

This report includes copy of Hamburg Rpt. 17044.

pt. 5b.

REPORT ON BOILERS.

No. 8341

15 APR 1929

Received at London Office

Date of writing Report 3/4/29 When handed in at Local Office 10 29 Port of Trieste

No. in Survey held at Hamburg & Trieste Date, First Survey 16/2/29 Last Survey 25/3/29

Reg. Book 90126 on the one Low pressure Donkey boilers on "FUSIJAMA" (Number of Visits four) Tons Gross 6669 Net 4196

Built at Trieste By whom built Stabilimenti Tecnici Triestini Yard No. 773 When built 1929

Engines made at Trieste By whom made do. Engine No. 5115 5119 When made 1929

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

Owners Lloyd Triestino Port belonging to Trieste

VERTICAL DONKEY BOILER.

Made at Hamburg By whom made Deutsche Luft A.G. Boiler No. 234 When made 1926 Where fixed Starboard side engine room forward end.

Manufacturers of Steel Messrs Gutehoffnungshütte of Oberhausen.

Total Heating Surface of Boiler 15 m² Is forced draught fitted no Coal or Oil fired oil fired

No. and Description of Boilers one vertical multitubular donkey boiler Working pressure 100 lbs/10'

Tested by hydraulic pressure to 200 lbs = 14 kg/cm² Date of test 13th September 1926. No. of Certificate 443

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

Area of each set of valves per boiler per rule 1134 mm² as fitted 1134 mm² Pressure to which they are adjusted 100 lbs/10' 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 ✓

3 feet. Is oil fuel carried in the double bottom under boiler no Smallest distance between base of boiler and tank top plating 3 feet.

Is the base of the boiler insulated no Largest internal dia. of boiler 1200 mm. Height 2650 mm.

Shell plates: Material steel Tensile strength 34-41 Kg. Thickness 9 mm.

Are the shell plates welded or flanged flanged Description of riveting: circ. seams end up angle bottom lap single long. seams up double.

Dia. of rivet holes in circ. seams 20 mm. long. seams 20 mm. Pitch of rivets 49 mm. 65 mm. Percentage of strength of circ. seams plate 59% rivets 64% of Longitudinal joint plate 69% rivets 97% combined

Working pressure of shell by rules 8.4 kg/cm² Thickness of butt straps outer ✓ inner

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

Tensile strength 34-41 Kg. Thickness 12.5 mm. Radius 1200 mm. Working pressure by rules 8.3 kg/cm²

Description of Furnace: Plain, spherical, or dished crown partial spherical Material steel Tensile strength 34-41 Kg.

Thickness 16.5 mm. External diameter top 900 mm. bottom 1000 mm. Length as per rule 950 mm. Working pressure by rules 8.8 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 1200 mm. Working pressure by rule 8.6 kg/cm²

Thickness of Ogee Ring 12 mm. Diameter as per rule D 1200 a 1000 Working pressure by rule 7.2 kg/cm²

Combustion Chamber: Material ✓ Tensile strength 34-41 Kg. Thickness of top plate 18 mm.

Radius if dished 1200 mm. Working pressure by rule 8.6 kg/cm² Thickness of back plate 18 mm. Diameter if circular 1200 mm.

Length as per rule 950 mm. Pitch of stays 340 x 170 mm. Are stays fitted with nuts or riveted over ✓

Diameter of stays over thread ✓ Working pressure of back plate by rules 8.2 kg/cm²

Tube Plates: Material front steel back steel Tensile strength 34-41 Kg. 34-41 Kg. Thickness 18 mm. 18 mm. Mean pitch of stay tubes in nests 340 x 170 mm.

If comprising shell, Dia. as per rule front 900 mm. back ✓ Pitch in outer vertical rows 65% Dia. of tube holes FRONT stay 67% plain 67% BACK stay 67% plain 65%

Working pressure by rules front 8.2 kg/cm² back 8.2 kg/cm²

Is each alternate tube in outer vertical rows a stay tube ✓

Girders to combustion chamber tops: Material ✓ Tensile strength 34-41 Kg.

Depth and thickness of girder at centre 18 mm. Length as per rule 1200 mm.

Distance apart 1200 mm. No. and pitch of stays in each 18 mm. Working pressure by rule 8.2 kg/cm²

Is a Report also sent on the hull of the ship?



008322-008332-0252

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.* Thickness { *13 mm.* }
 No. of threads per inch *10* Pitch of tubes *85 mm.* Working pressure by rules *9 Kgp.* }
 { stay *63.5 mm.* Thickness { *8 mm.* }

Manhole Compensation: Size of opening in shell plate *280/380 mm.* Section of compensating ring *670 x 570* No. of rivets and diameter of rivet holes *28 rivets of 20 mm dia.* Outer row rivet pitch at ends *125 mm.* Depth of flange if manhole flanged

Uptake: External diameter *80 mm.* Thickness of uptake plate *4 mm.*

Cross Tubes: No. External diameters { _____ } Thickness of plates _____

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

The foregoing is a correct description,
Deutsche Loerft
Aktiengesellschaft Manufacturer.

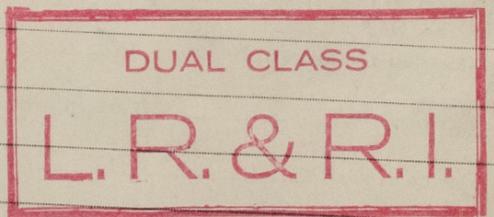
Dates of Survey while building { During progress of work in shops - - *6/1/26, 19.7.26, 17.8.26, 21.8.26, 13.9.26, 17.9.26* } *22.9.26*
 { During erection on board vessel - - *16/2/29, 26/2/29, 7/3/29, 25/3/29* }
 Is the approved plan of boiler forwarded herewith (If not state date of approval) *Yeo.*
 Total No. of visits *7 + 4*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These four donkey boilers has been built under special survey, in accordance with the approved plan, the Secretary's letter E 29.3.26, and otherwise in conformity with the requirements of the Rules. and the materials and workmanship are of good quality. The materials used in the construction are made at works recognised by the Committee and tested in accordance with the Rules by the Society surveyors. When tested by hydraulic pressure to 200 lbs/10" these donkey boilers was found to be tight and sound in every respect and shows no signs of weakness. They are eligible in my opinion, for certification of N.D.B. When examined under steam and their safety valves have been adjusted under steam to 100 lbs pressure.*

No 237.
 No 443.
 LLOYD'S TEST.
 200 lbs.
 W.P. 100 lbs.
 A.C. 13.9.26

The boiler bearing this mark has been fitted on board this vessel. It has been securely fitted in place, examined under steam, and its safety valves have been adjusted under steam to 100 lbs/10".

(See Steam Report on boiler 17044.)



Survey Fee *charged at Hamburg* : _____ When applied for, _____ 19
 Travelling Expenses (if any) £ : _____ When received, _____ 19

Signed *A. Carlsson*
 & *V. Lockney.*
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____
 Assigned *L.P. 100 lbs*

TUE, 23 APR 1929

