

REPORT ON BOILERS.

No. 10805.

Received at London Office

MAR -7 1939

Date of writing Report 28th February 38 When handed in at Local Office 19 Port of Copenhagen

No. in Survey held at Copenhagen Date First Survey 7th September 38 Last Survey 27th February 1939

Reg. Book 87537 on the Single Sc. Motor Vessel CANADIAN STAR. (Number of Visits 22) Gross 8293.01 Tons Net 5004.09

Built at Copenhagen By whom built Asbj. Burmeister & Wain Yard No. 640 When built 1939

Engines made at Copenhagen By whom made Asbj. Burmeister & Wain Engine No. 2908 When made 1939

Boilers made at Copenhagen By whom made Asbj. Burmeister & Wain Boiler No. 1945 When made 1939

Owners Blue Star Line Ltd Port belonging to London

VERTICAL DONKEY BOILER.

Made at Copenhagen By whom made Asbj. Burmeister & Wain Boiler No. 1945 When made 1939 Where fixed In engine room

Manufacturers of Steel Plates: The Steel Company of Scotland Wickham's Steel & Iron Works Corp. Ltd Glasgow Rich & Lewis Bros, Ltd

Total Heating Surface of Boiler 18.6 m² Is forced draught fitted yes Coal or Oil fired oil fired

No. and Description of Boilers 1 of vertical cross tube Working pressure 5.63 kg/cm²

Tested by hydraulic pressure to 11.26 kg/cm² Date of test 22.10.38 No. of Certificate 6.34

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

Area of each set of valves per boiler per rule 2268 m² Pressure to which they are adjusted 80 lbs/sq in Are they fitted with easing gear yes

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

or woodwork no woodwork Is oil fuel carried in the double bottom under boiler yes Smallest distance between base of boiler and tank top plating 2 feet

Is the base of the boiler insulated yes Largest internal dia. of boiler 2000 mm Height 3250 mm

Shell plates: Material S. M. Steel Tensile strength 44/50 kg/mm² Thickness 11 mm

Are the shell plates welded or flanged no Description of riveting: circ. seams single long seams double ZIG-ZAG

Dia. of rivet holes in circ. seams 21 mm Pitch of rivets 48 mm Percentage of strength of circ. seams plate 56.3 of Longitudinal joint plate 71

long. seams 19 mm 65.5 mm rivets 53.6 combined 64.3

Working pressure of shell by rules 6.55 kg/cm² Thickness of butt straps outer - inner -

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat with 6 plate girders Material S. M. Steel

Tensile strength 41/47 kg/mm² Thickness 19 mm Radius 3000 mm Working pressure by rules appn. 5.63 kg/cm²

Description of Furnace: Plain, spherical, or dished dished Material S. M. Steel Tensile strength 41/47 kg/mm²

Thickness 16 mm External diameter top 1532 mm Length as per rule 1500 mm Working pressure by rules 6.78 kg/cm²

bottom 1842 mm

Pitch of support stays circumferentially - and vertically - Are stays fitted with nuts or riveted over -

Diameter of stays over thread - Radius of spherical or dished furnace crown 1600 mm Working pressure by rule 10.8 kg/cm²

Thickness of Ogee Ring 16 mm Diameter as per rule D 2000 mm Working pressure by rule 7.4 kg/cm²

a 1842 mm

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 - Tensile strength - Thickness - Mean pitch of stay tubes in nests -

If comprising shell, Dia. as per rule - Pitch in outer vertical rows - Dia. of tube holes FRONT - BACK -

front - back - stay - plain -

Working pressure by rules - front - back -

Is each alternate tube in outer vertical rows a stay tube - Tensile strength -

Girders to combustion chamber tops: Material - Length as per rule -

Depth and thickness of girder at centre - Working pressure by rule -

Distance apart - No. and pitch of stays in each -

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Foundation

Crown stays: Material _____ 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 _____ 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 plate END 305 x 405 mm Section of compensating ring none No. of rivets and diameter _____

of rivet holes _____ Outer row rivet pitch at ends _____ Depth of flange if manhole flanged 80 mm

Uptake: External diameter 464 mm Thickness of uptake plate 12 mm

Cross Tubes: No. 6 External diameters { 305 mm Thickness of plates 10 mm

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

The foregoing is a correct description,
**AKTIESELSKABET
BURMEISTER & WAINSKIN-OG SKIBSBYGGERI**
Manufacture

Dates of Survey { During progress of work in shops - - 7/9-19/9-1/10-5/10-22/10-1938 Is the approved plan of boiler forwarded herewith 11/8-38
(If not state date of approval.)

while building { During erection on board vessel - - 1938: 5/12-8/12-14/12-20/12-1939 7/1-19/1-28/1-4/2-9/2 Total No. of visits 22
15/2-20/2-21/2-22/2-23/2-24/2-25/2-27/2

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. clt's California Star
Exp Report No 10746

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed and fitted on board the vessel under special survey in accordance with the Rules, the approved plans and the requirements contained in the Secretary's letters E dated 27/5-37, 7/2-17/2-11/8-1938

The material used in construction has been tested as required by the Rules and the workmanship is good.

Recommend the vessel's machinery to have notation in the Register Book of 2 DB 80 Hs

Fitting of DB 94 75.00

Survey Fee ... 94 94.08

Travelling Expenses (if any) £ : : When applied for, 6-3-39

When received, 16-5-39

Committee's Minute FRI. 10 MAR 1939

Assigned See FE machine rft

L. Lauren P. Langkilde
Engineer Surveyor to Lloyd's Register of Shipping.
Lloyd's Register Foundation