

REPORT ON BOILERS.

No. 41110

Received at London Office

14 AUG 1930

Date of writing Report

192

When handed in at Local Office

192

Port of

HULL

No. in Survey held at

Hull

Date, First Survey

Apr. 22nd

Last Survey

Aug 9th

1930

g. Book.

on the

Steam Trawler "WELSBACH"

(Number of Visits

23

Gross

369.48

Tons

Net 148.90

Master

Built at

Beverley

By whom built

W. & A. Hemmell & Co. Ltd

Yard No.

549

When built

1930

Engines made at

Hull

By whom made

Charles D. Holmes & Co. Ltd

Engine No.

1403

When made

1930

Boilers made at

Hull

By whom made

Boiler No.

1403

When made

1930

Nominal Horse Power

96

Owners

F. & T. Ross Ltd

Port belonging to

Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Wicknitzer Bergan & Eisenhütten G/s.

(Letter for Record

5

Total Heating Surface of Boilers

1698 sq. ft.

Is forced draught fitted

Yes

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

26.6.30

No. of Certificate

3485

Can each boiler be worked separately

Yes

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

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

Yes

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

14'-0"

Length

10'-8"

Shell plates: Material

Steel

Tensile strength

28/32 Tons.

Thickness

1 1/2"

Are the shell plates welded or flanged

Yes

Description of riveting: circ. seams

end

6R.

Ing. seams

T.R. 5/8"

Diameter of rivet holes in

circ. seams

1 1/2"

Pitch of rivets

8 1/2"

Percentage of strength of circ. end seams

plate

65.8

Percentage of strength of circ. intermediate seam

plate

65.8

Percentage of strength of longitudinal joint

plate

88.03

Working pressure of shell by Rules

201 lbs.

Thickness of butt straps

outer

1 1/2"

inner

1 1/2"

No. and Description of Furnaces in each Boiler

3

Thin plain

3 1/2"

Material

Steel

Tensile strength

28/30 Tons.

Smallest outside diameter

41"

Length of plain part

top

46"

bottom

69"

Thickness of plates

crown

13/16"

bottom

Description of longitudinal joint

butted

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

Working pressure of furnace by Rules

219 lbs.

Stays in steam space: Material

Steel

Tensile strength

28/30 Tons.

Thickness

13/16"

Pitch of stays

18"

How are stays secured

Double nuts & washers

Working pressure by Rules

220 lbs.

Stays in water space: Material

front

Steel

back

-

Tensile strength

28/30 Tons.

Thickness

15/16"

7/8"

Pitch of stay tubes in nests

10.94"

Pitch across wide water spaces

13 3/4"

Working pressure

front

211 lbs.

back

230

Orders to combustion chamber tops: Material

Steel

Tensile strength

28/32 Tons.

Depth and thickness of girder

Centre

9 1/2" x 13/4"

Length as per Rule

36 3/4"

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,

or

Over threads

3 1/4"

No. of threads per inch

8

Area supported by each stay

324 sq. in.

Working pressure by Rules

245 lbs.

Screw stays: Material

Steel

Tensile strength

28/30 Tons

Diameter

At turned off part,

or

Over threads

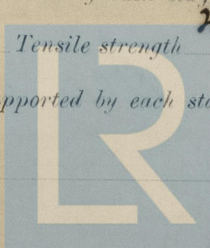
17/8" + 13/4"

No. of threads per inch

10

Area supported by each stay

789 sq. in.



Lloyd's Register Foundation

Working pressure by Rules 230 Lbs Are the stays drilled at the outer ends 20 Margin stays: Diameter { At turned off part, 1 7/8" or Over threads 17/8"
No. of threads per inch 10 Area supported by each stay 97.75 Working pressure by Rules 210 Lbs.
Tubes: Material Iron External diameter { Plain 8 1/2" Thickness { 8.05 No. of threads per inch 9
Pitch of tubes 4 7/8" Working pressure by Rules 215 Lbs Manhole compensation: Size of opening 16 x 12"
shell plate 16 x 12" Section of compensating ring 3 1/2 x 27 x 1 3/4" No. of rivets and diameter of rivet holes 32 @ 1 1/4"
Outer row rivet pitch at ends 8 9/16" 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 of stays ✓
How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes and 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 the boiler be worked separately ✓
Area of each safety valve ✓ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler ✓
Rules ✓ Are the safety valves fitted with easing gear ✓ Working pressure as tubes ✓ Pressure to which the safety valves are adjusted ✓ Hydraulic test pressure ✓
to free the superheater from water where necessary ✓ and after assembly in place ✓ Are drain cocks or valves ✓
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with ✓

The foregoing is a correct description,
For CHARLES D. HOLMES & Co., Ltd

Dates of Survey { During progress of work in shops - - Apr. 24. 28. May. 10. 14. 16. 22. Jun. 2. 5. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
while building { During erection on board vessel - - 11. 12. 18. 19. 23. 25. July 1. 5. 9. 23. 24. 29. Total No. of visits 25.
30. Aug. 2. 2. 6. 9

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. It has been satisfactorily fitted on board, tried under steam and its safety valves adjusted as above.

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

John Mackenzie
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE. 19 AUG 1930

Assigned See other J.E. Rpt