

CC: S. M. Alvis

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H. E. Dyer

## MODEL 40-1 TEST

For your information we withdrew from assembly one M/40-1 lightweight rifle for a test run on fire control head space stability in the dry cycle machine. We returned the rifle for correction on the following points:

1. Fired on closing
2. Full Height - 2 lbs. 7 oz.
3. Rear engagement on Connector

Approx. .001

The gun was not considered fit to test fire and was returned for correction.

C. H. Alvis

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Research DepartmentHarvey

This gun was not taken from assembly but was gotten from Church Presser. It had been intentionally set by him to as near the engagement they Mike Walker has been asking for as he could make it (.007). We have a .015 min. on assembly. The gun did not fall down & had a 3rd trip pull when it hit Church.

C. H. Alvis  
6/1/56

# 40 X BOLT + FIRE CONTROL TEST.

|    | Pull AVE.<br>50000 RCV.<br>MIN | INDENT    | Lead E.g. |
|----|--------------------------------|-----------|-----------|
| #1 | 3.5 (3.10) (2-140X)            | 023 - 018 | OK        |
| #2 | 3.8 (5.0) (3-60)               | 022 - 22  | OK        |

## HEAD SPACE

|    | WEIR                                         |
|----|----------------------------------------------|
| #1 | 042 - 052 OLD FIRED & RECEIVED, UNAPPE       |
| #2 | 043 - 0465 22 INCHES BOLT - WITH LUBRICATION |

Two rifles were run 50000 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 rear engagement and ability of fire control to hold its rear engagement.

On #1 gun the indent changed from 23 down to 018 which in a target rifle would be unsatisfactory. Rear engagement remained OK and trigger pull weight stayed within satisfactory limits. Head space developed at an alarming rate and was .052 at 50000 cycles.

On #2 rifle the bolt was carried a year in production) 11300 rounds. It was run at 50000 cycles. Head space was .012 at 012 but trigger pull weight had run between 3-60 & 6-104, so it shot OK again. The headspace on this gun is OK and per se the cause of pull increase is now in process of being isolated.