

REPORT ON BOILERS.

No. 7275.

Received at London Office 12 JUL 1926

Date of writing Report 20th June 1926. When handed in at Local Office

19

Port of Copenhagen.

No. in Reg. Book.

Survey held at

Elsinore.

Date, First Survey

16/4 26.

Last Survey

19/6

19 26.

(Number of Visits 12)

Gross 2761.84

Tons Net 1559.34

on the *Det Svane & Motor vessel "JYLLAND"*

Built at

Elsinore

By whom built

Helsingørsk Jernskibsskibsbyggeri

Yard No.

196

When built 1926.

Engines made at

Copenhagen

By whom made

Büchtemann & Søn's Maskinfabrik

Engines No.

1266-7

When made 1926.

Boilers made at

By whom made

Boiler No.

When made

Owners *Det Søenre Dampskibs Selskab.*

Port belonging to

Esbjerg.

VERTICAL DONKEY BOILER.

Made at

Elsinore

By whom made

Helsingørsk Jernskibsskibsbyggeri

Boiler No.

710

When made

1926.

Where fixed *In the engine casing*

Manufacturers of Steel

The Steel Company of Scotland, Ltd.

Total Heating Surface of Boiler

246.5 sq. ft.

Is forced draught fitted

yes.

Coal or Oil fired

oil.

No. and Description of Boilers

1 off vertical, return tubular.

Working pressure

75 lbs. per sq. in.

Tested by hydraulic pressure to

150 lbs. per sq. in.

Date of test

3rd June 1926.

No. of Certificate

459.

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2 off, direct spring loaded.

Area of each set of valves per boiler

36.3 cm² per rule.

Pressure to which they are adjusted

75 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

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated

Largest internal dia. of boiler

1820 mm.

Height *3650 mm.*

Shell plates: Material

S. B. Steel.

Tensile strength

44 kg/mm²

Thickness

13 mm.

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

lap, single riv.

long. seams *lap, 2 riv.*

Dia. of rivet holes in

circ. seams 19-22 mm.

Pitch of rivets

45-50 mm.

Percentage of strength of circ. seams

plate 548-56 rivets 397

of Longitudinal joint

plate 66.07 rivets 63.8 combined.

Working pressure of shell by rules

8.52 kg/cm² = 121 lbs. per sq. in.

Thickness of butt straps

outer 13 mm.

inner 13 mm.

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

dished partial spherical.

Material *S. B. Steel.*

Tensile strength

41 kg/mm²

Thickness

15 mm.

Radius

1815 mm.

Working pressure by rules

6.86 kg/cm²

Description of Furnace: Plain, spherical, or dished crown

dished.

Material *S. B. Steel.*

Tensile strength

41 kg/mm²

Thickness

17 mm.

External diameter

top 1584 mm.

Length as per rule

464 mm.

Working pressure by rules

10.45 kg/cm²

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

1521 mm.

Working pressure by rule

5.79 kg/cm²

Thickness of Ogee Ring

17 mm.

Diameter as per rule

D 1820 mm.

Working pressure by rule

6.17 kg/cm²

Combustion Chamber: Material

S. B. Steel.

Tensile strength

41 kg/mm²

Thickness of top plate

14 mm.

Radius if dished

414 mm.

Working pressure by rule

19.76 kg/cm²

Thickness of back plate

14 mm.

Radius if circular

494 mm.

Length as per rule

445 mm.

Pitch of stays

320 mm.

Are stays fitted with nuts or riveted over *riveted over.*

Diameter of stays over thread

25.4 mm.

Working pressure of back plate by rules

11.14 kg/cm²

Tube Plates: Material

S. B. Steel.

Tensile strength

41 kg/mm²

Thickness

20 mm.

Mean pitch of stay tubes in nests

270/180 = 225 mm.

If comprising shell, Dia. as per rule

front 1780 mm.

Pitch in outer vertical rows

180 mm.

Dia. of tube holes FRONT

stay 68.5 mm.

BACK stay 63.5 mm.

Is each alternate tube in outer vertical rows a stay tube

yes.

Working pressure by rules

front 5.65 kg/cm² back 151.

Girders to combustion chamber tops: Material

Tensile strength

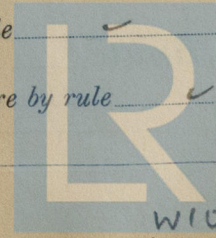
Depth and thickness of girder at centre

Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule



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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 S.M. steel Tensile strength 44 kg/mm² Diameter { at turned off part, ✓
or over threads 25.4 mm No. of threads per inch 9
Area supported by each stay ✓ Working pressure by rules ✓ Are the stays drilled at the outer ends No.
✓

Tubes: Material Steel External diameter { plain 2 1/2" Thickness { 3 W.G. No. 10
stay 2 1/2" 8 mm
No. of threads per inch 9 Pitch of tubes 90 x 90 mm Working pressure by rules 12.5 kg/cm²

Manhole Compensation: Size of opening in shell plate 305 x 405 mm Section of compensating ring 60 x 70 x 13 mm No. of rivets and diameter
of rivet holes 34 of 19 mm Outer row rivet pitch at ends 120 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 ✓

The foregoing is a correct description,
ACTIESELSKABET
HELSINGØRS JERNSKIBS- OG MASKINBYGGERI Manufacturer.
W. H. H. H.

Dates of Survey { During progress of work in shops - 16/4. 22/4. 26/4. 8/5. 18/5. 22/5. 31/5. 3/6 Is the approved plan of boiler forwarded herewith yes ✓
while building { During erection on board vessel - 8/6. 15/6. 17/6. 19/6 (If not state date of approval.)
Total No. of visits 12

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 the requirements contained in the Secretary's letter E dated 17th March 1926.

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

The boiler has been fitted on board the vessel under our supervision and to our satisfaction.

A duplex feed pump, 90 x 60 x 90 mm, and an injector have been fitted to feed the boiler.

1/2 = 14. 18. 34.
Survey Fee £ 14. 7. 03 When applied for, 8. 7. 1926
Travelling Expenses (if any) £ : : When received, 26/7/26

C. H. H. H.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 16 JUL 1926
Assigned See P. Expt. attached