

REPORT ON BOILERS.

No. 9449

Received at London Office 11 OCT 1934

Date of writing Report 8th October 1934 When handed in at Local Office

Port of Copenhagen

No. in
Reg. Book.

Survey held at

Copenhagen

Date, First Survey

8th March

Last Survey

27th September 1934

2610 on the

Steel Single Screw Motor Vessel HÖEGH MERCHANT

(Number of Visits

19)

Gross 4857.75

Net 2920.62

Built at

Copenhagen

By whom built

F. Bernicke & Wain's Maskin- og Jernbyggeri

Card No.

582

When built

1934

Engines made at

Copenhagen

By whom made

F. Bernicke & Wain's Maskin- og Jernbyggeri

Engine No.

2247

When made

1934

DONKEY

Boilers made at

Copenhagen

By whom made

F. Bernicke & Wain's Maskin- og Jernbyggeri

Boiler No.

1876

When made

1934

Owners

Partners i ved Lief Hoegh.

Port belonging to

Oslo

VERTICAL DONKEY BOILER.

Made at

Copenhagen

By whom made

F. Bernicke & Wain's Maskin- og Jernbyggeri

Boiler No.

1876

When made

1934

Where fixed

in the motor room

Manufacturers of Steel

PLATES: Swan Christen Ltd, Motherwell-CROSTUBES: Stuart & Lloyd's, Colbridge RIVETS: Hinge Bros, Copenhagen

Total Heating Surface of Boiler

150 square feet 4.4 m^2

Is forced draught fitted

Yes

Coal or Oil fired

Oil fired

No. and Description of Boilers

One off, vertical cross tube donkey boiler

Working pressure

90 lbs per sq in 6.3 kg/cm^2

Tested by hydraulic pressure to

180 lbs per sq in

Date of test

12th June 1934

No. of Certificate

554

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2 off directly spring loaded

Area of each set of valves per boiler

per rule

2268 $\frac{7}{8} \text{ in}^2$

as fitted

3926 $\frac{7}{8} \text{ in}^2$

Pressure to which they are adjusted

90 lbs per sq in

Are they fitted with easing gear

Yes

State whether steam from main boilers can enter the donkey boiler

No main boiler fitted

Smallest distance between boiler or uptake and bunkers

woodwork

18"

Is oil fuel carried in the double bottom under boiler

Yes

Smallest distance between base of boiler and tank top plating

39"

Is the base of the boiler insulated

Yes

Largest internal dia. of boiler

1700 $\frac{7}{8} \text{ in}$

Height

3665 $\frac{7}{8} \text{ in}$

Shell plates: Material

Swedish Martin Steel

Tensile strength

29.7 - 30.2 Tons 10"

Thickness

10 $\frac{7}{8} \text{ in}$

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end lap joint

inter. single riveting

long. seams

double riveting

Dia. of rivet holes in

circ. seams

19 $\frac{7}{8} \text{ in}$

long. seams

19 $\frac{7}{8} \text{ in}$

Pitch of rivets

44.5 $\frac{7}{8} \text{ in}$

Percentage of strength of circ. seams

55-57 $\frac{7}{8} \text{ in}$

Percentage of strength of long. seams

plate 57.32

rivets 52.22

of Longitudinal joint

plate 65.52

rivets 84.42

combined

Working pressure of shell by rules

7.02 kg/cm^2 99.6 lbs per sq in

Thickness of butt straps

outer

inner

Shell Crown:

Whether complete hemisphere, dished partial spherical, or flat

dished partial spherical

Material

Swedish Martin Steel

Tensile strength

28.8 Tons 10"

Thickness

14 $\frac{7}{8} \text{ in}$

Radius

1560 $\frac{7}{8} \text{ in}$

Working pressure by rules

7.8 kg/cm^2

5108 27.9 Tons 10"

Description of Furnace:

Plain, spherical, or dished crown

dished crown

Material

Swedish M. Steel

Tensile strength

Crown: 28.7 Tons 10"

