

Rpt. 5a.

REPORT ON BOILERS.

No. 39590

2 FEB 1929

Received at London Office

Date of writing Report

1 FEB 1929

When handed in at Local Office

192

Port of

HULL.

No. in Reg. Book.

Survey held at

Hull.

Date, First Survey

19 Sept/28

Last Survey

26 Jan'y 1929.

1002

on the

Steam Trawler "FLEMING"

(Number of Visits

26)

Gross

556.27

Tons

Net

158.72

Master

Built at

Bursley

By whom built

Cook, William & Co Ltd

Yard No.

512

When built

1929

Engines made at

Hull

By whom made

Charles D. Holmes & Co Ltd

Engine No.

1354

When made

1929

Boilers made at

Hull

By whom made

do

Boiler No.

1354

When made

1929

Nominal Horse Power

96.

Owners

F. T. Ross Ltd

Port belonging to

Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Hiskowitz, Borsum & Eisenhütten Gb. ✓

(Letter for Record

)

Total Heating Surface of Boilers

1698 sq ft. ✓

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One single ended return tube ✓

Working Pressure

200 lbs ✓

Tested by hydraulic pressure to

350 lbs.

Date of test

13.12.28

No. of Certificate

3581

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

49.2 sq ft. ✓

No. and Description of safety valves to each boiler

2 Spring loaded ✓

Area of each set of valves per boiler

{ per Rule

9.8 sq ft. ✓

{ as fitted

9.8 sq ft. ✓

Pressure to which they are adjusted

200 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

4" ✓

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

14'-0" ✓

Length

10'-8" ✓

Shell plates: Material

Steel ✓

Tensile strength

28/32 Tons ✓

Thickness

1/32" ✓

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

end

S.R.

Long. seams

T.R. S.R.S. ✓

Diameter of rivet holes in

{ circ. seams

1/32" ✓

{ long. seams

Pitch of rivets

3/4" ✓

8 3/16" ✓

Percentage of strength of circ. end seams

{ plate

65.8 ✓

{ rivets

51.2 ✓

Percentage of strength of circ. intermediate seam

{ plate

✓

{ rivets

✓

Percentage of strength of longitudinal joint

{ plate

85.03 ✓

{ rivets

90.8 ✓

{ combined

88.8 ✓

Working pressure of shell by Rules

201 lbs ✓

Thickness of butt straps

{ outer

1" ✓

{ inner

1/8" ✓

No. and Description of Furnaces in each Boiler

Steel plain ✓

Material

Steel ✓

Tensile strength

28/30 Tons ✓

Smallest outside diameter

41" ✓

Length of plain part

{ top

76" ✓

{ bottom

69" ✓

Thickness of plates

{ crown

13/16" ✓

{ bottom

Description of longitudinal joint

Welded ✓

Dimensions of stiffening rings on furnace or c.c. bottom

✓

Working pressure of furnace by Rules

219 lbs. ✓

End plates in steam space: Material

Steel ✓

Tensile strength

28/30 Tons ✓

Thickness

13/16" ✓

Pitch of stays

18" ✓

How are stays secured

S.N. & washers. ✓

Working pressure by Rules

220 lbs. ✓

Tube plates: Material

{ front

Steel

{ back

-

Tensile strength

28/30 Tons. ✓

Thickness

{ 15/16" ✓

{ 7/8" ✓

Lean pitch of stay tubes in nests

10.94 ✓

Pitch across wide water spaces

13 3/4" ✓

Working pressure

{ front

211 lbs. ✓

{ back

230 lbs. ✓

Girders to combustion chamber tops: Material

Steel. ✓

Tensile strength

28/32 Tons. ✓

Depth and thickness of girder

centre

10 1/2" x 13 1/4" ✓

Length as per Rule

36 3/16" ✓

Distance apart

9" ✓

No. and pitch of stays

each

3 @ 8 3/4" ✓

Working pressure by Rules

210 lbs. ✓

Combustion chamber plates: Material

Steel ✓

Tensile strength

28/30 Tons. ✓

Thickness: Sides

3/4" ✓

Back

23/32" ✓

Top

3/4" + 23/32" ✓

Bottom

3/4" ✓

Pitch of stays to ditto: Sides

9 x 8 3/4" ✓

Back

9 x 8 1/2" ✓

Top

9 x 8 3/4" ✓

Are stays fitted with nuts or riveted over

nuts ✓

Working pressure by Rules

230 lbs. ✓

Front plate at bottom: Material

Steel ✓

Tensile strength

28/30 Tons ✓

Thickness

15/16" ✓

Lower back plate: Material

Steel ✓

Tensile strength

28/30 Tons ✓

Thickness

29/32" ✓

Pitch of stays at wide water space

14" x 8 3/4" ✓

Are stays fitted with nuts or riveted over

nuts ✓

Working Pressure

228 lbs. ✓

Main stays: Material

Steel ✓

Tensile strength

28/32 Tons ✓

Diameter

{ At body of stay,

3 1/4" ✓

{ Over threads

No. of threads per inch

8 ✓

Area supported by each stay

3 3/4" sq ✓

Working pressure by Rules

248 lbs. ✓

Screw stays: Material

Steel ✓

Tensile strength

28/30 Tons ✓

Diameter

{ At turned off part,

17/8" + 13/4" ✓

{ Over threads

No. of threads per inch

10 ✓

Area supported by each stay

78.9 sq ✓

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Foundation

W395-0152

Working pressure by Rules 230 lbs Are the stays drilled at the outer ends h_o Margin stays: Diameter { At turned off part, 1 7/8 or Over threads 1 7/8

No. of threads per inch 10 Area supported by each stay 94.45 sq in Working pressure by Rules 218 lbs

Tubes: Material Iron External diameter { Plain 3 1/2 Stay 3 1/2 Thickness { 5/16 No. of threads per inch 9

Pitch of tubes 4 7/8 Working pressure by Rules 215 lbs Manhole compensation: Size of opening 32 @ 1 1/4

shell plate 1/6 x 1/2 Section of compensating ring 34 x 27 x 1 3/8 No. of rivets and diameter of rivet holes 32 @ 1 1/4

Outer row rivet pitch at ends 8 3/16 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 ✓

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 at ✓

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 { During progress of See attached report Are the approved plans of boiler and superheater forwarded herewith ✓
of Survey { work in shops --- on Machy (If not state date of approval.)
while { During erection on ✓
building { board vessel --- ✓

Total No. of visits ✓

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built in accordance with the approved plan. The materials & workmanship are sound & good. It has been satisfactorily fitted on board, tried under steam and its safety valves adjusted as above.

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

John Whackerdy
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute 5 FEB 1929

Assigned See report attached



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