

# REPORT ON BOILERS.

 5 SEP 1930 50693  
 No. 50641

9 JUL 1930

5 SEP 1930

Date of writing Report 20/6/1930 When handed in at Local Office 7-7-1930 Port of Glasgow  
 No. in Reg. Book. 20/6/1930 Date First Survey 19-3-30 Last Survey 24-6-30  
 on the S. S. "PENNERF" (Number of Visits 11) Gross 2179 Tons 1281

Master Govan Built at Old Kipatrick By whom built Hapier & Miller Ltd No. 276 When built 1930  
 Engines made at Glasgow By whom made McKie & Baxter Engine No. 1263 When made 1930  
 Boilers made at Glasgow By whom made Barclay Curle & Co. Ltd. Boiler No. 11823 When made 1930  
 Nominal Horse Power 241 Owners Campagne Maritime & Navigation Port belonging to hantes  
A Vapeur

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

Manufacturers of Steel D. Colville Sons Ltd. (Letter for Record (S))  
 Total Heating Surface of Boilers 3630 sq. ft. Is forced draught fitted Coal or Oil fired  
 No. and Description of Boilers 2 S.B. Working Pressure 180 lbs  
 Tested by hydraulic pressure to 320 lbs Date of test 17-6-30 No. of Certificate 18754 Can each boiler be worked separately  
 Area of Firegrate in each Boiler 47 sq. ft. No. and Description of safety valves to each boiler  
 Area of each set of valves per boiler per Rule Pressure to which they are adjusted as fitted Are they fitted with easing gear  
 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 Is oil fuel carried in the double bottom under boilers  
 Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated  
 Largest internal dia. of boilers 12'-6" Length 12'-0" Shell plates: Material Steel Tensile strength 29/33 Tons  
 Thickness 1" Are the shell plates welded or flanged no. Description of riveting: circ. seams end D.R.  
 long. seams T.R.-D.B.S. Diameter of rivet holes in circ. seams 1 1/16" Pitch of rivets 2.892  
 Percentage of strength of circ. end seams plate 63.26 Percentage of strength of circ. intermediate seam plate 48.59  
 Percentage of strength of longitudinal joint plate 85.93 Working pressure of shell by Rules 181 lbs  
 Thickness of butt straps outer 3/4" No. and Description of Furnaces in each Boiler Three - Bighton Section  
 Material Steel Tensile strength 26/30 Tons Smallest outside diameter 2' 10 3/32"  
 Length of plain part top 29" Thickness of plates bottom 64" Description of longitudinal joint weld  
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 250 lbs  
 End plates in steam space: Material Steel Tensile strength 26-30 Tons Thickness 1 1/8" Pitch of stays 18 1/2" x 14 1/2"  
 How are stays secured D.N. Working pressure by Rules 181 lbs 13/16"  
 Tube plates: Material Steel Tensile strength 26-30 Tons Thickness 1 1/16" Working pressure 188 lbs  
 Mean pitch of stay tubes in nests 7.5" Pitch across wide water spaces 13 1/2" Working pressure 298 lbs  
 Girders to combustion chamber tops: Material Steel Tensile strength 28-32 Tons Depth and thickness of girder  
 at centre 9 1/2" x 27/32" dbb. Length as per Rule 36' 6" Distance apart 9" No. and pitch of stays  
 in each 3 @ 9" Working pressure by Rules 180 lbs Combustion chamber plates: Material Steel  
 Tensile strength 26-30 Tons Thickness: Sides 2 1/32" Back 2 1/32" Top 2 1/32" Bottom 2 1/32"  
 Pitch of stays to ditto: Sides 9" x 9" Back 10" x 8" Top 9" x 9" Are stays fitted with nuts or riveted over nuts  
 Working pressure by Rules 188 lbs Front plate at bottom: Material Steel Tensile strength 26-30 Tons  
 Thickness 13/16" Lower back plate: Material Steel Tensile strength 26-30 Tons Thickness 3/4"  
 Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over nuts  
 Working Pressure 180 lbs Main stays: Material Steel Tensile strength 28-32 Tons  
 Diameter At body of stay 2 7/8" No. of threads per inch 6 Area supported by each stay 17 1/2" x 18 1/2"  
 Working pressure by Rules 188 lbs Screw stays: Material Steel Tensile strength 26-30 Tons  
 Diameter At turned off part 1 5/8" No. of threads per inch 9 Area supported by each stay 81 sq. in.

Working pressure by Rules **188 lb.** Are the stays drilled at the outer ends **no**  
No. of threads per inch **9** Area supported by each stay **95 lb** Margin stays: Diameter { At turned off part, **1 3/4"**  
or Over threads **1 1/4"**  
Tubes: Material **Steel** External diameter { Plain **2 1/2"** Working pressure by Rules **190 lb**  
Stay **2 1/2"** Thickness **5/16"** No. of threads per inch **9"**  
Pitch of tubes **3 3/4" x 3 3/4"** Working pressure by Rules **230 lb.** Manhole compensation: Size of opening in  
shell plate **16" x 20"** Section of compensating ring **9 3/4" x 1"** No. of rivets and diameter of rivet holes **40 - 13/16"**  
Outer row rivet pitch at ends **8"** Depth of flange if manhole flanged **4 1/4"** Steam Dome: Material  
Tensile strength Thickness of shell Description of longitudinal joint  
Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate  
Internal diameter Working pressure by Rules Thickness of crown Rivets  
stays Inner radius of crown Working pressure by Rules No. and diameter of  
How connected to shell Size of doubling plate under dome  
of rivets in outer row in dome connection to shell Diameter of rivet holes and pitch

Type of Superheater  
Number of elements Material of tubes Manufacturers of { Tubes  
Steel castings  
Material of headers Tensile strength Internal diameter and thickness of tubes  
the boiler be worked separately Thickness Can the superheater be shut off and  
Area of each safety valve Is a safety valve fitted to every part of the superheater which can be shut off from the boiler  
Rules Are the safety valves fitted with easing gear Working pressure as per  
tubes Pressure to which the safety valves are adjusted Hydraulic test pressure:  
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

FOR BAROLAY, CURLE & CO., LTD.

*John Alexander*  
GENERAL MANAGER ENGINE WORKS

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - 1930 Mar 19 Apr 10 May 1-5-16-23 Are the approved plans of boiler and superheater forwarded herewith  
while building { During erection on board vessel - - 30 June 3-9-13-17 (If not state date of approval.)  
Total No. of visits 11

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

These boilers have been built under special survey, to approved plans, in accordance with the Society's Rules. Materials and workmanship are good. They are intended for Messrs McKie & Baxter's No 1263.

Survey Fee £ 24/4/0 When applied for 5/7/1930  
Travelling Expenses (if any) £ : : When received 9/7/1930

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

Committee's Minute GLASGOW 8-JUL-1930  
Assigned TRANSMIT TO LONDON

See Gls. Rph. No. 50693

TUE. 23 SEP 1930

FRI. 3 OCT 1930

FRI. 12 DEC 1930

