

9 FEB 1953

REPORT ON BOILERS.

No. 6065

Received at London Office.

Report 6 January 1953. When handed in at Local Office. 19... Port of DURBAN.

Survey held at DURBAN. Date, First Survey 22ND SEPT. Last Survey 8TH DEC. 1952

the STEAM WHALER "EMPIRE UNITAS X" (Number of Visits 6) Gross 33.9 Tons Net 11.5

ANZIG By whom built F. SCHICHAU G.M.B.H. Yard No. - When built 1939

at VEGESACK By whom made BREMER-VULCAN Engine No. 509 When made 1939

at VEGESACK By whom made BREMER-VULCAN Boiler No. 883 When made 1939

se Power M.N. 281. Owners BRITISH MINISTRY OF TRANSPORT Port belonging to LONDON

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Mark 40184 of Steel NOT KNOWN. (Letter for Record -)

Mark 6 ng Surface of Boilers 315 M² Of Superheaters NONE

f Test Register Book 315 M² Is forced draught fitted YES Coal or Oil fired OIL

ES Description of Boilers ONE SCOTCH MULTITUBULAR Working Pressure 200 LB

KINGS ON BOILER Hydraulic pressure to 28 ATMS Date of test 1939 No. of Certificate - Can each boiler be worked separately -

with grate in each Boiler - No. and Description of safety valves to each boiler 2. ORDINARY.

set of valves per boiler { per Rule - Pressure to which they are adjusted 78.57 M² EACH VALVE Are they fitted with easing gear -

17 Donkey boilers, state whether steam from main boilers can enter the donkey boiler DONKEY BOILER NOT FITTED

ance between boilers or uptakes and bunkers or woodwork 10' 0" Is oil fuel carried in the double bottom under boilers NO

ance between shell of boiler and tank top plating SINGLE BOTTOM Is the bottom of the boiler insulated YES

4. rnal dia. of boilers 4800 M.M. Length 3740 M.M. Shell plates: Material STEEL Tensile strength NOT KNOWN.

ided, state name of welding Firm - Have all the requirements of the Rules for Class I vessels -

3 B. d with - Thickness - Are the shell plates welded or flanged - Description of riveting: circ. seams { end DOUBLE inter NONE

DOUBLE RIVETTED BUTT STRAP Diameter of rivet holes in { circ. seams 35 M.M. Pitch of rivets { 102.5 M.M. long. seams 38 M.M. 245 M.M.

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

19 of strength of longitudinal joint { plate - rivets - combined -

11 butt straps { outer 30 M.M. inner 33.75 M.M. No. and Description of Furnaces in each Boiler THREE CORRUGATED

STEEL Tensile strength NOT KNOWN. Smallest outside diameter 1183 M.M.

main part { top 15.3 M.M. bottom 15.3 M.M. Thickness of plates 16.5 M.M. Description of longitudinal joint NOT KNOWN.

of stiffening rings on furnace or c.c. bottom NONE

in steam space: Material STEEL Tensile strength NOT KNOWN. Thickness 30.5 M.M. Pitch of stays 520 x 470 M.M.

ys secured NUTS INSIDE AND OUTSIDE

Material { front STEEL back STEEL Tensile strength { NOT KNOWN. Thickness { 25 M.M. 22 M.M.

of stay tubes in nests 198 x 285. 236.5 M.M. Pitch across wide water spaces 345 M.M.

combustion chamber tops: Material STEEL Tensile strength NOT KNOWN. Depth and thickness of girder 40 M.M. x 22.5 M.M. Length as per Rule - Distance apart 240 M.M. No. and pitch of stays THREE 210 M.M.

Combustion chamber plates: Material STEEL

ngth NOT KNOWN. Thickness: Sides 17.5 M.M. Back 16.5 M.M. Top 17.5 M.M. Bottom 22 M.M.

is to ditto: Sides 210 x 240 M.M. Back 200 x 207 M.M. Top 210 x 240 M.M. Are stays fitted with nuts or riveted over NUTS

at bottom: Material STEEL Tensile strength NOT KNOWN.

