

REPORT ON BOILERS.

No. 14369

-7 FEB 1931

Received at London Office

Date of writing Report 30. 1. 1931 When handed in at Local Office 30. 1. 1931 Port of MIDDLESBROUGH.

No. in Survey held at STOCKTON. Date, First Survey 9. Dec/30 Last Survey 30. 1. 1931.

on the steamer "NOTRE DAME DE FRANCE" (Number of Visits 8) Gross 450. Net 224.

Master Built at Stockton By whom built Smiths Dock Co Ltd Yard No. 950. When built 1931.

Engines made at South Bank By whom made Smiths Dock Co Ltd Engine No. 405 When made 1931

Boilers made at Stockton By whom made Blair & Co. (1926) Ltd Boiler No. D. 407 When made 1931.

Nominal Horse Power 126.5. Owners Gournay Freres Port belonging to Boulogne.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel David Colville & Sons and James Duhlop & Co. (Letter for Record S.)

Total Heating Surface of Boilers 2370 sq. ft. ✓ 2330 sq. ft. Is forced draught fitted no Coal or Oil fired coal.

No. and Description of Boilers 1 SB. Working Pressure 225 lbs. ✓

Tested by hydraulic pressure to 388 lbs. ✓ Date of test 30. 1. 31. No. of Certificate 6842. Can each boiler be worked separately 337.5 ✓

Area of Firegrate in each Boiler 57.7 sq. ft. No. and Description of safety valves to each boiler Pair Corbourns Improved High Lift ✓

Area of each set of valves per boiler {per Rule 6.17 ✓ as fitted 6.28 ✓ Pressure to which they are adjusted 230 lbs. Are they fitted with easing gear Yes.

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 9" Is oil fuel carried in the double bottom under boilers no.

Smallest distance between shell of boiler and tank top plating no lane Is the bottom of the boiler insulated no.

Largest internal dia. of boilers 15'-6" ✓ Length 10'-9" ✓ Shell plates: Material steel ✓ Tensile strength 29/33. ✓

Thickness 1 1/2" ✓ Are the shell plates welded or flanged no. ✓ Description of riveting: circ. seams {end D.R. ✓ inter. ✓

long. seams T.R.D.B.S. (5 rivets) ✓ Diameter of rivet holes in {circ. seams 1 7/16" ✓ {long. seams 1 9/16" ✓ Pitch of rivets {3 1/2" ✓ {10 3/8" ✓

Percentage of strength of circ. end seams {plate 62.3. ✓ {rivets 44.0. ✓ Percentage of strength of circ. intermediate seam {plate ✓ {rivets ✓

Percentage of strength of longitudinal joint {plate 84.9. ✓ {rivets 93.0. ✓ Working pressure of shell by Rules 225 lbs.

Thickness of butt straps {outer 1 3/8" ✓ {inner 1 5/16" ✓ No. and Description of Furnaces in each Boiler 3 c.f. ✓

Material steel ✓ Tensile strength 26/30. ✓ Smallest outside diameter 3'-9 1/2" ✓

Length of plain part {top ✓ {bottom ✓ Thickness of plates {crown 23" ✓ {bottom 32" ✓ Description of longitudinal joint weld. ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 253 lbs.

End plates in steam space: Material steel ✓ Tensile strength 26/30. ✓ Thickness 1 5/16" ✓ Pitch of stays 18" x 21 1/2" ✓

How are stays secured D. No W. ✓ Working pressure by Rules 228 lbs.

Tube plates: Material {front steel ✓ {back steel ✓ Tensile strength {26/30. ✓ Thickness {7/8" WING; 13/16" CENTRE. ✓

Mean pitch of stay tubes in nests 10" Pitch across wide water spaces 14 1/4" x 9 1/4" ✓ Working pressure {front 240 lbs. ✓ {back 225 " ✓

Girders to combustion chamber tops: Material steel Tensile strength 28/32. ✓ Depth and thickness of girder

at centre 9' x 13" (double) ✓ Length as per Rule 2'-8 1/2" Distance apart 8' 4" ✓ No. and pitch of stays

in each 3'-7 1/4" ✓ Working pressure by Rules 235 lbs. Combustion chamber plates: Material steel ✓

