

Lat.

REPORT ON BOILERS.

No. 7183.

12 FEB 1926

Received at London Office

Date of writing Report 8th February 1926 When handed in at Local Office 19 Port of Copenhagen

No. in Survey held at Copenhagen Date, First Survey 11th September 25 Last Survey 3rd February 1926
Reg. Book. Sp 7 m.

246 on the Swedish Screw Motor Vessel "NORDPOL" (Number of Visits 13)
Gross 5885.98
Tons Net 3657.68

Built at Copenhagen By whom built Akt. Burmeister & Wain's Maskin og Skibsbyggeri Yard No. 340 When built 1925-26

Motors made at Copenhagen By whom made Akt. Burmeister & Wain's Maskin og Skibsbyggeri Engine No. 1123 When made 1925-26

Boilers made at Copenhagen By whom made Akt. Burmeister & Wain's Maskin og Skibsbyggeri Boiler No. 1789 When made 1925

Owners Akt. Dampskibsselskabet Norden. (P. Brown jun. & Co) Port belonging to Copenhagen

VERTICAL DONKEY BOILER.

Made at Copenhagen By whom made Akt. Burmeister & Wain's Maskin og Skibsbyggeri Boiler No. 1789 When made 1925 Where fixed In engine room
Manufacturers of Steel Plates: David Colville & Sons, Ltd. Glasgow. Uptake & Galloway tubes: Galloway Ltd. Ardwick Works, Manchester.
Manufacturers of Steel Stay bars: David Colville & Sons, Ltd. Glasgow. Rivets made by George B. Co. Copenhagen of bars from David Colville & Sons Ltd Glasgow

Total Heating Surface of Boiler 100 sq = 9.3 m² Is forced draught fitted no Coal or Oil fired Oil fired

Name and Description of Boilers One vertical cross tube boiler Working pressure 7 kg/cm² = 100 lbs

Tested by hydraulic pressure to 14 ATM. Date of test 27th November 1925 No. of Certificate 453

Area of Firegrate in each Boiler 12.5 sq No. and Description of safety valves to each boiler 2 off, direct spring loaded
Area of each set of valves per boiler { per rule 2.6 sq as fitted 4.8 sq Pressure to which they are adjusted 7 kg/cm² = 100 lbs Are they fitted with easing gear Yes

Is whether steam from main boilers can enter the donkey boiler no main boilers Smallest distance between boiler or uptake and bunkers No bunkers

Is oil fuel carried in the double bottom under boiler yes Smallest distance between base of boiler and tank top plating 32"
Is the base of the boiler insulated yes Largest internal dia. of boiler 1370 mm Height 3200 mm

Shell plates: Material Siemens Martin Steel Tensile strength 30.4 tons Thickness 10 mm

Are the shell plates welded or flanged No Description of riveting: circ. seams { end Lap joint, single riveted inter. long. seams Lap joint, double riveted

No. of rivet holes in { circ. seams 19 mm long. seams 19 mm Pitch of rivets { 45 mm 62 mm Percentage of strength of circ. seams { plate 57.8 rivets 51.5 of Longitudinal joint { plate 69.3 rivets 74.8 combined ✓

Working pressure of shell by rules 9.21 kg/cm² = 131 lbs/sq Thickness of butt straps { outer ✓ inner ✓

Top Crown: Whether complete hemisphere, dished partial spherical, or flat Flat Material Siemens Martin Steel
Tensile strength 27.0 tons Thickness 22 mm Radius ✓ Working pressure by rules 9.24 kg/cm² = 131.2 lbs/sq

Description of Furnace: Plain, spherical, or dished crown Plain Material Siemens Martin Steel Tensile strength 27.8-28.3 tons
Thickness 14.5 mm External diameter { top 1029 mm bottom 1229 mm Length as per rule 1732 mm Working pressure by rules 6.9 kg/cm²

Are stays fitted with nuts or riveted over ✓
Pitch of stays ✓ and vertically ✓ Are stays fitted with nuts or riveted over ✓

