

REPORT ON BOILERS.

No. 54332

Received at London Office 28 MAR 1934

When handed in at Local Office 22.3.1934 Port of Glasgow
 Survey held at Glasgow Date, First Survey 11.7.33 Last Survey 20.3.1934
 on the new steel S/S "HARTLEBURY" (Number of Visits 91) Gross 5082 Tons Net 3036
 Built at Port Glasgow By whom built Lithgows Ltd Yard No. 865 When built 1934
 made at Glasgow By whom made David Rowan & Co Ltd Engine No. 962 When made 1934
 made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 962 When made 1934
 Horse Power 431 Owners J & C Harrison (Ings) Port belonging to London

TUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel 6 Whittles Ltd (Letter for Record (r) ✓)
 Heating Surface of Boilers 1706 sq ft Is forced draught fitted yes Coal or Oil fired coal
 Description of Boilers one single ended Working Pressure 220
 hydraulic pressure to 380 Date of test 16.11.33 No. of Certificate 19305 Can each boiler be worked separately ✓
 Firegrate in each Boiler 48 sq ft No. and Description of safety valves to each boiler Two Improved High Lift.
 each set of valves per boiler per Rule 4.5370 as fitted 4.800 Pressure to which they are adjusted 225 Are they fitted with easing gear yes
 of donkey boilers, state whether steam from main boilers can enter the donkey boiler -
 distance between boilers or uptakes and bunkers or woodwork 2'0" Is oil fuel carried in the double bottom under boilers no
 distance between shell of boiler and tank top plating 2'6" Is the bottom of the boiler insulated yes
 internal dia. of boilers 13'0" Length 11'6" Shell plates: Material steel Tensile strength 29-33 tons
 1 1/4" Are the shell plates welded or flanged no Description of riveting: circ. seams end NR inter. -
 ms 1035 TR Diameter of rivet holes in circ. seams F13/16 B15/16 Pitch of rivets F3.21 B3.58
 long. seams 15/16 9"
 age of strength of circ. end seams plate F63 B63.3 rivets F43.7 B41.9 Percentage of strength of circ. intermediate seam plate rivets ✓
 age of strength of longitudinal joint plate 85.4 rivets 90.7 combined 88.9 Working pressure of shell by Rules 222
 of butt straps outer 15/16 inner 1/16 No. and Description of Furnaces in each Boiler Three Beighton 3
 steel Tensile strength 26-30 tons Smallest outside diameter 36.218"
 of plain part top bottom ✓ Thickness of plates crown 39" bottom 64" Description of longitudinal joint welded
 ons of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 245
 as in steam space: Material steel Tensile strength 26-30 tons Thickness 19/32 Pitch of stays 18" x 15 1/2"
 e stays secured 101 Working pressure by Rules 220
 ates: Material front steel back " Tensile strength 26-30 tons Thickness 15/16 25/32
 ch of stay tubes in nests 9 1/2" Pitch across wide water spaces 14" Working pressure front 229 back 242
 to combustion chamber tops: Material steel Tensile strength 28-32 tons Depth and thickness of girder
 2 @ 7 7/8 x 7/8 Length as per Rule 31.56 Distance apart 8" No. and pitch of stays
 2 @ 10 Working pressure by Rules 221 Combustion chamber plates: Material steel
 strength 26-30 tons Thickness: Sides 23/32 Back 21/32 Top 23/32 Bottom 23/32
 stays to ditto: Sides 10" x 8" Back 8 1/2" x 8" Top 10" x 8" Are stays fitted with nuts or riveted over nuts
 pressure by Rules 220 Front plate at bottom: Material steel Tensile strength 26-30 tons
 15/16 Lower back plate: Material steel Tensile strength 26-30 tons Thickness 13/16
 stays at wide water space 13 7/16 Are stays fitted with nuts or riveted over nuts
 Shipping Pressure 220 Main stays: Material steel Tensile strength 28-32 tons
 At body of stay, 2 3/4 No. of threads per inch 6 Area supported by each stay 280 sq in
 Over threads pressure by Rules 233 Screw stays: Material iron Tensile strength 21 1/2 tons
 At turned off part, 1 3/4 & 1 7/8 No. of threads per inch 9 Area supported by each stay 688 & 80 sq in
 Over threads

Working pressure by Rules 266 & 266 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads 1 7/8"
No. of threads per inch 9 Area supported by each stay 83.0 Working pressure by Rules 257
Tubes: Material Iron External diameter { Plain 3" Stay 3" Thickness { 8 w.g. 1/4 5/16 3/8 7/16 No. of threads per inch 9
Pitch of tubes 4 3/16" x 4 7/8" Working pressure by Rules 250 Manhole compensation: Size of shell plate 19 1/2" x 15 1/2" Section of compensating ring 9 1/2" x 1 1/4" No. of rivets and diameter of rivet holes 34 @ 1 5/16"
Outer row rivet pitch at ends 9" Depth of flange if manhole flanged 3" 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 stays
Inner radius of crown Working pressure by Rules
How connected to shell Size of doubling plate under dome Diameter of rivet holes
of rivets in outer row in dome connection to shell

Type of Superheater none Manufacturers of { Tubes 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 Working pressure
Rules Pressure to which the safety valves are adjusted Hydraulic test
tubes, castings and after assembly in place Are drain cocks or other means 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

For David Rowan & Co. Ltd.
Arch. H. Grierson

Dates of Survey { During progress of work in shops - - -
while building { During erection on board vessel - - -
SEE ACCOMPANYING MACHINERY REPORT
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
Total No. of visits 91

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. Harpassa Gb Rpt. N

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

The materials and workmanship are good.
The boiler has been constructed under special survey, satisfactorily fitted vessel and its safety valves adjusted under steam.

22/3/34

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

S. C. Davis

Engineer Surveyor to Lloyd's Register of

Committee's Minute GLASGOW 27 MAR 1934

Assigned SEE ACCOMPANYING MACHINERY REPORT



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