

Report of Survey for Repairs of Engines and Boilers.

To. 639 (Received at London Office, 20/7/81)

No. in Survey held at Sunderland Date, first Survey 11th May Last Survey 13th July 1881

908 on the Machinery of the Additional Main Boiler for S.S. Menmuir (Number of Visits 10)

Tonnage, Gross 1940 Built at Sunderland When built 1878

Ditto, Net 1247 Owners J. Guthrie & W. McTaggart Port belonging to London

Diameter 36 x 68 Engines made by G. Clark When made 1878

Length of Stroke 42 Boilers made by G. Clark & W. Dafford & Sons When made 1878 & 1881

Pressure of Steam 75 lbs If Surveyed Afloat or in Dry Dock Years assigned 100A1

Registered Horse Power 240 Classified 100A1 Character in Register Book. LLOYDS M.C.

Last Survey No. Port

Particulars of Repairs and Examination In Consequence of an additional Main Boiler being made by Messrs W. Dafford & Sons, which is to be sent out to the above vessel at Australia, where it is to be fitted on board.

The annexed are the particulars and dimensions of the Boiler

Description. Cylindrical & Multitubular. Working pressure 75 lbs. tested by hydraulic pressure to 150 lbs per sq. inch, 13th July 1881. No steam chest.

Diameter of Boiler 12' 3". length of boiler 10' 1". description of riveting of shell longitudinal seams, double butt straps double riveted. Circumferential seams, double riv Lap. Thickness of shell plates $\frac{27}{32}$ ". diam of rivet holes 1" drilled. pitch of rivets $3\frac{3}{4}$ ". Breadth of straps 10" P.C. of strength of longitudinal joint 73. Working pressure of shell by rules 83 lbs. Size of Manholes in shell 15' 2" x 11". Size of Compensating rings 6' x 7". No of furnaces in ~~each~~ Boiler 2

Outside diameter 3' 7" length top 6' 10". bottom 6' 10". Thickness of plates $\frac{1}{2}$ ". description of joint double butt straps & single riveted. with rings fitted. Greatest length between rings 5' 6" working pressure by rules 94 lbs. Combustion Chamber plating thickness, sides $\frac{1}{2}$ ". back $\frac{1}{2}$ ". top $\frac{1}{2}$ " pitch of stays to sides 9' 4" x 8". back 9' 4" x 8' 3/4". top Circular 1' 10" x 10" x 15" pitch. stays fitted with nuts

Working pressure of plating by rules 80 lbs. diam of stays at smallest part 1 3/8". working pressure by rules 104 lbs. End plates in steam space thickness $\frac{1}{8}$ ". pitch of stays 17' x 16". stays secured with double nuts. working pressure 95 lbs. diameter of stays at smallest part 2 1/2". working pressure 104 lbs.

Front plate at bottom thickness 3/4". Back plate 3/4". greatest pitch of stay 13' 2". working pressure 80 lbs. diam of tubes 3 1/2". pitch of tubes 4 3/4" x 4 3/4". Thickness of tube plates front 3/4". back 3/4". stayed with stay tubes pitched 14 1/2" x 9 1/2".

General Observations, Opinion, and Recommendation:— Surveyed the Boiler during Construction, and found the Material and workmanship good and efficient

Entry or Registering Fee ... £ : :
 Survey Fee ... £ 4 : 4 : 0 received by me, W. Allison
 Certificate (if required) ... £ : : 23rd July 1881
 Travelling Expenses, if any, £ ()

William Allison
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute 18
 Assigned



Lloyd's Register
 Foundation

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26.7.81