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Ilion, New York
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H. W. 44413

Sportsman-58 - 16 AND 20 GAUGE

Strength testing of the adequacy of a lower cost proposal for the Sportsman-58 16 and 20 gauge Sportsman-58 components as outlined in a letter of May 7th from H. L. Hamelster to you had essentially been completed. Results of the endurance testing of the 20 gauge gun for breakages of bolt and slide as reported by the S&W testing unit is as follows:

<u>Gun No.</u>	<u>Round</u>	<u>Results</u>
7500	3000	No parts breakages
7500	5000	Carrier release breakage at 3000 rounds
7500	5000	Carrier latch spring at 4150 rounds
7500	5000	Extractor and plunger at 7400 rounds

The above results are for a gun test with a modified breech block slide and operating handle as reported by C. J. Theriault on March 8, 1956

<u>Gun No.</u>	<u>Round</u>	<u>Results</u>
7500	5000	*Carrier latch spring at 1750 rounds Extractor plunger at 4050 rounds Ejector at 4375 rounds
7500	4000	Extractor plunger at 4250 rounds Bolt cracked at 4750 rounds Slide cracked at 5000 rounds
7500	4000	*Carrier latch spring at 2800 rounds Extractor plunger at 4000 rounds Bolt cracked at 4010 and 5000 rounds Firing pin spring at 6000 rounds

Based on the above results from a strength standpoint it was concluded that the testing on March 8, 1956 and covered the necessary data to proceed with a pre-pilot test.