

## REPORT ON BOILERS.

No. 38506

Received at London Office

24 NOV 1927

Date of writing Report

23.11.1927

When handed in at Local Office

23.11.1927

Port of

HULL.

No. in Reg. Book

Survey held at

Hull.

Date, First Survey

Aug 22.

Last Survey

23.11.1927

1927

39784 on the

Shel Ing "ABEILLE No. 14"

(Number of Visits

16)

Tons

Gross 125.66

Net

✓

Master

Built at

Lilly

By whom built

Gehrane Sons &amp; Co

Yard No.

1010

When built

1927

Engines made at

Hull

By whom made

Charles D. Holmes &amp; Co Ltd

Engine No.

1317

When made

1927

Boilers made at

Hull

By whom made

Charles D. Holmes &amp; Co Ltd

Boiler No.

1317

When made

1927

Nominal Horse Power

93.

Compagnie de Remorquage  
Owners de l'embarcadere "Les Abeilles"

Port belonging to

Havre

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *Ker. Stahlwerke AG. Hoesler, Hoesler.* (Letter for Record *S*)

Total Heating Surface of Boilers *1411 Sq. ft.* Is forced draught fitted *Yes* Coal or Oil fired *Coal*

No. and Description of Boilers *One single ended* Working Pressure *180 lbs*

Tested by hydraulic pressure to *320 lbs.* Date of test *6/10/27* No. of Certificate *3619* Can each boiler be worked separately *✓*

Area of Firegrate in each Boiler *48 Sq. ft.* No. and Description of safety valves to each boiler *Two, spring loaded*

Area of each set of valves per boiler *per Rule 10.9* Pressure to which they are adjusted *180 lbs* Are they fitted with casing 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 *✓* 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 *13'-3"* Length *11'-6"* Shell plates: Material *Steel* Tensile strength *28/32 Tons*

Thickness *1 1/8"* Are the shell plates welded or flanged *✓* Description of riveting: circ. seams *end 5R.*

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

Percentage of strength of circ. end seams *plate 63.4* rivets *55* Percentage of strength of circ. intermediate seam *plate 85.65* rivets *89.13*

Percentage of strength of longitudinal joint *plate 85.65* rivets *89.13* combined *89.12* Working pressure of shell by Rules *185 lbs.*

Thickness of butt straps *outer 3/8"* inner *1"* No. and Description of Furnaces in each Boiler *Two Brighton (Brimmide, Brighton Works, Gl.)*

Material *Steel* Tensile strength *28/30 Tons.* Smallest outside diameter *49"*

Length of plain part *top 8 3/4"* bottom *8 1/4"* Thickness of plates *crown 5/8"* bottom *5/8"* Description of longitudinal joint *Welded*

Dimensions of stiffening rings on furnace or c.c. bottom *✓* Working pressure of furnace by Rules *185 lbs.*

End plates in steam space: Material *Steel* Tensile strength *28/30 Tons* Thickness *1 1/2"* Pitch of stays *18" x 17"*

How are stays secured *BN. washers.* Working pressure by Rules *180 lbs.*

Tube plates: Material *front 7/8"* back *13/16"* Tensile strength *28/30 Tons.* Thickness *7/8"*

Mean pitch of stay tubes in nests *10.9* Pitch across wide water spaces *14 1/2"* Working pressure *front 181* back *200*

Girders to combustion chamber tops: Material *Steel* Tensile strength *28/32 Tons.* Depth and thickness of girder *at centre 7 1/2" x 13/4"* Length as per Rule *3 1/2"* Distance apart *9 1/8"* No. and pitch of stays *in each 2 @ 10"* Working pressure by Rules *183*

Tensile strength *28/30 Tons.* Thickness: Sides *3/4"* Back *1 1/16"* Top *1 1/16"* Bottom *3/4"*

Pitch of stays to ditto: Sides *10" x 10"* Back *10" x 9"* Top *10" x 9 1/8"* Are stays fitted with nuts or riveted over *Nuts*

Working pressure by Rules *182* Front plate at bottom: Material *Steel* Tensile strength *28/30 Tons*

Thickness *7/8"* Lower back plate: Material *Steel* Tensile strength *28/30 Tons.* Thickness *27/32"*

Pitch of stays at wide water space *14 1/2"* Are stays fitted with nuts or riveted over *Nuts*

Working Pressure *199* Main stays: Material *Steel* Tensile strength *28/32 Tons.*

Diameter *At body of stay, or Over threads 2 3/4"* No. of threads per inch *8"* Area supported by each stay *306*

Working pressure by Rules *180* Screw stays: Material *Steel* Tensile strength *28/30 Tons*

Diameter *At turned off part, or Over threads 1 3/4"* No. of threads per inch *9"* Area supported by each stay *90*

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Working pressure by Rules 186 Are the stays drilled at the outer ends Yes Margin stays: Diameter { At turned off part, 1 7/8 or Over threads 1 7/8 ✓  
 No. of threads per inch 9 Area supported by each stay 117.5 Working pressure by Rules 182  
 Tubes: Material As welded External diameter { Plain } 3 1/2 Thickness { 7/16 } No. of threads per inch 10  
 Pitch of tubes 4 3/4 Working pressure by Rules 215 Manhole compensation: Size of opening in  
 shell plate 16 x 12 Section of compensating ring 34 x 27 x 1 1/8 No. of rivets and diameter of rivet holes 32 @ 1 1/2 ✓  
 Outer row rivet pitch at ends 8 1/2 Depth of flange if manhole flanged ✓ Steam Dome: Material ✓  
 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 ✓ 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,

For CHARLES D. HOLMES & Co. LTD Manufacturer. ✓

Dates of Survey { During progress of work in shops - - }  
 while building { During erection on board vessel - - - }

See attached reports on Machinery ✓  
 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) ✓  
 Total No. of visits ✓

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

This boiler has been built under special survey & in accordance with the approved plan. The materials & workmanship are sound & good. The boiler has been satisfactorily fitted on board, tried under steam, and its safety valves adjusted as above.

Charged on engine report ✓  
 Survey Fee £ ... ✓ When applied for ✓ 192  
 Travelling Expenses (if any) £ ... ✓ When received ✓ 192

John Shackirdy  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 25 NOV 1927

Assigned

See report attached



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