OK
Pum 110 M	260														OK
Win 220 EX	280														OK
Win 150 HP	300														OK
Pum 150 BP	320					Jack									OK
						loading up of barrel									causing hard
						springing of bolt									

DATE 5-7-52

CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER
KINZER V. REMINGTON

R2501800

MODEL 721 30-06DATE 5-7-52

R.T. No.	Rounds Fired	Malfunctions											Remarks		
	0	Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	Gun Failures	Adjustments	QUALITY AND ENDURANCE TEST
															# 237007
Win 220ST	1-20			Jack				1							stem chamber
Win 180 B.P	40														OK
Win 150 H.P	60														OK
Win 110 Msh	80														OK
Win 180 SP	120														OK
Win 220	140														OK
Win SP	160														OK
Win 400 PEX	200														OK
				Field Test (Shoulder)											
Win 220	220														OK
Win 180 ST	240														OK
Win 110 M	260														OK
Win 220 Ex	280														Stem chamber
Win 150 H.P	300														OK
Win 180 B.P	320						Jack								OK
				(6) loading up of brush missing head opening of bolt											