

13 SEP 1929

Rpt. 5b.

REPORT ON BOILERS.

No. 13513.

20 DEC 1928

Received at London Office

Date of writing Report 19. 12. 28 When handed in at Local Office 19. 12. 28 Port of MIDDLESBROUGH.

No. in Survey held at
Reg. Book

STOCKTON.

Date, First Survey

7. 10. 28

Last Survey

19. 12. 28.

23951 on the T. S. M. V. Infante D. Jame

(Number of Visits

18+3

Tons

Gross 2959

Net 2405

Built at Monfalcone By whom built Cantiere Nav. Triestino Yard No. 206 When built 1929

Engines made at Copenhagen By whom made Brunner & Nair Engine No. 1573 1574 When made 1929

Boilers made at Stockton By whom made Riley Bros Boiler No. 5858 When made 1929

Owners Compania Transmediterranea Port belonging to Mallorca

VERTICAL DONKEY BOILER.

Made at Stockton By whom made Riley Bros. Boiler No. 5858 When made 1928. Where fixed in C. R.

Manufacturers of Steel Appleby Iron Co. Ltd.

Total Heating Surface of Boiler 315 $\frac{1}{2}$ Is forced draught fitted yes Coal or Oil fired oil

No. and Description of Boilers One Vertical Riley Type. Working pressure 100 lbs.

Tested by hydraulic pressure to 200 lbs. Date of test 18. 12. 28. No. of Certificate 6677.

Area of Firegrate in each Boiler \checkmark No. and Description of safety valves to each boiler Pair spring loadedArea of each set of valves per boiler \checkmark per rule 3.5. $\frac{1}{4}$ 41 as fitted 4.8 $\frac{1}{4}$ Pressure to which they are adjusted 100 lbs Are they fitted with easing gear yes

State whether steam from main boilers can enter the donkey boiler — Smallest distance between boiler or uptake and bunkers

or woodwork — Is oil fuel carried in the double bottom under boiler — Smallest distance between base of boiler and tank top plating

18" Is the base of the boiler insulated yes Largest internal dia. of boiler 5'-6" Height 12'-6"

Shell plates: Material Steel Tensile strength $\frac{28}{32}$ Thickness T.B. $\frac{13}{32}$ centre $\frac{3}{4}$ Are the shell plates welded or flanged no. Description of riveting: circ. seams \checkmark end S.R. inter. S.R. long. seams \checkmark ends D.R. lap with T.R. lapDia. of rivet holes in \checkmark circ. seams $\frac{15}{16}$ Pitch of rivets $\frac{2}{8}$ Percentage of strength of circ. seams \checkmark plate 55.9 rivets 65.7 of Longitudinal joint \checkmark plate 69.7 74.6 rivets 78.3 69.9 combined \checkmark Working pressure of shell by rules 112 lbs. Thickness of butt straps \checkmark outer inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat dished Material Steel

