

REPORT ON BOILERS.

No. 28055

Received at London Office

THU. 17 MAR. 1921

Date of writing Report

19

When handed in at Local Office

16 MAR. 1921 Port of

SUNDERLAND.

No. in Survey held at

SUNDERLAND.

Date, First Survey

25 Nov. 1920 Last Survey

19

Reg. Book.

on the *St. Asiatic* for *Arthurian*

(Number of Visits)

Gross Tons }
Net Tons }

Master Built at *Burntisland* By whom built *Burntisland S B Co (S/S No 112)* When built *1921*
 Engines made at *Dunfermline* By whom made *Coopers & Lyell Ltd* When made *1923*
 Boilers made at *Sunderland* By whom made *N.E. Marine Eng Co Ltd (No 2506)* When made *1921*
 Registered Horse Power Owners *W. H. Cochrane & Co* Port belonging to *Hull*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *David Colville & Sons Ltd and The Steel Company of Scotland Ltd.*

(Letter for record (R)) Total Heating Surface of Boilers *5336 sq ft* Is forced draft fitted *no* No. and Description of

Boilers *two single ended marine* Working Pressure *180* Tested by hydraulic pressure to *360* Date of test *2-3-21*

No. of Certificate *3756* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *128 sq ft* No. and Description of

safety valves to each boiler *two spring loaded* Area of each valve *9.6 sq in* Pressure to which they are adjusted *185*

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

Smallest distance between boilers *18"* Mean dia. of boilers *16'-6"* Length *11'-0"*

Material of shell plates *steel* Thickness *1 1/4"* Range of tensile strength *29-33 tons* Are the shell plates welded or flanged *no*

Descrip. of riveting: cir. seams *DR* long. seams *DRS. TR* Diameter of rivet holes in long. seams *1 5/16"* Pitch of rivets *9 5/16"*

Lap of plates or width of butt straps *19 1/2"* Per centages of strength of longitudinal joint rivets *86.4* Working pressure of shell by rules *180*

Size of manhole in shell *16" x 12"* Size of compensating ring *flanged* No. and Description of Furnaces in each boiler *A plain*

Material *steel* Outside diameter *3'-5 1/2"* Length of plain part *6'-3"* Thickness of plates crown *49"* bottom *64"*

Description of longitudinal joint *welded* No. of strengthening rings *none* Working pressure of furnace by the rules *202* Combustion chamber

plates: Material *steel* Thickness: Sides *3/2"* Back *3/2"* Top *3/2"* Bottom *3/2"* Pitch of stays to ditto: Sides *9 3/8" x 12 3/4"* Back *10 1/16" x 12"*

Top *9 3/8" x 12 3/4"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *195* Material of stays *Iron* Area at

smallest part *2.36 sq ft* Area supported by each stay *1.77 sq ft* Working pressure by rules *180* End plates in steam space: Material *steel* Thickness *1 1/8"*

Pitch of stays *23" x 23 1/2"* How are stays secured *DR & W* Working pressure by rules *181* Material of stays *steel* Area at smallest part *10.22 sq ft*

Area supported by each stay *5.40 sq ft* Working pressure by rules *192* Material of Front plates at bottom *steel* Thickness *2 3/8"* Material of

Lower back plate *steel* Thickness *1 5/16"* Greatest pitch of stays *14 1/2" x 10 1/16"* Working pressure of plate by rules *191* Diameter of tubes *3 1/4"*

Pitch of tubes *4 5/8" x 4 1/2"* Material of tube plates *steel* Thickness: Front *7/8"* Back *3/4"* Mean pitch of stays *10 1/4"* Pitch across wide

water spaces *14 1/2" (5/8" RP)* Working pressures by rules *226* Girders to Chamber tops: Material *steel* Depth and thickness of

girder at centre *2 @ 9 1/2" x 1"* Length as per rule *2-10 1/2"* Distance apart *12 3/4"* Number and pitch of Stays in each *2 @ 9 3/8"*

Working pressure by rules *180* Steam dome: description of joint to shell *none* % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type 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

THE NORTH EASTERN MARINE ENGINEERING CO LTD

The foregoing is a correct description,

C. T. Adams

WORKS MANAGER

Manufacturer.

Dates of Survey } During progress of work in shops - - } *1920 Nov 25-29, Dec 7-9, 17, Feb 24, 26, 28, Mar 12* Is the approved plan of boiler forwarded herewith *Yes*

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

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

The materials and workmanship are good.

The boilers have been constructed under special survey and will be sent to Burntisland to be fitted in the vessel

These boilers have been fitted on board in a satisfactory manner, tried under steam found efficient

Survey Fee £ *30 : 6 : -*

Travelling Expenses (if any) £ : : }

When applied for, *16 MAR 1921*
PAID PER SECRETARY'S LTR.
When received, *22 MAR 1921*

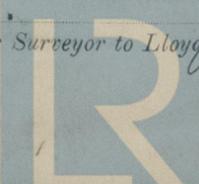
S. C. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 30 JAN. 1923

Assigned



Lloyd's Register

005429-005438-009