

DATE

9-27-49

SUBJECT OF EXPT.

Main Springs h-721  
 # A-753-T

Load 24.4 - 26.8 at 2.97 2.83 defl.

$$\begin{array}{r} \text{Length fired} = 985 \\ 365 \\ \hline 620 \\ 330 \\ \hline 950 \\ 742 \\ \hline 1692 \end{array}$$

$$\begin{array}{r} 430 \\ 62 \\ \hline 492 \\ 250 \\ \hline 742 \\ 5357 \\ 1692 \\ \hline 3665 \end{array}$$

Stroke 313  
 Prot .054

$$\begin{array}{r} 297 \\ 338 \\ \hline 635 \\ 3178 \end{array}$$

$$\begin{array}{r} 3.348 \\ 852 \\ \hline 2.498 \end{array}$$

$$\begin{array}{r} 3.665 \text{ Length fired } 19 \# \\ 317 \\ \hline 3.348 \text{ Length cracked } 21 \# \end{array}$$

$$\begin{array}{r} 5800 \\ 3665 \\ \hline 2135 = 18.5 \# \\ 21.1 \# \end{array}$$

$$\begin{array}{r} 5800 \\ 3348 \\ \hline 2452 = 21.1 \# \end{array}$$

$$\begin{array}{r} 24.4 \\ 26.8 \\ \hline 51.2 \\ 25.4 \\ 26.6 \\ \hline 52.0 \\ 32.23 \\ \hline 84.23 \end{array}$$

$$21396$$

19.8 # X 297 = 5.9" # Min Energy

$$S = \frac{8 P D}{\pi d^3} = \frac{8 (52.2) .3145 (\text{rad})}{\pi (.054)^3} = 18 \frac{\text{K}}{\text{in}^3}$$

Stacked

$$\begin{array}{r} 297 \\ 220 \\ \hline 517 \end{array}$$

$$\begin{array}{r} 3348 \\ 3665 \\ \hline 7013 \\ 290 \\ 145 \\ \hline 7403 \end{array}$$

Max Working Stress =  $\frac{121,000}{\text{in}^2}$

EXPERIMENTER  
 WITNESS

DATE  
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