

# 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  
 Tons Net 7578

5374 on the steam "SOUTHERN PRINCESS"

ster 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 Engineering Co. Ltd. Engine No. When made 1915

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

nominal Horse Power Owners Sandness Whaling & Sealing Co. Ltd. Port belonging to Oslo

The following are the whale oil extractors made at Oslo by Kroner Broy & Co. made 1934

Whale oil extractors.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Nissen Vilkhuus, Minis Skud & Don work corp. (Letter for Record E 11534)  
Coal shed from Skrimness Vilkhuus

Total Heating Surface of Boilers 16000 Is forced draught fitted - Coal or Oil fired -

No. and Description of Boilers 2 whale oil extractors Working Pressure 80 lbs.

Tested by hydraulic pressure to 1600 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, self 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. 52.2 mm

Long. seams double riv. overlap Diameter of rivet holes in circ. seams 20 mm Pitch of rivets 66.7  
long. seams 20 mm

Percentage of strength of circ. end seams plate 61 Percentage of strength of circ. intermediate seam plate 69.8  
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 mm

How are stays secured disch. 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 -  
or  
At turned off part,  
Over threads

W1159-0159

© 2020

Lloyd's Register Foundation



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 of rivets \_\_\_\_\_

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. K. WERNER BRUG

The foregoing is a correct description, *KK*

Manufacturer, \_\_\_\_\_

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.) *no* 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 whole 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 Surveyor. The extractors were marked:

LLOYDS TEST.  
160 LBS.  
W. P. 80 LBS.  
30-6-34  
P. B. R.

Survey Fee ... .. k. 80.- :

Travelling Expenses (if any) 4 6.- :

When applied for, 9/7. 1934

When received, 20/8. 1934

*Perf. R. R. R.*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute \_\_\_\_\_

Assigned \_\_\_\_\_



© 2020

Lloyd's Register  
Foundation