

REPORT ON BOILERS.

No. 40049.

Received at London Office 16 JUL 1929

Date of writing Report 15 July 1929 When handed in at Local Office 15 July 1929 Port of **HULL.**

No. in Survey held at **Hull.** Date, First Survey 1 May Last Survey 11 July 1929.

(Number of Visits 15.) Gross 351.81 Tons Net 151.98

on the **Steam Trawler "KINGSTON PERIDOT"**

Built at **Beverly** By whom built **Cook, Dutton & Co** Yard No. 522 When built 1929

Engines made at **Hull** By whom made **Charles D. Holmes & Co Ltd** Engine No. 1374 When made 1929

Boilers made at **Hull** By whom made **do** Boiler No. 1374 When made 1929

nominal Horse Power 96 Owners **Kingston S. Trawling Co Ltd** Port belonging to **Hull**

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel **Appley Iron Co. Ltd.** (Letter for Record)

Total Heating Surface of Boilers 1698 Sq. Feet. Is forced draught fitted **ho** 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 10.5.29 No. of Certificate 3721/3722 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 **Two 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 **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 **78 1/2 Tons**

Thickness 1 3/32" Are the shell plates welded or flanged **✓** Description of riveting: circ. seams **end SR.** inter. **✓**

Long. seams **T.R. D.B.S.** Diameter of rivet holes in {circ. seams 1 3/32" long. seams 1 3/32" Pitch of rivets {circ. seams 8 3/16" long. seams 8 3/16"

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 **76 1/30 Tons** Smallest outside diameter 41"

Length of plain part {top 76" bottom 69" Thickness of plates {crown 1 3/16" bottom 1 3/16" Description of longitudinal joint **Welded**

Dimensions of stiffening rings on furnace or c.c. bottom **✓** Working pressure of furnace by Rules 219 lbs.

Head plates in steam space: Material **Steel** Tensile strength **76 1/30 Tons** Thickness 1 3/16" Pitch of stays 18"

How are stays secured **Double nuts & washers** Working pressure by Rules 220 lbs.

Head plates: Material {front **Steel** back **do** Tensile strength {front 76 1/30 Tons back 76 1/30 Tons Thickness {front 1 5/16" back 7/8"

Span pitch of stay tubes in nests 10.97" Pitch across wide water spaces 13 3/4" Working pressure {front 211 lbs. back 230 lbs.

Orders to combustion chamber tops: Material **Steel** Tensile strength **78 1/32 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 76 1/30 Tons. Thickness: Sides 3/4" Back 2 3/32" Top 3/4" + 2 3/32" 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 76 1/30 Tons.

Thickness 1 9/16" Lower back plate: Material **Steel** Tensile strength 76 1/30 Tons Thickness 2 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 76 1/32 Tons

Diameter {At body of stay, **✓** Over threads 3 3/4" 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 76 1/30 Tons

Diameter {At turned off part, **✓** Over threads 1 7/8" + 1 3/4" No. of threads per inch 10 Area supported by each stay 78.9 sq. in.

Working pressure by Rules 230 Lb Arc the stays drilled at the outer ends 20 Margin stays: Diameter { At turned off part, 1 7/8 Over threads. 1 7/8

No. of threads per inch 10 Area supported by each stay 97.75 sq in Working pressure by Rules 218 Lb

Tubes: Material Low 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 Lb Manhole compensation: Size of opening in shell plate 16 x 12 Section of compensating ring 24 x 27 x 1 9/32 No. of rivets and diameter of rivet holes 32 @ 1 1/4

Outer row rivet pitch at ends 8 7/16 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 Inner radius of crown Working pressure by Rules

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. Manufacturer.

Dates of Survey { During progress of work in shops - - } See attached
while building { During erection on board vessel - - - } report on Machy.

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

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 & the safety valves adjusted as above.

Checked on engine report

Survey Fee <u>£ 100</u>	When applied for, <u>✓</u>	192
Travelling Expenses (if any) <u>£ 100</u>	When received, <u>✓</u>	192

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

Committee's Minute FRL 19 JUL 1929

Assigned See Rpt. attached

Rpt. 13.

RE

Date of writing

No. in Reg. Book. 11503

Built at

Owners

Electric Li

System of

Pressure of

Direct or A

If alternating

Has the Auto

Generators,

are they over

Where more ti

series with each

Are all termin

short circuited,

Position of

is the ventilati

if situated ne

are their axes

Earthing, are

their respective

Main Switch

a fuse on each i

Switchboards

are they protecte

woodwork or oth

are they constru

permanently hig

with mica or mi

and is the fram

bars

Main Switch

Main c

fuses

Instruments

Earth Testing

Switches, Circ

Joint Boxes S