

# REPORT ON BOILERS.

No. 62223

Received at London Office APR 24 1940

Date of writing Report 19 When handed in at Local Office 20. 4. 1940 Port of Glasgow

No. in Reg. Book. Survey held at Paisley Date, First Survey 3 April 1940 Last Survey 3 April 1940  
on the "BACCALIEN" (Number of Visits ) Gross 1421 Tons Net 839

Built at Paisley By whom built Fleming & Ferguson L<sup>td</sup> Yard No. 557 When built 1940  
Engines made at Paisley By whom made Fleming & Ferguson L<sup>td</sup> Engine No. 557 When made 1940  
Boilers made at Paisley By whom made A. F. Braigg L<sup>td</sup> Boiler No. 724 When made 1940  
Nominal Horse Power Owners Government of Newfoundland Port belonging to St. Johns N.F.L.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record)  
Total Heating Surface of Boilers Is forced draught fitted *yes* Coal or Oil fired *Oil-fired*  
No. and Description of Boilers *Two - Single-ended.* Working Pressure *210 lbs.*

Tested by hydraulic pressure to Date of test No. of Certificate Can each boiler be worked separately *yes*  
Area of Firegrate in each Boiler No. and Description of safety valves to each boiler *One - 2 1/2" Double Spring High Lift*  
Area of each set of valves per boiler {per Rule *12.5 B* as fitted *7.94* Pressure to which they are adjusted *210* Are they fitted with easing gear *yes.*

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *yes*  
Smallest distance between boilers or uptakes and bunkers or woodwork *well clear* Is oil fuel carried in the double bottom under boilers *no.*  
Smallest distance between shell of boiler and tank top plating *20"* Is the bottom of the boiler insulated *yes*

Largest internal dia. of boilers Length Shell plates: Material Tensile strength  
Thickness Are the shell plates welded or flanged Description of riveting: circ. seams {end inter.  
long. seams Diameter of rivet holes in {circ. seams long. seams Pitch of rivets {  
Percentage of strength of circ. end seams {plate rivets Percentage of strength of circ. intermediate seam {plate rivets  
Percentage of strength of longitudinal joint {plate rivets combined

Thickness of butt straps {outer inner No. and Description of Furnaces in each Boiler *1924*  
Material Tensile strength Smallest outside diameter  
Length of plain part {top bottom Thickness of plates {crown bottom Description of longitudinal joint  
Dimensions of stiffening rings on furnace or c.c. bottom

End plates in steam space: Material Tensile strength Thickness Pitch of stays  
How are stays secured  
Tube plates: Material {front back Tensile strength Thickness

Mean pitch of stay tubes in nests Pitch across wide water spaces  
Girders to combustion chamber tops: Material Tensile strength Depth and thickness of girder  
at centre Length as per Rule Distance apart No. and pitch of stays  
in each Combustion chamber plates: Material  
Tensile strength Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over  
Front plate at bottom: Material Tensile strength  
Thickness 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 Tensile strength  
Diameter {At body of stay, or Over threads No. of threads per inch  
Screw stays: Material Tensile strength  
Diameter {At turned off part, or Over threads No. of threads per inch

*See Glasgow report No 61924*

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Are the stays drilled at the outer ends \_\_\_\_\_ Margin stays: Diameter { At turned off part, \_\_\_\_\_ or \_\_\_\_\_ Over threads \_\_\_\_\_

No. of threads per inch \_\_\_\_\_

**Tubes:** Material \_\_\_\_\_ External diameter { Plain \_\_\_\_\_ Stay \_\_\_\_\_ Thickness { \_\_\_\_\_ No. of threads per inch \_\_\_\_\_

Pitch of tubes \_\_\_\_\_ **Manhole compensation:** Size of opening in shell plate \_\_\_\_\_ Section of compensating ring \_\_\_\_\_ No. of rivets and diameter of rivet holes \_\_\_\_\_

Outer row rivet pitch at ends \_\_\_\_\_ Depth of flange if manhole flanged \_\_\_\_\_ **Steam Dome:** Material \_\_\_\_\_

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 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**

Number of elements \_\_\_\_\_ Material of tubes \_\_\_\_\_ *Manufacturers of* { Tubes \_\_\_\_\_ Steel forgings \_\_\_\_\_ Steel castings \_\_\_\_\_ Internal diameter and thickness of tubes \_\_\_\_\_

Material of headers \_\_\_\_\_ Tensile strength \_\_\_\_\_ Thickness \_\_\_\_\_ Can the superheater be shut off and the boiler be worked separately \_\_\_\_\_

Area of each safety valve \_\_\_\_\_ *Is a safety valve fitted to every part of the superheater which can be shut off from the boiler* \_\_\_\_\_

Pressure to which the safety valves are adjusted \_\_\_\_\_ Are the safety valves fitted with easing gear \_\_\_\_\_

tubes \_\_\_\_\_ forgings and castings \_\_\_\_\_ and after assembly in place \_\_\_\_\_ Hydraulic test pressure: \_\_\_\_\_

valves fitted to free the superheater from water where necessary \_\_\_\_\_ Are drain cocks or \_\_\_\_\_

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with \_\_\_\_\_

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - - } \_\_\_\_\_ 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 \_\_\_\_\_ If so, state Vessel's name and Report No. \_\_\_\_\_

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) *These boilers have been properly fitted on board tried under full working conditions and found satisfactory. The safety valves have been adjusted under steam to 210 lbs. per sq. inch.*

*906*  
*20/4/40*

Survey Fee ... .. £ : : } When applied for, \_\_\_\_\_ 19 \_\_\_\_\_

Travelling Expenses (if any) £ : : } When received, \_\_\_\_\_ 19 \_\_\_\_\_

*James Crawford*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 23 APR 1940**

Assigned **SEE ACCOMPANYING MACHINERY REPORT.**

