

14 SEP. 1928

Rpt. 5a.

## REPORT ON BOILERS.

No. 48258

3 AUG 1928

Received at London Office

Date of writing Report *12 Sept 1928* When handed in at Local Office *Glasgow* Port of *Glasgow*  
 No. in Survey held at *Glasgow* Date, First Survey *19. 3. 28* Last Survey *3-8 - 1928*  
 Reg. Book. *U.S. "USK MOUTH"* (Number of Visits *33*) Tons { Gross  
 Net  
 Master Built at *Burntisland* By whom built *Burntisland SBC* Yard No. *148* When built *1928*  
 Engines made at *Glasgow* By whom made *David Rowan & Co. Ltd* Engine No. *885* When made *1928*  
 Boilers made at *Glasgow* By whom made *David Rowan & Co. Ltd* Boiler No. *885* When made *1928*  
 Nominal Horse Power *259* Owners *U.S. Steamship Co. Ltd* Port belonging to *Newport*

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

Manufacturers of Steel *Eutchoffnungshütte a. G. Oberhausen & Witkowitz Bergbau und Eisenhütten Gesellschaft in Witkowitz* (Letter for Record *(S)*)  
 Total Heating Surface of Boilers *684* Is forced draught fitted *no* Coal or Oil fired *coal*  
 No. and Description of Boilers *one single ended main* Working Pressure *120*  
 Tested by hydraulic pressure to *230* Date of test *26-6-28* No. of Certificate *17945* Can each boiler be worked separately *✓*  
 Area of Firegrate in each Boiler *27.5* No. and Description of safety valves to each boiler *2 direct spring*  
 Area of each set of valves per boiler { per Rule *0.34* as fitted *7.80* Pressure to which they are adjusted *120* Are they fitted with easing gear *yes*  
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *no*  
 Smallest distance between boilers or uptakes and bunkers or woodwork *12"* 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 *9'-6"* Length *9'-0"* Shell plates: Material *steel* Tensile strength *28-32 tons*  
 Thickness *5/8"* Are the shell plates welded or flanged *no* Description of riveting: circ. seams { end *DR* inter. *✓*  
 long. seams *lap. TR* Diameter of rivet holes in { circ. seams *15/16"* Pitch of rivets { *2.83* *4 7/8"*  
 Percentage of strength of circ. end seams { plate *66.9* rivets *64.2* Percentage of strength of circ. intermediate seam { plate *✓* rivets *✓*  
 Percentage of strength of longitudinal joint { plate *77.2* rivets *88.0* combined *76.6* Working pressure of shell by Rules *120*  
 Thickness of butt straps { outer *✓* inner *✓* No. and Description of Furnaces in each Boiler *two plain*  
 Material *steel* Tensile strength *26-30 tons* Smallest outside diameter *32.625"*  
 Length of plain part { top *66"* bottom *64"* Thickness of plates { crown *9/16"* bottom *✓* Description of longitudinal joint *welded*  
 Dimensions of stiffening rings on furnace or c.c. bottom *3 1/2 x 3 1/2 x 1/2* Working pressure of furnace by Rules *157*  
 End plates in steam space: Material *steel* Tensile strength *26-30 tons* Thickness *25/32"* Pitch of stays *13 x 17"*  
 How are stays secured *by* Working pressure by Rules *120*  
 Tube plates: Material { front *steel* back *✓* Tensile strength { *26-30 tons* Thickness { *25/32"* *5/8"*  
 Mean pitch of stay tubes in nests *10 1/4"* Pitch across wide water spaces *14"* Working pressure { front *121* back *135*  
 Girders to combustion chamber tops: Material *steel* Tensile strength *28-32 tons* Depth and thickness of girder  
 at centre *20 6 1/2 x 9 1/8"* Length as per Rule *25.84"* Distance apart *10 1/8"* No. and pitch of stays  
 in each *2 @ 8 1/8"* Working pressure by Rules *132* Combustion chamber plates: Material *steel*  
 Tensile strength *26-30 tons* Thickness: Sides *9/16"* Back *17/32"* Top *9/16"* Bottom *9/16"*  
 Pitch of stays to ditto: Sides *8 1/8 x 10 1/8"* Back *9 x 8 3/4"* Top *8 1/8 x 10 1/8"* Are stays fitted with nuts or riveted over *nuts*  
 Working pressure by Rules *128* Front plate at bottom: Material *steel* Tensile strength *26-30 tons*  
 Thickness *25/32"* Lower back plate: Material *steel* Tensile strength *26-30 tons* Thickness *25/32"*  
 Pitch of stays at wide water space *13 1/4 x 8 3/4"* Are stays fitted with nuts or riveted over *nuts*  
 Working Pressure *188* Main stays: Material *steel* Tensile strength *28-32 tons*  
 Diameter { At body of stay *2"* Over threads *2 1/4"* No. of threads per inch *6* Area supported by each stay *221 sq"*  
 Working pressure by Rules *174* Screw stays: Material *steel* Tensile strength *26-30 tons*  
 Diameter { At turned off part, or *1 3/8"* Over threads *✓* No. of threads per inch *9* Area supported by each stay *82 sq"*



Working pressure by Rules 123 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads 1 1/2" ✓  
No. of threads per inch 9 Area supported by each stay 94 0" Working pressure by Rules 120  
Tubes: Material Iron External diameter { Plain 3 1/4" Thickness { 9 W. 9. 1/4 & 5/16" No. of threads per inch 9  
Pitch of tubes 4 3/8" x 4 1/2" Working pressure by Rules 180 Manhole compensation: Size of opening in  
shell plate 15" x 19" Section of compensating ring 5 1/2" x 3/4" No. of rivets and diameter of rivet holes 36 x 1 5/16" ✓  
Outer row rivet pitch at ends 4 1/2" Depth of flange if manhole flanged 3 ✓ Steam Dome: Material None  
Tensile strength 241 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 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 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 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 23 inclusive for boilers been complied with

The foregoing is a correct description,  
For David Rowan & Co. Ltd. Manufacturer.  
Arch. W. Grierson

Dates of Survey { During progress of work in shops - - - See accompanying Machinery Report  
while building { During erection on board vessel - - -  
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
Total No. of visits 33 (In Shop) 8 (on board)

#### 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.

This boiler has been securely fitted on board & found satisfactory  
Safety valves adjusted under steam to 120 lb/p. 13" 3 1/8"  
See machinery report for record

C.B.  
12.9.28

Survey Fee ... £ 4 : 4 : When applied for, 6.5. 1928.  
Travelling Expenses (if any) £ : : When received, 18.9.28

S. C. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 7 - AUG 1928

Assigned See accompanying Machy. Report.

Chas. Bell

18 SEP 1928

Lloyd's Register  
Foundation