

REPORT ON BOILERS.

No. 22630

24 JAN 1938

Received at London Office

Date of writing Report 12th Jan. 1938 When handed in at Local Office 19 Port of Hamburg

No. in Survey held at Hamburg Date, First Survey 22nd June 1937 Last Survey 4th January 1938

Reg. Book. Steel Single Screw NORVIK. (Number of Visits 6) Tons { Gross 9555 Net 5987

Master AB Built at Hamburg. By whom built Deutsche Werft A.G. Yard No. 194 When built 1938

Engines made at Angsburg By whom made Maschinenfabrik Augsburg-Nürnberg Engine No. 691310 When made 1937

Boilers made at Hamburg By whom made Deutsche Werft A.G. Boiler No. 627 When made 1937

Nominal Horse Power 1167 Owners Tanker Corporation (Lohan Rasmussen + Co.) Port belonging to Panama R.P.

WASTE HEAT LA-MONT DONKEY BOILER COIL SYSTEM.

~~MULTITUBULAR BOILERS, MAIN, AUXILIARY, OR DONKEY.~~

Manufacturers of Steel Headers: Klacknerwerke A.G. Georgsmarienhütte.
Tubes: Mannesmannröhren-Werke. Remscheid. (Letter for Record S.)

Total Heating Surface of Boilers 150 m² Is forced draught fitted - Coal or Oil fired Waste gas heated

No. and Description of Boilers 1 Waste heat La-Mont donkey boiler coil system Working Pressure 12 kgs/cm²

Tested by hydraulic pressure to 21.5 kgs/cm² Date of test 1.7.37 No. of Certificate 664 Can each boiler be worked separately only in connection with one of the mult. donk. boilers

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

Area of each set of valves per boiler { per Rule - Pressure to which they are adjusted 12 kgs/cm² Are they fitted with easing gear yes
as fitted 35 mm φ = 962 mm²

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler -

Smallest distance between boilers or uptakes and bunkers or woodwork - Is oil fuel carried in the double bottom under boilers twendeck

Smallest distance between shell of boiler and twendeck tank top plating about 3 metres Is the bottom of the boiler insulated -

Largest internal dia. of boilers 1580 mm HEIGHT 4040 mm HEADERS Shell plates: Material S-TC-Steel Tensile strength 41-47 kgs/mm²

Thickness φ 140 - BORE 100 mm Are the shell plates welded or flanged - Description of riveting: circ. seams { end - inter. -

long. seams φ 110 - BORE 70 mm coil tubes Diameter of 32/26 mm Thickness 3 mm

Percentage of strength of circ. end seams { plate ✓ rivets ✓ Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓

Percentage of strength of longitudinal joint { plate ✓ rivets ✓ combined ✓ Working pressure of tubes shell by Rules 16.25 kgs/cm²

Thickness of butt straps { outer ✓ inner ✓ No. and Description of Furnaces in each Boiler ✓

Material ✓ Tensile strength ✓ Smallest outside diameter ✓

Length of plain part { top ✓ bottom ✓ Thickness of plates { crown ✓ bottom ✓ Description of longitudinal joint ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules ✓

End plates in steam space: Material ✓ Tensile strength ✓ Thickness ✓ Pitch of stays ✓

How are stays secured ✓ Working pressure by Rules ✓

Tube plates: Material { front ✓ back ✓ Tensile strength { ✓ Thickness { ✓

Mean pitch of stay tubes in nests ✓ Pitch across wide water spaces ✓ Working pressure { front ✓ back ✓

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 Rules ✓ Combustion chamber plates: Material ✓

Tensile strength ✓ Thickness: Sides ✓ Back ✓ Top ✓ Bottom ✓

Pitch of stays to ditto: Sides ✓ Back ✓ Top ✓ Are stays fitted with nuts or riveted over ✓

Working pressure by Rules ✓ Front plate at bottom: Material ✓ Tensile strength ✓

Thickness ✓ Lower back plate: Material ✓ Tensile strength ✓ Thickness ✓

Pitch of stays at wide water space ✓ Are stays fitted with nuts or riveted over ✓

Working Pressure ✓ Main stays: Material ✓ Tensile strength ✓

Diameter { At body of stay, ✓ No. of threads per inch ✓ Area supported by each stay ✓
Over threads ✓

Working pressure by Rules ✓ Screw stays: Material ✓ Tensile strength ✓

Diameter { At turned off part, ✓ No. of threads per inch ✓ Area supported by each stay ✓
Over threads ✓

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Working pressure by Rules Are the stays drilled at the outer ends Margin stays: Diameter At turned off part, or Over threads

No. of threads per inch Area supported by each stay Working pressure by Rules

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 Section of compensating ring No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends Depth of flange if manhole flanged Steam Dome: Material

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint Plate Rivets

Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater Manufacturers of Tubes Steel forgings Steel castings

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off and the boiler be worked separately

Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per Rules Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes forgings and castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *yes*

The foregoing is a correct description, **DEUTSCHE WERFT** AKTIENGESELLSCHAFT Manufacturer.

Dates of Survey During progress of work in shops 1937. June 22, 28 July 1. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building During erection on board vessel 1937. Dec. 10, 29 1938 Jan. 4. Total No. of visits 6

Is this Boiler a duplicate of a previous case *no* If so, state Vessel's name and Report No.

MARINA	Hamburg Report No.	21702
THORSHAINER	"	21733
NORLYS	"	22067
REGULUS	"	22091

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Material and workmanship of this Waste heat La-Mont donkey boiler (coil system) are of good quality. The materials used in the construction are made at works recognized by the Committee and tested by the Society's Surveyors in accordance with the requirements of the Rules.

This donkey boiler coil system having been made under Special Survey in conformity with the approved plan, the Secretary's letter and otherwise in compliance with the requirements of the Rules is eligible in my opinion to be classed in the Society's Register Book Donkey Boiler Pressure 170 lbs/sq. inch.

Thickness of adjusting washers of safety valves: 4 mm.

Survey Fee £ RM: 84 : - } When applied for, 27. 7. 1938

Travelling Expenses (if any) £ : : } When received, 4/2 1938

Friedrich Hill *H. Röhrs*
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUE. 1 FEB 1938**

Assigned *See other F.C. report*

