

REPORT ON BOILERS.

No. 40742.

12 APR 1930

Received at London Office

HULL.

Date of writing Report 10:45 10/30 When handed in at Local Office 10 April 1930 Port of HULL.

No. in Survey held at Hull Date, First Survey 17 Dec 29 Last Survey 5 April 1930
No. of Book 1509 on the Steam Trawler "KINGSTON OLIVINE" (Number of Visits 18) Gross 362.53 Net 147.62

Builder Built at Beverley By whom built Cook, Nelson & Gemmill Ltd Yard No. 539 When built 1930

Engines made at Hull By whom made Charles & Holmes & Co Ltd Engine No. 1389 When made 1930

Boilers made at Hull By whom made do Boiler No. 1389 When made 1930

Nominal Horse Power 96 Owners Kingston Steam Trawling Co Ltd Port belonging to Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Witkovitzer Bergan Eisenwerke G/s. (Letter for Record (S))
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 5.3.30 No. of Certificate 3764 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. ft. as fitted) 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 7" Is oil fuel carried in the double bottom under boilers

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 38/32 Tons

Thickness 1 1/2" Are the shell plates welded or flanged Description of riveting: circ. seams 33/4 inter.
Pitch of rivets 8 1/2"

Percentage of strength of circ. end seams (plate 65.8 rivets 51.2) Percentage of strength of circ. intermediate seam (plate 85.0 rivets 90.8)
Working pressure of shell by Rules 201 lbs.

Percentage of strength of longitudinal joint (plate 85.0 rivets 90.8 combined 88.8)
Thickness of butt straps (outer 1" inner 1/2") No. and Description of Furnaces in each Boiler One plain

Material Steel Tensile strength 38/30 Tons Smallest outside diameter 41"
Length of plain part (top 76" bottom 69") Thickness of plates (crown 13/16" bottom 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.
End plates in steam space: Material Steel Tensile strength 38/30 Tons Thickness 1 3/16" Pitch of stays 18"

How are stays secured Double nuts & washers Working pressure by Rules 220 lbs.
Tube plates: Material Steel Tensile strength 38/30 Tons Thickness 7/8"

Clear 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 38/32 Tons Depth and thickness of girder
At centre 10 1/2" x 13/4" Length as per Rule 36 3/16" Distance apart 9" No. and pitch of stays

On each 3 @ 8 3/4" Working pressure by Rules 210 lbs. Combustion chamber plates: Material Steel
Tensile strength 38/30 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 38/30 Tons
Thickness 1 5/16" Lower back plate: Material Steel Tensile strength 38/30 Tons Thickness 7/32"

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 38/32 Tons

Diameter (At body of stay, or Over threads) 3/4" No. of threads per inch 8 Area supported by each stay 324 sq. in.

Working pressure by Rules 245 lbs. Screw stays: Material Steel Tensile strength 38/30 Tons

Diameter (At turned off part, or Over threads) 17/8 + 1 3/4" No. of threads per inch 10 Area supported by each stay 79.8 sq. in.

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Working pressure by Rules 130 Lbs Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part.} 17/8 ✓
 No. of threads per inch 10 Area supported by each stay 97.75 sq Working pressure by Rules 212 Lbs.
 Tubes: Material Iron External diameter ^{Plain} 3 1/2 Thickness ^{Stay} 3/16 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 54 dia x 1 9/32 No. of rivets and diameter of rivet holes 16 @ 1 1/4
 Outer row rivet pitch at ends 10.3 Depth of flange if manhole flanged _____ Steam Dome: Material Steel
 Tensile strength 36/30 Tons Thickness of shell 3/4 Description of longitudinal joint S. R. Lap.
 Diameter of rivet holes 1 3/32 Pitch of rivets 2 1/4 Percentage of strength of joint ^{Plate} 54.0
 Internal diameter 33 Working pressure by Rules 229 Lbs. Thickness of crown 7/8 No. and diameter of
 stays 2 @ 2 1/4 Inner radius of crown _____ Working pressure by Rules _____
 How connected to shell Riveted Size of doubling plate under dome 54 dia x 1 9/32 Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell 1 9/32 x 10.3

Type of Superheater _____ Manufacturers of _____ Tubes _____
 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
J. Rodger

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - - }
 See attached report on Moby. 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. It has been satisfactorily fitted on board, tried under steam, and its safety valves adjusted as about 200 lbs under steam.

Survey Fee £ _____ When applied for, ✓ 192
 Travelling Expenses (if any) £ _____ When received, ✓ 192

J. Rodger
 Engineer Successor to Lloyd's Register of Shipping.

Committee's Minute _____
 Assigned *See M. E. up attached*

TUE. 15 APR 1930

Rpt. 13.
REP
 Date of writing Rep _____
 No. in Survey Reg. Book. 11509 on the _____
 Built at _____
 Owners _____
 Electric Light _____
 Is the Vessel fit _____
 System of Dis _____
 Pressure of sup _____
 Direct or Alter _____
 If alternating cu _____
 Has the Autom _____
 Generators, do _____
 are they over com _____
 Where more than _____
 series with each s _____
 Are all terminals _____
 short circuited, o _____
 Position of G _____
 is the ventilator _____
 if situated near _____
 are their axes o _____
 Earthing, are _____
 their respective _____
 Main Switch _____
 a fuse on each _____
 Switchboard _____
 are they protect _____
 woodwork or o _____
 are they constr _____
 permanently h _____
 with mica or r _____
 and is the fra _____
 bars _____
 Main Swit _____
 Switch _____
 Instrumen _____
 Earth Test _____
 Switches, _____
 Joint Box _____