

# 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.

(1502) on the Steam Trawler "KINGSTON PERIDOT" (Number of Visits 15.) Gross 351.81 Tons Net 151.98

Master Built at Beverley 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 Appleby 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 1SB 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 78/32 Tons

Thickness 1 3/32" Are the shell plates welded or flanged Description of riveting: circ. seams 3 3/4" end 5R. inter.

Working pressure of shell by Rules 201 lbs. Pitch of rivets 8 7/16"

Percentage of strength of circ. end seams (plate 65.8 rivets 51.2) Percentage of strength of circ. intermediate seam (plate 85.03 rivets 90.8)

Percentage of strength of longitudinal joint (plate 85.03 rivets 90.8 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 76/30 Tons Smallest outside diameter 41"

Length of plain part (top 76" bottom 69") Thickness of plates (crown 1 3/16" bottom 1 1/16") 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 76/30 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 ) Tensile strength 76/30 Tons Thickness 1 5/16" 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)

Orders to combustion chamber tops: Material Steel Tensile strength 78/32 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 76/30 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 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 76/30 Tons

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

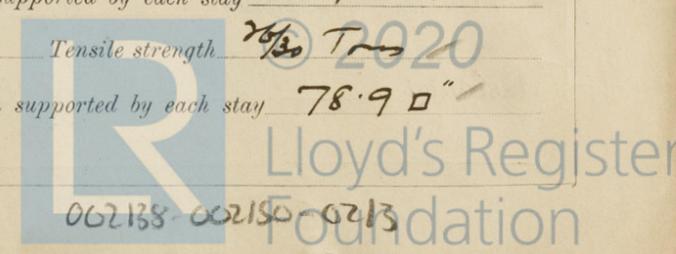
Pitch of stays at wide water space 14" x 8 3/4" Are stays fitted with nuts or riveted over nuts

Working Pressure 228 lbs. Main stays: Material Steel Tensile strength 76/32 Tons

Diameter (At body of stay, or 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 76/30 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.



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 Date of writing  
 No. in Reg. Book. 11503  
 Built at  
 Owners  
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Working pressure by Rules 230 Lb Arc the stays drilled at the outer ends no Margin stays: Diameter <sup>At turned off part,</sup> 1 7/8  
 No. of threads per inch 10 Area supported by each stay 97.75 sq Working pressure by Rules 218 Lb  
 Tubes: Material Iron External diameter <sup>Plain</sup> 3 1/2 Thickness <sup>Stay</sup> 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 <sup>Plate</sup> <sub>Rivets</sub>  
 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 <sup>Tubes</sup> <sub>Steel castings</sub>  
 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 <sup>During progress of work in shops - -</sup> See attached Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
 while building <sup>During erection on board vessel - - -</sup> report on Machy. Total No. of visits 1

**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 sent £ : : When applied for,  192  
 Travelling Expenses (if any) £ : : When received,  192

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

Committee's Minute FRL 19 JUL 1929  
 Assigned See M. rpt. attached