

REPORT ON BOILERS.

No. 2/249

Received at London Office 17 MAY 1926

Date of writing Report 5/5 1926 When handed in at Local Office 19 Port of Copenhagen.
 No. in Survey held at Nakskov Date, First Survey 24/11 25 Last Survey 28/4 1926
 Reg. Book. 1989 on the Gut Sirin E. motor vessel "Astoria" (Number of Visits 10) Gross 4483.75 Tons Net 2693.65
 Built at Nakskov By whom built M. Nakskov Skibsværft Yard No. 26 When built 1926
 Engines made at Copenhagen By whom made H. Mønsthus & Søn Engines No. 1172 When made 1926
 Boilers made at By whom made Boiler No. When made
 Owners M. Damsgaardselskabet Orient Port belonging to Copenhagen

VERTICAL DONKEY BOILER.

Made at Nakskov By whom made M. Nakskov Skibsværft Boiler No. 4 When made 1926 Where fixed in motor room.
 Manufacturers of Steel Messrs. Henschell & Søn, G. M. B. H., Abt. Hennichshütte, Halbfingen a/d Ruhr.
 Total Heating Surface of Boiler 50 sq. ft. Is forced draught fitted No. Coal or Oil fired oil fired.
 No. and Description of Boilers one off, vertical, cross-tube. Working pressure 120 lbs. per sq. in.
 Tested by hydraulic pressure to 230 lbs. per sq. in. Date of test 17th February 1926. No. of Certificate 455.
 Area of Firegrate in each Boiler No. and Description of safety valves 1 off 2" dia, direct spring loaded.
 Area of each set of valves per boiler { per rule 0.89 sq. in. as fitted 3.14 sq. in. Pressure to which they are adjusted 120 lbs. per sq. in. Are they fitted with easing gear Yes.
 State whether steam from main boilers can enter the donkey boiler No. Smallest distance between boiler or uptake and bunkers
 or woodwork No work or bunkers. Is oil fuel carried in the double bottom under boiler Yes. Smallest distance between base of boiler and tank top plating
 36". Is the base of the boiler insulated No. Largest internal dia. of boiler 4'-6" Height 10'-6".
 Shell plates: Material S. M. steel. Tensile strength 45.0 kg/mm² = 28.6 t. Thickness 11.5 mm = 7/16".
 Are the shell plates welded or flanged No. Description of riveting: circ. seams { end lap, single riv. long. seams lap, 2 riv. riveted.
 Dia. of rivet holes in { circ. seams 3/4" Pitch of rivets { 2" Percentage of strength of circ. seams { plate 62.5 rivets 41.5 of Longitudinal joint { plate 81.2 rivets 68.3 combined.
 Working pressure of shell by rules 149.5 lbs. per sq. in. Thickness of butt straps { outer inner
 Shell Crown: Whether complete hemisphere, dished partial spherical, or flat dished part. spherical. Material S. M. steel.
 Tensile strength 43.2 kg = 27.4 t. Thickness 14 mm = 17/32" Radius 53 3/16" Working pressure by rules 130 lbs.
 Description of Furnace: Plain, spherical, or dished crown dished. Material S. M. steel. Tensile strength 40.8 kg = 25.9 t.
 Thickness 1/2" External diameter { top 40" Length as per rule 30 1/2" Working pressure by rules 127.5 lbs.
 Pitch of support stays circumferentially 6 13/16" and vertically Are stays fitted with nuts or riveted over riveted over.
 Diameter of stays over thread 1 1/8" Radius of spherical or dished furnace crown 54" Working pressure by rule 117 lbs. (SMOKE TUBE NOT CONSIDERED.)
 Thickness of Ogee Ring 5/8" Diameter as per rule { D 54" Working pressure by rule 93.5 lbs.
 Combustion Chamber: Material Tensile strength Thickness of top plate
 Radius if dished Working pressure by rule Thickness of back plate Diameter if circular
 Length as per rule Pitch of stays Are stays fitted with nuts or riveted over
 Diameter of stays over thread Working pressure of back plate by rules
 Tube Plates: Material { front back Tensile strength Thickness Mean pitch of stay tubes in nests
 of comprising shell, Dia. as per rule { front back Pitch in outer vertical rows { Dia. of tube holes FRONT { stay plain BACK { stay plain
 Is each alternate tube in outer vertical rows a stay tube Working pressure by rules { 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 rule

Crown stays: Material *None* Tensile strength *✓* Diameter { at body of stay, *✓*
or
over threads *✓*

No. of threads per inch *✓* Area supported by each stay *✓* Working pressure by rules *✓*

Screw stays: Material *S.M. steel* Tensile strength *28 to 30* Diameter { at turned off part, *✓*
or
over threads *1 1/8"* No. of threads per inch *11*

Area supported by each stay *✓* Working pressure by rules *✓* Are the stays drilled at the outer ends *No.*

Tubes: Material *✓* External diameter { plain *✓*
stay *✓* Thickness { *✓*

No. of threads per inch *✓* Pitch of tubes *✓* Working pressure by rules *✓*

Manhole Compensation: Size of opening in shell plate *11" x 5"* Section of compensating ring *22" x 26" x 1/2"* No. of rivets and diameter

of rivet holes *44 riv. 3/4"* Outer row rivet pitch at ends *4" - 3 1/4"* Depth of flange if manhole flanged *✓*

Uptake: External diameter *12"* Thickness of uptake plate *7/16"*

Cross Tubes: No. *2 riv.* External diameters { *9"* Thickness of plates *7/16"*

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *✓*

The foregoing is a correct description,

H.P. May Manufacturer

Dates of Survey { During progress of work in shops - *24/11/25, 12/1, 19/1, 29/1, 17/2 26.* Is the approved plan of boiler forwarded herewith *No. 18/12 24.*
while building { During erection on board vessel - *4/3, 17/3, 27/4, 28/4 26.* (If not state date of approval.)

Total No. of visits *10*

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

This donkey boiler has been built under Special Survey and in accordance with the Rules, the approved plan and letter 2 dated 18/12 24.

The material has been tested and examined as required, either by us or as per Certificates produced, and the workmanship is good.

The donkey boiler has been fitted on board under our supervision and to our satisfaction, and a duplex pump, 7 1/2 x 40 x 7 1/2 rpm, and feed injector have been supplied to feed the boiler.

Recommend the vessel to have notation of "D.B. 120 lbs." in the Reg. Book.

Survey Fee *Charged on the Machinery Rps.* £ *19* When applied for, *19*

Travelling Expenses (if any) £ *19* When received, *19*

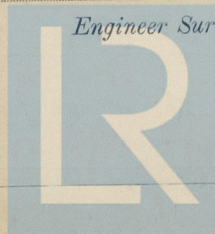
Committee's Minute

Assigned

See Report attached

MAY 21 1926

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation