

W. A. Best
OK
Thelma
File

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Ilion, New York
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H. J. HACKMAN

M/40X & M/513T, 22 CAL. RIFLES - PROOF TEST

Purpose: To test effect of new proof loads in subject models.

Remarks: No apparent change in head space occurred through proofing in the guns tested. See attached chart.

The guns used were taken as assembled prior to testing and one (1) 22 caliber proof load fired in each gun. Head space was measured both before and after proofing with the same heading plugs and by the same person to insure consistency.

W. A. Best, Supervisor
Product Testing Specs.

by *N. W. Menard*
N. W. Menard

NWM:I

40 X
BOLT + FIRE CONTROL TEST.

	Pull. AVE. 50000 Rds. HR	MIN.	INDENT	Lead E.g.
#1	3.5 (3.10)	(2-140X)	023 - 018	OK.
#2.	3.8 (5.0)	(3-64)	.022 - 22	OK.

HEAD SPACE.

WEIR

1 042 - 052 010 FIRED AS RECEIVED, UNLAPPED BOLT.

2 0435 - 0465 002 LAPPED BOLT - WITH LUBRICATION

Two Rifles were run 5000 cycles on the dry cycle machine. Checks were made on each gun on those items of customer acceptance; headspace, indent, trigger pull, and safety of sear engagement and ability of fire control to hold its sear engagement.

On #1 gun the indent changed from 023 down to .018 which in a target rifle would be unsatisfactory. Sear engagement remained OK and trigger pull weight stayed within satisfactory limits. Headspace developed at an alarming rate and was up to 052 at 50000 cycles.

Failure bolt head + sear.

On #2 rifle the bolt was lapped (as now in production) with lubrication at 50000 cycles headspace was still OK but trigger pull condition had run between 3-60 & 6-10 lbs. as 12 shot average. The headspace on this gun is OK and perhaps the cause of pull change is now in process of being isolated.