

Letter 26/186

SUNDERLAND ENGINE WORKS

BOILERS for Messrs S. P. Austin & Co's, Sunderland report No 14105
 SB "156"

SCALE - 1 INCH TO A FOOT

1 1/2" Plate
 1 1/2" Rivets
 1 1/2" Pitch

WRITTEN DIMENSIONS ON CASE

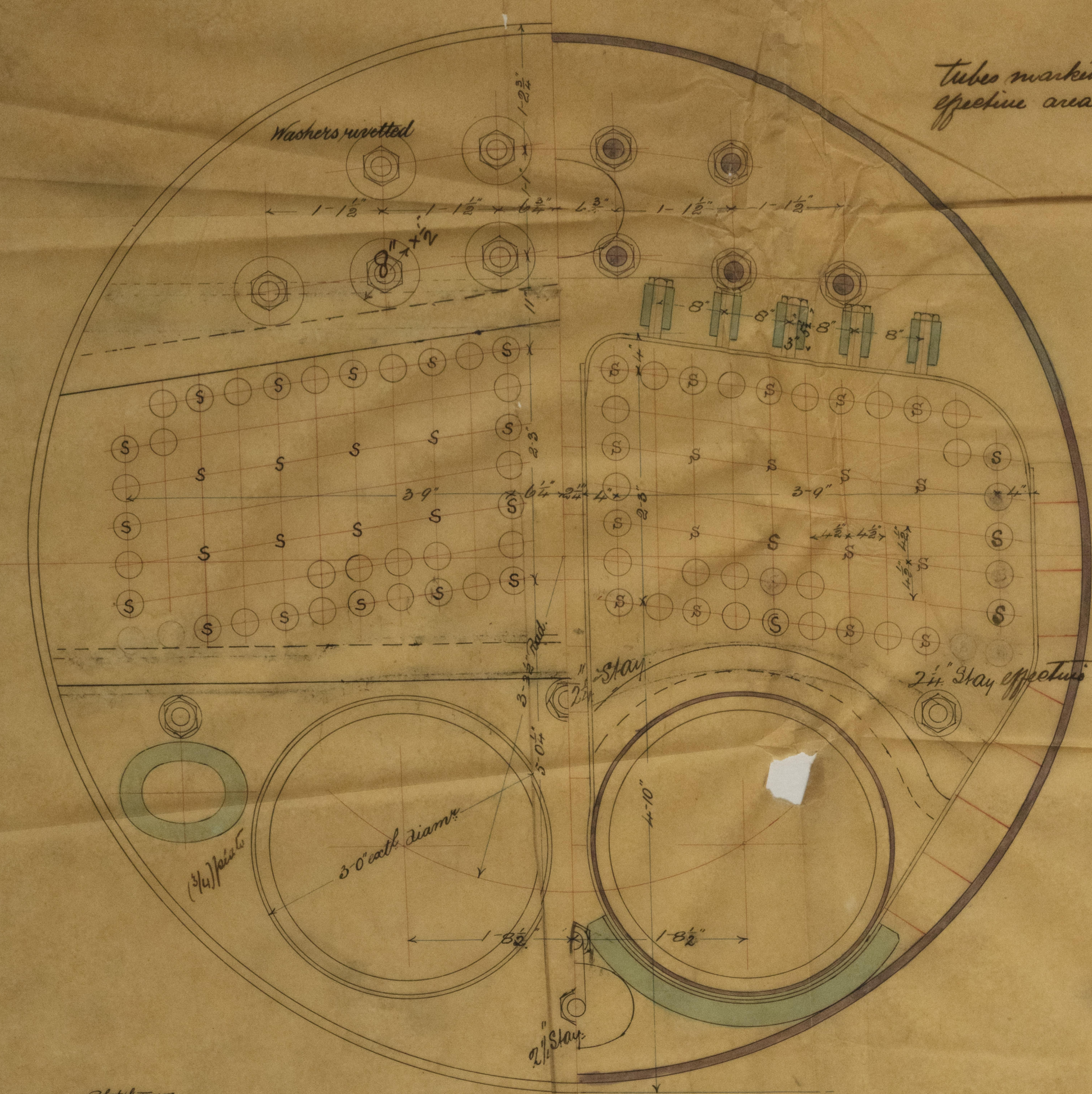
S.S. "Federation"

Working Pressure of Boiler Shell, B. of Trade 62,720 x 76.2 x 2 = 150 lbs.
 $\frac{124 \times 5.1}{124 \times 5.1}$

Lloyds $\frac{260 \times 1 \times 77.4}{124}$ 161 lbs.

