

REPORT ON BOILERS.

No. 25206

TUE. APR. 9-1912

Received at London Office

Date of writing Report 10 When handed in at Local Office 6.4.12 Port of **SUNDERLAND**

No. in Survey held at **SUNDERLAND** Date, First Survey 8 Feb Last Survey 22 Mar 1912

Reg. Book. on the **S.S. "Shakespeare"** (Number of Visits 7) Gross 3466 Tons Net 2179

Master Built at **Sunderland** By whom built **J.L. Thompson & Sons Ltd.** When built 1912

Engines made at **Stockton** By whom made **Blair & Co. Ltd.** when made 1912

Boilers made at **Sunderland** By whom made **Messrs J. Dickinson & Sons Ltd.** when made 1912

Registered Horse Power Owners **Shakespeare Shipping Co Ltd** Port belonging to **London**

MULTITUBULAR BOILERS

MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

J. Spencer & Sons Ltd.

(Letter for record (S).) Total Heating Surface of Boilers 634 sq ft Is forced draft fitted No

Boilers one single ended Working Pressure 100 lbs. Tested by hydraulic pressure to 200 lbs. Date of test 4-3-12

No. of Certificate 3000 Can each boiler be worked separately Yes Area of fire grate in each boiler 24 sq ft No. and Description of

safety valves to each boiler Two spring loaded Area of each valve 4.91 sq in Pressure to which they are adjusted 105

Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No

Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 9' 5 1/2" Length 9' 6"

Material of shell plates Steel Thickness 19/32 Range of tensile strength 28-32 lbs Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D.R. long. seams T.R. lap Diameter of rivet holes in long. seams 1" Pitch of rivets 4 1/4"

Lap of plates on width of butt straps 4 1/8" Per centages of strength of longitudinal joint rivets 49.8 Working pressure of shell by

rules 102 lbs. Size of manhole in shell 16" x 12" Size of compensating ring 8" x 19 1/2" plate 16.4

boiler Two plain Material Steel Outside diameter 36" Length of plain part top 40" Thickness of plates crown 33" bottom 64"

Description of longitudinal joint Single butt strap No. of strengthening rings 10 1/2 Working pressure of furnace by the rules 103 lbs. Combustion chamber

plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8" Pitch of stays to ditto: Sides 11" x 10" Back 12 1/2" x 10 1/8"

Top 11" x 10" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 100 lbs. Material of stays Steel Area

smallest part 1 1/2" Area supported by each stay 133 sq in Working pressure by rules 104 lbs. End plates in steam space: Material Steel Thickness 13/16"

Pitch of stays 19 1/2" x 16 1/2" How are stays secured D.N. 2 out stay Working pressure by rules 113 lbs. Material of stays Steel Area

Area supported by each stay 374 sq in Working pressure by rules 100 lbs. Material of Front plates at bottom Steel Thickness 13/16" Material of

Lower back plate Steel Thickness 13/16" Greatest pitch of stays 12 3/8" x 10 1/8" Working pressure of plate by rules 141 lbs. Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 13/16" Back 9/16" Mean pitch of stays 9" Pitch across wide

water spaces 13 1/4" Working pressures by rules 135 lbs. Girders to Chamber tops: Material Steel Depth and thickness of

girder at centre 6 x 2 Length as per rule 25 9/16" Distance apart 11" Number and pitch of Stays in each 1 @ 10"

Working pressure by rules 109 lbs. 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

The foregoing is a correct description,

John Dickinson & Sons, Limited,

Manufacturer.

Dates of Survey During progress of work in shops - 1912 Feb 8, 16, 21, Mar 4.

while building During erection on board vessel - Mar 6, 14, 22

Is the approved plan of boiler forwarded herewith

Total No. of visits 7

GENERAL REMARKS

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

This boiler has been built under special survey, the materials & workmanship are of good quality & the hydraulic test proved satisfactory.

This boiler has been satisfactorily fixed on the main deck of the vessel and the safety valves adjusted as above. washers:- both 9/32."

Survey Fee ... £ 2. 2. 0. When applied for, 6.4.1912

Travelling Expenses (if any) £ : : When received, 12.4.1912

William Butler & Lewis & Davis

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

for selfs J. J. Lindsay

Committee's Minute

WED. APR. 10. 1912

Assigned

SA Minute on Indb. Rpt 7286

Lloyd's Register Foundation

W1112-0164