

REPORT ON BOILERS.

No. 39417.

Received at London Office 22 NOV 1928

Date of writing Report

19 NOV 1928

When handed in at Local Office

19 NOV 1928

Port of

HULL

No. in Survey held at Reg. Book.

61506 on the Steam Trawler "KINGSTON BERYL"

Date, First Survey

5 Sept

Last Survey

14 Nov 1928

(Number of Visits 15)

Gross Tons 352
Net 150

Master

Built at Beverley

By whom built Cook, Nelson & Gummels

Card No. 506 When built 1928

Machinery made at

Hull

By whom made Charles D. Holmes & Co. Ltd

Engine No. 1350 When made 1928

Boilers made at

Hull

By whom made do

Boiler No. 1350 When made 1928

Indicated Horse Power

96

Owners Kingston Steam Trawling Co. Ltd

Port belonging to Hull

ULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Wickwitzer, Bergan & Eisenhuten & Co.

(Letter for Record (S))

Total Heating Surface of Boilers

1698 Sq. ft.

Is forced draught fitted

ho

Coal or Oil fired

Coal

Number and Description of Boilers

One single ended return tube 150

Working Pressure

200 lbs.

Tested by hydraulic pressure to

350 lbs.

Date of test 1.11.28

No. of Certificate 3674

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. in.
as fitted 9.8 sq. in.

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

✓

Is oil fuel carried in the double bottom under boilers

ho

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 3/32"

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

end

33/4"

inter.

✓

Long. seams

T.R. 5/16"

Diameter of rivet holes in

circ. seams 1 9/32"

long. seams

1 9/32"

Pitch of rivets

8 3/8"

Percentage of strength of circ. end seams

plate

65.8

rivets

51.2

Percentage of strength of circ. intermediate seam

plate

85.03

rivets

✓

Percentage of strength of longitudinal joint

plate

90.8

rivets

88.8

combined

Working pressure of shell by Rules

201 lbs.

Thickness of butt straps

outer 1 1/8"

inner 1 1/8"

No. and Description of Furnaces in each Boiler

One plain 3 p.f.

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 13/16"

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

BN. & washers

Working pressure by Rules

220 lbs.

Tube plates: Material

front Steel

back -

Tensile strength

28/30 Tons

Thickness

15/16"

7/8"

Working pressure

front 211 lbs.
back 230 -

Mean pitch of stay tubes in nests

10.97

Pitch across wide water spaces

13 3/4"

Tensile strength

28/32 Tons

Depth and thickness of girder

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 Tons

at centre

10 1/2" x 13 1/4"

Length as per Rule

36 3/16"

Distance apart

9'8"

No. and pitch of stays

in 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 3/4"

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

22.8 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

248 lbs.

Screw stays: Material

Steel

Tensile strength

28/30 Tons

Diameter

At turned off part, or over threads 1 7/8" - 1 3/4"

No. of threads per inch

10

Area supported by each stay

78.9 sq. in.



Lloyd's Register
Foundation

Working pressure by Rules 230 Lbs. Are the stays drilled at the outer ends 40 Margin stays: Diameter { At turned off part, 17/8" or Over threads 218 Lbs. No. of threads per inch 6 Area supported by each stay 97.45 sq. in. Working pressure by Rules 215 Lbs. Tubes: Material Iron External diameter { Plain 32" Stay 32" 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 in shell plate 16" x 12" Section of compensating ring 34 x 27 x 1 3/2" No. of rivets and diameter of rivet holes 320 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 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 22 inclusive for boilers been complied with

The foregoing is a correct description,
For CHARLES B. HOLMES & Co. LTD.
J. B. Cooper Manufacturer.

Dates of Survey { During progress of work in shops - - } See attached reports on Machinery. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) while { During erection on board vessel - - } on Machinery. Total No. of visits ✓ building

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

Charges on Machinery Report
Survey Fee £ 192 When applied for, ✓
Travelling Expenses (if any) £ 192 When received, ✓

John H. Mackenzie
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 27 NOV 1928

Assigned see minute one
Hul. Rpt. 39417 attached