Radius of spherical or dished furnace crown ✓ Working pressure by rule ✓
Thickness of Ogee Ring ✓ Diameter as per rule { D ✓ d ✓ Working pressure by rule ✓

Combustion Chamber: Material ✓ Tensile strength ✓ Thickness of top plate ✓
Working pressure by rule ✓ Thickness of back plate ✓ Diameter if circular ✓

Pitch of stays ✓ Are stays fitted with nuts or riveted over ✓
Working pressure of back plate by rules ✓

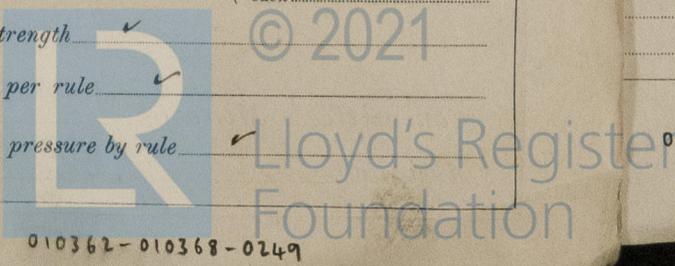
Plates: Material { front ✓ back ✓ Tensile strength { ✓ Thickness { ✓ Mean pitch of stay tubes in nests ✓

Are alternate tube in outer vertical rows a stay tube ✓ Working pressure by rules { front ✓ back ✓

Working pressure by rules { front ✓ back ✓

Material ✓ Tensile strength ✓ Length as per rule ✓

No. and pitch of stays in each ✓ Working pressure by rule ✓



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Crown stays: Material Simons Martin Steel ✓ Tensile strength 28-35 tons ✓ Diameter { at body of stay, 2" ✓
or over threads, 2 1/4" ✓
No. of threads per inch 11 ✓ Area supported by each stay 255 sq" ✓ Working pressure by rules 131 lbs/sq"

Screw stays: Material ✓ Tensile strength ✓ Diameter { at turned off part, ✓
or over threads, ✓ No. of threads per inch ✓
Area supported by each stay ✓ Working pressure by rules ✓ Are the stays drilled at the outer ends ✓

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 ^{Crown} 325 mm x 405 mm ✓ Section of compensating ring Plate flanged ✓ No. of rivets and diameter of rivet holes ✓ Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 75 mm ✓

Uptake: External diameter 364 mm ✓ Thickness of uptake plate 12 mm ✓

Cross Tubes: No. 3 off ✓ External diameters { 250 mm ✓
Thickness of plates 10 mm ✓

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes.

The foregoing is a correct description,
AKTIESELSKABET
BURMEISTER WAINSKIN OG SKIBBYGGERI
Lu. [Signature] Manufacturer

Dates of Survey { During progress of work in shops - 11/9, 15/9, 10/10, 20/10, 2/11, 12/11, 27/11, 1925 Is the approved plan of boiler forwarded herewith Yes ✓
(If not state date of approval.)
while building { During erection on board vessel - 4/1, 13/1, 20/1, 27/1, 1/2, 3/2, 1926 Total No. of visits 13.

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

The boiler has been constructed under Special Survey in accordance with the requirements of the Rules, the approved plan and the requirement contained in the London letter E, dated the 15th April 1925.

The material and workmanship are of good description in every respect.

The material used in the construction of the boiler has been tested as required by the Rules as per certificates of test, produced. -

The boiler has been fitted onboard the vessel and connected as required by the Rules and to our satisfaction.

A duplex pump (Worthington system) 90 mm x 60 mm x 90 mm, and a feed injector have been fitted for feeding the boiler. -

Recommend the vessel to have notation in the Register Book of IB-100 lbs.

Survey Fee is noted on the Machinery Report } When applied for, 19.....
Travelling Expenses (if any) £ ✓ : ✓ : } When received, 19.....

Committee's Minute
Assigned *See J. E. Brady rpt attached*

FRI. 19 FEB 1926

