

REPORT ON BOILERS.

No. 50954

Received at London Office 29 OCT 1930

Date of writing Report

10

When handed in at Local Office

27.10.1930

Port of

Glasgow

No. in Reg. Book.

Survey held at

Glasgow

Date, First Survey

1.7.30

Last Survey

24.10.1930

(Number of Visits 34)

Gross 9600

on the

S/S "MAURICE ROSE"

Tons

Net 946

Master

Built at

Glasgow

By whom built

D & W. Henderson & Co. Ltd

Yard No.

906

When built 1930

Engines made at

Glasgow

By whom made

D & W. Henderson & Co. Ltd

Engine No.

906

When made 1930

Boilers made at

Glasgow

By whom made

D & W. Henderson & Co. Ltd

Boiler No.

906

When made 1930

Nominal Horse Power

232

Owners

R. Hughes & Co.

Port belonging to

Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *Gutehoffnungshütte A.G. Oberhausen. Vereinigte Stahlwerke A.G. Hütte Ruhrort-Meiderich*
David Colville & Sons Ltd & James Dunlop & Co. Ltd (Letter for Record *S*)

Total Heating Surface of Boilers *4366 sq ft* Is forced draught fitted *no* Coal or Oil fired *coal*

No. and Description of Boilers *Two single ended* Working Pressure *180*

Tested by hydraulic pressure to *320* Date of test *23.9.30 24.9.30* No. of Certificate *18829 18828* Can each boiler be worked separately *yes*

Area of Firegrate in each Boiler *66 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 7.0* Pressure to which they are adjusted *185* Are they fitted with easing gear *yes*
as fitted 7.940

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 *5'-0"* Is oil fuel carried in the double bottom under boilers *no*

Smallest distance between shell of boiler and tank top plating *no tank* Is the bottom of the boiler insulated *no*

Largest internal dia. of boilers *14'-6"* Length *10'-9"* 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 *DRS TR* Diameter of rivet holes in *circ. seams 1 1/2"* Pitch of rivets *4 3/4"*
long. seams 1 1/4"

Percentage of strength of circ. end seams *plate 68.5* rivets *50.1* Percentage of strength of circ. intermediate seam *plate* rivets *—*

Percentage of strength of longitudinal joint *plate 85.9* rivets *87.5* combined *93* Working pressure of shell by Rules *186*

Thickness of butt straps *outer 15/16"* inner *1 1/16"* No. and Description of Furnaces in each Boiler *Three Deighton*

Material *steel* Tensile strength *26-30 tons* Smallest outside diameter *45.125"*

Length of plain part *top* Thickness of plates *crown 3 9/16"* bottom *3 1/16"* Description of longitudinal joint *welded*

Dimensions of stiffening rings on furnace or c.c. bottom *—* Working pressure of furnace by Rules *180*

End plates in steam space: Material *steel* Tensile strength *26-30 tons* Thickness *1 1/8"* Pitch of stays *18"x18"*

How are stays secured *DN* Working pressure by Rules *181*

Tube plates: Material *front steel* back *"* Tensile strength *26-30 tons* Thickness *1"*

Mean pitch of stay tubes in nests *11 1/2"* Pitch across wide water spaces *14"* Working pressure *front 180* back *180*

Girders to combustion chamber tops: Material *steel* Tensile strength *28-32 tons* Depth and thickness of girder

at centre *2@8 1/8"x1 1/16"* Length as per Rule *31.6"* Distance apart *8 1/2"* No. and pitch of stays

in each *3@8"* Working pressure by Rules *185* Combustion chamber plates: Material *steel*

Tensile strength *26-30 tons* Thickness: Sides *1 1/16"* Back *1 9/32"* Top *1 1/16"* Bottom *1 1/16"*

Pitch of stays to *no*: Sides *8"x8 1/2"* Back *8"x8"* Top *8"x8 1/2"* Are stays fitted with nuts or riveted over *nuts in ces only*

Working pressure by Rules *191* Front plate at bottom: Material *steel* Tensile strength *26-30 tons*

Thickness *1"* Lower back plate: Material *steel* Tensile strength *26-30 tons* Thickness *25/32"*

Pitch of stays at wide water space *14"* Are stays fitted with nuts or riveted over *nuts on marginal stays only*

Working Pressure *190* Main stays: Material *steel* Tensile strength *28-32 tons*

Diameter *At body of stay, 2 7/8"* or *Over threads* No. of threads per inch *6* Area supported by each stay *324 sq in*

Working pressure by Rules *188* Screw stays: Material *steel* Tensile strength *26-30 tons*

Diameter *At turned off part, 1 1/2"* or *Over threads* No. of threads per inch *9* Area supported by each stay *68 sq in*

Working pressure by Rules 185 Are the stays drilled at the outer ends ☒ Margin stays: Diameter { At turned off part, or Over threads 1 3/4" ✓
No. of threads per inch 9 Area supported by each stay 88 0" Working pressure by Rules 206
Tubes: Material *hot drawn steel* External diameter { Plain 3 1/4" Thickness { 9 w.g. No. of threads per inch 9
Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules 180 Manhole compensation: Size of opening in
shell plate 16" x 12" Section of compensating ring 7 1/2" x 1 1/2" No. of rivets and diameter of rivet holes 32 @ 1 1/8" 1 1/8"
Outer row rivet pitch at ends 8 1/2" Depth of flange if manhole flanged *MANHOLE* Steam Dome Material *none*
Tensile strength Thickness of shell Description of longitudinal joint
Diameter of rivet holes *20p* Pitch of rivets *20p* 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 22 inclusive for boilers been complied with *yes*

The foregoing is a correct description,
FOR DAVID & WM HENDERSON & CO., LTD.

Dates of Survey { During progress of work in shops - - - See accompanying machy report Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
while building { During erection on board vessel - - - Total No. of visits 34
Manufacturer. DIRECTOR.

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

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

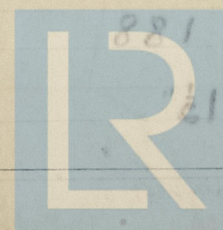
The materials and workmanship are good.
The boilers have been constructed under special survey in accordance with the Rules, satisfactorily fitted in the vessel and their safety valves adjusted under steam.

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

S. J. Davis
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 28 OCT 1930

Assigned See accompanying machy report



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Foundation