

REPORT ON BOILERS.

Received at London Office

20 AUG 1934

Date of writing Report 11th Aug. 1934 When handed in at Local Office

1934 Port of STETTIN

No. in Survey held at Berlin - Rudow
Reg. Book.

Date, First Survey 12th July

Last Survey 9th Aug. 1934

85374 on the S.S. "Southern Princess"

(Number of Visits 5)

Gross 12092
Net 7548
Tons

Master -

Built at Newcastle

By whom built Armstrong Whitworth & Co. Ltd. Yard No.

When built 1915

Engines made at Newcastle

By whom made N.E. Marine Eng. Co. Ltd. Engine No.

When made 1915

Boilers made at Berlin - Rudow

By whom made Rud. A. Hartmann Ag. Boiler No. 633 B

When made 1934

Nominal Horse Power 790

Owners The Southern Whaling & Sealing Co. Ltd.

Port belonging to Ymerdon (N.Z.)

One Fat Separator.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Mannesmann Rohrenwerke, Abt. Heinz. Dicke, Hülse (Letter for Record)

Total Heating Surface of Boilers - Is forced draught fitted - Coal or Oil fired -

No. and Description of Boilers One Fat Separator Working Pressure 60 lbs.

Tested by hydraulic pressure to 120 lb. Date of test 9.8.34 No. of Certificate 201/10 Can each boiler be worked separately

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 2500 mm Length 3250 mm Shell plates: Material Steel Tensile strength 46.1 kg.

Thickness 13 mm Are the shell plates welded or flanged el. welded Description of riveting: circ. seams electrically welded

long. seams electrically welded Diameter of rivet holes in (circ. seams) Pitch of rivets -

Percentage of strength of circ. end seams (plate rivets) Percentage of strength of circ. intermediate seam (plate rivets)

Percentage of strength of longitudinal joint (plate rivets) Working pressure of shell by Rules -

Thickness of butt straps (outer none) No. and Description of Furnaces in each Boiler

Material - Tensile strength - Smallest outside diameter -

Length of plain part (top) Thickness of plates (crown) Description of longitudinal joint -

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

End plates in steam space: Material Steel Tensile strength 45.0 kg. Thickness 14 mm Pitch of stays none

How are stays secured - Working pressure by Rules 71 lb.

Tube plates: Material (front) Tensile strength - Thickness -

Mean pitch of stay tubes in nests - Pitch across wide water spaces - Working pressure (front)

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

at centre - Length as per Rule - Distance apart - No. and pitch of stays -

in each - Working pressure by Rules - Combustion chamber plates: Material -

Tensile strength - Thickness: Sides - Back - Top - Bottom -

Pitch of stays to ditto: Sides - Back - Top - Are stays fitted with nuts or riveted over -

Working pressure by Rules - Front plate at bottom: Material - Tensile strength -

Thickness - Lower back plate: Material - Tensile strength - Thickness -

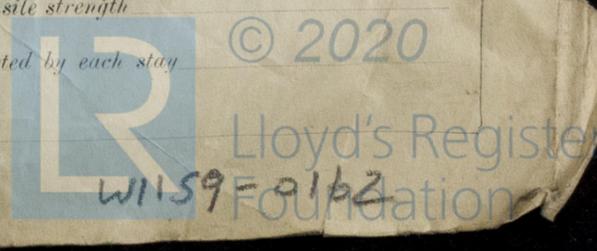
Pitch of stays at wide water space - Are stays fitted with nuts or riveted over -

Working Pressure - Main stays: Material - Tensile strength -

Diameter (At body of stay) No. of threads per inch - Area supported by each stay -

Working pressure by Rules - Screw stays: Material - Tensile strength -

Diameter (At turned off part) No. of threads per inch - Area supported by each stay -



Working pressure by Rules _____ Are the stays drilled at the outer ends _____ Margin stays: Diameter ^{At turned off part.} _{or} ^{Over threads} _____
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by Rules _____
Tubes: Material _____ External diameter ^{Plain} _____ Thickness _____ No. of threads per inch _____
 Pitch of tubes _____ Working pressure by Rules _____ **Manhole compensation:** Size of opening in shell plate *300 x 450 mm* Section of compensating ring *100 x 20 mm* No. of rivets and diameter of rivet holes *el. welded*
 Outer row rivet pitch at ends _____ 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 ^{Plate} _{Rivets} _____
 Internal diameter _____ Working pressure by Rules _____ Thickness of crown _____ No. and diameter of stays _____
 How connected to shell _____ Inner radius of crown _____ Working pressure by Rules _____
 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 _____
 Number of elements _____ Material of tubes _____ Manufacturers of ^{Tubes} _{Steel castings} _____ 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 22 inclusive for boilers been complied with _____
 The foregoing is a correct description,
Rudolf Hartmann Manufacturer.

Dates of Survey ^{During progress of work in shops - -} *12.7, 14.7, 24.7, 8.8, 9.8.34* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
^{while building} _{board vessel - - -} _____ Total No. of visits *5*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This Separator has been built under Special Survey in accordance with the submitted plan, all requirements of the Secretary's letters respecting electric welding were satisfactorily carried out. It has been tested by water pressure to 120 lb. per sq. inch and was found tight and sound at that pressure. The Separator is eligible in my opinion to be placed on board, subject to examination under steam with all mountings.
 Marked on shell: *No. 633 B.*
LLOYD'S TEST
120 lb.
W.P. 60 lb.
N.S. 9.8.34. and *NS* on the rivets of the maker's name plate.

Survey Fee *10* : 0 : 0 When applied for, *11th Aug. 1934.*
 Travelling Expenses (if any) £ *7* : 10 : 0 When received, 192

A. Goese
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____
 Assigned _____