

Rpt. 5a.

22 NOV 1949

REPORT ON BOILERS.

No. 18914.

IN D.O.

Received at London Office 22 NOV 1949

Date of writing Report 18th Nov. 1949 When handed in at Local Office 19th Nov. 1949 Port of MIDDLESBROUGH

No. Survey held at Stockton-on-Tees Date, First Survey 15th July 1949 Last Survey 2nd Nov. 1949

Reg. L. on the M.T. CHALOTTE MAERSK (Number of Visits 6) Gross Tons Net Tons

Master Built at By whom built Yard No. When built

Engines made at By whom made Engine No. When made

Boilers made at Stockton-on-Tees By whom made Stockton Chemical Engineers & Riley Boilers Ltd. Boiler No. 7105/6 When made

Nominal Horse Power Owners Port belonging to

AALBORG VÆ
796
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MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Frodingham Steel Co. (Letter for Record S)

Total Heating Surface of Boilers 1605 Is forced draught fitted Yes Coal or Oil fired Oil fired

No. and Description of Boilers Two Single Ended 11'6" x 9'11" Working Pressure 180 lbs per sq. inch.

Tested by Hydraulic pressure to 320 lbs Date of test 2.11.49 No. of Certificate 7290/1 Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Two - 2" double spring

Area of each set of valves per boiler per Rule 10.3 sq. inch. as fitted 11.98 sq. inch. Pressure to which they are adjusted Are they fitted with casing 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 11'6" Length 9'11" Shell plates Material OH Steel Tensile strength 29-33

Thickness 15/16" Are the shell plates welded or flanged No Description of riveting: circ. seams end DB L inter

long. seams TR DB Diameter of rivet holes in circ. seams 1.1/16" long. seams 1.1/16" Pitch of rivets 3.28" 7.5"

Percentage of strength of circ. end seams plate 67% rivets 45.7% Percentage of strength of circ. intermediate seam plate 85.5% rivets 97.0%

Percentage of strength of longitudinal joint plate 85.5% rivets 97.0% Working pressure of shell by Rules 182.5 lbs

Thickness of butt straps outer 23/32" inner 27/32" No. and Description of Furnaces in each Boiler Two Morison corrugated

Material OH Steel Tensile strength 26-30 Smallest outside diameter 3'11"

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

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 183

End plates in steam space: Material OH Steel Tensile strength 26-30 Thickness 7/8" Pitch of stays 16" x 14 1/2"

How are stays secured Double nuts and washers screwed into both plates Working pressure by Rules 181 lbs

Tube plates: Material front steel back steel Tensile strength 26.30 Thickness 5/16" 1 1/2"

Mean pitch of stay tubes in nests 9 1/2" Pitch across wide water spaces 13 1/2" Working pressure front 205 back 187

Girders to combustion chamber tops: Material Steel Tensile strength 26-32 Depth and thickness of girder

at centre 7 1/2" x 1 1/2" Length as per Rule 2'5 1/2" Distance apart 8" No. and pitch of stays

in each Welded Working pressure by Rules 205 lbs Combustion chamber plates: Material OH Steel

Tensile strength 26-30 Thickness: Sides 21/32" Back 11/16" Top 21/32" Bottom 21/32"

Pitch of stays to ditto: Sides 9 1/2" x 8" Back 10 x 8 1/2" Top Welded Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 195 lbs Front plate at bottom: Material OH Steel Tensile strength 26-30

Thickness 7/8" Lower back plate: Material OH Steel Tensile strength 26-30 Thickness 7/8"

Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over nuts

Working pressure 232 lbs Main stays: Material OH Steel Tensile strength 26-32

Diameter At body of stay 2 1/2" No. of threads per inch 9 Area supported by each stay 232 sq. ins.

Working pressure by Rules 191 lbs Screw stays: Material OH Steel Tensile strength 26-30

Diameter At turned off part 1.5/8" No. of threads per inch 9 Area supported by each stay 88.5 sq. in.

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Working pressure by Rules. 185 lbs. Are the stays drilled at the outer ends. - Margin stays: Diameter { At turned off part, 1.7/8" ✓
or
Over threads. 206 lbs
No. of threads per inch. 9 ✓ Area supported by each stay. 103.75 sq. in. Working pressure by Rules. 206 lbs
Hot Rolled Weldless Tubes: Material. Steel External diameter { Plain. 2 1/2" ✓
Stay. 2 1/2" ✓ Thickness { 5/16" ✓ No. of threads per inch. 9 ✓
Pitch of tubes. 5 1/2" x 3 1/2" ✓ Working pressure by Rules. 230 lbs Manhole compensation: Size of opening in
shell plate. 17" x 21" ✓ Section of compensating ring. 8" x 1 1/2" ✓ No. of rivets and diameter of rivet holes. 48 - 1.1/16" ✓
Outer row rivet pitch at ends. 7 1/4" ✓ 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. Working pressure by Rules. Thickness of crown. No. and diameter of
stays. Inner radius of crown. Working pressure by Rules.
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. Manufacturers of { Tubes.
Steel forgings.
Steel castings.
Number of elements. Material of tubes. Internal diameter and thickness of tubes.
Material of headers. Tensile strength. Thickness. Can the superheater be shut off and
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. forgings and 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.

The foregoing is a correct description.

15. Nov. 2. 1923. Are the approved plans of boiler and superheater forwarded hereunto. (If not state date of approval.)
Total No. of visits. 6.

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 constructed under Special Survey and in accordance with the Rule Requirements and approved plan.
The materials and workmanship are good and on completion these boilers were hydraulically tested to 320 lbs per sq. inch and found satisfactory.
These boilers are Being forwarded to Odense Stallskibsvaerft, for Ship No. 113

Survey Fee ... £ 53 : 12 : 0 } When applied for, 21.11.1923. 49.
Travelling Expenses (if any) £ : : } When received, 19.....

C. Norman Street - J. C. Smith
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 13 MAR 1951

Assigned. See F. E. nely. rph.