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Conclusions

The overall performance for the ten guns with 3,250 rds. was 31 malfunctions, for a rate of .95%. Of the 31 malfunctions, 30 occurred with Western ammunition, 29 of which occurred with Western Magnum. It is our belief that the Western and Winchester brass is much softer than our own, and the results showed deep indentation from striking the shell latches, preventing proper wiping off, and rim breaks from striking the ejector and causing failures. There is a possibility that the magazine spring is taking a set, which in turn will cause more chucking of the shell column and aggravate the feeding from magazine with the Western magnum. Another important factor is that these malfunctions in feeding from the magazine occur with heavy resisting shoulders only, which ties in with the amount of mass and resistance involved. The drop shell malfunction is directly related to the magazine failures. There were no breakages that occurred.

Three guns were selected for further testing up to 1,700 rds. However, it was decided by the Steering Committee that the expenditure for the remainder of this test should be spent on the incoming machinability and design test. Therefore, these three guns were fired up to 450 rds. only.

The results are as follows:

<u>Gun No.</u>	<u>Malf.</u>	<u>Malf. Rate</u>	<u>Type</u>
24308	7	2.1%	1 Failure to blow back 3 Failures to feed from mag. 1 Drop shell
23768	None		
23763	4	1.2%	1 Failure to lock open 3 Failures to feed from mag.
23792	3	.9%	3 Failures to feed from mag.
23752	None		
23766	None		
23801	2	.6%	1 Failure to eject 1 Dropped shell
23771	None		
24003	6	1.8%	2 Failures to eject 2 Failures to lock open 1 Failure to feed from mag. 1 Stem carrier