

REPORT ON BOILERS.

No. 62627

Received at London Office JUL 25 1940

Date of writing Report 19 22-7-40 When handed in at Local Office 10 Port of GLASGOW

No. in Reg. Book 55 Survey held at Glasgow Date, First Survey 10th July 1940 Last Survey 10th July 1940

on the S/S "DALESMAN" (Number of Visits 1) Gross 6343.44 Tons Net

Built at P.A. Glasgow By whom built Lithgows' Ld. Yard No. 927 When built 1940

Engines made at Glasgow By whom made David Rowan & Co. Ld. Engine No. 1038 When made 1940

Boilers made at -do- By whom made -do- Boiler No. 1038 When made 1940

Nominal Horse Power 867 Owners T & J. Harman Port belonging to Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland (Letter for Record 1)

Total Heating Surface of Boilers 10,400 sq ft Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers 2 Donkey—indeed Working Pressure 215 lb.

Tested by hydraulic pressure to 373 lb. Date of test 5-4-40 No. of Certificate 20547 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 137.9 sq ft No. and Description of safety valves to each boiler 2 Spring loaded ordinary

Area of each set of valves per boiler {per Rule 28.60" as fitted 28.360" Pressure to which they are adjusted 215 lb. 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 and bunkers 13 1/2" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 28" Is the bottom of the boiler insulated Yes

Min. Largest internal dia. of boilers 17'-2" Length 18'-6" Shell plates: Material steel Tensile strength 31/35 tons

Thickness 1 33/64" Are the shell plates welded or flanged No Description of riveting: circ. seams {end date inter tube

long. seams D.B.S. T.R. Diameter of rivet holes in {circ. seams F 1 7/16" B+C 1 5/8" Pitch of rivets {F 3.7" B+C 4.658" E 10 23/32" C 10 29/32"

Percentage of strength of circ. end seams {plate B 65. F 61. I. C 65 rivets B 43.6. F 43. C 63.8 Percentage of strength of circ. intermediate seam {plate 65 rivets 63.8

Percentage of strength of longitudinal joint {plate E 84.83 C 84.52 rivets 88.4 91.3 combined 87.3 87.4

Thickness of butt straps {outer E 1 5/32" C 1 3/16" inner E 1 9/32" C 1 5/16" No. and Description of Furnaces in each Boiler 6 Deighton

Material steel Tensile strength 26/30 tons Smallest outside diameter 4'-3 17/32"

Length of plain part {top Thickness of plates {crown 4 9/64" bottom Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom —

End plates in steam space: Material steel Tensile strength 26/30 tons Thickness 1 15/32" Pitch of stays 20 1/2" x 25"

How are stays secured D.H.

Tube plates: Material {front steel Tensile strength {26/30 tons Thickness {1 1/16" back

Mean pitch of stay tubes in nests 11.28" x 12.18" Pitch across wide water spaces 14 1/2"

Girders to combustion chamber tops: Material steel Tensile strength 29/35 tons Depth and thickness of girder

at centre 2 @ 12 1/2" x 7/8" Length as per Rule 3'-11 7/8" Distance apart 9 1/4" No. and pitch of stays

in each 4 @ 9 1/4" Combustion chamber plates: Material steel

Tensile strength 26/30 tons Thickness: Sides 4 7/64" Back 1 1/16" Top 4 7/64" Bottom 1"

Pitch of stays to ditto: Sides 9 1/4" x 9 1/4" Back — Top 9 1/4" x 9 1/4" Are stays fitted with nuts or riveted over nuts

Front plate at bottom: Material steel Tensile strength 26/30 tons

Thickness 1" Lower back plate: Material — Tensile strength — Thickness —

Pitch of stays at wide water space — Are stays fitted with nuts or riveted over —

Main stays: Material steel Tensile strength 28/32 tons

Diameter {At body of stay, 3 1/4" + 3 1/2" No. of threads per inch 6

Screw stays: Material Iron Tensile strength 21 1/2 tons

Diameter {At turned off part, 1 3/4" No. of threads per inch 9

Are the stays drilled at the outer ends No

Margin stays: Diameter At turned off part,
or
Over threads ✓

No. of threads per inch ✓

Tubes: Material Iron External diameter Plain 3 1/2"
Stay 3 1/2" Thickness 7 WG 5/16", 3/8" & 7/16" No. of threads per inch 9

Pitch of tubes 4 7/8" x 4 7/8" Manhole compensation: Size of opening in

shell plate 16" x 20" Section of compensating ring 11 3/4" x 1 33/64" No. of rivets and diameter of rivet holes 36 @ 1 7/8"

Outer row rivet pitch at ends 10 23/32" Depth of flange if manhole flanged 3 1/4" 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 _____ Thickness of crown _____ No. and diameter of Eng

stays _____ Inner radius of crown _____

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 Smokestack Manufacturers of See Mech. Cuts. C 530 & C 531
Steel forgings Copius Remich.
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 Yes Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Yes

Area of each safety valve 1.76 sq" Are the safety valves fitted with easing gear Yes

Pressure to which the safety valves are adjusted 215 lb. Hydraulic test pressure _____

tubes _____ forgings and castings _____ and after assembly in place 430 lb. Are drain cocks

valves fitted to free the superheater from water where necessary Yes

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 Manufacturer

Dates of Survey During progress of
work in shops - - -
while During erection on
building board vessel - - -

ACCOMPANYING MACHINERY REPORT

Are the approved plans of boiler and superheater forwarded herewith Yes
(If not state date of approval.)

Total No. of visits _____

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. "BARRISTER" GLS. REP. 6126

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

These boilers have been built under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. They have been satisfactorily installed in the vessel, examined under steam and the safety valves have been adjusted to the working pressure.

22/7/40

Survey Fee ... £ See rule 3 appt. When applied for, 19
Travelling Expenses (if any) £ See rule 3 appt. When received, 19

Committee's Minute Glasgow 23 JUL 1940

Assigned _____

Engineer Surveyor to Lloyd's Register of Shipping



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Foundation