

REPORT ON BOILERS.

No. 16835

Received at London Office 25 MAY 1926

of writing Report 22nd May 1926 When handed in at Local Office

19 Port of HAMBURG

To. in Survey held at HAMBURG

Date, First Survey 18th Jan. 1926 Last Survey 23rd April 1926

602 on the Twin Sc. Motor Vessel JAPANESE PRINCE

(Number of Visits 6)

Gross 6376

Net 3874

At HAMBURG

By whom built Deutsche Werft A.G.

Yard No. 94

When built 1926

Lines made at BERLIN

By whom made Allgemeine Electricitäts Gesellschaft

Engine No. 188/89

When made 1926

Boiler made at HAMBURG

By whom made Deutsche Werft A.G.

Boiler No. 215

When made 1926

Rivers. RIO-CAPE-LINE, Ltd.

Port belonging to LONDON

TICAL DONKEY BOILER.

By whom made Deutsche Werft A.G. Boiler No. 215 When made 1926 Where fixed Engine room

Constructors of Steel Gutehoffnungshütte Oberhausen

Heating Surface of Boiler 45 m² = 485 sqn fut Is forced draught fitted yes

Coal or Oil fired oil fired

Description of Boilers One vertical Donkey Boiler

Working pressure 7 kg/cm² = 100 lbsby hydraulic pressure to 14 kg/cm² = 200 lbs Date of test 13th March 1926

No. of Certificate 422

Firegrate in each Boiler No. and Description of safety valves to each boiler two spring loaded

each set of valves per boiler { per rule 4.122 m² as fitted 7.796 m²

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

Smallest distance between boiler or uptake and bunkers

Work 2000 m Is oil fuel carried in the double bottom under boiler no

Smallest distance between base of boiler and tank top plating

1400 m Is the base of the boiler insulated no

Largest internal dia. of boiler 1500 m Height 3700 m

Plates: Material steel

Tensile strength

44 - 51 kg

Thickness

11 m

Shell plates welded or flanged flanged

Description of riveting: circ. seams

{ end lay single
inter. single

long. seams by double

rivet holes in { circ. seams 24 m Pitch of rivets { 56 m 70 m

Percentage of strength of circ. seams { plate 57 % rivets 60 %

of Longitudinal joint { plate 66 % rivets 96 % combined

g pressure of shell by rules 8.9 kg/cm²

Thickness of butt straps

{ outer
inner

Crown: Whether complete hemisphere, dished partial spherical, or flat dished partial spherical Material steel

strength 34 - 41 kg

Thickness 15 m

Radius 1500 m

Working pressure by rules 7.2 kg/cm²

Position of Furnace: Plain, spherical, or dished crown partial spherical Material steel

Tensile strength 34 - 41 kg

Dish 18.5 m External diameter { top 1050 m bottom 1250 m

Length as per rule 1700 m

Working pressure by rules 12.1 kg/cm²

Support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

Stays over thread

Radius of spherical or dished furnace crown 1500 m

Working pressure by rule 8.5 kg/cm²

Dish of Ogee Ring 18.5 m

Diameter as per rule { D 1500 m a 1250 m

Working pressure by rule 8.4 kg/cm²

Combustion Chamber: Material

Tensile strength

Thickness of top plate

if dished

Working pressure by rule

Thickness of back plate

Diameter if circular

as per rule

Pitch of stays

Are stays fitted with nuts or riveted over

Stays over thread

Working pressure of back plate by rules

Plates: Material { front steel back steel

Tensile strength

{ 34 - 41 kg 34 - 41 kg

Thickness

{ 20 m 20 m

Mean pitch of stay tubes in nests 356 x 178 m

Rising shell, Dia. as per rule { front 1350 m back 1350 m

Pitch in outer vertical rows { 89 m 89 m

Dia. of tube holes FRONT { stay 63.5 m plain 65.5 m

BACK { stay 63.5 m plain 65.5 m

alternate tube in outer vertical rows a stay tube yes

Working pressure by rules { front 8.6 kg/cm² back 8.6 kg/cm²

to combustion chamber tops: Material

Tensile strength

and thickness of girder at centre

Length as per rule

apart

No. and pitch of stays in each

Working pressure by rule

W246-0046

REPORT ON BOILER

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 mild steel seamless drawn External diameter { plain 63.5 mm stay 63.5 mm Thickness { 3 mm 6 mm

No. of threads per inch 11 per 1" Pitch of tubes 89 mm Working pressure by rules 9 kg/cm²

Manhole Compensation: Size of opening in shell plate 300 x 400 mm Section of compensating ring 600 x 700 x 11 mm No. of rivets and of rivet holes 24 rivets of 24 mm dia Outer row rivet pitch at ends 140 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,
DEUTSCHE WERFT
 AKTIENGESELLSCHAFT.
A. Gruber

Dates of Survey while building { During progress of work in shops - 18/1.26 25/1.26 1/2.26 13/3.26 Is the approved plan of boiler forwarded herewith 29.6.26 (If not state date of approval.)
 { During erection on board vessel - 23/3.26 23/4.26 Total No. of visits 6

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Donkey Boiler has been built under special survey in accordance with the approved plan, the Secretary's letter E 29.6.26 and otherwise conformity with the requirements of the Rules, and the materials and workmanship are of good quality. The materials used in the construction are at Works recognised by the Committee and tested in accordance with the Rules Society's Surveyors. When tested by hydraulic pressure to 200 lbs per sq. inch, Donkey Boiler was found to be light and sound in every respect and showed no signs of weakness. Under steam it was found light and its safety Valves have been adjusted to 100 lbs per sq. inch. It is eligible in my opinion for notification of class.
 ✱ N.D.B. 5.26.

Mark on Boiler:

No. 422
Lloyd's Test
200 lbs
W.P. 100 lbs
A.C. 13.3.26

Thickness of washers:

forw. 17.5 mm
aft 12.5 mm

Survey Fee ... £ 4 : 4 : } When applied for, 12.5.26 19.26
 Travelling Expenses (if any) £ : : } When received, 8.6.26 26 RBM

Committee's Minute
 Assigned See A.C. rpt. attached

WED. 26 MAY 1926

A. Carstensen
 Engineer Surveyor to Lloyd's Register of Ship
 Lloyd's Register Foundation