2.5 M.M. Lower back plate: Material STEEL Tensile strength NOT KNOWN. Thickness 24 M.M.

ys at wide water space SCREEN STAYS 345 M.M. BREAST STAYS 3800 M.M. BOTT. MAIN STAYS 1660 M.M. Are stays fitted with nuts or riveted over NUTS

Material STEEL Tensile strength NOT KNOWN.

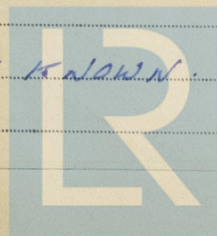
t body of stay 8.0 M.M. No. of threads per inch 6

ver threads 8.7.5 M.M.

s: Material STEEL Tensile strength NOT KNOWN.

t turned off part 3.8 M.M. No. of threads per inch 9

ver threads 4.2 M.M.



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Are the stays drilled at the outer ends. NO

No. of threads per inch. 9

Margin stays: Diameter 5.5 At turned off part. 5.5
Over threads. 5.5

Tubes: Material STEEL External diameter 63.5 mm Plain 63.5 mm Thickness 8.5 mm No. of threads per inch. 11 mm
Pitch of tubes 95 x 94 mm Story 63.5 mm

Manhole compensation: Size of shell plate 460 x 560 mm Section of compensating ring 640 x 640 mm No. of rivets and diameter of rivet holes 22

Outer row rivet pitch at ends 245 mm Depth of flange if manhole flanged 105 mm Steam Dome: Material NO

Tensile strength. — Thickness of shell. — Description of longitudinal joint. —

Diameter of rivet holes. — Pitch of rivets. — Percentage of strength of joint. —

Internal diameter. — Thickness of crown. — Rivets. —

stays. — Inner radius of crown. — No. at 1

How connected to shell. — Size of doubling plate under dome. — Diameter of rivet —

of rivets in outer row in dome connection to shell. —

Type of Superheater NONE FITTED 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 —

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. — Are the safety valves fitted with easing gear. —

Pressure to which the safety valves are adjusted. — Hydraulic —

tubes. — forgings and castings. — and after assembly in place. — Are —

valves fitted to free the superheater from water where necessary. — more th —

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with. —

The foregoing is a correct description of the boiler and superheater.

Dates of Survey while building

During progress of work in shops. DIES NOT APPLY

During erection on board vessel. DIES NOT APPLY

Are the approved plans of boiler and superheater forwarded herewith (if not state date of approval).

Total No. of visits. 6

Is this Boiler a duplicate of a previous case. NOT KNOWN If so, state Vessel's name and Report No. —

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Please refer to Secretary's letter, reference Sh

A full classification survey has been held on the hull and machinery of this ship. The boiler was built under Germanischer Lloyd survey.

The boiler has been examined throughout together with its mountings, manholes, doors and and found or placed in good condition. The scantlings have been verified and found to be in accordance with Bremer-Vulcan's Drawing S.S. 723/26, 730/31, which was approved on 28/10/46 for a W.P. of 20 atmos.

The boiler is in a sound and efficient condition, free of corrosion and pitting. The mounting on end plate are —: B.L.R. N° 883. TEST. 28.0 ATMOS. W.P. 14 ATMOS. G. & L.

The mountings, manhole doors and fastenings and all other fittings are of substantial construction and comply with the Rule requirements. The boiler was satisfactorily tested to 300 lb per square inch and frequently examined under steam and found sound and tight. The safety valves were adjusted under 200 lb per square inch and an accumulation test satisfactorily carried out. The easing gear was working satisfactorily and found in order.

In our opinion this boiler is suitable for a classed ship and a record of L.M.C. 12.5.2 has been recommended.

Survey Fee ... £ : : When applied for. 19

Travelling Expenses (if any) £ : : When received. 19

T.H. Noel and P.H. Baer
Engineer Surveyor to Lloyd's Register of

Committee's Minute

TUES. 24 FEB 1953

Assigned



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