

M/TBI ENDURANCE
TEST - 1952

Endurance gun.

No Malf. + type Break ages.

~~5~~ 5 failed to extract.
 3 " " adverse train)
 4 failed to fire. " (dust)
 3 5 failed to extract
~~17~~ 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	
71	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 dust.

85
 37
 122
 7

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 previous												QUALITY AND ENDURANCE TEST ENDURANCE GUN #199805
Pet 150 M.C.P.	5480												OK
	5520				III								Ext. dropped shell.
Win 150 H.P.	5560												OK
	5600												OK
	5640												OK
Win 110 M.	5680												OK
													9-3-52
	5720												OK
	5760												OK
													9-5-52
180 B.P.	5800											OK	Ext. dropped shell
Win 180 ST	5840												OK
Win 150 ST	5880												OK
Win 120 ST	5920												OK
Win 100 M.C.	5960												Ext. dropped shell
Win 160 B.P.	5980												OK
	5990												OK
													Defective Ammo Test.
													9-18-52
West 110 S.P.													SUB Zero Test (-40°F) 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)

DATE 9-29-52

[illegible]

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	4080				1								EXT-DROPS SHELL
	4120				1								" " "
REM 220 ST	4160												OK
	4200				1								EXT DROP SHELL
	4240				1								" " "
													Bolt RELEASE BYNds
													8-25-52
Rem 150 Mc	4280				111								Ext Drop Shell
	4320				1111								" " "
Win 220 ST	4360												OK
	4400												OK
	4440												OK
Win 150 ST	4480												OK
	4520												OK
	4540												OK
Win 150 SP	4560												OK
	4600												OK
													8-29-52
Win 150 Exp	4640												OK
"	4680												OK
Ret 150 MC	4720				14	12							Ext drop Shell + ejection fail to eject
Rem 110 Mush	4760					1							" " "
Win 180 ST	4800					1							" " "
Ret 180 SP	4840					1							Ext. dropped Shell
Rem 110 Mush	4880					1							" " "
Win 180 ST	4920					1							" " "
Ret 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	Gun Failures	
	3240													Quality and ENDURANCE TEST #199805 ENDURANCE Gun
Um 110 S.P.	3241- 3280													OK
	3320													OK
3rd 180 M.C.	3321- 3360													6-26-52 fail to extract
	3400													" " "
Um 180 B.P.	3401- 3440													" " "
	3480													" " "
	3520													" " "
West 180 ST	3560													7-8-52 OK
	3600													" " "
	3640													" " "
REM 180 BP	3680													7-14-52 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 711-30-06DATE 5-20-52

R.T. No.	Rounds Fired	Malfunctions											Remarks
		Firing	Unlocking	Primary Extraction	Secondary Extraction	Ejection	Cocking	Feeding	Loading	Locking	Breakages	Replacements	
	2000 Previous												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 breech!											
Win 110	2320												OK
SP	2360												OK
"	2400												OK
"	2440												OK

DATE 5-14-52

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. ENDURANCE GUN.
	1000														
201-150 M.C.P.	1000 1040					1									#199805 fail to eject.
	PROOF ROUND														OK
Run 220 S.P.	1041 1080														OK
"	1120														OK
"	1160														OK
Next 180 S.T.	1161 1200					1									fail to eject
"					1										fail to extract.
"	1240														OK
"	1280														OK
Win 110 S.P.	1320														OK
"	1360														OK
"	1400														OK
Run 180 B.P.	1440														OK
"	1480														OK
"	1520					1									fail to eject.
Next 150 S.T.	1560														OK
"	1600														OK
"	1640														OK
Win 220 S.T.	1680					1									fail to eject.
"	1720														OK
"	1760														OK
Run 150 M.C.	1800				1	11									fail to eject
"	1840					111									fail to eject
"	1880					1111									" " "
Win 180 S.P.	1920														OK
"	1960														OK
"	2000														OK
Replaced bolt assembly with															
1000 rds on it. (broke other while removing trim 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					11							"
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.A.	681- 720												OK
Win 150 H.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 150 B.P.	1000												OK
Picked for endurance gun. cleaned and oiled.													
(5)													
(5)													

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.
															# 19205
Win 220 S.T.	1-20					Jack									OK
Perm 150 B.P.	40														OK
Win 150 H.P.	60														OK
Perm 110 MUSH	80														OK
Win 180 S.P.	120					1									Fail to eject
P 220	140														OK
Win 512	160														OK
BT 20 P.P.E.	200														OK
Win 220	220					Fail	2.5"	(Shoulder)							OK
Win 150 ST	240														OK
Perm 110 M	260														OK
Win 220 S.P.	280														OK
Win 150 M	300														OK
Perm 110 M	320					Jack									OK
① Leading up of buck 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.

	0	320	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

To Be Performed Every 2000 Rnds.

