REPORT ON BOILERS. No. 8167.

Received at London Office 13 FEB 1930

...writing Report 23/1 1930. When handed in at Local Office ... 19... Port of Copenhagen.

...in Survey held at Copenhagen & Odense. Date, First Survey 12/6 29. Last Survey 18/1 1930.

...ook ...o. on the Stwl Twin Sc. Motor vessel "Laurits Swensen" (Number of Visits 15) Tons Gross 5724.72 Net 3556.10

...t Odense By whom built Odense Staalskibsvaft (vd A. P. Møller) Yard No. 35 When built 1929.

...s made at Copenhagen By whom made B/S Burmeister & Wain. Engine No. 1623 1624 When made 1929.

... made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

...s B/S Gauger Rolf (F. Olsen & Co.) Port belonging to Oslo.

...TICAL DONKEY BOILER.

...t Copenhagen. By whom made B/S Burmeister & Wain. Boiler No. 1830 When made 1929. Where fixed in the motor room.

...facturers of Steel Messrs. Henschel & Sohn, G.H.B.H.V. Hattingen; CROSSTUBES & UPTAKE: Messrs. Galloways Ld. Manchester.

...Heating Surface of Boiler 100 □'. Is forced draught fitted No. Coal or Oil fired oil. 100 ft

...d Description of Boilers 1 off, vertical, crosstube. ✓ **Working pressure** 7 kg/cm².

...by hydraulic pressure to 14 kg/cm² ✓ Date of test 7th August 1929. ✓ No. of Certificate 514.

...f Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 2 off 4½" dia. direct spring loaded.

...f each set of valves per boiler { per rule 22.7 cm² / as fitted 27.7 cm² } Pressure to which they are adjusted 100 lbs/□" Are they fitted with easing gear yes. ✓

...whether steam from main boilers can enter the donkey boiler no main boilers. Smallest distance between boiler or uptake and bunkers ...dwork ✓ Is oil fuel carried in the double bottom under boiler yes. ✓ Smallest distance between base of boiler and tank top plating 38" Is the base of the boiler insulated No. Largest internal dia. of boiler 1370 m/m Height 3200 m/m.

...plates: Material S.M. boiler steel. Tensile strength 46.4 kg/mm² Thickness 10 m/m. ✓

...e shell plates welded or flanged No. Description of riveting: circ. seams { end lap single rivet. / inter. ✓ } long. seams lap, 2bb rivet. ✓

...f rivet holes in { circ. seams 19 m/m ✓ / long. seams 19 m/m. ✓ } Pitch of rivets { 45 m/m ✓ / 62 m/m. ✓ } Percentage of strength of circ. seams { plate 57.8 / rivets 49.1 } of Longitudinal joint { plate 69.3 / rivets 71 / combined. ✓ }

...ing pressure of shell by rules 9.73 kg/cm² Thickness of butt straps { outer ✓ / inner ✓ }

Crown: Whether complete hemisphere, dished partial spherical, or flat flat. Material S.M. boiler steel.

...e strength 44.4 kg/mm² Thickness 22 m/m ✓ Radius ✓ Working pressure by rules 10 kg/cm².

...iption of Furnace: Plain, spherical, or dished crown ~~flat~~ Material S.M. boiler steel. Tensile strength 44.7 kg/mm²

...ness 14 m/m Crown External diameter { top 1029 m/m / bottom 1229 m/m } Length as per rule 1640 m/m. Working pressure by rules CROWN: 8.05 kg/cm² SHELL: 6.93 -"- (crosstubes not considered)

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

...eter of stays over thread ... Radius of spherical or dished furnace crown ... Working pressure by rule ...

...ness of Ogee Ring ... Diameter as per rule { D ... / d ... } Working pressure by rule ...

...ustion Chamber: Material ... Tensile strength ... Thickness of top plate ...

...s if dished ... Working pressure by rule ... Thickness of back plate ... Diameter if circular ...

...h as per rule ... Pitch of stays ... Are stays fitted with nuts or riveted over ...

...eter of stays over thread ... Working pressure of back plate by rules ...

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

...prising shell, Dia. as per rule { front ... / back ... } Pitch in outer vertical rows { ... / ... } Dia. of tube holes FRONT { stay ... / plain ... } BACK { stay ... / plain ... }

...ch alternate tube in outer vertical rows a stay tube ... Working pressure by rules { front ... / back ... }

...rs to combustion chamber tops: Material ... Tensile strength ...

...h and thickness of girder at centre ... Length as per rule ...

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

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 shell plate* 305 x 405 m/m. *Section of compensating ring* flanged ✓ *No. of rivets and diameter of rivet holes* ✓ *Outer row rivet pitch at ends* ✓ *Depth of flange if manhole flanged* 75 m/m.

Uptake: *External diameter* 364 m/m. ✓ *Thickness of uptake plate* 12 m/m. ✓

Cross Tubes: *No.* 3 *External diameters* { 230 m/m ✓ / ✓ *Thickness of plates* 10 m/m ✓

Have all the requirements of Sections 14 *to* 22 *inclusive for boilers been complied with* Yes.

The foregoing is a correct description.

AKTIESELSKABET
BURMEISTER & WAINS MASKIN- OG SKIBSBYGGERI

Manufacturer.

Dates of Survey while building

During progress of work in shops - - 2/6. 27/6. 2/7. 10/7. 19/7. 29/7. 7/8. 12/8 29.

During erection on board vessel - - 15/10. 24/10. 21/11. 12/12 27. 13/1. 14/1. 18/1 30.

Is the approved plan of boiler forwarded herewith Yes. (If not state date of approval.)

Total No. of visits 15.

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 Society's Rules, the approved plan and the requirements contained in the Secretary's letter E dated 4/4 29.

The material used for the construction of the boiler has been tested and examined as required by the Rules and the workmanship is of good description throughout.

The donkey boiler has been fitted on board the vessel under our supervision and to our satisfaction, and a steam driven pump, 90 x 60 x 90 m/m duplex, and a feed injector have been fitted to feed the boiler.

Recommend the vessel to have notation of D.B. 100 lbs. in the Register Book.

Survey Fee ... ... £ 7. 76. 44. : When applied for. 30. 1. 1930

Travelling Expenses (if any) £ : : When received, 17. 3. 1930

Chr. Iversen

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Assigned FRI. 7 FEB 1930 See other Cpns I.-E. Rpt