The results of case hardness tests shown in Table 7 indicate that the cases were above the minimum Lonoke specification. This indicates that the bolt lockups cannot be attributed to soft case heads.

To increase the data base of the information which was presented in Table 2, additional rounds of code M06I, M071, and M13I were fired to bring their total to 150. This information is presented in Table 8. No significant changes were noted. The high pressure round of 77200 psi from code M09I still stands out as an anomaly among all the others.

The Model 700 rifle, SN A6695256, used by Mr. Swistak was used in a test conducted to determine the pressure level required to lock up the bolt. Handloads of three pressure levels using 4198 powder and the 150 PSPCL bullet were established. Average levels of 81000, 84700, and 93200 psi were attained with charges of 46.5, 47.5, and 48.5 grains respectively. These loads were fired in the rifle starting with the lowest charge weight and pressure. A summary of this test is presented in Table 9. Note that while the gun locked up, the pressures were contained and no injury to a shooter would have occurred. 83

It had been noted (see Table 6) that ammunition with codes M09I and M08I had web thicknesses less than the minimum process control specification of .055 inches. Since the sample sizes represented by this table were small, a more comprehensive web measurement test was undertaken. At least ten cases from each of the ammunition codes that had been returned and that were known to have mixed powder were sectioned longitudinally such that their web thickness could be measured. The results of these measurements are given in Table 10. It is evident that the majority of cases have web thicknesses less than .055 inches.

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