

REPORT ON BOILERS.

No. 946

Received at London Office

6 MAY 1927

Survey Report 1st May 1927 When handed in at Local Office 1927 Port of Bremen

Survey held at Bremen Date, First Survey 9th July 1926 Last Survey 25th April 1927

on the Single No. "BISCAYA" (Number of Visits 7) Tons } Gross 6190
Net 3536

Made at Bremen By whom built Deutsche Schiff- u. Maschinenbau A.G. Yard No. 399 When built 1926/27

Made at - - - By whom made - - - Engine No. M 87 When made 1926/27

Made at - - - By whom made - - - Boiler No. 1184 When made 1926/27

Bremen Oil-Transport G. M. B. H. Port belonging to Bremen

HEATING DONKEY BOILER.

Made at Bremen By whom made Deutsche Schiff- u. Maschinenbau A.G. Works A. G. Witten Boiler No. 1184 When made 1926/27 Where fixed fore end of motor of acc

Manufacturers of Steel Mannmannstrun - Werke, Abt. Schmelz - Knaude, Hastingen

Heating Surface of Boiler 23.5 sq. meters Is forced draught fitted Coal or Oil fired oil

Description of Boilers vertical multitubular Working pressure 5 kg/cm²

Hydraulic pressure to 11 kg/cm² Date of test 29th Nov. 1926 No. of Certificate -

Firegrate in each Boiler - No. and Description of safety valves to each boiler 2 spring loaded

Each set of valves per boiler } per rule 2867 mm² Pressure to which they are adjusted 5 kg/cm² Are they fitted with easing gear yes
as fitted 2 x 1963.5 "

Whether steam from donkey boilers can enter the donkey boiler no Smallest distance between boiler or uptake and bunkers 680 mm

Is oil fuel carried in the double bottom under boiler no Smallest distance between base of boiler and tank top plating 10 mm

Is the base of the boiler insulated yes Largest internal dia. of boiler 1700 mm Height 3770 mm

Material J. M. Steel Tensile strength 34-41 kg/mm² Thickness 12 mm

Shell plates welded or flanged no Description of riveting: circ. seams } end single long. seams double
inter. -

Net holes in } circ. seams 23 mm Pitch of rivets } 59 mm Percentage of strength of circ. seams } plate 61% of Longitudinal joint } plate 68.5%
long. seams - } 73 " } rivets 50% } rivets 81%
combined -

Pressure of shell by rules 7.45 kg/cm² Thickness of butt straps } outer 15 mm
inner -

Form: Whether complete hemisphere, dished partial spherical, or flat yes Material J. M. Steel

Strength 34-41 kg/mm² Thickness 15 mm Radius 1530 x 200 mm Working pressure by rules 7.16 kg/cm²

Form of Furnace: Plain, spherical, or dished crown - Material - Tensile strength -

External diameter } top - Length as per rule - Working pressure by rules -
bottom -

Support stays circumferentially - and vertically - Are stays fitted with nuts or riveted over -

of stays over thread - Radius of spherical or dished furnace crown - Working pressure by rule -

of Ogee Ring - Diameter as per rule } D - Working pressure by rule -
d -

Form of Chamber: com drum furnall Material J. M. Steel Tensile strength 34-41 kg/mm² Thickness of top plate 17 mm com drum furnall 20 mm

dished 1200 mm 1350 mm Working pressure by rule 8.38 x 8.81 kg/cm² Thickness of back plate 17 mm Diameter if circular at bottom 1500 mm

per rule - Pitch of stays 500 mm Are stays fitted with nuts or riveted over nuts + washers

of stays over thread 42 mm Working pressure of back plate by rules 10 kg/cm²

Material } front J. M. Steel Tensile strength 34-41 kg/mm² Thickness } 20 mm Mean pitch of stay tubes in nests 305 mm
back -

Pitching shell, Dia. as per rule } front 76 mm Dia. of tube holes FRONT } stay 76 mm BACK } stay 69.5 mm
back 72 " } plain 70 " } plain 70 "

Alternate tube in outer vertical rows a stay tube no Working pressure by rules } front 9.65 kg/cm²
back -

Combustion chamber tops: Material - Tensile strength -

Thickness of girder at centre - Length as per rule -

Part - No. and pitch of stays in each - Working pressure by rule -



RE

Date of writ

No. in Reg. Book 88213

Built at

Owners

Electric

System of

Pressure

Direct or

If alternat

Has the A

Generato

are they ov

Where mor

series with

Are all ten

or short ci

Position

is the ven

if situated

are their c

Earthing

their respo

Main Sw

a fuse on

Switchbo

are they p

woodwork

are they c

permanent

insulated

frame effe

bars

Main Sw

and

Lin

Instrum

Earth T

with

Switche

Section

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. W. Steel* Tensile strength *34-41 Kg/mm²* Diameter { at turned off part, *55 mm* or over threads, *69* No. of threads per inch *10*

Area supported by each stay Working pressure by rules Are the stays drilled at the outer ends

Tubes: Material *S. W. Steel* External diameter { plain *70 mm* stay *70 mm* Thickness { *4 mm* *8 mm*

No. of threads per inch *10* Pitch of tubes *94 mm* Working pressure by rules *11.25 Kg/cm²*

Manhole Compensation: Size of opening in shell plate *417 x 547 mm* Section of compensating ring *765 x 635 x 20 mm* No. of rivets and dia. of rivet holes *44 - 20 mm* Outer row rivet pitch at ends Depth of flange if manhole flanged *100 mm*

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 Schiff- und Maschinenbau Aktiengesellschaft
 Werk: Act. Ges. Weser" Manufact
Apollon Nürlein

Dates of Survey { During progress of work in shops - *1926: 9/7, 19/8, 23/9, 11/10, 29/11* } Is the approved plan of boiler forwarded herewith *26.3.27*
 (If not state date of approval.) *21/5/27*
 while building { During erection on board vessel - *1927: 23/2, 25/4.* } Total No. of visits *7*

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

This vertical Donkey Boiler has been constructed under Special Survey in accordance with the approved plan and instructions and in conformity with the Rules. The materials used in the construction and the workmanship are good. The welding of the furnace and combustion chamber has been satisfactorily carried out by experienced workmen and the structure has been annealed subsequently.

In my opinion this boiler is eligible to be entered in the Register Book with record of 71 Ib.

Thickness of adjusting washers of safety valve port: 17 mm, starboard 16 mm

Survey Fee ... £ *4 : 4* : } When applied for *1st May 1927*
 Travelling Expenses (if any) £ : : } When received *3 June 1927*

G. H. C. K. A. M.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 13 MAY 1927*
 Assigned *see minute on Bmn Rpt No 926 attached*