Tensile strength 26/30. ✓ Thickness: Sides 3/32" ✓ Back 3/32" ✓ Top 3/32" ✓ Bottom 7/8" ✓

Pitch of stays to ditto: Sides 8 3/8" x 8" ✓ Back 8 3/8" x 8" ✓ Top 8 1/4" x 7 3/4" ✓ Are stays fitted with nuts or riveted over nuts. ✓

Working pressure by Rules 230 lbs. Front plate at bottom: Material steel ✓ Tensile strength 26/30. ✓

Thickness 1" ✓ Lower back plate: Material steel ✓ Tensile strength 26/30. ✓ Thickness 1" ✓

Pitch of stays at wide water space 14 1/4" x 8 3/8" ✓ Are stays fitted with nuts or riveted over nuts. ✓

Working Pressure 307 lbs. Main stays: Material steel ✓ Tensile strength 28/32. ✓

Diameter {At body of stay, or 3 3/8" ✓ {Over threads 231 lbs. No. of threads per inch 6. ✓ Area supported by each stay 378 " ✓

Working pressure by Rules 231 lbs. Screw stays: Material steel ✓ Tensile strength 26/30. ✓

Diameter {At turned off part, or 1 5/8" ✓ {Over threads 63 " No. of threads per inch 9. ✓ Area supported by each stay 63 " ✓

Working pressure by Rules 244 lbs. Are the stays drilled at the outer ends no. Margin stays: Diameter { At turned off part, 1 7/8" ✓
or Over threads 1 7/8" ✓
No. of threads per inch 9. ✓ Area supported by each stay 86.6 ✓ Working pressure by Rules 246 lbs.
Tubes: Material iron External diameter { Plain 3 3/4" 16 3/16" ✓ Thickness 5/16" 3/8" ✓ No. of threads per inch 9. ✓
Pitch of tubes 4 1/2" x 4 1/2" WINGS. ✓ Working pressure by Rules 230 lbs. & 225 lbs. Manhole compensation: Size of opening in
shell plate 16" x 12" ✓ Section of compensating ring 5-2 3/4" dia x 1 1/2" ✓ No. of rivets and diameter of rivet holes 1 9/16" dia x 10 5/8" p. ✓
Outer row rivet pitch at ends 10 5/8" ✓ Depth of flange if manhole flanged ✓ Steam Dome: Material steel ✓
Tensile strength 26/30. ✓ Thickness of shell 1" ✓ Description of longitudinal joint D.R. Lap. ✓
Diameter of rivet holes 1 1/16" ✓ Pitch of rivets 3 3/8" ✓ Percentage of strength of joint { Plate 68.3.
Rivets 46.6 ✓
Internal diameter 3'-3" ✓ Working pressure by Rules 321 lbs. Thickness of crown 16 ✓ No. and diameter of
stays ✓ Inner radius of crown 3'-3" ✓ Working pressure by Rules 250 lbs.
How connected to shell riveted ✓ Size of doubling plate under dome 5'-2 3/4" dia x 1 1/2" ✓ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell 1 9/16" x 10 5/8" p. ✓

Type of Superheater

Manufacturers of { Tubes
Steel castings
Internal diameter and thickness of tubes.
Number of elements Material of tubes Tensile strength Thickness Can the superheater be shut off and
Material of headers 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 Yes

The foregoing is a correct description,
For BLAIR & CO. (1928) LIMITED.

Manufacturer.

Dates { During progress of work in shops - - - 1930 Dec. 9, 17, 22 1931 Jan. 6, 11, 19
while building { During erection on board vessel - - - 26, 30
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes
Total No. of visits

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No. ✓

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

The materials and workmanship are good.
This boiler has been built under special survey in accordance with the Rules and approved Plan. It will be installed in this district

This boiler has been securely fitted aboard and its safety valves adjusted and tested under steam with satisfactory results.

P. J. Mac

3. 3. 31.

Survey Fee ... £ 15-16-0

When applied for, 6 Feb 1931

Travelling Expenses (if any) £

When received, 9. 2. 1931

P. J. Mac

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 20 MAR 1931

Assigned

See F. E. Rpt.



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