

REPORT ON BOILERS.

No. 44467

Received at London Office

17 FEB 1934

Date of writing Report 15-2-1934 When handed in at Local Office

Port of

HULL

No. in Survey held at
eg. Book.

Hull.

Date, First Survey

28.11.33

Last Survey

10.2.1934

on the

Steel De Vetch.

"KINGSTON ANDALUSITE"

(Number of Visits

9.)

Gross

36 x 415

Tons

Net

168

Master

Built at

Beverley

By whom built

Cook, Weldon & Gimmell

Card No.

584

When built

2-34

Engines made at

Hull.

By whom made

C. D. Holmes & Co. Ltd

Engine No.

1450

When made

1934

Boilers made at

do

By whom made

ditto

Boiler No.

1450

When made

1934

Nominal Horse Power

111.

Owners

Kingston Steam Trawling Co

Port belonging to

Hull.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appleby Iron Co. Ltd

(Letter for Record

S)

Total Heating Surface of Boilers

1940 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One single-ended

Working Pressure

210 lbs/sq in

Tested by hydraulic pressure to

365 lbs/sq in

Date of test

18-1-34

No. of Certificate

3880

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

53.7 sq ft

No. and Description of safety valves to each boiler

2 - Spring loaded

Area of each set of valves per boiler

per Rule

10.8 sq in

as fitted

Pressure to which they are adjusted

210 lbs/sq in

Are they fitted with easing gear

Yes

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

9"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

Yes

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

174"

Length

10'-8"

Shell plates: Material

Steel

Tensile strength

29/33 tons/sq in

Thickness

43/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R. lap

Long. seams

T.R. - D.B.S.

Diameter of rivet holes in

circ. seams

1 3/8"

Pitch of rivets

3 3/4"

9 1/4"

Percentage of strength of circ. end seams

plate

63.2

rivets

43.7

Percentage of strength of circ. intermediate seam

plate

Yes

rivets

Yes

Percentage of strength of longitudinal joint

plate

85.13.

rivets

86.8

combined

87.6

Working pressure of shell by Rules

212 lbs/sq in

Thickness of butt straps

outer

33/32"

inner

37/32"

No. and Description of Furnaces in each Boiler

Three - plain

Material

Steel

Tensile strength

26/30 tons/sq in

Smallest outside diameter

42.5"

Length of plain part

top

75"

bottom

75"

Thickness of plates

crown

53/64"

bottom

53/64"

Description of longitudinal joint

Weld

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

Yes

Working pressure of furnace by Rules

212 lbs/sq in

End plates in steam space: Material

Steel

Tensile strength

26/30 tons/sq in

Thickness

38/32"

Pitch of stays

19 3/4" x 18 1/4"

How are stays secured

Double nuts & washers

Working pressure by Rules

212 lbs/sq in

Tube plates: Material

front

Steel

back

"

Tensile strength

26/30 tons/sq in

Thickness

30/32"

28/32"

Lean pitch of stay tubes in nests

10.7"

Pitch across wide water spaces

14"

Working pressure

front

223 lbs/sq in

back

222 lbs/sq in

Girders to combustion chamber tops: Material

Steel

Tensile strength

29/33 tons/sq in

Depth and thickness of girder

At centre

10" x 56/32"

Length as per Rule

36.219"

Distance apart

9 1/2"

No. and pitch of stays

At each

3 @ 8"

Working pressure by Rules

227 lbs/sq in

Combustion chamber plates: Material

Steel

Tensile strength

26/30 tons/sq in

Thickness: Sides

24/32"

Back

23/32"

Top

23/32"

Bottom

24/32"

Pitch of stays to ditto: Sides

10" x 8 1/2"

Back

9 3/8" x 8 1/4"

Top

9 1/2" x 8"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

215 lbs/sq in

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons/sq in

Thickness

30/32"

Lower back plate: Material

Steel

Tensile strength

26/30 tons/sq in

Thickness

28/32"

Pitch of stays at wide water space

14 1/4" x 8 1/4"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

211 lbs/sq in

Main stays: Material

Steel

Tensile strength

28/32 tons/sq in

Diameter

At body of stay,

3 1/4"

Over threads

No. of threads per inch

8

Area supported by each stay

360 sq in

Working pressure by Rules

220 lbs/sq in

Screw stays: Material

Steel

Tensile strength

26/30 tons/sq in

Diameter

At turned off part,

1 3/4"

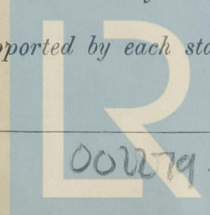
Over threads

No. of threads per inch

10

Area supported by each stay

85 sq in

Lloyd's Register
Foundation

Working pressure by Rules 212 1/2 Are the stays drilled at the outer ends Yes Margin stays: Diameter { At turned off part, 1 7/8" & 2"
Over threads
No. of threads per inch 10 Area supported by each stay 98 sq" Working pressure by Rules 217 lbs/sq"
Tubes: Material Iron External diameter { Plain 3 1/2" Thickness { 5/16" & 3/8" No. of threads per inch 9
Pitch of tubes 4 3/4" Working pressure by Rules 215 lbs/sq" Manhole compensation: Size of opening
shell plate 16" x 12" Section of compensating ring 57 1/2" x 43/32" No. of rivets and diameter of rivet holes 16 @ 1 1/32"
Outer row rivet pitch at ends 10 1/4" Depth of flange if manhole flanged 5 1/2" Steam Dome: Material Steel
Tensile strength 26/30 tons/sq" Thickness of shell 24/32" Description of longitudinal joint S.R. lap
Diameter of rivet holes 1 1/32" Pitch of rivets 2 1/4" Percentage of strength of joint { Plate 54%
Rivets 43.5%
Internal diameter 33" Working pressure by Rules 230 lbs/sq" Thickness of crown 28/32" No. and diameter
stays 2 @ 2 1/4" Inner radius of crown ✓ Working pressure by Rules ✓
How connected to shell Riveted Size of doubling plate under dome 57 1/2" x 43/32" Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell 1 1/32" @ 10 1/4"

Type of Superheater Cone 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 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,
FOR CHARLES D. HOLMES & CO., LTD.
Manufacturers

Dates of Survey { During progress of 1933 Nov. 28. 30 Dec. 12. 22. 28. Are the approved plans of boiler and superheater forwarded herewith ✓
work in shops - - - 1934 Jan. 9-18-
while building { During erection on 1934 Feb. 5-10 board vessel - - - Total No. of visits 9

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Kingston Alalite

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

See Machinery Report

Survey Fee ... £ : : When applied for, 10
Travelling Expenses (if any) £ : : When received, 10

Deputy Surveyor & John Mackenzie
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE 20 FEB 1934

Assigned See other Rpt
Shul 44467