Tensile strength $\frac{26}{30}$ Thickness $\frac{21}{32}$ Radius 5'-0" Working pressure by rules 104 lbs.Description of Furnace: Plain, spherical, or dished crown spherical Material Steel Tensile strength $\frac{26}{30}$ Thickness $\frac{5}{8}$ External diameter \checkmark top \checkmark bottom \checkmark Length as per rule \checkmark Working pressure by rules 177 lbs.Pitch of support stays circumferentially \checkmark and vertically \checkmark Are stays fitted with nuts or riveted over \checkmark Diameter of stays over thread \checkmark Radius of spherical \checkmark dished furnace crown 2'-5 $\frac{1}{2}$ " Working pressure by rule 177 lbs.Thickness of Ogee Ring $\frac{5}{8}$ Diameter as per rule \checkmark D 5'-5 $\frac{3}{16}$ " a 4'-11" Working pressure by rule 125 lbs.Combustion Chamber: Material Steel Tensile strength $\frac{26}{30}$ Thickness of top plate $\frac{5}{8}$ Radius if dished \checkmark Working pressure by rule 154 lbs. Thickness of back plate $\frac{19}{32}$ Diameter if circular 2'-4"Length as per rule \checkmark Pitch of stays 11" x 11" Are stays fitted with nuts or riveted over nuts \checkmark Diameter of stays over thread 1 $\frac{1}{2}$ " Working pressure of back plate by rules 100 lbs.Tube Plates: Material \checkmark front Steel Tensile strength $\frac{28}{32}$ Thickness $\frac{19}{32}$ Mean pitch of stay tubes in nests 9 $\frac{3}{8}$ "If comprising shell, Dia. as per rule \checkmark front \checkmark back \checkmark Pitch in outer vertical rows 5 $\frac{1}{4}$ " x 7 $\frac{1}{2}$ " Dia. of tube holes FRONT \checkmark stay 2 $\frac{3}{4}$ " plain 2 $\frac{9}{16}$ " BACK \checkmark stay 2 $\frac{1}{2}$ " plain 2 $\frac{1}{2}$ "Is each alternate tube in outer vertical rows a stay tube Yes. Working pressure by rules \checkmark front 105 lbs back 140Girders to combustion chamber tops: Material Steel gusset $\frac{1}{2}$ " plate Tensile strength $\frac{26}{30}$ Depth and thickness of girder at centre \checkmark Length as per rule \checkmark Distance apart one No. and pitch of stays in each \checkmark Working pressure by rule 100 lbs (approval)

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Foundation
WS 33-0139

Crown stays: Material ☒ Tensile strength ☒ Diameter ☒ at body of stay, or over threads ☒

No. of threads per inch ☒ Area supported by each stay ☒ Working pressure by rules ☒

Screw stays: Material *Steel* Tensile strength *26/30* Diameter ☒ at turned off part, or over threads *1 1/2* No. of threads per inch *9*

Area supported by each stay *121* Working pressure by rules *103 lbs.* Are the stays drilled at the outer ends *no.*

Tubes: Material *iron* External diameter ☒ plain *2 1/2 to 2 9/16* Thickness *11 W.G.* ☒ stay *2 1/2 to 2 3/4* ☒ *5/16*

No. of threads per inch *9* Pitch of tubes *3 3/4 x 3 3/4; 5 1/4 x 3 3/4* Working pressure by rules *p. 125 lbs. s. 113 lbs.*

Manhole Compensation: Size of opening in shell *Crown plate 16 x 12* Section of compensating ring *on shell 5 1/2 x 5 1/2* No. of rivets and diameter of rivet holes *33 - 13/16 and 13 - 15/16* Outer row rivet pitch at ends *3"* Depth of flange *in shell 3"* *manhole flanged 3"*

Uptake: External diameter ☒ Thickness of uptake plate ☒

Cross Tubes: No. ☒ External diameters ☒ Thickness of plates ☒

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes*

FOR The foregoing is a correct description,
RILEY BROS. (BOILERMAKERS) LIMITED.

Geo W Riley Manufacturer,
DIRECTOR.

Dates of Survey ☒ During progress of work in shops - *1928 Oct 4. 18. 19. 25. 31. Nov 2. 7. 8. 20. 27. 29.*
☒ During erection on board vessel - *Dec 4. 7. 10. 12. 14. 18. 19.*
Tripoli (Monfalcone) 1929 23/7, 26/7, 19/8.

Is the approved plan of boiler forwarded herewith *Yes*
(If not state date of approval.)

Total No. of visits *18*
3

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 is being shipped to Trieste.

This Double Boiler has been fitted on board the motor vessel "Infante D. Jaime" and securely fastened. It has been fitted for burning oil fuel and examined under working condition and found in order. The safety valves were adjusted to blow at 100 lbs.

R. J. P. P. P.

Survey Fee ... £ *4 - 4 - 0* When applied for, *19*
Travelling Expenses (if any) £ : : When received, *19*

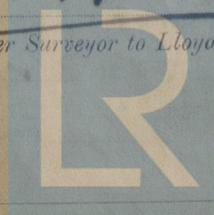
MONTHLY A/c.

Committee's Minute
Assigned

FRI. 20 SEP 1929

See Ser. 8841. No. 8532

P. J. P. P.
Engineer Surveyor to Lloyd's Register of Shipping.



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