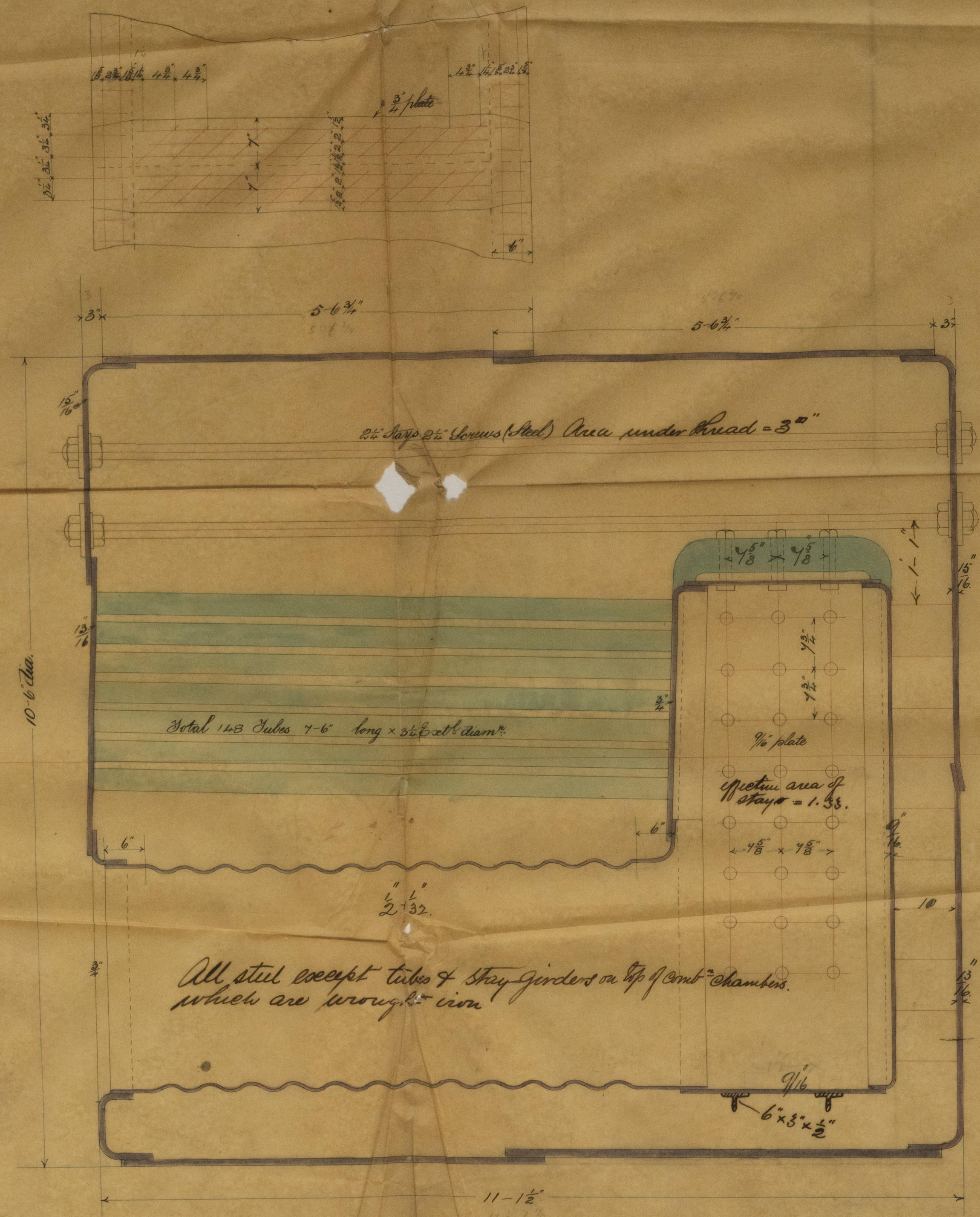
Working Pressure 150 lbs.
 Test " 300 lbs.

