

# REPORT ON BOILERS.

No. 97588.

13 SEP 1930

Received at London Office

Date of writing Report 19 When handed in at Local Office 11 SEP. 1930 Port of Liverpool

No. in Survey held at Queensferry Date, First Survey 3/6/30 Last Survey 28/8/1930

658 on the S. S. Brightside (Number of Visits 7) Tons {Gross 468 1/2 Net 189

Master Built at Queensferry By whom built Abdela Mitchell Ward No. 464 When built 1930

Engines made at Birmingham By whom made Abdela Mitchell Engine No. 1448 When made

Boilers made at Ballsbridge By whom made North Eastern M. Eng Co Boiler No. 2487 When made

Nominal Horse Power 80 Owners Wham Shipping Ltd Port belonging to Liverpool

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel John Spencer (Letter for Record S)

Total Heating Surface of Boilers 1380 sq' Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers one cylindrical multitubular Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lb. Date of test 5.3.30 No. of Certificate 9480 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 37 sq'. No. and Description of safety valves to each boiler Two spring loaded

Area of each set of valves per boiler {per Rule 90 sq' as fitted 142 sq' Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes

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 about 4'0" Is oil fuel carried in the double bottom under boilers No ✓

Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated No

Largest internal dia. of boilers Length Shell plates: Material Tensile strength

Thickness Are the shell plates welded or flanged Description of riveting: circ. seams {end inter.

Long. seams Diameter of rivet holes in {circ. seams long. seams Pitch of rivets {

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 shell by Rules

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

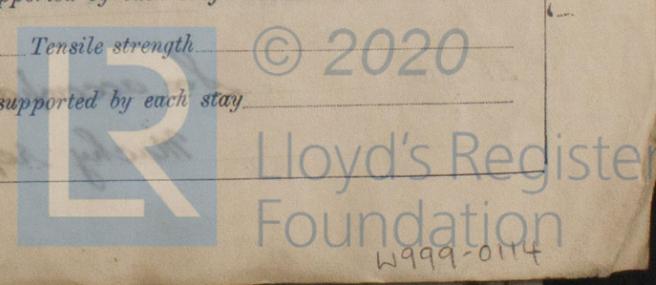
Pitch of stays at wide water space Are stays fitted with nuts or riveted over

Working Pressure Main stays: Material Tensile strength

Diameter {At body of stay, 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



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Handwritten notes: rph 73778, See rule

Working pressure by Rules *13778* Are the stays drilled at the outer ends Margin stays: Diameter { At turned off part, or Over threads } Working pressure by Rules

No. of threads per inch Area supported by each stay Thickness { No. of threads per inch

Tubes: Material External diameter { Plain Stay } Thickness { No. of threads per inch

Pitch of tubes Working pressure by Rules Manhole compensation: Size of opening

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 } No. and diameter

Internal diameter Working pressure by Rules Thickness of crown

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 ✓ *See* Manufacturers of { Tubes Steel castings } Internal diameter and thickness of tubes

Number of elements Material of tubes Thickness Can the superheater be shut off and the boiler be worked separately

Material of headers Tensile strength 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 Working pressure as per Rules

Pressure to which the safety valves are adjusted Hydraulic test pressure tubes, 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

The foregoing is a correct description,

Dates of Survey { During progress of work in shops - - - } *See Machy report.* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) *Yes attached to survey*

while building { During erection on board vessel - - - } Total No. of visits

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

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

*This boiler, constructed in 1920, and retested in 1930, see correspondence attached, has been satisfactorily fitted on board and examined under steam.*

Survey Fee ... .. £	✓	:	:	When applied for,	19
Travelling Expenses (if any) £	✓	:	:	When received,	19

*J. J. Milton*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **LIVERPOOL** 12 SEP. 1930

Assigned *See accompanying Machy report.*

TUE. 28 OCT 1930

