

REPORT ON BOILERS.

No. 6514

Received at London Office WED. 20 OCT. 1910

Date of writing Report 19 When handed in at Local Office 20th Sept. 1910 Port of MIDDLESBROUGH ON TEES.
 No. in Survey held at Stockton-on-Tees Date, First Survey 2nd Sept. Last Survey 20th Sept. 1910
 Reg. Book. on the Boiler for Messrs Crabtree & Co Lim^d (Number of Visits 11) } Gross Tons }
 Master Built at By whom built When built
 Engines made at By whom made when made
 Boilers made at Stockton By whom made Messrs Riley Bros L^d (No 4206) when made
 Registered Horse Power Owners Port belonging to

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

(Letter for record (5)) Total Heating Surface of Boilers 1100 sq ft Is forced draft fitted No. and Description of Boilers

Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 20-10-10

No. of Certificate 4520 Can each boiler be worked separately Area of fire grate in each boiler 38 1/2 sq ft No. and Description of safety valves to each boiler

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 dia. of boilers 11'-0" Length 10'-0"

Material of shell plates steel Thickness 15/16 Range of tensile strength 28-32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams 2 Riv lap long. seams 2 Riv - 3 Riv Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 7 3/4"

Lap of plates or width of butt straps 16 x 15/16 Per centages of strength of longitudinal joint rivets 91.25 Working pressure of shell by plate 86.32

rules 187 Size of manhole in shell 16" x 12" Size of compensating ring 9" x 9" No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 41" Length of plain part top 76" Thickness of plates crown 5/164 bottom 103" bottom 88 man

Description of longitudinal joint welded No. of strengthening rings none Working pressure of furnace by the rules 196 Combustion chamber plates: Material steel Thickness: Sides 5/8" Back 3/8" Top 5/8" Bottom 1" Pitch of stays to ditto: Sides 8 3/4" x 8" Back 9 1/4" x 8 1/2"

Top 8" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 188 Material of stays steel Diameter at smallest part 1 1/2" Area supported by each stay 78.625 Working pressure by rules 180 End plates in steam space: Material steel Thickness 15/16"

Pitch of stays 15" x 14" How are stays secured nuts & 6 x 3/8 loose washers Working pressure by rules 184 Material of stays steel Diameter at smallest part 2.41

Area supported by each stay 228.6 Working pressure by rules 208 Material of Front plates at bottom steel Thickness 15/16 Material of Lower back plate steel Thickness 15/16"

Greatest pitch of stays 13 1/2" x 8 1/2" Working pressure of plate by rules 215 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates steel Thickness: Front 15/16" Back 3/4" Mean pitch of stays 10 3/8"

Pitch across wide water spaces 13 1/2" Working pressures by rules 185 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 7 1/4" x 1 1/2" Length as per rule 29 Distance apart 8" Number and pitch of Stays in each 2 @ 8"

Working pressure by rules 180 Superheater or Steam chest: how connected to boiler none Can the superheater be shut off and the boiler worked separately

Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

FOR THE FOREGOING IS A CORRECT DESCRIPTION, RILEY BROS. (BOILERMAKERS) LIMITED, Manufacturer.

Dates of Survey During progress of work in shops - - 1910. Sept. 2. 8. 14. 16. 20. 23. 30. Oct. 6. 13. 18. 20. Is the approved plan of boiler forwarded herewith yes

while building During erection on board vessel - - - Total No. of visits 11

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey, is of good material and workmanship, and on completion was tested by hydraulic pressure with satisfactory results

Survey Fee ... £ 3-13-0 When applied for. Monthly a/c. Travelling Expenses (if any) £ : : When received. 19

Wm Morrison Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUE. 7 MAR 1911

Assigned

