

REPORT ON BOILERS.

No. 46124

Received at London Office 17 NOV 1926

Date of writing Report *Novⁿ 8th 1926* When handed in at Local Office *Novⁿ 13th 1926* Port of *GLASGOW.*

No. in Reg. Book. Survey held at *Glasgow* Date, First Survey *23rd Apr* Last Survey *Novⁿ 8th 1926*

on the *S.E. Marine Boiler - 5/5 PORTWAY* (Number of Visits *6*) Tons { Gross Net

Master _____ Built at *Bristol* By whom built *Chas Hurton* Yard No. *159* When built *1927*

Engines made at *Southampton* By whom made *Day Lunn & Co. Ltd.* Engine No. *360* When made *1920*

Boilers made at *Glasgow* By whom made *A & W. Dalglish* Boiler No. *839* When made *1926*

Nominal Horse Power *54* Owners *J.R. Brown & Co.* Port belonging to *Bristol*

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *Messrs D. Colville and Sons Ltd* (Letter for Record *S*)

Total Heating Surface of Boilers *1053* sq ft Is forced draught fitted *No* Coal or Oil fired *Coal*

No. and Description of Boilers *One S.E. Marine* Working Pressure *130 lbs*

Tested by hydraulic pressure to *245 lbs* Date of test *8-11-26* No. of Certificate *14230* Can each boiler be worked separately

Area of Firegrate in each Boiler *40* sq ft No. and Description of safety valves to each boiler *Two spring loaded*

Area of each set of valves per boiler { per Rule *9.07* as fitted *9.8* Pressure to which they are adjusted *135 lbs* Are they fitted with easing gear *Yes*

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 *12"* Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

Largest internal dia. of boilers *11'-0"* Length *10'-0"* Shell plates: Material *S* Tensile strength *28-32 tons*

Thickness *11/16"* Are the shell plates welded or flanged *No* Description of riveting: circ. seams { end *DR Lap* inter. *-*

long. seams *T.R. DBS* Diameter of rivet holes in { circ. seams *1 1/16"* long. seams *13/16"* Pitch of rivets { *3 1/4"* *5 13/32"*

Percentage of strength of circ. end seams { plate *64.3* rivets *65.1* Percentage of strength of circ. intermediate seam { plate *-* rivets *-*

Percentage of strength of longitudinal joint { plate *84.94* rivets *85.9* combined *-* Working pressure of shell by Rules *131 lbs*

Thickness of butt straps { outer *9/16"* inner *21/32"* No. and Description of Furnaces in each Boiler *Two Plain*

Material *S* Tensile strength *26-30 tons* Smallest outside diameter *3'-4"*

Length of plain part { top *6'-4 5/8"* bottom *4'-0 7/16"* Thickness of plates { crown *43/64"* bottom *43/64"* Description of longitudinal joint *Weld*

Dimensions of stiffening rings on furnace or c.c. bottom *None* Working pressure of furnace by Rules *130 lbs*

End plates in steam space: Material *S* Tensile strength *26-30 tons* Thickness *13/16"* Pitch of stays *15" x 14"*

How are stays secured *Double Nut* Working pressure by Rules *142 lbs*

Tube plates: Material { front *S* back *S* Tensile strength { *26-30 tons* Thickness { *13/16"* *21/32"*

Mean pitch of stay tubes in nests *10 3/32"* Pitch across wide water spaces *14"* Working pressure { front *165 lbs* back *149 lbs*

Girders to combustion chamber tops: Material *S* Tensile strength *28-32 tons* Depth and thickness of girder

at centre *6 3/4 @ 1"* Length as per Rule *2'-2 25/32"* Distance apart *8"* No. and pitch of stays

in each *2 @ 8 1/4"* Working pressure by Rules *136 lbs* Combustion chamber plates: Material *S*

Tensile strength *26-30 tons* Thickness: Sides *17/32"* Back *9/16"* Top *17/32"* Bottom *7/8"*

Pitch of stays to ditto: Sides *8 1/4" x 8 1/4"* Back *9" x 8 1/2"* Top *8 1/4" x 8"* Are stays fitted with nuts or riveted over *Nuts*