Main Spring	6.2"		6.2"		6.2	
EJECTOR						
Sear Lock Plunger Spring	1.2"		1 1/8"		1 7/16	
SEAR	.55"		.50"		.50	
Action Bar Lock Spring						
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~~
~~Bolt 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 [#]					
	0.1					
	6.5					
	6.25"					
	1.19"					
	.55"					

NL 10/29/51

DATE 5-9-52

[illegible]

DATE 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
															237412
Win 220 L-D	20			Jacks				7							OK
Rem 180 B.P.	40														OK
Win 150 H.P.	60														OK
Rem 110 M.	80														OK
Win 180 S.P.	100 120					1		1							OK
Rem 220 S.P.	140														OK
Ret 180 P.D.E.	200														OK
Win				Fault		Just			(Shoulder)						
Win 180 S.P.	220							1							1st round
Win 150 S.P.	240														OK
Rem 110 M.	260														OK
Win 220 S.P.	280							7	stems						chamber loaded up.
Win 150 H.P.	300														OK
Rem 180 B.P.	320			Jacks											OK
17 leading up of brush causing hard opening of bolt picked for continued test															
(17)															

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 110 M.	600												OK
	620												OK
Win 220 ST	640							II					stem chamber
	680							III					" "
5-13-52													
Pot. 150 M.C.	680-720												OK
Win 150 H.P.	760												OK
Pot 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)													

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
													237412
Win 220 S&D	20			Jacks				7					OK
Rem 180 S&D	40												OK
Win 150 S&D	60												OK
Rem 110 M	80												OK
Win 180	100												OK
Win 150	120					1		1					Stem - full length
Rem 220 S&D	160												OK
Rem 180 P&D	200												OK
Win				Field Jct									(Shoulder)
Win 150 S&D	220							1					1 stem
Win 150 S&D	240												OK
Rem 110 M	260												OK
Win 220 S&D	280							7 stems					chamber loaded up
Win 150 S&D	300												OK
Rem 180 S&D	320			Jacks									OK
(17) leading up of bench causing hard opening of bolt picked for continued test													
(17)													

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
Clean and Oil		✓					
Head Space (Min-Max)		OK					
Trigger Pull		4.5 [#]					
Firing Pin Indentation		.020"					
Bolt Opening-Cocked		5 [#]					
Bolt Opening-Cocking		9.5 [#]					
Safety Mech. Test		OK					
Jar Off Test		OK					
Main Spring		6.3"					
EJECTOR Sear Lock Plunger Spring		1.2"					
SEAR Action Bar Lock Spring		.5"					
Loading Door Spring							
Magazine Spring							
Extractor Spring							
Trigger Spring							

NL 10/29/51

DATE 5-7-52

R2501795

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. 214332
Win 220 EXP	20												OK
Rem 180 BP	40												OK
Win 150 HP	60												OK
Rem 110 M.	80												OK
Win 180	100												OK
SP	120												OK
Rem 220 S.P.	140												OK
Rem 180 P.P.E.K.	200												OK
													Failed Test (Shoulder)
Win 180 SP	220												OK
Win 180 ST	240												OK
Rem 110 M.	260												OK
Win 220 EX	280												OK
Win 150 HP	300												OK
Rem 180 P.P.E.K.	320												OK
													① leading up of bolt causing in. opening of bolt.

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.
													# 2055R7
Win 220 S.T.	1-20					Jack							OK
Rem 180 B.P.	40												OK
Win 150 M.P.	60												OK
Rem 110 Mesh	80												OK
West 180 S.P.	120												OK
Rem 220	140												OK
SP	160												OK
Pet P.P.E.	200												OK
						Field J.P. (Shoulder)							
West 180 S.P.	220												OK
Win 150 S.T.	240												OK
Rem 110 M	260												OK
Win 220 S.T.	280												OK
Win 150 M.P.	300												OK
Rem 110 M.P.	320					Jack							OK
						Locking up of mechanism causing hard opening of bolt.							

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.
													# 205306
Win 220 EX	20					Jack							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 S.P.	140												OK
Ret 180 PPEX	200												OK
Rem 180 SP	220					Full Jack (Shoulder)							OK
Win 180 ST	240												OK
Rem 110 M.	260												OK
Win 220 EX	280												OK
Win 180 HP	300												OK
Rem 180 BP	320					Jack							OK
						Leading up of brush causing head							
						opening of bolt.							

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	Gun Failures	Adjustments	QUALITY AND ENDURANCE TEST.
															238323
Win 220 EX	20					Jack									OK
Pum 180 BP	40														OK
Win 150 HP	60														OK
Pum 110 M.	80														OK
Win 180	100														OK
Win SP	120														OK
Pum 220 SP	160														OK
Pet 110 PPX	200														OK
						Field Jet									(Shoulder)
Win 180 SP	220														OK
Win 180 ST	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
						opening of bolt									

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.
															# 205406
220 S.T.	1-20					Jack									OK
180 B.P.	40														OK
150 M.P.	60														OK
110 Mosh	80														OK
+ 180 S.P.	120														OK
220	140														OK
512	160														OK
150 P.B.E.	200														OK
						Field Test (Shoulder)									
180 S.P.	220														OK
180 S.T.	240														OK
110 M.	260														OK
220 S.T.	280														OK
150 M.P.	300														OK
180 B.P.	320					Jack									OK
						Leading up of bench causing hard opening of bolt.									

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 Mch	80														OK
Win 180 S.P.	120														OK
Win 220	140														OK
Win S.P.	160														OK
Win 180 PEX	200														OK
															Field Test (Shoulder)
Win 180	220														OK
Win 180 S	240														OK
Win 110 M	260														OK
Win 220 Ex	280							1111							stem chamber
Win 150 H.P.	300														OK
Win 180 B.P.	320							Jack							OK
															(6) leading up of brush causing hard opening of bolt