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tubes marked S. are stay tubes
 effective area = 2.41

2 1/2" stay effective area = 3.0"



2 1/2" stays 2 1/2" screws (std) Area under head = 3.0"

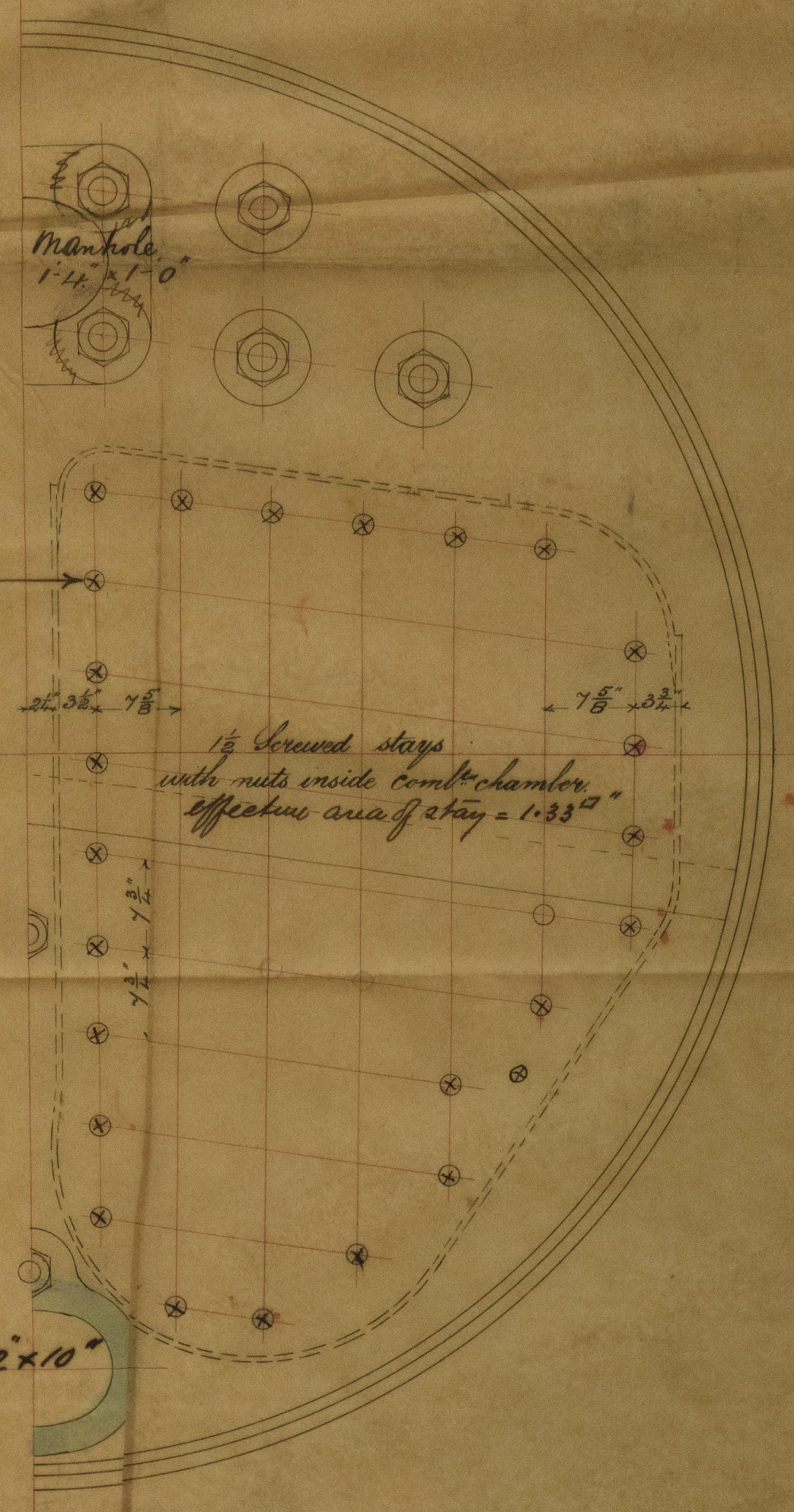
Total 143 Tubes 7'-6" long x 5 1/2" at diam.

Effective area of stays = 1.33

All steel except tubes & stay girders on top of Comb. Chamber which are wrought iron

Stays marked thus x to be 1 3/4" outside dia. & to have nuts inside. & other stays to be 1 1/2" dia. with nuts inside. Combustion Chamber only.

Effective area = 1.9



1 1/2" screwed stays with nuts inside Comb. chamber effective area of stay = 1.33

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CONTRACT 346

