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REPORT ON BOILERS.

No. 23483

Received at London Office

8 DEC 1948

Date of writing Report 29th Nov. 48. When handed in at Local Office 2nd Dec. 48. Port of GREENOCK

No. in Survey held at GREENOCK Date, First Survey 10th SEPT. 1947. Last Survey 18th NOVEMBER 1948.

on the STM TRAWLER "BRACONGLEN" (Number of Visits 18.) Tons Gross Net.

Master Built at LONDON By whom built Richard & Son, Ltd. Yard No. 377 When built 1949

Engines made at HULL By whom made Amos & Smith, Ltd. 745 Engine No. 746 When made

Boilers made at GREENOCK By whom made JOAN G. KINCAID & CO. LTD. Cont. Boiler No. 345 When made 1948

Indicated Horse Power 255 (Boiler only) Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel COLVILLE & CO. (Letter for Record S)

Total Heating Surface of Boilers 2179^{sq} ft. Is forced draught fitted Yes Coal or Oil fired Oil

No. and Description of Boilers One cylindrical SE. Working Pressure 200 lbs

Tested by hydraulic pressure to 350 lbs Date of test 16-2-48 No. of Certificate 2476 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler

Area of each set of valves per boiler per Rule Pressure to which they are adjusted Are they fitted with easing gear

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 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 14'6" Length 10'8" Shell plates: Material S Tensile strength 29/32 tons

Thickness 1/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end DP inter. 3.824"

Long. seams TR DBS Diameter of rivet holes in circ. seams 1 1/32" long. seams 1 1/32" Pitch of rivets 9.25"

Percentage of strength of circ. end seams plate 64.6 rivets 45.7 Percentage of strength of circ. intermediate seam plate 85.8 rivets 88.8

Percentage of strength of longitudinal joint plate 88.8 rivets 88.7 Working pressure of shell by Rules 202 lbs

Thickness of butt straps outer 3/32" inner 1/32" No. and Description of Furnaces in each Boiler Three Dighton corrugated

Material S Tensile strength 26/30 tons Smallest outside diameter 3'-6 3/16"

Length of plain part top bottom Thickness of plates crown 19/32" bottom 1/32" Description of longitudinal joint Wild

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules

End plates in steam space: Material S Tensile strength 26/30 tons Thickness 15/16" Pitch of stays 1'-8" x 1'-7 1/2"

How are stays secured DN Working pressure by Rules

Tube plates: Material front S back S Tensile strength 26/30 tons Thickness 27/32"

Pitch of stay tubes in nests 11" Pitch across wide water spaces 14 1/2" Working pressure front back

Orders to combustion chamber tops: Material S Tensile strength Depth and thickness of girder

Centre 9" x 13/5" Length as per Rule 2'-11 3/32" Distance apart 8 1/2" No. and pitch of stays

Each 2 10 1/2" Working pressure by Rules Combustion chamber plates: Material S

Tensile strength 26/30 tons Thickness: Sides 23/32" Back 11/16" Top 23/32" Bottom 23/32"

Pitch of stays to ditto: Sides 10 3/4" x 8" Back 8 1/2" x 9 1/2" Top 10 1/2" x 8 1/2" Are stays fitted with nuts or riveted over NUTS

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

Thickness 15/16" Lower back plate: Material S Tensile strength 26/30 tons Thickness 27/32"

Pitch of stays at wide water space 14 1/4" x 8 1/2" Are stays fitted with nuts or riveted over NUTS

Working pressure Main stays: Material S Tensile strength 28/32 tons

At body of stay or Over threads No. of threads per inch 6 Area supported by each stay

Working pressure by Rules Screw stays: Material S Tensile strength 26/30 tons

At turned off part or Over threads 1 3/4" 1 7/8" 2 1/8" in way No. of threads per inch 9 Area supported by each stay

8 butt straps

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17
12
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REPORT ON BOILERS

Working pressure by Rules. Are the stays drilled at the outer ends. No. Margin stays: Diameter $1\frac{1}{8}$ At turned off part. 175
 No. of threads per inch 9 Area supported by each stay. Working pressure by Rules.
 Tubes: Material *Hot rolled steel* External diameter $3\frac{1}{2}$ Thickness $\frac{1}{4}$ No. of threads per inch 9
 Pitch of tubes $4\frac{3}{4} \times 4\frac{3}{4}$ Working pressure by Rules. Manhole compensation: Size of opening
 shell plate. Section of compensating ring. No. of rivets and diameter of rivet holes.
 Outer row rivet pitch at ends. Depth of flange if manhole flanged. Steam Dome: Material S
 Tensile strength $\frac{24}{30}$ Thickness of shell $\frac{25}{32}$ Description of longitudinal joint SR Lap
 Diameter of rivet holes $1\frac{1}{8}$ Pitch of rivets $2\frac{1}{4}$ Percentage of strength of joint Plate 50% Rivets 50%
 Internal diameter $3'-0"$ Working pressure by Rules. Thickness of crown $1\frac{1}{16}$ No. and diameter
 stays *Three @ $2\frac{1}{4}$* Inner radius of crown *Flat* Working pressure by Rules
 How connected to shell DR Size of doubling plate under dome $5'-2\frac{1}{4}"$ Dia $\times 1\frac{1}{8}"$ thick Diameter of rivet holes and p
 of rivets in outer row in dome connection to shell *Complete D = $1\frac{1}{32}"$ P = 11.29" Dome flange D = $1\frac{1}{32}"$ P = 4.28"*
 Type of Superheater *Superheater C L* Manufacturers of Tubes *MANCHESTER (Gen N C 5885/6 att)*
 Number of elements 48 Material of tubes S Internal diameter and thickness of tubes
 Material of headers. Tensile strength. Thickness. Can the superheater be shut off
 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
 Rules. Pressure to which the safety valves are adjusted. Hydraulic test press
 tubes. forgings and castings. and after assembly in place. Are drain cock
 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,
 for JOHN G. KINCAID & CO. LIMITED.

Chief Draughtsman.

Dates of Survey while building: During progress of work in shops - (1944) SEPT. 10-16, 23, OCT. 1, NOV. 4-10, 20, DEC. 2, 12, 21; During erection on board vessel - 23 (1945) JAN. 9-13, 20 FEB. 16, MAY 19, JUNE 30, NOV. 18
 Are the approved plans of boiler and superheater forwarded herewith. 4/10
 (If not state date of approval.)
 Total No. of visits 18.

Is this Boiler a duplicate of a previous case. 4/10 If so, state Vessel's name and Report No. *CRK op N° 23641.*

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 boiler has now been dispatched to Messrs Richards Iron Works, Loughry.

Survey Fee ... £ 50. 10 :
 Travelling Expenses (if any) £ : :
 When applied for 2ND D.A.C.A.M.B.R. 1948.
 When received 19.

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

Committee's Minute *GLASGOW 7 - DEC 1948*

FRI. 20 MAY 1943

Assigned *Deferred for completion*

See F.E. sketch op.

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 Foundation