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Rpt. No. 1950

IN D.O.

REPORT ON BOILERS.

No. 75207

Received at London Office 16 MAR 1950

Date of writing Report 12-1-1950 When handed in at Local Office 25-2-1950 Port of GLASGOW

No. in Reg. Book. Survey held at PAISLEY Date, First Survey 15th Nov 1949 Last Survey 20-1-1950

on the M.T. ISLAS MALVINAS. (Number of Visits 11) Tons { Gross Net

Master Built at By whom built Yard No. When built

Engines made at By whom made Engine No. When made

Boilers made at PAISLEY By whom made A.F. CRAIG & CO LTD Boiler No. 948 949 When made

Nominal Horse Power Owners ARGENTINE Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel BOLVILLES LTD (Letter for Record S)

Total Heating Surface of Boilers 1518 $\frac{1}{2}$ (EACH) Is forced draught fitted YES Coal or Oil fired OIL

No. and Description of Boilers 2-S.E. Working Pressure 150 lb/sq in

Tested by hydraulic pressure to 275 lb Date of test 19-1-50 No. of Certificate 23065 Can each boiler be worked separately—

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler

Area of each set of valves per boiler { per Rule 5.75 $\frac{1}{4}$ as fitted Pressure to which they are adjusted Are they fitted with easing gear

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

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

Largest internal dia. of boilers 11'-8" Length 11'-4" Shell plates: Material Steel Tensile strength 29-33 tons

Thickness 13/16" Are the shell plates welded or flanged NO Description of riveting: circ. seams { end OR inter. }
long. seams T.R.D.B.S Diameter of rivet holes in { circ. seams 13/16" long. seams 15/16" Pitch of rivets { 3.686" 6.5" }

Percentage of strength of circ. end seams { plate 67.75 rivets 58.4 Percentage of strength of circ. intermediate seam { plate 85.6 rivets 47.2 }
Percentage of strength of longitudinal joint { plate 85.6 rivets 47.2 combined 90.6 Working pressure of shell by Rules—

Thickness of butt straps { outer 5/8" inner 3/4" No. and Description of Furnaces in each Boiler 2-Morrison

Material Steel Tensile strength 26-30 tons Smallest outside diameter 3'-7 1/16"

Length of plain part { top bottom } Thickness of plates { crown 15/32" bottom 1/32" Description of longitudinal joint weld

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

End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 27/32" Pitch of stays 1'-0 1/2" x 1'-3"

How are stays secured D. Nuts & washers Working pressure by Rules—

Tube plates: Material { front back } Steel Tensile strength { 26-30 tons Thickness { 27/32" 13/16" }

Mean pitch of stay tubes in nests 10" Pitch across wide water spaces 1'-1" Working pressure { front back }

Girders to combustion chamber tops: Material Steel Tensile strength 26-30 tons Depth and thickness of girder

at centre 8 1/4" - 27/32" Length as per Rule 2'-6" Distance apart 4" No. and pitch of stays

in each Electric welded Working pressure by Rules— Combustion chamber plates: Material Steel

Tensile strength 26-30 tons Thickness: Sides 5/8" Back 2 1/32" Top 5/8" Bottom 5/8"

Pitch of stays to ditto: Sides 8 1/2" x 10" Back 10" x 10" Top E.W. GIRDERS Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules— Front plate at bottom: Material Steel Tensile strength 26-30 tons

Thickness 27/32" Lower back plate: Material Steel Tensile strength 26-30 tons Thickness 27/32"

Pitch of stays at wide water space 1'-1" x 10" Are stays fitted with nuts or riveted over Nuts

Working Pressure— Main stays: Material Steel Tensile strength 28-32 tons

Diameter { At body of stay, or Over threads } 2 1/4" No. of threads per inch 6 Area supported by each stay

Working pressure by Rules— Screw stays: Material Steel Tensile strength 26-30 tons

Diameter { At turned off part, or Over threads } 1 5/8" No. of threads per inch 9 Area supported by each stay

Working pressure by Rules - Are the stays drilled at the outer ends **No** Margin stays: Diameter { At the end of part, or Over threads } **1 3/4"**

No. of threads per inch **9** Area supported by each stay - Working pressure by Rules -

Tubes: Material **HR W. Steel** External diameter { Plain } **2 1/2"** Thickness { **10 SW 9** } **5/16"** No. of threads per inch **9**

Pitch of tubes **3 1/2" x 3 3/4"** Working pressure by Rules - Manhole compensation: Size of opening in shell plate **16" x 20"** Section of compensating ring **Flanged plate 1" thick** No. of rivets and diameter of rivet holes **52 - 15/16"**

Outer row rivet pitch at ends **6 1/2"** 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 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

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 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, **AC** Manufacturer. **7/21**

Dates of Survey { During progress of work in shops - - } **948 - 1949 Nov 15, 24, 30 1950 JAN 9, 16, 20** Are the approved plans of boiler and superheater forwarded herewith **7-12-48** (If not state date of approval.)

{ During erection on board vessel - - - } **949 - 1949 Nov 24, 30 1950 JAN 16, 20**

Total No. of visits **948.6 949.5**

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.) **These boilers have been constructed under Special Survey, in accordance with the Rule Requirements & approved plans.**

The materials & workmanship are good.

These boilers have been dispatched for installation, & made to the order of Alfred J. Lowes, Sunderland, for the Argentine

Survey Fee ... **£50 : 6 : -** When applied for, **19**

Travelling Expenses (if any) £ : : When received, **19**

15 MAR 1950

R. J. Easton
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 15 MAR 1950 JTC.**

Assigned **Transmit to London**

