

REPORT ON BOILERS.

No. 56746

Received at London Office 18 MAR '36

of writing Report 19 When handed in at Local Office 14. 3. 1936 Port of Glasgow 17 JUN 1936

Survey held at Glasgow Date, First Survey 17. 12. 35 Last Survey 10. 3. 1936

on the new steel s/s "THE EARL" (Number of Visits 11) Gross 926 Tons Net 481

ter Built at Troom By whom built Ailsa S B Co Ltd Yard No. 422 When built 1936

ameterines made at Troom By whom made Ailsa S B Co Ltd Engine No. 157 When made 1936

lers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 416 When made 1936

and pinal Horse Power Owners J Hay & Co Port belonging to Glasgow

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Biddles Ltd (Letter for Record (S))

al Heating Surface of Boilers 1930 sq ft Is forced draught fitted no Coal or Oil fired coal

and Description of Boilers one single ended Working Pressure 216 lb

es fitted by hydraulic pressure to 373 Date of test 10-3-36 No. of Certificate 19687 Can each boiler be worked separately -

ea of Firegrate in each Boiler 59 sq ft No. and Description of safety valves to each boiler

ea of each set of valves per boiler {per Rule as fitted Pressure to which they are adjusted Are they fitted with easing gear

case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

actual distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers

allest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

rgest internal dia. of boilers 14'-9" Length 10'-9" Shell plates: Material Steel Tensile strength 29-33 tons

ickness 1 25/64 Are the shell plates welded or flanged no Description of riveting: circ. seams {end DR inter -

g. seams D.B.S. T.R Diameter of rivet holes in {circ. seams F 19/16 B 17/16 long. seams 17/16 Pitch of rivets {F 3-376 B 4 9 3/4

percentage of strength of circ. end seams {plate F 61.1 B 64.06 rivets F 45.8 B 46.4 Percentage of strength of circ. intermediate seam {plate rivets

percentage of strength of longitudinal joint {plate 85.25 rivets 88.6 combined 88.2 Working pressure of shell by Rules 216.5

ickness of butt straps {outer 1 1/16 inner 1 3/16 No. and Description of Furnaces in each Boiler Three Deighton 30

aterial Steel Tensile strength 26-30 tons Smallest outside diameter 3'-10 3/8"

ngth of plain part {top bottom Thickness of plates {crown 1 1/16 bottom 1 1/16 Description of longitudinal joint welded

mensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 217

ad plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 9/32 Pitch of stays 20" x 17 3/4

ow are stays secured D N Working pressure by Rules 215

be plates: Material {front Steel back " Tensile strength {26-30 tons " Thickness {15/16 13/16

ean pitch of stay tubes in nests 10.125 Pitch across wide water spaces 14 7/8 Working pressure {front 220 back 233

orders to combustion chamber tops: Material Steel Tensile strength 28-32 tons Depth and thickness of girder

centre 20 9/8 x 7/8 Length as per Rule 33.5 Distance apart 10.25 No. and pitch of stays

each 30 8 Working pressure by Rules 219 Combustion chamber plates: Material Steel

nsile strength 26-30 tons Thickness: Sides 23/32 Back 1/16 Top 23/32 Bottom 13/16

itch of stays to ditto: Sides 10 1/4 x 8 Back 9 1/4 x 8 1/4 Top 10 1/4 x 8 Are stays fitted with nuts or riveted over nuts

orking pressure by Rules 216 Front plate at bottom: Material Steel Tensile strength 26-30 tons

ickness 15/16 Lower back plate: Material Steel Tensile strength 26-30 tons Thickness 13/16

itch of stays at wide water space 13 3/8 Are stays fitted with nuts or riveted over nuts

pping Working Pressure 218 Main stays: Material Steel Tensile strength 28-32 tons

iameter {At body of stay, or Over threads 3 No. of threads per inch 6 Area supported by each stay 357 sq

orking pressure by Rules 220 Screw stays: Material Steel Tensile strength 26-30 tons

iameter {At turned off part, or Over threads 1 3/4 No. of threads per inch 9 Area supported by each stay 76.2 sq

Working pressure by Rules 238 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads 1 7/8" ✓
No. of threads per inch 9 Area supported by each stay 94.50" Working pressure by Rules 225 lb
Tubes: Material Steel External diameter { Plain 3 3/4 Thickness { 8 w s. No. of threads per inch 9 ✓
Stay 3 3/4 ✓ 1/4" 9 1/2 3/8" ✓
Pitch of tubes 4 1/2" x 4 3/8" & 4 1/2" x 4 1/2" Working pressure by Rules 230 ✓ Manhole compensation: Size of opening
shell plate 19 1/2" x 15 1/2" ✓ Section of compensating ring 10 1/2" x 1 25/64" No. of rivets and diameter of rivet holes 34 @ 1 1/2" ✓
Outer row rivet pitch at ends 9 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
stays _____ Inner radius of crown _____ Working pressure by Rules _____
How connected to shell _____ Size of doubling plate under dome _____ Diameter of rivet holes and
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
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
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
Arch^d W. Grierson Manufactured

Dates of Survey { During progress of work in shops - - } 1935 Dec.: 17. 18. 19. 27 Feb.: 3. 5. 18 Are the approved plans of boiler and superheater forwarded herewith yes
while building { During erection on board vessel - - - } 28 Mar.: 3. 5. 10 (If not state date of approval.)
Total No. of visits 11

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. The President. Sls Rpt. 1956

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. It will be fitted on
board the vessel at Troon.

13/3/36

Survey Fee £ 12 : 18 : When applied for, 13.3. 19 36
Travelling Expenses (if any) £ : : When received, 1.4. 19 36 paid

S. Davis

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 17 MAR 1936

Assigned TRANSMIT TO LONDON



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Foundation