

REMINGTON ARMS COMPANY, INC.  
Firearms Research Division

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Xc: J.W. Brooks  
D.E. Bullis

TO: J. R. SNEDEKER  
FROM: C. J. MILLER - R. E. NIGHTINGALE  
SUBJECT: MODEL 700 CARBINE  
Work Order: C. 1856

*30-06 cal.*

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INTRODUCTION

Four Model 700s with undersized and shortened barrels were supplied to the Measurements Lab for strength evaluation.

SYNOPSIS

The two Model 700s tested passed our most severe strength tests.

PROCEDURE

The two Model 700s with barrels undersized on the outside diameter by .120" and shortened by 4 inches were chosen for testing. The .100" O.D. undersized barrels were not tested.

The first rifle (#B6261719) had a strain gage applied to the barrel for pressure measurements. Five proof rounds were fired and the barrel's O.D. was measured at one inch intervals starting at the muzzle. Then a super proof load (52.4 gr. of IMR 4198 and a 220 gr. bullet) was fired.

The second 700 Carbine (#B6261940) was proof tested. Then four 220 grain bullets were forced into the barrel and a super proof load was fired.

RESULTS

There was no measurable or visual damage to either barrel. The stocks were broken due to gases escaping through or by the bolt.

The peak pressures measured by strain gage technique on B6261719 with super proof was 192,000 PSI-Strain.

The peak pressure on rifle #B6261940 with super proof and 4 bullets estimated (from other 700 testing) to be 400,000 PSI-Strain.

CJM:REN:T  
Research Measurements Lab

45-006 EYE-EASE  
45-706 20/20 SUPP  
MADE IN U.S.A.

Model 700 Carbine B6261719

|    |       | 1                     | 2                     | 3                     | 4                     | 5                     | 6           |    |
|----|-------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------|----|
|    |       | 1 <sup>st</sup> Proof | 2 <sup>nd</sup> Proof | 3 <sup>rd</sup> Proof | 4 <sup>th</sup> Proof | 5 <sup>th</sup> Proof | Super Proof |    |
| 1  |       |                       |                       |                       |                       |                       |             | 1  |
| 2  | Model | .537                  | .537                  | .537                  | .537                  | .537                  | .537        | 2  |
| 3  | 1"    | .537                  | .537                  | .537                  | .537                  | .537                  | .537        | 3  |
| 4  | 2"    | .537                  | .537                  | .537                  | .537                  | .537                  | .537        | 4  |
| 5  | 3"    | .537                  | .537                  | .537                  | .537                  | .537                  | .537        | 5  |
| 6  | 4"    | .537                  | .537                  | .537                  | .537                  | .537                  | .537        | 6  |
| 7  | 5"    | .537                  | .537                  | .537                  | .537                  | .537                  | .537        | 7  |
| 8  | 6"    | .540                  | .540                  | .541                  | .540                  | .541                  | .540        | 8  |
| 9  | 7"    | .551                  | .551                  | .551                  | .551                  | .551                  | .552        | 9  |
| 10 | 8"    | .568                  | .568                  | .568                  | .568                  | .568                  | .568        | 10 |
| 11 | 9"    | .598                  | .597                  | .598                  | .598                  | .598                  | .598        | 11 |
| 12 | 10"   | .625                  | .626                  | .625                  | .625                  | .626                  | .625        | 12 |
| 13 | 11"   | .655                  | .655                  | .655                  | .655                  | .655                  | .655        | 13 |
| 14 | 12"   | .685                  | .685                  | .685                  | .685                  | .685                  | .685        | 14 |
| 15 | 13"   | .718                  | .718                  | .718                  | .718                  | .717                  | .718        | 15 |
| 16 | 14"   | .776                  | .775                  | .775                  | .777                  | .777                  | .777        | 16 |
| 17 | 15"   | .885                  | .885                  | .885                  | .885                  | .885                  | .886        | 17 |
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