

REPORT ON BOILERS.

No. 6954.

Received at London Office

22 NOV 1924

Date of writing Report

7/11

19 24

When handed in at Local Office

19

Port of

Copenhagen.

No. in
Reg. Book.

Survey held at

Copenhagen & Bleimere

Date, First Survey

6/5 24

Last Survey

4/11

19 24

20159 on the

Hus. L. Motor used "ODENSE"

(Number of Visits 10)

Gross 555.08
Net 251.33

Built at

Bleimere

By whom built

Helsingørsk Jernskibs-og Maskinbyggeri

Yard No. 170

When built 1924

Engines made at

Holeby

By whom made

Holeby Dieselmotor Fabrik

Engine No. 170

When made 1924

NKEY

Boilers made at

Copenhagen

By whom made

H/S Petersen & Wraae

Boiler No. 217

When made 1924

Owners

Det Friebe Dampskibs Selskab.

Port belonging to

Odense.

VERTICAL DONKEY BOILER.

Made at Copenhagen By whom made H/S Petersen & Wraae Boiler No. 217 When made 1924 Where fixed in motor room.

Manufacturers of Steel Plates: David Colville & Sons Ltd. Glasgow; Joints: Kierulff & Løngb. Ltd. London.

Total Heating Surface of Boiler

8.3 m² 90 ft²

Is forced draught fitted

No

Coal or Oil fired

oil.

No. and Description of Boilers

1 off, vertical, return tubular.

Working pressure

50 lbs. per sq. in.

Tested by hydraulic pressure to

100 lbs. per sq. in.

Date of test

16th July 1924

No. of Certificate

444

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

1 off 50 lb. dia, direct spring loaded.

Area of each set of valves per boiler

per rule
as fitted 19.63 cm²

Pressure to which they are adjusted

50 lbs. per sq. in.

Are they fitted with easing gear

yes.

State whether steam from main boilers can enter the donkey boiler

✓

Smallest distance between boiler or uptake and bunkers

or woodwork

Is oil fuel carried in the double bottom under boiler

yes.

Smallest distance between base of boiler and tank top plating

16"

Is the base of the boiler insulated

No

Largest internal dia. of boiler

1000 mm

Height 2300 mm

Shell plates: Material

S.M. steel

Tensile strength

27.94 - 31.75 t.

Thickness

3/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end. single
inter. single

long. seams

single

Dia. of rivet holes in

circ. seams 19 mm

Pitch of rivets

45 mm

Percentage of strength of circ. seams

plate 57.8
rivets 54.0

of Longitudinal joint

plate 57.8
rivets 54.0
combined.

Working pressure of shell by rules

8.14 kg/cm²

Thickness of butt straps

outer
inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat

dished partial spherical

Material

S.M. steel.

Tensile strength

26.03 t.

Thickness

3/8"

Radius

1000 mm

Working pressure by rules

7.66 kg/cm²

Description of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

Thickness

External diameter

top
bottom

Length as per rule

Working pressure by rules

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

Working pressure by rule

Thickness of Ogee Ring

Diameter as per rule

D
d

Working pressure by rule

Combustion Chamber: Material

S.M. steel.

Tensile strength

26.03 t.

Thickness of top plate

5/8"

Radius if dished

Working pressure by rule

7 kg/cm²

Thickness of back plate

3/8"

Diameter if circular 820 mm

Length as per rule

1380 mm

Pitch of stays

No stays.

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Working pressure of back plate by rules

4.37 kg/cm²

Tube Plates: Material

front S.M. steel

back

Tensile strength

26.03 t.

Thickness

5/8"

Mean pitch of stay tubes in nests

204 mm

If comprising shell, Dia. as per rule

front
back

Pitch in outer vertical rows

102 mm

Dia. of tube holes FRONT

stay 3"
plain 3"

BACK

stay 3"
plain 3"

Is each alternate tube in outer vertical rows a stay tube

yes.

Working pressure by rules

front 5.69 kg/cm²
back 5.69

Girders to combustion chamber tops: Material

None.

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

003659-003670-0229

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Lloyd's Register
Foundation

Crown stays: Material *Nm.* 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 *Nm.* 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 *Stw.* External diameter { plain, *3"* stay, *3"* Thickness { *4 mm* *8 mm*

No. of threads per inch *9* Pitch of ^{stay}tubes *102 mm* Working pressure by rules *18.9 kg/cm²*

Manhole Compensation: Size of opening in shell plate *305 x 405 mm* Section of compensating ring *97.5 x 5.9 mm* No. of rivets and dia of rivet holes *32 off 19 mm* Outer row rivet pitch at ends *100 mm* Depth of flange if manhole flanged ☒

Uptake: External diameter ☒ Thickness of uptake plate ☒

Cross Tubes: No. ☒ External diameters { ☒ Thickness of plates ☒

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

W. Petersen & Wraae

W. Petersen

*ACTIESELSKABET
HELSINGØRS JERNSKIBS- OG MASKINBYGGERI
Vald. Jørgensen*

The foregoing is a correct description,

R. Thomsen

Manufa

Dates of Survey { During progress of work in shops - *6/5 28/5 7/7 16/7 24* Is the approved plan of boiler forwarded herewith *Yes.*
while building { During erection on board vessel - *25/9 3/10 6/10 8/10 24/10 4/11 24* (If not state date of approval.)
Total No. of visits *10*

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

This boiler has been constructed under Special Survey and in accordance with the Rules, the approved plan and the requirements contained in letter 3 dated 17/4 24. The material used in the construction has been tested as required by the Rules as per Certificate provided, and the workmanship is good.

A duplex Worthington pump, size 75 x 40 x 45 mm, and a feed injector have been fitted to feed the boiler.

Survey Fee ... *£4. 114.50* When applied for, *29/7 19 24*
Travelling Expenses (if any) £ : : When received, *10/9 19 24*

Committee's Minute *JUES. 25 NOV 1924*
Assigned