

REPORT ON BOILERS.

No. 72022

Received at London Office 10 SEP 1947

Date of writing Report 21st August 1947 When handed in at Local Office 3-9-47 Port of Glasgow

No. in Reg. Book. 10050 Survey held at Glasgow Date, First Survey 27.9.45 Last Survey 19th August 1947

on the "BEAVERCOVE" (Number of Visits (11)) Gross 9824 Tons Net 5818.5

Master - Built at Govan By whom built Tairfield S. & Coy 4th Lt Yard No. 728 When built 1947-8

Engines made at Newcastle-on-Tyne By whom made C. A. Parsons & Co Ltd Engine No. 2692-5 When made 1947

Boilers made at Govan By whom made Tairfield S. & Coy 4th Lt Boiler No. 728 When made 1947

Nominal Horse Power 81.6 Owners Canadian Pacific Steamship Co Ltd Port belonging to London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd (Letter for Record S)

Total Heating Surface of Boilers 1224 ϕ Is forced draught fitted Yes Coal or Oil fired oil

No. and Description of Boilers 1 - Howden Johnson Type S.E. Working Pressure 100 lbs

Tested by hydraulic pressure to 200 lbs Date of test 2.4.46 No. of Certificate 22151 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 1 - 2 1/4" Double High Lift

Area of each set of valves per boiler { per Rule 6.65 ϕ as fitted 7.96 ϕ } Pressure to which they are adjusted 100 lbs Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No

Smallest distance between boilers or uptakes and bunkers or woodwork 5'-0" Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating 3'-0" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 10'-6" Length 6'-6" Shell plates: Material Steel Tensile strength 28/32 tons

Thickness 17/32" Are the shell plates welded or flanged No Description of riveting: circ. seams { end D.R. laps inter. - }

long. seams T.R.D.B.S. Diameter of rivet holes in { circ. seams 13/16" long. seams 3/4" } Pitch of rivets { 2.761" 4.67" }

Percentage of strength of circ. end seams { plate 67.0 rivets 57.8 } Percentage of strength of circ. intermediate seam { plate - rivets - }

Percentage of strength of longitudinal joint { plate 84.0 rivets 138.0 combined 95.3 } Working pressure of shell by Rules 101 lbs

Thickness of butt straps { outer 17/32" inner 17/32" } No. and Description of Furnaces in each Boiler 1 - Deighlon

Material Steel Tensile strength 26/30 Smallest outside diameter 4'-0"

Length of plain part { top - bottom - } Thickness of plates { crown 1/2" bottom 1/2" } Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 150 lbs

End plates in steam space: Material Steel Tensile strength 26/30 tons Thickness 7/8" Pitch of stays 1'-7" x 1'-3 1/2"

How are stays secured D. Nuts Working pressure by Rules 100 lbs

Tube plates: Material { front Steel back Steel } Tensile strength { 26/30 tons } Thickness { 7/8" }

Mean pitch of stay tubes in nests 9 1/8" Pitch across wide water spaces 13" Working pressure { front 280 lbs back - }

Girders to combustion chamber tops: Material Nil Tensile strength - Depth and thickness of girder at centre -

Length as per Rule - Distance apart - No. and pitch of stays in each -

Working pressure by Rules - Combustion chamber plates: Material Nil

Tensile strength - Thickness: Sides - Back - Top - Bottom -

Pitch of stays to ditto: Sides - Back - Top - Are stays fitted with nuts or riveted over -

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

Thickness 7/8" Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 7/8"

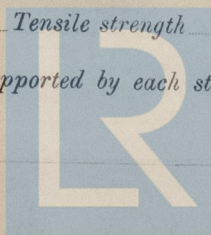
Pitch of stays at wide water space Nil Are stays fitted with nuts or riveted over -

Working Pressure 112 lbs Main stays: Material Steel Tensile strength 28/32 tons

Diameter { At body of stay, 2 1/2" or Over threads - } No. of threads per inch 6 Area supported by each stay 19 1/2" x 19 1/2"

Working pressure by Rules 119 lbs Screw stays: Material Nil Tensile strength -

Diameter { At turned off part, - or Over threads - } No. of threads per inch - Area supported by each stay -



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Working pressure by Rules Are the stays drilled at the outer ends 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 *Steel* External diameter { Plain *2 1/2"* Thickness { *10 L.S.G.* No. of threads per inch *9*
Pitch of tubes *3 1/2" + 3 3/4"* Working pressure by Rules *149 lb.* Manhole compensation: Size of opening in
shell plate *20" + 15 1/2"* Section of compensating ring *1'-5" + 3/4"* No. of rivets and diameter of rivet holes *52 @ 1 3/16"*
Outer row rivet pitch at ends *4 5/8"* Depth of flange if manhole flanged *3"* *water wall tubes* Steam Dome: Material *33 @ 2" 9/10 x 10 W.G.*
Tensile strength Thickness of shell Description of longitudinal joint
Diameter of rivet holes *827* Pitch of rivets Percentage of strength of joint { Plate Rivets
Internal diameter *28-592* 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 *Nil* Manufacturers of { Tubes Steel forgings 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 forgings and 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 The FAIRFIELD SHIPBUILDING & ENGINEERING Co., Ltd.
Manufacturer.

Dates of Survey { During progress of work in shops - - *See attached machinery 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 *✓*

Is this Boiler a duplicate of a previous case *Yes* If so, state Vessel's name and Report No. *Beaver Glen sp N: 70466.*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This Boiler has been built under Special Survey in accordance with the Rules & app^d plan. Materials & workmanship are good. The Boiler has been efficiently installed on board the Vessel & Safety Valves adjusted under Steam as above, also accumulation trials carried out.*

Survey Fee ... £ *See machinery report* When applied for, 19
Travelling Expenses (if any) £ : *1/6* When received, 19

B. H. Macdonald
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

GLASGOW 9 SEP 1947

SEE ACCOMPANYING MACHINERY REPORT.



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