Working pressure by Rules *141 lbs* Front plate at bottom: Material *S* Tensile strength *26-30 tons*

Thickness *13/16"* Lower back plate: Material *S* Tensile strength *26-30 tons* Thickness *13/16"*

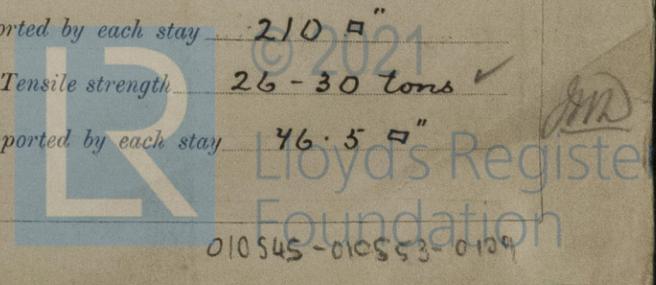
Pitch of stays at wide water space *13"* Are stays fitted with nuts or riveted over *Nuts*

Working Pressure *182 lbs* Main stays: Material *S* Tensile strength *28-32 tons*

Diameter { At body of stay, *2 1/8"* or *2 1/8"* No. of threads per inch *6* Area supported by each stay *210 sq in*

Working pressure by Rules *144 lbs* Screw stays: Material *S* Tensile strength *26-30 tons*

Diameter { At turned off part, *1 3/8"* or *1 3/8"* No. of threads per inch *9* Area supported by each stay *46.5 sq in*



Working pressure by Rules 132 lbs Are the stays drilled at the outer ends No Margin stays: Diameter ^{At turned off part,} _{or} 1 1/2"
 No. of threads per inch 9 Area supported by each stay 93.5 sq" Working pressure by Rules 134 lbs
 Tubes: Material LW Iron External diameter ^{Plain} 3 3/4" Thickness ^{9 W.C.} 5/16" No. of threads per inch 9
 Pitch of tubes 4 3/8" x 4 3/8" Working pressure by Rules 180 lbs Manhole compensation: Size of opening in
 shell plate 16" x 12" Section of compensating ring 28" x 24" x 1/16" No. of rivets and diameter of rivet holes 32 @ 15/16"
 Outer row rivet pitch at ends 6" Depth of flange if manhole flanged - Steam Dome: Material None
 Tensile strength Thickness of shell Description of longitudinal joint
 Diameter of rivet holes Pitch of rivets Percentage of strength of joint ^{Plate} _{Rivets}
 Internal diameter Working pressure by Rules Thickness of crown No. and diameter of
 stays Inner radius of crown Working pressure by Rules
 How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell

Type of Superheater None Manufacturers of ^{Tubes} _{Steel castings}
 Number of elements Material of tubes Internal diameter and thickness of tubes
 Material of headers Tensile strength Thickness Can the superheater be shut off and
 the boiler be worked separately Is a safety valve fitted to every part of the superheater which can be shut off from the boiler
 Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per
 Rules Pressure to which the safety valves are adjusted Hydraulic test pressure:
 tubes, castings and after assembly in place Are drain cocks or valves fitted
 to free the superheater from water where necessary

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with

The foregoing is a correct description,
A. W. Dalrymple Manufacturer

Dates of Survey ^{During progress of} _{work in shops - -} 1926 Apr 23 May 10 26 June 15 Are the approved plans of boiler and superheater forwarded herewith Yes
 while building ^{During erection on} _{board vessel - -} Nov. 8 Total No. of visits 6

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler has been constructed under Special Survey in accordance with the approved plan and Rules of the Society. The workmanship and materials are of good quality. The boiler is intended for vessel N° 159 building at yard of C. Hill and Sons Bristol

This boiler has now been fitted & secured & taken to the Y. Portway, where under steam found in order

Survey Fee £ 4 : 0 : 0 } When applied for, 192
 Travelling Expenses (if any) £ : : } When received, 192

MONTHLY ACCOUNT

John W. Gwynne
David C. Barr
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 16 NOV 1926

Assigned TRANSMIT TO LONDON

FRI. 27 MAY 1927
 TUES. 13 SEP 1927
 TUES. 6 DEC 1927
 TUES. 12 JUN 1928

TUE 19 MAR 1929

