

* Whitworth form, 12 threads per inch.

The maximum stresses at the allowed working pressure were found by calculation to be as follows:

* Stay bolts at root of thread... 6960 lbs. per sq. in.	Round and rectangular braces... 8630 lbs. per sq. in.
* Stay bolts at reduced section... 7300 " " " "	Gusset braces " " " "
* Crown stays or crown-bar rivets at root of thread or smallest section, top... 5030 lbs. per sq. in.	Shearing stress on rivets... 7880 " " " "
Crown stays or crown-bar rivets at root of thread or smallest section, bottom... .. lbs. per sq. in.	Tension on net section of plate in longitudinal seam of lowest efficiency, pounds per sq. in... 11140

Dimensions and data taken from locomotive were furnished by

Data upon which above calculations were made was obtained from Drawing No... **13235**, **13236**.....

dated... **Dec. 4, 1919**..... furnished by The Baldwin Locomotive Works.

..... *Thomas H Walker*
Mechanical Engineer.

STATE OF PENNSYLVANIA, }
COUNTY OF PHILADELPHIA, } SS.:

..... **Thomas H. Walker** being duly sworn says that he is the officer who signed the foregoing specification, that he has satisfied himself of the correctness of the drawings and data used, and verified all of the calculations, and has examined the record of present condition of boiler dated..... **September 23, 1922** and sworn to by inspectors **C. A. Smith & W. I. Cotton** and believes that the design, construction, and condition of boiler No... **52820** renders it safe for a working pressure of... **200** pounds per square inch.

..... *Thomas H Walker*
(Name of affiant.)

Subscribed and sworn to before me
this... **15th** day of **January** ... 19**23**

..... *Irwin M. Pfeiffer*
Notary Public
NOTARY PUBLIC,

My Commission Expires Jan. 29 1925

Approved:

..... *C. A. Smith*
Inspector

