

REPORT ON BOILERS.

No. 21578

Received at London Office - 5 JUL 1935

of writing Report 18/6/35 10 When handed in at Local Office 10 Port of Hamburg
 in Book. Survey held at Kiel Date, First Survey 15/1/35 Last Survey 17/6/35 19
 on the Steel Ste. "W.B. Walker" (Number of Visits 12) Tons { Gross 10,468
 Net 9,127
 Built at Kiel By whom built Fried. Krupp Germania Yard No. 534 When built 1935
 By whom made Fried. Krupp Germania Engine No. 4820 When made 1935
 By whom made Hitte Boiler No. 3861 When made 1935
 Initial Horse Power 912 Owners Standard Vacuum Oil Co. Ltd. Port belonging to Hongkong

ULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Ruhrstahl A.G. Henrichshütte, Hattingen-Ruhr (Letter for Record S)
 Heating Surface of Boilers 130 m² Is forced draught fitted no Coal or Oil fired exhaust gas
 and Description of Boilers 1 mult. horizontal exhaust gas fired Donkey Boiler Working Pressure 200 lb
 by hydraulic pressure to 350 lbs Date of test 29.3.35 No. of Certificate 585 Can each boiler be worked separately no
 of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 1, 2 springs loaded
 of each set of valves per boiler { per Rule 5230 mm Pressure to which they are adjusted 200 lb Are they fitted with easing gear yes
 as fitted 5655 mm other Donkey
 use of donkey boilers, state whether steam from main boilers can enter the donkey boiler no
 least distance between boilers or uptakes and bunkers or woodwork ✓ Is oil fuel carried in the double bottom under boilers deck
 least distance between shell of boiler and tank top plating 450 mm Is the bottom of the boiler insulated yes
 least internal dia. of boilers 2300 mm Length 2375 mm Shell plates: Material O.H. Steel Tensile strength 44-65 kg/mm²
 thickness 20 mm Are the shell plates welded or flanged flanged Description of riveting: circ. seams { end D.R.
 { inter. ✓
 seams Double butt straps Diameter of rivet holes in { circ. seams 26 mm Pitch of rivets { 81 mm
 { long. seams 26 mm { 152 mm
 Percentage of strength of circ. end seams { plate 68 Percentage of strength of circ. intermediate seam { plate ✓
 { rivets 44.6 { rivets ✓
 Percentage of strength of longitudinal joint { plate 82.8 Working pressure of shell by Rules 14.7 kg/cm²
 { rivets 123.5
 { combined 90.4
 thickness of butt straps { outer 19 mm No. and Description of Furnaces in each Boiler removable system of smoke tubes
 { inner 19 mm Tensile strength ✓ Smallest outside diameter ✓
 length of plain part { top ✓ Thickness of plates { crown ✓ Description of longitudinal joint ✓
 { bottom ✓ { bottom ✓
 Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules ✓
 plates in steam space: Material O.H. Steel Tensile strength 41-47 kg/mm² Thickness 25 mm Pitch of stays d = 250 mm
 are stays secured Stay tubes expanded, no nuts Working pressure by Rules approved
 be plates: Material { front O.H. Steel Tensile strength { 41-47 kg/mm² Thickness { 25 mm
 { back O.H. Steel { 41-47 kg/mm² { 25 mm
 in pitch of stay tubes in nests 130 x 150 mm Pitch across wide water spaces ✓ Working pressure { front approved
 { back approved
 lers to combustion chamber tops: Material none Tensile strength ✓ Depth and thickness of girder ✓
 centre ✓ Length as per Rule ✓ Distance apart ✓ No. and pitch of stays ✓
 each ✓ Working pressure by Rules ✓ Combustion chamber plates: Material ✓
 Tensile strength ✓ Thickness: Sides ✓ Back ✓ Top ✓ Bottom ✓
 of stays to ditto: Sides ✓ Back ✓ Top ✓ Are stays fitted with nuts or riveted over ✓
 Working pressure by Rules ✓ Front plate at bottom: Material O.H. Steel Tensile strength 41-47 kg/mm²
 thickness 25 mm Lower back plate: Material O.H. Steel Tensile strength 41-47 kg/mm² Thickness 25 mm
 of stays at wide water space ✓ Are stays fitted with nuts or riveted over ✓
 Working Pressure Approved Main stays: Material ✓ Tensile strength ✓
 meter { 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 ✓
 meter { 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, ☒ Over threads ☒

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

Tubes: Material O.H. Steel External diameter ☒ Plain 4 1/2 in Thickness ☒ 3.25 in No. of threads per inch 9

Pitch of tubes 130 x 150 mm Working pressure by Rules approved Manhole compensation: Size of opening

shell plate 300 x 400 mm Section of compensating ring 15 x 680 x 780 mm No. of rivets and diameter of rivet holes 40, 25 mm

Outer row rivet pitch at ends 155 mm Depth of flange if manhole flanged ☒ Steam Dome: Material none

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

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 Steam Dryer Coil System Manufacturers of Tubes Press- und Walzwerk, Düsseldorf-Rhein

Number of elements 1 Material of tubes O.H. Steel Internal diameter and thickness of tubes 62 mm, 4 mm

Material of headers none Tensile strength ☒ Thickness ☒ Can the superheater be shut off a

the boiler be worked separately ☒ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler ☒

Area of each safety valve 314 mm² Are the safety valves fitted with easing gear ☒ Working pressure as p

Rules 20.4 kg/cm² Pressure to which the safety valves are adjusted 200 lbs Hydraulic test pressur

tubes 1140 lbs, castings ☒ and after assembly in place 600 lbs Are drain cocks or valves fit

to free the superheater from water where necessary ☒

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with, as far as applicable: yes

This Steam Dryer works in connection with the Scotch Donkey Boilers! The foregoing is a correct description, **FRIED. KRUPP** Manufactur

GERMANIAWERFT Aktiengesellschaft 4/2/35

Dates of Survey ☒ During progress of work in shops 1935 I: 15, 16, 17, 18, 19, 20 Are the approved plans of boiler and superheater forwarded herewith 22/12/34

☒ while building ☒ During erection on board vessel I: 2, 21, 22, 23, 24, 25, 26, 27 (If not state date of approval.)

Total No. of visits 12

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

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 Letters and the Society's Rules, as far as they are applicable. The materials used the construction and the workmanship are of good quality. It has been satisfactorily fitted on board and its safety valves have been adjusted under steam to a pressure of 200 lb. In my opinion this Donkey Boiler is eligible for notation in the Reg. Book of:

DB (form) pressure 200 lb.

Safety valves washers: Fore: 7 1/4 in alt: 4 1/4 in.

Working pressure	Tensile strength	Material	Length as per Rule	Distance apart	Combustion chamber plates: Material	Thickness: Sides	Thickness: Bottom

Survey Fee Rmk 188 When applied for 10

Travelling Expenses (if any) £ 9.10.35 When received 9/10

Committee's Minute FRI. 12 JUL 1935

Assigned See Ham. 25 21578