

REPORT ON BOILERS.

No. 50557

Received at London Office

18 JUN 1930

Date of writing Report

102

When handed in at Local Office

16.6.88

1030

Port of

Glasgow

No. in Survey held at
Reg. Book.

Glasgow

Date, First Survey

25.10.29

Last Survey

9.6.1930

(Number of Visits

80)

Gross

5943

Tons

Net

3755

Master *Glasgow* Built at *Glasgow* By whom built *Hasbounell & Co* Yard No. *419* When built *1930*
 Engines made at *Glasgow* By whom made *David Rowan & Co Ltd* Engine No. *929* When made *1930*
 Boilers made at *Glasgow* By whom made *David Rowan & Co Ltd* Boiler No. *929* When made *1930*
 Nominal Horse Power *675* Owners *Ben Line Steamers Ltd* Port belonging to *Leith*

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *Gutehoffnungshütte A.G. Oberhausen. Gas Dunlop & Co Ltd*
Wilkowitz Bergbau und Eisenhütten-Gesellschaft in Wilkowitz. (Letter for Record (S))
 Total Heating Surface of Boilers *1700 sq ft* Is forced draught fitted *yes* Coal or Oil fired *coal*
 No. and Description of Boilers *one single ended marine 1 (Aux) SB* Working Pressure *220*
 Tested by hydraulic pressure to *380* Date of test *4.4.30* No. of Certificate *18670* Can each boiler be worked separately *-*
 Area of Firegrate in each Boiler *53.6 sq ft* No. and Description of safety valves to each boiler *two, Improved high lift*
 Area of each set of valves per boiler *per Rule 4.52 sq ft* Pressure to which they are adjusted *225* 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 *2'3"* Is oil fuel carried in the double bottom under boilers *no*
 Smallest distance between shell of boiler and tank top plating *2'4"* Is the bottom of the boiler insulated *yes*
 Largest internal dia. of boilers *13'6"* Length *11'0"* Shell plates: Material *steel* Tensile strength *28-32 tons*
 Thickness *1 1/2"* Are the shell plates welded or flanged *no* Description of riveting: circ. seams *end DR*
 long. seams *DBS TR* Diameter of rivet holes in *circ. seams F 1 5/16" B 1 3/8"* Pitch of rivets *F 3 1/2" B 3 3/8"*
 Percentage of strength of circ. end seams *plate F 61.4 B 64.1* Percentage of strength of circ. intermediate seam *plate F 48.7 B 48.7*
 Percentage of strength of longitudinal joint *plate 85.8* Working pressure of shell by Rules *221*
 Thickness of butt straps *outer 1" inner 1 1/8"* No. and Description of Furnaces in each Boiler *3 Deighton*
 Material *steel* Tensile strength *26-30 tons* Smallest outside diameter *40 3/16"*
 Length of plain part *top* Thickness of plates *crown 3 3/4" bottom 3 1/4"* Description of longitudinal joint *welded*
 Dimensions of stiffening rings on furnace or c.c. bottom *-* Working pressure of furnace by Rules *224*
 End plates in steam space: Material *steel* Tensile strength *26-30 tons* Thickness *1 1/4"* Pitch of stays *19" x 17 3/8"*
 How are stays secured *DN* Working pressure by Rules *220*
 Tube plates: Material *front steel back* Tensile strength *26-30 tons* Thickness *15/16" 13/16"*
 Mean pitch of stay tubes in nests *10 1/4"* Pitch across wide water spaces *14"* Working pressure *front 222 back 226*
 Girders to combustion chamber tops: Material *steel* Tensile strength *28-32 tons* Depth and thickness of girder
 at centre *2 @ 1 3/4" x 7/8"* Length as per Rule *31 1/2"* Distance apart *8 3/8"* No. and pitch of stays
 in each *2 @ 10"* Working pressure by Rules *220* Combustion chamber plates: Material *steel*
 Tensile strength *26-30 tons* Thickness: Sides *4 1/4"* Back *1 1/6"* Top *4 1/4"* Bottom *2 1/2"*
 Pitch of stays to ditto: Sides *10" x 8 3/8"* Back *8 1/4" x 8 1/4"* Top *8 3/8" x 10"* Are stays fitted with nuts or riveted over *nuts*
 Working pressure by Rules *223* Front plate at bottom: Material *steel* Tensile strength *26-30 tons*
 Thickness *15/16"* Lower back plate: Material *steel* Tensile strength *26-30 tons* Thickness *13/16"*
 Pitch of stays at wide water space *13 1/4"* Are stays fitted with nuts or riveted over *nuts*
 Working Pressure *223* Main stays: Material *steel* Tensile strength *28-32 tons*
 Diameter *At body of stay, 3" & 2 3/4"* No. of threads per inch *6* Area supported by each stay *339 & 295 sq in*
 Working pressure by Rules *231 & 222* Screw stays: Material *steel* Tensile strength *26-30 tons*
 Diameter *At turned off part, 1 3/4" & 1 5/8"* No. of threads per inch *9* Area supported by each stay *83.7 & 68 sq in*

