

## REPORT ON BOILERS.

No. 128065

Received at London Office.....

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of.....

No. in Reg. Book. Survey held at BIRKENHEAD Date, First Survey..... Last Survey..... 14/10/48 19.....

on the S.S. "TULIPFIELD" &amp; "NORDLAND" (Number of Visits.....) Tons { Gross..... Net.....

Master..... Built at HAMBURG By whom built REIHERSTGSCHIFF Yard No..... When built 1922

Engines made at HAMBURG By whom made REIHERST MASCHINENF Engine No..... When made 1922

Boilers made at " By whom made " Boiler No..... When made 1922

Nominal Horse Power 93 Owners BRITISH WHEELER PROCESS LTD Port belonging to LIVERPOOL

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel..... (Letter for Record.....)

Total Heating Surface of Boilers 1856 sq Is forced draught fitted NO Coal or Oil fired OIL

No. and Description of Boilers ONE CYLINDRICAL MULTITUBULAR Working Pressure 200 lbs/sq

Tested by hydraulic pressure to..... Date of test..... No. of Certificate..... Can each boiler be worked separately.....

Area of Firegrate in each Boiler..... No. and Description of safety valves to each boiler 3" Double Improved H.L.

Area of each set of valves per boiler { per Rule 5.40" x 2 = 10.8" as fitted 14.20" Pressure to which they are adjusted 200 lbs/sq 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 well clear Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating 30" Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 13'-3 1/2" Length 10'-6" Shell plates: Material Steel Tensile strength.....

Thickness 1 1/4" Are the shell plates welded or flanged no Description of riveting: circ. seams { end D.R. lap inter FR. lap

long. seams D.B.S. (Waves) Diameter of rivet holes in { circ. seams 1 1/4" long. seams 1 1/4" Pitch of rivets { 16 1/2 - 8 1/4 - 4 1/2

Percentage of strength of circ. end seams { plate 69% rivets 40.2% Percentage of strength of circ. intermediate seam { plate 84.9% on 8 1/4" x 1" rivets 101%

Percentage of strength of longitudinal joint { plate 84.9% rivets 101% Working pressure of shell by Rules 206 lbs/sq

Thickness of butt straps { outer 1 1/4" inner 1 1/4" No. and Description of Furnaces in each Boiler Three Morrison type

Material Steel Tensile strength..... Smallest outside diameter 40.35"

Length of plain part { top..... bottom..... Thickness of plates { crown .675" bottom..... Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom..... Working pressure of furnace by Rules 245 lbs/sq

End plates in steam space: Material Steel Tensile strength..... Thickness 1 1/8" Pitch of stays 16" x 16"

How are stays secured Nut and washer each side of plate Working pressure by Rules 230 lbs/sq

Tube plates: Material { front Steel back Steel Tensile strength..... Thickness { 1.05" 1.0"

Mean pitch of stay tubes in nests 9 1/2" Pitch across wide water spaces 14 1/2" x 4 1/2" Working pressure { front 239 lbs/sq back 280 lbs/sq

Girders to combustion chamber tops: Material Steel Tensile strength..... Depth and thickness of girder

at centre 8 1/4" x 3 1/4" x 2 Length as per Rule 25" Distance apart 7 1/2" No. and pitch of stays

in each 2 at 8" Working pressure by Rules 380 lbs/sq Combustion chamber plates: Material Steel

Tensile strength..... Thickness: Sides .675" Back 23/32" Top .675" Bottom .675"

Pitch of stays to ditto: Sides 8" x 8" Back 7 1/2" x 8" Top 8" x 7 1/2" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 248 lbs/sq Front plate at bottom: Material Steel Tensile strength.....

Thickness 1.05" Lower back plate: Material Steel Tensile strength..... Thickness 1.05"

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

Working pressure 240 lbs/sq Main stays: Material Steel Tensile strength.....

Diameter { At body of stay 3" x 23/16" No. of threads per inch 11 Area supported by each stay 16" x 16"

Working pressure by Rules 210 lbs/sq Screw stays: Material Steel Tensile strength.....

Diameter { At turned off part 1 1/2" x 1 5/8" No. of threads per inch 11 Area supported by each stay 8" x 8"



Working pressure by Rules. 210 lbs Are the stays drilled at the outer ends. No Margin stays: Diameter { At turned off part. 1 3/4" or Over threads. 204 lbs  
No. of threads per inch. 11 Area supported by each stay. 890" Working pressure by Rules. 204 lbs  
Tubes: Material. Steel External diameter { Plain. 3 5/8" Thickness. 1/8" No. of threads per inch. 11  
Pitch of tubes. 4 1/2" x 4 1/2" Working pressure by Rules. 231 lbs Manhole compensation: Size of opening in shell plate. 16" x 12" Section of compensating ring. 4" x 1 1/4" No. of rivets and diameter of rivet holes. 38" x 1 5/16"  
Outer row rivet pitch at ends. 4 1/4" Depth of flange if manhole flanged. — Steam Dome: Material. Steel  
Tensile strength. — Thickness of shell. .55" Description of longitudinal joint. D.R. Lap.  
Diameter of rivet holes. 1 5/16" Pitch of rivets. 2 7/8" Percentage of strength of joint { Plate. 67.5% Rivets. 77.3%  
Internal diameter. 25" Working pressure by Rules. 378 lbs Thickness of crown. 1.3" No. and diameter of stays. — Inner radius of crown. 18 3/4" Working pressure by Rules. 740 lbs  
How connected to shell. D.R. Size of doubling plate under dome. 1 1/2" x 4" Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell. 1 5/16" 3 3/8"

Type of Superheater. NONE 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. 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. forgings and castings. and after assembly in place. Are drain cocks on 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,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - Are the approved plans of boiler and superheater forwarded herewith. (If not state date of approval.)  
During erection on board vessel - - - Total No. of visits.

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

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

For the information of the Committee and eligible in my opinion such as could be accepted for classification LMC 10.48 TS CL(N) 9.48 Fitted for oil fuel flash point above 150°F 10.48.

Survey Fee ... £ : : When applied for. 19.....  
Travelling Expenses (if any) £ : : When received. 19.....

On behalf of L. B. Trenchard

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute. FEB 25 MAR 1949

Assigned



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