

REPORT ON BOILERS.

No. 54997

Received at London Office 3 OCT 1934

Date of writing Report 19 When handed in at Local Office 1-10-34 Port of Glasgow
No. in Reg. Book. Survey held at Glasgow Date, First Survey 20.8.34 Last Survey 26-9-1934
(Number of Visits 14) Tons Gross Net
on the S/S
Master Built at Lewis Duffell By whom built Davie S B & R Co Yard No. 510 When built 1934
Engines made at Glasgow By whom made Aitchison Blair & Co Ltd Engine No. 190 When made 1934
Boilers made at Glasgow By whom made Davie Rowan & Co Ltd Boilers No. 401 When made 1934
Nominal Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Lochmiller Ltd. (Letter for Record (S) ✓)
Total Heating Surface of Boilers 2460 sq ft Is forced draught fitted no Coal or Oil fired coal
No. and Description of Boilers Two Navy type Working Pressure 120
Tested by hydraulic pressure to 230 Date of test 26-9-34 No. of Certificate 19452 Can each boiler be worked separately
Area of Firegrate in each Boiler 29.25 sq ft No. and Description of safety valves to each boiler
Area of each set of valves per boiler {per Rule 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 7'-6" Length 18'-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 Lap inter. DR Lap
long. seams DBS TR Diameter of rivet holes in {circ. seams 1 1/16 long. seams 1 1/16 Pitch of rivets {ends 2 1/8" inter 2 1/4" 4 3/4"
Percentage of strength of circ. end seams {plate 69.9 rivets 52 Percentage of strength of circ. intermediate seam {plate 63.8 rivets 60.7
Percentage of strength of longitudinal joint {plate 82.8 rivets 101.3 combined 92.8 Working pressure of shell by Rules 168
Thickness of butt straps {outer 7/16 inner 9/16 No. and Description of Furnaces in each Boiler Two Weighton
Material steel Tensile strength 26-30 tons Smallest outside diameter 2'-8 7/8"
Length of plain part {top bottom Thickness of plates {crown 7/16 bottom 7/16 Description of longitudinal joint welded
Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 190
End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 2 3/32" 5 1/16" Pitch of stays 13"x13"
How are stays secured DR & RW Working pressure by Rules 180
Tube plates: Material {front end steel back c.c. Tensile strength {26-30 tons Thickness {1 1/16 1 1/16
Mean pitch of stay tubes in nests 11 9/16 Pitch across wide water spaces Working pressure {front 126 back 126
Girders to combustion chamber tops: Material Steel Tensile strength 28-32 tons Depth and thickness of girder
at centre 2 @ 7"x9/16 Length as per Rule 27 1/16 Distance apart 9" No. and pitch of stays
in each 2 @ 9" Working pressure by Rules 141 Combustion chamber plates: Material Steel
Tensile strength 26-30 tons Thickness: Sides 9/16 front 5/8" back 5/8" Top 9/16 Bottom 9/16
Pitch of stays to ditto: Sides 9"x9" Back Top 9"x9" Are stays fitted with nuts or riveted over nuts
Working pressure by Rules 134 Front plate at bottom: Material Steel Tensile strength 26-30 tons
Thickness 2 3/32 Lower back plate: Material steel Tensile strength 26-30 tons Thickness 1 1/16
Pitch of stays at wide water space Are stays fitted with nuts or riveted over
Working Pressure 180 Main stays: Material Steel Tensile strength 28-32 tons
Diameter {At body of stay, 1 3/4" No. of threads per inch 6 Area supported by each stay 169 sq in
Over threads
Working pressure by Rules 135 Screw stays: Material steel Tensile strength 26-30 tons
Diameter {At turned off part, 1 3/8" No. of threads per inch 9 Area supported by each stay 81 sq in
Over threads

Working pressure by Rules 125 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads } ✓
No. of threads per inch - Area supported by each stay - Working pressure by Rules -
Tubes: Material Iron External diameter { Plain 3 1/2 Stay 3 1/2 Thickness { 9/16 No. of threads per inch 9
Pitch of tubes 4 5/8 x 4 5/8 Working pressure by Rules 165 Manhole compensation: Size of opening in shell plate 16 x 12 Section of compensating ring 6" x 3/4" No. of rivets and diameter of rivet holes 32 @ 7/8"
Outer row rivet pitch at ends 4 3/4 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 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 -

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

Dates of Survey { During progress of work in shops - - } 1934 Aug. 20. 23. 24. 29. 31 Sep. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
while building { During erection on board vessel - - - } 3. 4. 6. 10. 11. 13. 17. 19. 26 Total No. of visits 14

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.)

The materials and workmanship are good.
The boilers have been constructed under special survey.
They are being dispatched to Seno. Duques to be fitted in the vessel.
for classed vessel

Survey Fee £ 16 : 8 :

Travelling Expenses (if any) £ : :

When applied for, 19

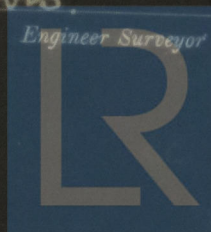
When received, 19

S. C. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 2. 00 T 1934

Assigned TRANSMIT TO LONDON



Lloyd's Register
Foundation

S.P. Dartmouth:
all rept.
Not done



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