Working pressure by Rules 222 & 224 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 7/8" or Over threads 1 7/8"
No. of threads per inch 9 Area supported by each stay 88.6 sq" Working pressure by Rules 242
Tubes: Material Iron External diameter { Plain 3 1/4" Thickness { 7 w.s. No. of threads per inch 9
Pitch of tubes 4 1/2" x 4 3/8" Working pressure by Rules 280 Manhole compensation: Size of opening in
shell plate 19 1/2" x 15 1/2" Section of compensating ring 9 1/4" x 1 1/2" No. of rivets and diameter of rivet holes 32 @ 1 3/8"
Outer row rivet pitch at ends 9 1/6" Depth of flange if manhole flanged 3" Steam Dome: Material none
Tensile strength P1A Thickness of shell Handwritten Description of longitudinal joint Handwritten
Diameter of rivet holes P2P Pitch of rivets Handwritten Percentage of strength of joint { Plate Handwritten Rivets Handwritten
Internal diameter P2P Working pressure by Rules Handwritten Thickness of crown Handwritten No. and diameter of
stays Handwritten Inner radius of crown Handwritten Working pressure by Rules Handwritten
How connected to shell Handwritten Size of doubling plate under dome Handwritten Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell Handwritten

Type of Superheater none Manufacturers of { Tubes Handwritten Steel castings Handwritten
Number of elements Handwritten Material of tubes Handwritten Internal diameter and thickness of tubes Handwritten
Material of headers Handwritten Tensile strength Handwritten Thickness Handwritten Can the superheater be shut off and
the boiler be worked separately Handwritten Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Handwritten
Area of each safety valve Handwritten Are the safety valves fitted with easing gear Handwritten Working pressure as per
Rules Handwritten Pressure to which the safety valves are adjusted Handwritten Hydraulic test pressure:
tubes Handwritten, castings Handwritten and after assembly in place Handwritten Are drain cocks or valves fitted
to free the superheater from water where necessary Handwritten

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. Manufacturer.
Arch. H. Grierson

Dates of Survey { During progress of work in shops - - See accompanying Are the approved plans of boiler and superheater forwarded herewith yes
while building { During erection on board vessel - - machinery report (If not state date of approval.)
Total No. of visits 80

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 in accordance with the Rules,
satisfactorily fitted in the vessel and its safety valves adjusted under steam.

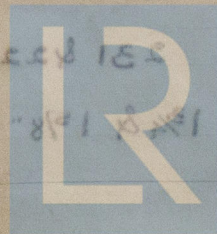
Survey Fee £ See Machinery Pbk. When applied for. 192
Travelling Expenses (if any) £ See Machinery Pbk. When received. 192

S. C. Davis.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 17 JUN 1930

Assigned See accompanying machinery report



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Foundation