Ilion, New York
April 16,   1963

M. H. WALKER

MODEL 700 - 222 Rem.
NEW DESIGN EXTRACTOR TEST

At your request two Model 700 - 222 Rem. were tested for endurance of new design extractor as follows:

1.   Each rifle fired 40 rds. factory loads consisting of 20 rds. Peters 50 gr. PSP and 20 rds. Win. 50 gr. PSP.

2.   Five rds. of each type ammunition were reloaded with 22.2 gr. No. 4198 powder and 50 gr. Rem. bullets, and fired in each rifle to note pressure on primer and brass. No pressure was noted.

3.   The same 5 rds. were again reloaded with 22.4 gr. No. 4198 powder and 50 gr. Rem. bullets. Again no pressure was noted.

4.   Five rds. of the Peters ammunition only was reloaded with 17 gr. No. 2400 powder and 50 gr. Rem. bullets. Again no pressure was noted.

5.   Two rds. of the Peters ammunition were loaded with 18 gr. No. 2400 powder and 50 gr. Rem. bullets. No pressure noted.

6.   Two rds. of the Peters ammunition were loaded with 19 gr. No. 2400 powder and 50 gr. Rem. bullets. No pressure noted.

7.   One round of Peters ammunition was loaded with 20 gr. of No. 2400 powder and 50 gr. Rem. bullet. This load was fired in Gun #59134 and resulted in a bulged case at the rim and expanded primer pocket allowing primer to drop out.

8.   The bolts from the two test guns (#59134 and 59348) were then checked with a plug gauge to determine if the extractor had taken any set. Gun #59134 measured .354, and Gun #59348 measured .364 (same as original measurements at start of test).

9.   The two rifles were then fired a total of 1,000 rds. Rem. 50 gr. PSP
      ammunition and checked for extractor set at 100 rds., 500 rds., and
      1,000 rds..

Gun No.	100 rds.	500 rds.	1,000 rds.
59134	.354	.354	.354
59348	.364	.365	.365

Two ejection failures occurred in Gun #59134, each being the last round fired
and by moving the bolt very slowly rearward.

Note: In building up the pressure loads at start of test, the same
             brass was fired in the gun in which it had originally been
             fired.

                                        W. R. Googin
                                        Design Test Lab

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