

Issued..8/1/45.....  
Revised.....  
Revised.....

PILOT LINE FUNCTIONAL TEST  
for  
MODEL 721 - 722 CENTER FIRE RIFLES

**Object:** To test guns produced under manufacturing conditions to determine if they function satisfactorily.

The test is designed to bridge the gap between tests performed on model guns which consisted of 1000 to 4500 rounds per caliber and the regular production test which will consist of approximately 8 rounds per gun.

Eight (8) guns will be selected at random from 50 pilot line guns of each caliber. The following calibers will be used: .257 Rem. Roberts, .270 Winchester, .300 Savage, .30-06 and .300 H&H Magnum. These guns will be fired in accordance with the Ammunition Schedule (see attached sheet). After this firing, one average gun in the .270 Winchester and one in the .300 H&H Magnum calibers will be selected for a 3000 and 6000 round endurance test, respectively. The endurance guns will follow the schedule set up in the Endurance Gun Routing Ticket.

1. Take Down Inspection Test #11.
2. Product Inspection Test #44.
3. Clean barrel and chamber.
4. Head Space Test #3.
5. Safety Operation Test #31.
6. Jar Off Test #27.
7. Function gun with one magazineful of dummy ammunition.
8. Proof test - 1 round, firing 5 standard rounds before and 5 after firing proof round.
9. Head Space Test #3.

FIRING:

10. Standard Live Fire Test #12 (see Ammunition Schedule on attached sheet).  
Note additional lubrication will not be applied to the guns for the first 1000 rounds but will be fired as received from the plant.
11. Select one average gun in .270 Winchester and .300 H&H Magnum caliber for the endurance test - (follow Endurance Gun Routing Ticket).
12. Take Down Inspection Test #11.
13. Gun Cleaning Test #40 - Type III.
14. Head Space Test #3.
15. Interchangeability Test #7. Note: Use 7 guns of a caliber, firing 5 rounds in each gun. Head space before firing.
16. Clean barrel and chamber using Type III lubrication.

WEL:MC

Issued... 8/1/46  
 Revised.....  
 Revised.....

PILOT LINE ENDURANCE TEST

for

M/721 - 722.270 WINCHESTER AND .300 H&H MAGNUM CALIBERSRounds

1. Take Down Inspection Test #11.
2. Product Inspection Test #41.
3. Clean barrel and chamber.
4. Head Space Test #3.
5. Safety Operation Test #31.
6. Jar Off Test #27.
7. Function gun with one magazineful of dummy ammunition.
8. Proof Test - 1 round, firing 5 standard rounds before and 5 after firing proof round. 1 - 11
9. Head Space Test #3.
- (Tests 1 thru 9 above already performed under regular routing ticket).
- 9-1. Standard Live Fire Test #12 - 200 rounds. 11 - 240
10. Clean barrel with metal fouling solution.
11. Air gauge to determine chamber and bore dimensions.
12. Inspect bore with borescope and record any noticeable variation in rifling.
13. Safety Mechanism Shock Test.
14. Trigger Pull Test #6.
15. Firing Pin Protrusion and Indentation Test #8.
16. Accuracy Test #4. 240 - 293
17. Live Fire Test #12 - 707 rounds 293 - 1000
18. Take Down Inspection Test #11.
19. Clean barrel and chamber with metal fouling solution.
20. Perform Gun Clean Test #40 - Type III.
21. Head Space Test #3 - record.
22. Use air gauge to determine chamber and bore dimensions - record.
23. Inspect bore with borescope and record observations.
24. Trigger Pull Test #6 - record.
25. Firing Pin Indentation and Protrusion Test #8.
26. Adjust Front Guard Screw to 50#, Rear Guard Screw to 40#, and Center Guard Screw to 20#.
27. Bolt Opening Test #10 - 5 rounds. 1000 - 1005
28. Safety Mechanism Function Test #22.
29. Fire 1 proof and 10 standard rounds in an oiled case test as prescribed in Gun Test #19 - firing 5 standard rounds before and 5 after test. 1005 - 1016
30. Clean chamber, face of bolt.
31. Measure head space - Test #3.
32. Perform Defective Ammunition Test #20.
33. Fire 984 standard rounds as prescribed under Live Fire Test #12. 1016 - 2000
34. Take Down Inspection Test #11.
35. Clean barrel and chamber with metal fouling solution.
36. Perform Gun Cleaning Test #40 - Type III.
37. Head Space Test #3 - record.
38. Use air gauge to determine chamber and bore dimensions - record.
39. Inspect bore with borescope and record observations.
40. Trigger Pull Test #6 - record.
41. Firing Pin Indentation and Protrusion Test #8.
42. Adjust Front Guard Screw to 50#, Rear Guard Screw to 40#, and Center Guard Screw to 20#.
43. Bolt Opening Test #10 - 5 rounds. 2000 - 2005