

## REPORT ON BOILERS.

No. 39894.

Received at London Office

23 MAY 1929

Date of writing Report

24.5.1929

When handed in at Local Office

24 May 1929

Port of

HULL.

No. in Survey held at

Hull.

Date, First Survey

15 Mar

Last Survey

18 May 1929

61512 on the Steam Trawler "KINGSTON TURQUOISE"

(Number of Visits 12.)

Gross 351.81

Tons Net 149.96.

Master

Built at

Beverley

By whom built

Cook, Wilson &amp; Hemmell Ltd.

Yard No.

519

When built

1929

Engines made at

Hull

By whom made

Charles S. Holmes &amp; Co Ltd

Engine No.

1364

When made

1929

Boilers made at

Hull

By whom made

do

Boiler No.

1364

When made

1929

Nominal Horse Power

96.5

Owners

Kingston S. Trawling Co Ltd

Port belonging to

Hull.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Mikowitzer, Began &amp; Eisenhütten G/S.

(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

28.3.29

No. of Certificate

3701

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

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

4"

Is oil fuel carried in the double bottom under boilers

No

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

inter.

Long. seams

T.R. S.B.S.

Diameter of rivet holes in

circ. seams

1 1/2"

long. seams

3/32"

Pitch of rivets

3 3/4"

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

70.8

Percentage of strength of longitudinal joint

plate

85.03

rivets

70.8

combined

88.8

Working pressure of shell by Rules

201 lbs.

Thickness of butt straps

outer

1"

inner

1 1/8"

No. and Description of Furnaces in each Boiler

three 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

1 1/16"

Description of longitudinal joint

beaded

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

Yes

Working pressure of furnace by Rules

219 lbs.

End plates in steam space: Material

Steel.

Tensile strength

28/30 Tons.

Thickness

1 3/16"

Pitch of stays

18"

How are stays secured

Double nuts &amp; washers

Working pressure by Rules

220 lbs.

Tube plates: Material

front

Steel

back

-

Tensile strength

28/30 Tons

Thickness

1 5/16"

7/8"

Mean pitch of stay tubes in nests

10.97"

Pitch across wide water spaces

13 3/4"

Working pressure

front 211 lbs.

back 230

Girders to combustion chamber tops: Material

Steel.

Tensile strength

28/32 Tons.

Depth and thickness of girder

at centre

10 1/2" x 13 1/4"

Length as per Rule

36 3/16"

Distance apart

9"

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 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

1 5/16"

Lower back plate: Material

Steel.

Tensile strength

28/30 Tons

Thickness

1 9/32"

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

324 sq in

Working pressure by Rules

248 lbs.

Screw stays: Material

Steel

Tensile strength

28/30 Tons

Diameter

At turned off part,

1 7/8"

Over threads

1 3/4"

No. of threads per inch

10

Area supported by each stay

78.9



Working pressure by Rules 230 lbs Are the stays drilled at the outer ends ho Margin stays: Diameter { At turned off part, 1 7/8" or Over threads }  
 No. of threads per inch 10 Area supported by each stay 94.75 sq" Working pressure by Rules 218 lbs  
 Tubes: Material lm 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 in shell plate 16 x 12" Section of compensating ring 34 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 3/4" 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 23 inclusive for boilers been complied with ✓

The foregoing is a correct description,  
 For CHARLES D. HOLMES & CO., LTD.  
J. C. Cooper Manufacturer.

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

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 & its safety valves adjusted as above.

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

John Mackintosh  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 31 MAY 1929  
 Assigned See P.B. rpt. attached