Thickness

16 $\frac{7}{8} \text{ in}$

External diameter

top 1362 $\frac{7}{8} \text{ in}$ bottom 1502 $\frac{7}{8} \text{ in}$

Length as per rule

1771 $\frac{7}{8} \text{ in}$

Working pressure by rules

7.7 kg/cm^2

Pitch of support stays circumferentially

Yes

and vertically

Yes

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Yes

Radius of spherical or dished furnace crown

1560 $\frac{7}{8} \text{ in}$

Working pressure by rule

8.5 kg/cm^2

Thickness of Ogee Ring

16 $\frac{7}{8} \text{ in}$

Diameter as per rule

D 1680 $\frac{7}{8} \text{ in}$

a

1470 $\frac{7}{8} \text{ in}$

Working pressure by rule

6.6 kg/cm^2

Combustion Chamber: Material

Yes

Tensile strength

Yes

Thickness of top plate

Yes

Radius if dished

Yes

Working pressure by rule

Yes

Thickness of back plate

Yes

Diameter if circular

Yes

Length as per rule

Yes

Pitch of stays

Yes

Are stays fitted with nuts or riveted over

Yes

Diameter of stays over thread

Yes

Working pressure of back plate by rules

Yes

Tube Plates: Material

front

back

Tensile strength

Yes

Thickness

Yes

Mean pitch of stay tubes in nests

Yes

Comprising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

Yes

Dia. of tube holes FRONT

stay

plain

BACK

stay

plain

Each alternate tube in outer vertical rows a stay tube

Yes

Working pressure by rules

front

back

Orders to combustion chamber tops: Material

Yes

Tensile strength

Yes

Depth and thickness of girder at centre

Yes

Length as per rule

Yes

Distance apart

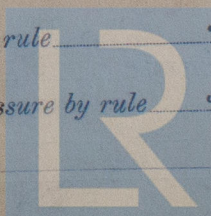
Yes

No. and pitch of stays in each

Yes

Working pressure by rule

Yes



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REPORT ON BOILERS

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 $30\frac{5}{4} \times 40\frac{5}{4}$ Section of compensating ring 140×16 No. of rivets and diam. of rivet holes $48 \frac{1}{4} - 19 \frac{1}{4}$ Outer row rivet pitch at ends ☒ Depth of flange if manhole flanged ☒

Uptake: External diameter $458 \frac{1}{4}$ Thickness of uptake plate $14 \frac{1}{4}$

Cross Tubes: No. 6 External diameters $220 \frac{1}{4}$ Thickness of plates $10 \frac{1}{4}$

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

The foregoing is a correct description,
AKTIESELSKABET
BURMEISTER & WAINES MASKIN- OG SKIBSBYGERI
 Manufacture

Dates of Survey while building { During progress of work in shops - $1934. 8/3 - 23/3 - 31/3 - 13/4 - 16/4 - 2/5 - 8/5 - 22/5 - 1/6 - 8/6 - 12/6$ Is the approved plan of boiler forwarded herewith ☒ (If not state date of approval.)
 { During erection on board vessel - $29/8 - 3/8 - 4/9 - 15/9 - 18/9 - 20/9 - 25/9 - 27/9$ Total No. of visits 19

GENERAL REMARKS

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

This donkey boiler has been built under Special Survey in accordance with the Rules, the approved plan and the requirements contained in the Secretary's letter. The material used in the construction has been tested as required by the Rules as per certificates produced and the workmanship is good. The boiler has been fitted on board and installed to our entire satisfaction. A "Eureka" duplex feed pump $90 \frac{1}{4} \times 60 \frac{1}{4} \times 90 \frac{1}{4}$ and a feed injector have been fitted.

Recommend the vessel to have notation of DB 90 lbs.

Survey Fee $\pounds 125.00$ When applied for $10.10.19$
 Travelling Expenses (if any) \pounds When received $3.12.19$

FRI. 26 OCT 1934

Committee's Minute

Assigned

See App 28 9449

L. Laursen

Engineer Surveyor to Lloyd's Register of Shipping



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