

REPORT ON BOILERS.

No. 4358

Received at London Office - 3 SEP 1934

Date of writing Report 27/8 1934 When handed in at Local Office 27/8 1934 Port of Oslo

No. in Survey held at Oslo Date, First Survey 19/6 Last Survey 30/6 1934
Book. (Number of Visits 3) Gross 12092
Net 7578

5374 on the steam "SOUTHERN PRINCESS" Tons

Registered at Newcastle By whom built Armstrong Whitworth Yard No. When built 1915

Engines made at Newcastle By whom made N.E. Maxim Engineering Co. Ltd. Engine No. When made 1915

Boilers made at Newcastle By whom made N.E. Maxim Eng. Co. Ltd. Boiler No. When made 1915

Original Horse Power Owners Santolan Whaling & Sealing Co. Ltd. Port belonging to Oslo

The below mentioned
whale oil extractors made at Oslo by Kvaerner Bruy & Co. made 1934

Whale oil extractors.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Norsk Vorkhøve Jernskud & Jernvark Corp. (Letter for Record E 14534)
Coal skid from Strommen Vorkhøve

Total Heating Surface of Boilers 2 Is forced draught fitted - Coal or Oil fired -
Working Pressure 80 lbs.

No. and Description of Boilers 2 whale oil extractors

Tested by hydraulic pressure to 160 lbs. Date of test 30/6-34 No. of Certificate - Can each boiler be worked separately -

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 1 off, spring loaded, 2" dia

Area of each set of valves per boiler per Rule Pressure to which they are adjusted - Are they fitted with easing gear -
as fitted 2.24 sq. inch free opening

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 2250 mm Length 3425 mm Shell plates: Material S.M. steel Tensile strength 28-35

Thickness 10 mm Are the shell plates welded or flanged and fl. flanged Description of riveting: circ. seams end single riv. overlap
inter. -

Long. seams double riv. overlap Diameter of rivet holes in circ. seams 20 mm Pitch of rivets 52.2 mm
long. seams 20 mm

Percentage of strength of circ. end seams plate 61 Percentage of strength of circ. intermediate seam plate -
rivets 45

Percentage of strength of longitudinal joint plate 69.8 Working pressure of shell by Rules 80
rivets 132
combined -

Thickness of butt straps outer - No. and Description of Furnaces in each Boiler -
inner -

Material - Tensile strength - Smallest outside diameter -

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

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

End plates in steam space: Material S.M. steel Tensile strength 26-30 Thickness top 25 mm Pitch of stays -
butt. 22

How are stays secured dischd ends, rod. 3300 mm Working pressure by Rules -

Tube plates: Material - Tensile strength - Thickness -

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

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 -
or
Over threads -

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

Diameter At turned off part, - No. of threads per inch - Area supported by each stay -
or
Over threads -



W1159-0159

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 Stay } _____ Thickness { _____ No. of threads per inch _____

Pitch of tubes _____ 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 _____

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 _____

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 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 _____, 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 _____

PR. A. KWERNER BRUG

The foregoing is a correct description, _____

[Signature]

Manufacturer _____

DISPONENT

Dates of Survey { During progress of work in shops - - - } 19/6, 25/6, 30/6 1934

{ While building } { During erection on board vessel - - - }

Are the approved plans of boiler and superheater forwarded herewith _____ (If not state date of approval.) 11/5.34

Total No. of visits 3.

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.)

These whale oil extractors were constructed in accordance with approved plans and were examined during construction and tested by hydraulic pressure to 160 lbs per sq inch and found sound and tight at that pressure. The steel material employed were made by approved works and tested by the Society's Surveyors. The extractors were marked:

LLOYD'S TEST.
160 LBS.
W. P. 80 LBS.
30-6-34
P. B. R.

Survey Fee k. 80.- : When applied for, 9/7. 1934

Travelling Expenses (if any) 4 6.- : When received, 20/8. 1934

[Signature]
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____

Assigned _____