

REPORT ON BOILERS.

No. 57494

Received at London Office 28 OCT 1936

Date of writing Report 4/8/36 When handed in at Local Office 6.10.36 Port of Glasgow

No. in Reg. Book. 89902 on the 1st No. 10000 Additive

Survey held at Glasgow Date, First Survey 29.1.36 Last Survey 25.9.36

(Number of Visits 14) Tons { Gross 492.6 Net 299.7

Master Built at Glasgow By whom built Barclay Curle & Co Ltd Yard No. 658 When built 1936

Engines made at Glasgow By whom made Barclay Curle & Co Ltd Engine No. 658 When made 1936

Boilers made at Glasgow By whom made Barclay Curle & Co Ltd Boiler No. 658 When made 1936

Nominal Horse Power 78.8 Owners T. Dunlop & Sons Port belonging to Glasgow

EXHAUST HEAT.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel B. Colville & Co

Total Heating Surface of Boilers 1183 sq ft Is forced draught fitted Exhaust Heat & Oil fired

No. and Description of Boilers 1- Exhaust Heat & Oil fired Boiler Working Pressure 120 lb

Tested by hydraulic pressure to 230 lb Date of test 25/6/36 No. of Certificate 19461 Can each boiler be worked separately

Area of Firegrate in each Boiler 10.95 sq ft No. and Description of safety valves to each boiler Double Imp. High Lift 2" box

Area of each set of valves per boiler { per Rule 6.28 sq ft as fitted Pressure to which they are adjusted 120 lb Are they fitted with easing gear 9/16

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 1'-6" Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating 1'-6" Is the bottom of the boiler insulated

Largest internal dia. of boilers 9'-9" Length 10'-6" Shell plates: Material Steel Tensile strength 29/33 Tons

Thickness 9/16" Are the shell plates welded or flanged no Description of riveting: circ. seams { end DR inter. 2.948"

long. seams T.R.-D.B.S. Diameter of rivet holes in { circ. seams 13/16" long. seams 3/4" Pitch of rivets { 5"

Percentage of strength of circ. end seams { plate 42.41 rivets 49.05 Percentage of strength of circ. intermediate seam { plate 85.0 rivets 98.05

Percentage of strength of longitudinal joint { plate 98.05 rivets 89.61 combined Working pressure of shell by Rules 122 lb

Thickness of butt straps { outer 7/16" inner 9/16" No. and Description of Furnaces in each Boiler 1- Brighton Section

Material Steel Tensile strength 26/30 Tons Smallest outside diameter 3'-1 1/4"

Length of plain part { top 7/16" bottom 9/16" Thickness of plates { crown 3/8" bottom 3/8" Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 141 lb

End plates in steam space: Material Steel Tensile strength 26/30 Tons Thickness 25/32" Pitch of stays 16" x 14"

How are stays secured D.Nuts Working pressure by Rules 123 lb

Tube plates: Material { front Steel back Steel Tensile strength { 26/30 Tons Thickness { 25/32" 11/16"

Mean pitch of stay tubes in nests 9" Pitch across wide water spaces 13 3/8" Working pressure { front 165 lb back 153 lb

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 Tons Depth and thickness of girder 4 5/8" x 17/32 double Length as per Rule 2'-9 9/32" Distance apart 9 1/2"

at centre 2 @ 10 1/2" Working pressure by Rules 120 lb No. and pitch of stays 2 @ 10 1/2"

Tensile strength 26/30 Tons Thickness: Sides 19/32" Back 19/32" Top 19/32" Bottom 19/32" Combustion chamber plates: Material Steel

Pitch of stays to ditto: Sides 10 1/2" x 9 1/2" Back 10 1/2" x 9 1/2" Top 10 1/2" x 9 1/2" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 120 lb 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 3/8" Are stays fitted with nuts or riveted over nuts

Working Pressure 130 lb Main stays: Material Steel Tensile strength 28/32 Tons

Diameter { At body of stay, 2 1/8" No. of threads per inch 6 Area supported by each stay 224 sq in

Working pressure by Rules 135 lb Screw stays: Material Steel Tensile strength 26/30 Tons

Diameter { At turned off part, 1 1/2" No. of threads per inch 9 Area supported by each stay 99.7

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Working pressure by Rules 126 lb Are the stays drilled at the outer ends no Margin stays: Diameter 7 1/8"
No. of threads per inch 9 Area supported by each stay 115 sq. in. Working pressure by Rules 132 lb
Tubes: Material Steel S.D. External diameter 3 1/4" Thickness 3/8" No. of threads per inch 9
Pitch of tubes 4 1/4" x 4 1/8" Working pressure by Rules 140 lb Manhole compensation: Size of opening in
shell plate 20" x 16" Section of compensating ring 2' 9" x 2' 5" 9/16" No. of rivets and diameter of rivet holes 44 - 7/8"
Outer row rivet pitch at ends 5 1/2" Depth of flange if manhole flanged 4" Steam Dome: Material
Tensile strength Thickness of shell Description of longitudinal joint
Diameter of rivet holes Pitch of rivets Percentage of strength of joint
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
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,
James B. McKee, Manufacturer.

Dates of Survey { During progress of work in shops -- } Are the approved plans of boiler and superheater forwarded herewith 30/11/35
while building { During erection on board vessel -- } See Accompanying Boiler Report (If not state date of approval) Plan to accompany N° 659
Total No. of visits 14

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.)

This boiler has been built under Special Survey to approved plans in accordance with the Society's Rules. Materials and workmanship are good.

This boiler has been efficiently secured in position on board. It arrived under steam and found in order.

Survey Fee ... £ 7 : 17 : 0
Travelling Expenses (if any) £ :

When applied for, 24-11-35
When received, 24-11-35

H. Sutherland-Proffman
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 6 - OCT 1936

Assigned SEE ACCOMPANYING MACHINERY REPORT.



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