

and Federal lots that we have measured consistently center about the min. +2 level.

We felt that part of our DLU problem might be related to this longer case length in combination with the running of our chambers to the min. side of the tolerance.

In an attempt to establish a relationship between the cartridge length, the min. chambers, and the DLU problem, we conducted a short test using chambers at min. +1 to min. +5, and cartridges at min. +3 to min. +8. It was a quick test, with only five rounds shot per combination, and to our surprise we found no significant relationship between the shell length, the chamber length, and the DLU problem. We are planning some more tests to double check the results, but at this time it doesn't appear to be a problem on the Model 7400. 83

However, there has been some limited testing done on the Model 700 that does indicate the longer cartridges can cause a problem of close hard on this bolt action rifle. This is being looked at more closely by Process Engineering.

Program

5. Interchangeability Tests and Measurements of Suspect Components for the DOESN'T LOCK UP problem.

In this program we have attempted to isolate the major component or components that are the source of the DLU malfunction. Ten good guns and ten bad were tested and then the barrel assemblies were interchanged and the guns were retested.

The results are somewhat ambiguous, but in general, the DLU malfunction does seem to follow the barrel assemblies. Measurements of the chambers indicate that the barrels which had the malfunctions were toward the min. side of the tolerance. All indications so far are that the DLU problem is located somewhere in the chamber area.

Program

6. Interchangeability Test on the M7400 STEM OVERRIDE Malfunction Problem

Previous testing on guns that established both high and low malfunction rates for SOR's allowed us to use these guns for high speed film work to study the conditions under which