

# REPORT ON BOILERS.

No. 10291.

Date of writing Report 1.2.19 When handed in at Local Office 1.2.19 Received at London Office TUE FEB. 4 - 1919  
 No. in Survey held at Stockton-on-Tees Port of Middlesbrough  
 Reg. Book. S. Hausson Date, First Survey 31<sup>st</sup> Oct. 1917 Last Survey 17<sup>th</sup> Jan 1919  
 on the S. Hausson (Number of Visits 19) Gross Tons      Net Tons       
 Master      Built at      By whom built      When built       
 Engines made at Gl. Yarmouth By whom made Wm Burrell & Co When made       
 Boilers made at Stockton By whom made Thomas Riley Broadbent (No. 5074) When made       
 Registered Horse Power      Owners      Port belonging to     

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Thomas J. Spencer & Sons

(Letter for record (5)) Total Heating Surface of Boilers 852 sq ft Is forced draft fitted      No. and Description of Boilers One single ended Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 22.1.19

No. of Certificate 5961 Can each boiler be worked separately      Area of fire grate in each boiler 28.75 sq ft No. and Description of safety valves to each boiler 2 direct spring Area of each valve 3.98 sq in Pressure to which they are adjusted     

Are they fitted with easing gear      In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler     

Smallest distance between boilers or uptakes and bunkers or woodwork Inside Main dia. of boilers 10'-0" Length 9'-6"

Material of shell plates Steel Thickness 27/32 Range of tensile strength 28-32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams 2 R. lap long. seams 2 13-3 Riv Diameter of rivet holes in long. seams 15/16 Pitch of rivets 7"  
 Lap of plates or width of butt straps 13 1/2 + 13/16 Per centages of strength of longitudinal joint rivets 87.5 Working pressure of shell by rules 182 Size of manhole in shell 17" x 13" In. hole + diam. plate 86.57

boiler 2 plain Material steel Outside diameter 36" Length of plain part 70 7/8" No. and Description of Furnaces in each boiler      Thickness of plates crown 27/32 bottom 25/32

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 187 Combustion chamber plates: Material Steel Thickness: Sides 21/32 Back 5/8" Top 21/32 Bottom 13/16 Pitch of stays to ditto: Sides 10 1/4 x 7 1/2 Back 8 x 8 1/2

Top 10 1/4 x 7 1/2 stays are fitted with nuts or riveted heads nuts Working pressure by rules 184 Material of stays steel Area at smallest part 1.73 Area supported by each stay 76.88 Working pressure by rules 180 End plates in steam space: Material steel Thickness 1 1/2

Pitch of stays 18 1/2 x 13 How are stays secured nuts + washers Working pressure by rules 190 Material of stays steel Area at smallest part 5.06

Area supported by each stay 241 Working pressure by rules 218 Material of Front plates at bottom steel Thickness 1 1/2 Material of Lower back plate Steel Thickness 1 1/2 Greatest pitch of stays 13" x 8 1/2" Working pressure of plate by rules 299 Diameter of tubes 3 1/4"

Pitch of tubes 4 3/8" x 4 1/4" Material of tube plates steel Thickness: Front 1 1/2 Back 3/4 Mean pitch of stays 10" Pitch across wide water spaces 14 Working pressures by rules 194 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 7 1/4" x 1 1/2" Length as per rule 25 Distance apart 10 1/4" Number and pitch of Stays in each 20 7 1/2"

Working pressure by rules 187 Steam dome: description of joint to shell 2 Riveted flange % of strength of joint 84.3

Diameter 2'-6" Thickness of shell plates 7/8" Material steel Description of longitudinal joint S. lap Diam. of rivet holes 1 1/8"

Pitch of rivets 2" Working pressure of shell by rules 180 Crown plates steel Thickness 3/4 How stayed Diagonal 30° Rad

UPERHEATER. none Date of Approval of Plan      Tested by Hydraulic Pressure to     

Date of Test      Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler     

Diameter of Safety Valve      Pressure to which each is adjusted      Is Easing Gear fitted     

SURVEY REQUEST NO. 1372 FOR THE FURNISHING OF BOILERS BY RILEY BROS. (BOILERMAKERS) LIMITED, MANUFACTURER. SECRETARY,     

Dates During progress of work in shops - 1917. Oct 31. Nov 2. Dec 14. 20. 1918. Jan 16. Aug 26. Oct 24. Nov 4. 6. 13. 21. 28. Dec 11 Is the approved plan of boiler forwarded herewith yes

while (During erection on board vessel - - -) 18. 28. 1919. Jan 13. 17. 22. 27 Total No. of visits 19 Return for duplicate Boiler RETURNED 6-2-1919

## GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been built under special survey in accordance with the Rules: is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results

As boiler now satisfactory fitted on board. Please see details in bundle Report No 8357 sent here with Substructure.

Survey Fee £ 3-0-0 When applied for Monthly A/C Travelling Expenses (if any)      When received     

Committee's Minute      signed      TUE. MAR. 28 1919 Wm Morrison Engineer Surveyor to Lloyd's Register of Shipping.

