

REPORT ON BOILERS.

No. 11252

1 DEC 1928

Received at London Office

Date of writing Report

192

When handed in at Local Office

192

Port of

AMSTERDAM

No. in Survey held at AMSTERDAM

Date, First Survey 12th Nov.

Last Survey 22nd Nov. 1928.

Reg. Book.

(Number of Visits 7)

Gross 964

Net 486

64432 on the Steel Screw Steamer "ARGUS" n.n. "JOSE MANOEL"

Master - Built at Hamburg By whom built Schiffsw (v.J.& Sch) Yard No. When built 1921

Engines made at Hamburg By whom made Gall & Seitz Engine No. - When made 1921

Boilers made at Hamburg By whom made Gall & Seitz Boiler No. - When made 1921

Nominal Horse Power 148 Owners Sociade Geral Comercio Industria e Transportes Ida. Port belonging to Lisbon

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Phoenix & Co. Ltd. (Letter for Record 2)

Total Heating Surface of Boilers 2698 sq. ft. Is forced draught fitted No. Coal or Oil fired Coal

No. and Description of Boilers Two horizontal main boilers 25B Working Pressure 185 lb

Tested by hydraulic pressure to 185 lb. Date of test 19. 11. 28 No. of Certificate L Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 35.5 sq. ft. No. and Description of safety valves to each boiler Two open loaded.

Area of each set of valves per boiler {per Rule as fitted 5.91 sq. ft. Pressure to which they are adjusted 185 lb. 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 12" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 16" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 11' 5 1/2" Length 9' 9" Shell plates: Material Steel Tensile strength 28/32 ton

Thickness 1 1/8" Are the shell plates welded or flanged No Description of riveting: circ. seams {end 3/4" inter. 5/8"}

long. seams All butt. 4 x 1/2" Diameter of rivet holes in {circ. seams 1 1/8" long. seams 1 1/8" Pitch of rivets {plate 14 1/4" rivets 14 1/4"}

Percentage of strength of circ. end seams {plate 71 1/2% rivets 45 7/8% Percentage of strength of circ. intermediate seam {plate 65% rivets 45 7/8%}

Percentage of strength of longitudinal joint {plate 92 1/2% rivets 101.5 7/8% combined 94.5 7/8% Working pressure of shell by Rules 200 lb

Thickness of butt straps {outer 3/4" inner 1/2" No. and Description of Furnaces in each Boiler Two vertical furnaces 25C

Material Steel Tensile strength 28/32 ton Smallest outside diameter 3' 3 1/2"

Length of plain part {top 4" bottom 4" Thickness of plates {crown 1/2" bottom 1/2" Description of longitudinal joint Welded.

Dimensions of stiffening rings on furnace or c.c. bottom 4" Working pressure of furnace by Rules 200 lb

End plates in steam space: Material Steel Tensile strength 28/32 ton Thickness 1/2" Pitch of stays 15 x 15 1/4"

How are stays secured All with and riveted washers Working pressure by Rules 185 lb

Tube plates: Material {front Steel back Steel Tensile strength {28/32 ton Thickness {0.985" 5/16" 0.865" 5/16"}

Mean pitch of stay tubes in nests 8 3/16" x 8 1/2" Pitch across wide water spaces 14 3/16" x 4 1/4" Working pressure {front 224 lb back 202 lb}

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 ton Depth and thickness of girder

at centre 6 7/8" x 1 1/8" Length as per Rule 24.21" Distance apart 4 1/2" No. and pitch of stays

in each 2 x 4 7/8" Working pressure by Rules 204 lb Combustion chamber plates: Material Steel

Tensile strength 22/26 ton Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"

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

Working pressure by Rules 218 lb Front plate at bottom: Material Steel Tensile strength 28/32 ton

Thickness 1 1/8" Lower back plate: Material Steel Tensile strength 28/32 ton Thickness 1 1/8"

Pitch of stays at wide water space 11' x 18 1/2" Are stays fitted with nuts or riveted over with nuts

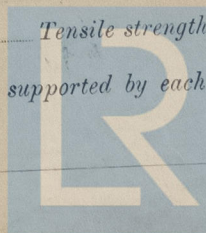
Working Pressure 193 lb Main stays: Material Steel Tensile strength 22/26 ton

Diameter {At body of stay, 2 3/4" No. of threads per inch 10 p. inch. Area supported by each stay 248 sq. in.

Working pressure by Rules 249 lb Screw stays: Material Steel Tensile strength 28/32 ton

Diameter {At turned off part, 1 1/2" No. of threads per inch 10 p. inch. Area supported by each stay 56 1/4 sq. in.

Diameter {Over threads, 1 1/2" No. of threads per inch 10 p. inch. Area supported by each stay 56 1/4 sq. in.



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Working pressure by Rules *222 lb* Are the stays drilled at the outer ends *No* Margin stays: Diameter { At turned off part, *1 1/2"* or Over threads *1 1/4"*
No. of threads per inch *10* Area supported by each stay *82.5 sq"* Working pressure by Rules *220 lb*
Tubes: Material *Steel* External diameter { Plain *5 1/4"* Stay *5 1/4"* Thickness { *5/16"* No. of threads per inch *10*
Pitch of tubes *4 1/2" x 4 1/4"* Working pressure by Rules *230 lb* Manhole compensation: Size of opening in shell plate *16" x 20"* Section of compensating ring *20 sq"* No. of rivets and diameter of rivet holes *3 of 1 1/4"*
Outer row rivet pitch at ends *6"* Depth of flange if manhole flanged *2 3/4"* Steam Dome: Material *Steel*
Tensile strength *C* Thickness of shell *C* Description of longitudinal joint *C*
Diameter of rivet holes *C* Pitch of rivets *C* Percentage of strength of joint { Plate *C* Rivets *C*
Internal diameter *C* Working pressure by Rules *C* Thickness of crown *C* No. and diameter of stays *C*
Inner radius of crown *C* Working pressure by Rules *C*
How connected to shell *C* Size of doubling plate under dome *C* Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell *C*

Type of Superheater *Schmidt's Patent* Manufacturers of { Tubes *Steel* Steel castings *C*
Number of elements *14* Material of tubes *Steel* Internal diameter and thickness of tubes *5 1/2" 1/2"*
Material of headers *Steel* Tensile strength *C* Thickness *C* Can the superheater be shut off and the boiler be worked separately *Yes* Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *Yes*
Area of each safety valve *4.98 sq. inch* Are the safety valves fitted with easing gear *C* Working pressure as per Rules *C* Pressure to which the safety valves are adjusted *190 lb* Hydraulic test pressure *C*
tubes *C* castings *C* and after assembly in place *C* Are drain cocks or valves fitted to free the superheater from water where necessary *Yes*
Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *C*

The foregoing is a correct description,

Manufacturer.

Dates { During progress of work in shops - - - *C* while building { During erection on board vessel - - - *C*

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) *Yes*

Total No. of visits. *C*

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

The boiler has been examined internally and externally circumferential seams, furnace and combustion chamber and other specially examined as per Surveyor's letter 21/11/28. and the whole found in good and efficient condition.

The above for the information of the Committee. Surveyor's letter 21/11/28.

Superheater is provided with a separate safety valve to accede with Section 21, Clause 3 of the Rules.

Survey Fee £ : : When applied for, 192

Travelling Expenses (if any) £ : : When received, 192

H. N. Bennett
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 22 JAN 1929

FRI 21 JUN 1929

Assigned

See Ans. 22 not attached



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