

REPORT ON BOILERS.

No. 95885.

Received at London Office

-4 SEP 1929

-2 SEP. 1929

Port of

LIVERPOOL

Writing Report

192

When handed in at Local Office

First Survey

Decr 28th 1928

Last Survey

1929

(Number of Visits

3560

Tons

Net

Built at Birkenhead

By whom built

Cammell Laird & Co. Ltd

Card No.

956

When built

1929

made at

Birkenhead

By whom made

Cammell Laird & Co. Ltd

Engine No.

956

When made

1929

made at

Birkenhead

By whom made

Cammell Laird & Co. Ltd

Boiler No.

956

When made

1929

Net Horse Power

401

Owners

J. Holt & Co. (Lid) Ltd

Port belonging to

Liverpool

TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

David Colviller & Sons Ltd

Cammell Laird & Co. Ltd

(Letter for Record 5)

Heating Surface of Boilers

5176 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Coal

Description of Boilers

Two cylindrical multitubular

258

Working Pressure

180 lb sq in

by hydraulic pressure to

320 lb sq in

Date of test

28.3.29

No. of Certificate

2330

Can each boiler be worked separately

Yes

Firegrate in each Boiler

612 sq ft

No. and Description of safety valves to each boiler

Two spring loaded

each set of valves per boiler

per Rule

high lift valve

Pressure to which they are adjusted

185 lb sq in

Are they fitted with easing gear

Yes

of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Yes

distance between boilers or uptakes and bunkers, or woodwork

21"

Is oil fuel carried in the double bottom under boilers

Yes

distance between shell of boiler and tank top plating

2'-3"

Is the bottom of the boiler insulated

Yes

internal dia. of boilers

15'-3 9/16"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29-33 tons sq in

Are the shell plates welded or flanged

Yes

Description of riveting: circ. seams

and

long. seams

Yes

Diameter of rivet holes in

plate

circ. seams

1 1/4"

long. seams

1 1/4"

Pitch of rivets

3 1/2"

Percentage of strength of circ. end seams

plate

63.75%

Percentage of strength of circ. intermediate seam

plate

63.75%

Percentage of strength of longitudinal joint

plate

63.75%

Percentage of strength of longitudinal joint

plate

Working pressure of shell by Rules

181 1/2 lb sq in

No. and Description of Furnaces in each Boiler

Three, Corrugated

Smallest outside diameter

3'-9 1/2"

Thickness of plates

19/32"

Description of longitudinal joint

Weld.

Working pressure of furnace by Rules

189 lb sq in

Thickness

19/32"

Pitch of stay

20 1/2" x 17"

Working pressure by Rules

181 1/2 lb sq in

Thickness

19/32"

Working pressure

182 lb sq in

Working pressure of furnace by Rules

189 lb sq in

Thickness

19/32"

Pitch of stay

20 1/2" x 17"

Working pressure by Rules

181 1/2 lb sq in

Thickness

19/32"

Working pressure

182 lb sq in

Working pressure of furnace by Rules

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181 1/2 lb sq in

Thickness

19/32"

Working pressure

182 lb sq in

Working pressure of furnace by Rules

189 lb sq in

Thickness

19/32"

Pitch of stay

20

Working pressure by Rules *204th* Are the stays drilled at the outer ends *no* ✓ Margin stays: Diameter *1 1/2"* ✓
 No. of threads per inch *9* ✓ Area supported by each stay *101 sq. in.* ✓ Working pressure by Rules *182th* ✓
 Tubes: Material *Iron, B.B.* ✓ External diameter *3"* ✓ Thickness *5/16"* ✓ No. of threads per inch *9* ✓
 Pitch of tubes *4 3/16" = 4 3/16"* ✓ Working pressure by Rules *210th* ✓ Manhole compensation: Size of opening *4 1/2"* ✓
 shell plate *2 1/4" x 7 1/4"* ✓ Section of compensating ring *18 3/4" x 1 1/2"* ✓ No. of rivets and diameter of rivet holes *44, 3/16"* ✓
 Outer row rivet pitch at ends *9"* ✓ Depth of flange if manhole flanged *3 1/4"* ✓ Steam Dome: Material *✓*
 Tensile strength *✓* Thickness of shell *✓* Description of longitudinal joint *✓* Plate *✓*
 Diameter of rivet holes *✓* Pitch of rivets *✓* Percentage of strength of joint *✓* Rivets *✓*
 Internal diameter *✓* Working pressure by Rules *✓* Thickness of crown *✓* No. and diam. *✓*
 stays *✓* Inner radius of crown *✓* Working pressure by Rules *✓* Diameter of rivet holes *✓*
 How connected to shell *✓* Size of doubling plate under dome *✓*

Type of Superheater *North Eastern Marine* Manufacturers of *✓* Tubes *✓*
 Number of elements *112* ✓ Material of tubes *steel* ✓ Steel castings *✓*
 Material of headers *steel* ✓ Tensile strength *✓* Thickness *✓* Internal diameter and thickness of tubes *1 5/8" dia. 2.5"* ✓
 the boiler be worked separately *Yes* ✓ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *Yes* ✓
 Area of each safety valve *3.15 sq. in.* ✓ Are the safety valves fitted with easing gear *Yes* ✓ Working pressure *✓*
 Rules *✓* Pressure to which the safety valves are adjusted *185th* ✓ Hydraulic test *✓*
 tubes *✓* and after assembly in place *380th* ✓ Are drain cocks or valves *✓*
 to free the superheater from water where necessary *Yes* ✓
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes* ✓

The foregoing is a correct description,
 GAMMELL LAMB AND COMPANY LIMITED.

Dates of Survey *During progress of work in shops - - -* *See Mch report* ✓
 while building *During erection on board vessel - - -* *✓*
 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.)

These boilers have been constructed under special survey, and in accordance with the approved plan. They have been satisfactorily fitted on board and examined under steam.

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

J. P. M. M. M.
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute *LIVERPOOL - 3 SEP 1929*
 Assigned *See accompanying Mch report.*



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