

REPORT ON BOILERS.

No. 21039.

Received at London Office

AUG 21 1940

Date of writing Report 15th AUGUST 1940. When handed in at Local Office 16th AUG. 1940. Port of GREENOCK

No. in Reg. Book. 59301 on the S.S. NOVELIST Survey held at GREENOCK Date, First Survey 14th JULY 1939. Last Survey 8-8-40 19

(Number of Visits) Gross 5990 Tons Net 3700

Master Built at Glasgow By whom built Harland & Wolff Yard No. 10336 When built 1940
Engines made at Greenock By whom made John G. Kincaid & Co. L^{td} Engine No. 703 When made 1940
Boilers made at Greenock By whom made John G. Kincaid & Co. L^{td} Boiler No. 703 When made 1940
Nominal Horse Power 524 Owners Charente Steamship Co Port belonging to

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel Colvilles L^{td} (Letter for Record S 7)

Total Heating Surface of Boilers 1239 sq ft Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers One Cylindrical single ender Working Pressure 120 lbs

Tested by hydraulic pressure to 230 lbs Date of test 15-1-40 No. of Certificate 2202 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 35 sq ft No. and Description of safety valves to each boiler 2" double opening 1 HT.

Area of each set of valves per boiler {per Rule 5.73 as fitted 6.28 Pressure to which they are adjusted 120 lbs Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No

Smallest distance between boilers or uptakes and bunkers or woodwork on Upper deck Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 12'-6" Length 9'-10 3/8" Shell plates: Material S Tensile strength 35/32 tons

Thickness 3/4" Are the shell plates welded or flanged No Description of riveting: circ. seams {end DR. inter. Yes

long. seams T.R. 285 Diameter of rivet holes in {circ. seams 7/8" long. seams 13/16" Pitch of rivets {2.887" 6.0

Percentage of strength of circ. end seams {plate 70% rivets 45.6% Percentage of strength of circ. intermediate seam {plate rivets

Percentage of strength of longitudinal joint {plate 86.4% rivets 88.6% combined 90.6% Working pressure of shell by Rules 129 lbs

Thickness of butt straps {outer 5/8" inner 3/4" No. and Description of Furnaces in each Boiler Two plain

Material S Tensile strength 26/30 tons Smallest outside diameter 3'-7 1/2"

Length of plain part {top 6'-3" bottom Thickness of plates {crown 2 1/2" bottom 2 1/32" Description of longitudinal joint Weld.

Dimensions of stiffening rings on furnace or c.c. bottom 6'-3 1/2" T.Bar x 1/2 Working pressure of furnace by Rules 126 lbs

End plates in steam space: Material S Tensile strength 26/30 tons Thickness 1 1/8" Pitch of stays 24" x 17"

How are stays secured D.N. Working pressure by Rules 120.8

Tube plates: Material {front S back Tensile strength {26/30 tons Thickness {7/8" 3/4"

Mean pitch of stay tubes in nests 12.1875" Pitch across wide water spaces 14 1/2" Working pressure {front 124 lbs back 134 lbs

Girders to combustion chamber tops: Material S Tensile strength 35/32 tons Depth and thickness of girder

at centre 7" x 1 1/4" Length as per Rule 2'-4" Distance apart 9 No. and pitch of stays

in each 2-9" Working pressure by Rules 151 lbs Combustion chamber plates: Material S

Tensile strength 26/30 tons Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"

Pitch of stays to ditto: Sides 9 x 10" Back 9 x 9" Top 9 x 9" Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 149.5 lbs Front plate at bottom: Material S Tensile strength 26/30 tons

Thickness 7/8" Lower back plate: Material S Tensile strength 26/30 tons Thickness 1 1/8"

Pitch of stays at wide water space 14 1/4" Are stays fitted with nuts or riveted over Nuts

Working Pressure 189 lbs Main stays: Material S Tensile strength 35/32 tons

Diameter {At body of stay, 2 1/2" or Over threads No. of threads per inch 6 Area supported by each stay 408 sq in

Working pressure by Rules 132 lbs Screw stays: Material Iron Tensile strength 21 1/2 tons

Diameter {At turned off part, 1 3/8" or Over threads No. of threads per inch 9 Area supported by each stay 81 sq in

Working pressure by Rules 125 Are the stays drilled at the outer ends No Margin stays: Diameter ^{At turned off part,} 1 5/8" or ^{Over threads}

No. of threads per inch 9 Area supported by each stay 102.6" Working pressure by Rules 145 lb

Tubes: Material Lap welded W.S. External diameter ^{Plain} 3 1/2" ^{Stay} 3 1/2" Thickness ^{7/16} 3/8" No. of threads per inch 9

Pitch of tubes 4 7/8" x 4 7/8" Working pressure by Rules 258 lb Manhole compensation: Size of opening in shell plate 16 x 20 Section of compensating ring 2-7/4" x 2-3/4" x 7/8" No. of rivets and diameter of rivet holes 36 - 1/32"

Outer row rivet pitch at ends 7/2" Depth of flange if manhole flanged McNeil type Steam Dome: Material 5

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 forgings 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 _____

Area of each safety valve _____ Are the safety valves fitted with casing gear _____ Working pressure as per Rules _____ Pressure to which the safety valves are adjusted _____ Hydraulic test pressure: tubes _____ forgings and 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,
G. KINCAID & COY. LIMITED
W. Carter Manufacturer.

Dates of Survey ^{During progress of work in shops - -} _____ Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) _____

^{while building} ^{During erection on board vessel - - -} _____ Total No. of visits _____

SEE MACHINERY REPORT

Is this Boiler a duplicate of a previous case No If so, state Vessel's name and Report No. ✓

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been constructed under Special Survey in accordance with the Rules & approved plans. The materials & workmanship are sound & good. The Safety valves have been adjusted under steam. This boiler is eligible in my opinion to be fitted in a vessel Classed in the Society's Register Books

Survey Fee £ _____ : _____ When applied for, 19 _____

Travelling Expenses (if any) £ _____ : _____ When received, 19 _____

See Machinery report

Charles J. Hunter
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 20 AUG 1940**

Assigned **SEE ACCOMPANYING MACHINERY REPORT**

