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Ilion, New York Apr11 29, 1955

W. A. BEST

MODEL 722 - .308 CALIBER - PILOT LINE TESTING

At your request, ten (10) of the subject guns were withdrawn on 4-27-55 and subjected to a functional test of 320 rounds each. An accuracy test was attempted but due to production schedules which have to be met, facilities were not available. This test will be completed at a later date.

The results of the 320 round test are as follows:

Gun #	No. of Malf.	Rate		Type of Malfunction		
352682	None					
36086 6	None					
353207	3	.85	*1	Failures to eject Hard eacking		
354524	None		^			
360850	1	.2%	1	Failure to eject		
361012	1	.2%	*1	Hard cocking		
35 0906	3	.8%	3	Failures to eject		
129499	11	3.1%	11	Failures to eject		
36 0742	3	.8%	*1	Pailures to eject Hard cocking		
354553	1	.2%	*1	Hard cocking		

"The hard cocking that occurred on four of these guns was due to upsetting of metal on the cooking cam. An adjustment by using lubrication helped this condition. However, it is felt this should be investigated insumuch as it must exist in all calibers in the M/721 and M/722. Gum #129499 which had the highest malfunction rate due to ejection failures actually is not as serious as pictured. The majority of the malfunctions occurred on slow and medium manual operation.

April 29, 1955

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Ammunition used in this test is as follows:

1.	Winchester	180	gr.	ST	<u>6</u> .	Western Remington	110	gr.	SP
2.	**	150	17 10	ST	7.	Remington	180	12	SPCL
3.	***	110	rit	SP	8.		150	H	SPCL
ę.	Vestern	180	el.	SPCL ST	9.		TTO		SPCL

The malfunctions that occurred did not show a definite pattern of any one type of ammunition.

From the above results of test function-wise, the .308 Caliber appears satisfactory, providing the cocking cam condition is corrected.

Supervisor - Testing Unit
Arms Research & Development Division

CJT:T