

Rpt. 5a.

REPORT ON BOILERS.

No. 429
SAT. JUL. 6 - 1912

of Balsense
Hull Rpt No. 25310
Received at London Office

Date of writing Report 4.7.12 When handed in at Local Office 4.7.12 Port of MIDDLESBROUGH-ON-TEES.

No. in Survey held at Stockton-on-Tees Date, First Survey 23rd May Last Survey 27th June, 1912

Reg. Book. on the Boiler for Messrs Crabtree & Co Ltd (Number of Visits 7) Gross Tons } Net

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 (No. 4478) 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 470 sq ft Is forced draft fitted _____ No. and Description of Boilers One single ended Working Pressure 130 Tested by hydraulic pressure to 260 Date of test 27.6.12

No. of Certificate 4901 Can each boiler be worked separately _____ Area of fire grate in each boiler 26 sq ft No. and Description of safety valves to each boiler _____ Area of each valve _____ 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 dia. of boilers 8'-0" Length 8'-0"

Material of shell plates steel Thickness 3/16 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 B-2 Riv Diameter of rivet holes in long. seams 13/16 Pitch of rivets 4 3/8"

Lap of plates or width of butt straps 8 1/2 x 3/16 Per centages of strength of longitudinal joint _____ Working pressure of shell by rules 130 Size of manhole in shell 16" x 12" Size of compensating ring 7 x 1" No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 32" Length of plain part _____ Thickness of plates _____

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 133 Combustion chamber plates: Material steel Thickness: Sides 3/16 Back 3/16 Top 3/16 Bottom 3/4 Pitch of stays to ditto: Sides 10" on Back 8" x 9 1/4"

Top 9" on If stays are fitted with nuts or riveted heads nuts Working pressure by rules 146 Material of stays steel Diameter at smallest part 1.48 Area supported by each stay 74 Working pressure by rules 160 End plates in steam space: Material steel Thickness 13/16

Pitch of stays 15 1/2" | 14 to tubes How are stays secured nuts + down washers Working pressure by rules 145 Material of stays steel Diameter at smallest part 4.11

Area supported by each stay 225 Working pressure by rules 190 Material of Front plates at bottom steel Thickness 13/16 Material of Lower back plate steel Thickness 13/16 Greatest pitch of stays 13 x 9 1/4 Working pressure of plate by rules 179 Diameter of tubes 3"

Pitch of tubes 4" x 4" Material of tube plates steel Thickness: Front 1/2 Back 5/8 Mean pitch of stays 10 Pitch across wide water spaces 12" Working pressures by rules 140 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 5" x 1 1/8" Length as per rule 18" Distance apart 9" Number and pitch of Stays in each one

Working pressure by rules 137 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.

A. Riley Secretary

Is the approved plan of boiler forwarded herewith yes

Total No. of visits 7

Dates of Survey: During progress of work in shops - - 1912. May 23. June 14. 15. 17. 19. 20. 27.

while building: During erection on board vessel - - -

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 ... £ 2-2-0 When applied for. MONTHLY A/c.

Travelling Expenses (if any) £ _____ When received. _____

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

Committee's Minute TUE. AUG. 13. 1912

Assigned see minute on Hull Rpt. 25310

