

REPORT ON BOILERS.

No. 24647

-8 JUL 1936

Received at London Office

Date of writing Report 2.7.1936 When handed in at Local Office

102

Port of Rotterdam

No. in Survey held at
Reg. Book.

Date, First Survey 11 July 1935 Last Survey 18 Febr 1936

on the DONKEY BOILER MV ERINNA

(Number of Visits 20) Gross 6232
Tons Net 3590

Master Built at Flushing By whom built Hon Mr. De Schelde Yard No. 202 When built 1936
Engines made at Amsterdam By whom made Weichapoor Engine No. When made 1936
Boiler made at Flushing By whom made Hon Mr. De Schelde Boiler No 1031 When made 1936
Nominal Horse Power 377. Owners Petroleum M^y. "La Corona" Port belonging to Gravenhage

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

Manufacturers of Steel The Steel Company of Scotland (Letter for Record S)
Total Heating Surface of Boilers 2560 ft² Is forced draught fitted Yes Coal or Oil fired Oil
No. and Description of Boilers One multitubular marine boiler Working Pressure 180 lb
Tested by hydraulic pressure to 320 lb Date of test 18.2.36 No. of Certificate 995 Can each boiler be worked separately
Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 spring loaded
No. of each set of valves per boiler (per Rule 16) Pressure to which they are adjusted 180 lb Are they fitted with easing gear Yes
In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Thickness of adjusting washers 21 mils
Smallest distance between boilers or uptakes and bunkers or woodwork Over 24" 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 Yes
Largest internal dia. of boilers 4400 mils Length 3460 mils Shell plates: Material S. M. Steel Tensile strength 46.8-52.1 kg/mil²
Thickness 29 mils Are the shell plates welded or flanged Welded at Description of riveting: circ. seams end laps 2 x riv
long. seams Double buttstrap 5 x riv Diameter of rivet holes in circ. seams 30 mils Pitch of rivets 84 mils
Percentage of strength of circ. end seams plate 65% rivets 50% Percentage of strength of circ. intermediate seam plate rivets
Percentage of strength of longitudinal joint plate 85% rivets 81% Working pressure of shell by Rules 12.8 kg/cm²
Thickness of butt straps outer 25 mils inner 25 mils No. and Description of Furnaces in each Boiler 3 Morrison Patent
Material S. M. Steel Tensile strength 41.47 kg/mil² Smallest outside diameter 1130 mils
Length of plain part top Thickness of plates crown 15 mils Description of longitudinal joint Welded
bottom Thickness of plates bottom 15 mils Working pressure of furnace by Rules 13.22 kg/cm²
Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 13.22 kg/cm²
End plates in steam space: Material S. M. Steel Tensile strength 41.47 kg/mil² Thickness 29.5 mils Pitch of stays 440 x 450 mils
How are stays secured Secured in plates with nuts inside & outside Working pressure by Rules 12.65 kg/cm²
Tube plates: Material front S. M. Steel Tensile strength 41.47 kg/mil² Thickness 23 mils
back S. M. Steel Tensile strength 41.47 kg/mil² Thickness 22 mils
Mean pitch of stay tubes in nests 196 x 300 mils Pitch across wide water spaces 360 mils Working pressure front 17.8 kg/cm² back
Girders to combustion chamber tops: Material S. M. Steel Tensile strength 44-50 kg/mil² Depth and thickness of girder
at centre 320 x 2 x 19 mils Length as per Rule 476 mils Distance apart 220 mils No. and pitch of stays
in each 3 à 200 mils Working pressure by Rules 17.2 kg/cm² Combustion chamber plates: Material S. M. Steel
Tensile strength 41.47 kg/mil² Thickness: Sides 10 mils Back 19 mils Top 10 mils Bottom 25 mils
Pitch of stays to ditto: Sides 200 mils Back 200 x 19 mils Top 200 x 220 mils Are stays fitted with nuts or riveted over Riveted over
Working pressure by Rules 15.5 kg/cm² Front plate at bottom: Material S. M. Steel Tensile strength 41.47 kg/mil²
Thickness 23 mils Lower back plate: Material S. M. Steel Tensile strength 41.47 kg/mil² Thickness 23 mils
Pitch of stays at wide water space 366 mils Are stays fitted with nuts or riveted over Fitted with nuts
Working Pressure 17.7 kg/cm² Main stays: Material S. M. Steel Tensile strength 44-50 kg/mil²
Diameter At body of stay, 3 No. of threads per inch 9 Area supported by each stay 198000 mils²
Over threads 3 1/4
Working pressure by Rules 15.5 kg/cm² Screw stays: Material S. M. Steel Tensile strength 41.47 kg/mil²
Diameter At turned off part, 1 1/4 No. of threads per inch 9 Area supported by each stay 40000
Over threads 1 1/2

Working pressure by Rules *14.4 kg/cm²* Are the stays drilled at the outer ends *Yes* Margin stays: Diameter { At turned off part, *1 1/16* Over threads *1 7/8* No. of threads per inch *9* Area supported by each stay *50091 mm²* Working pressure by Rules *14.1 kg/cm²* Tubes: Material *Iron* External diameter { Plain *2 3/4* Stay *2 3/4* Thickness *5/16* No. of threads per inch *9* Pitch of tubes *90 x 100* Working pressure by Rules *215 lbs* Manhole compensation: Size of opening in shell plate *370 x 470 mm* Section of compensating ring *780 x 880 x 32 mm* No. of rivets and diameter of rivet holes *54 @ 32 mm* Outer row rivet pitch at ends *220 mm* Depth of flange if manhole flanged *100 mm* 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 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 *-*, 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 23 inclusive for boilers been complied with *-*

The foregoing is a correct description,
N.V. Kon. Mij. „De Schelde“

Manufacturer.

Dates of Survey { During progress of work in shops - - *4/19/36 27/7/36 10/24/36 11/8/36* while building { During erection on board vessel - - *12/19/36 6/9/36 21/28/36 14/10/36* in machinery report

Are the approved plans of boiler and superheater forwarded herewith *Retained*
(If not state date of approval.)
Total No. of visits *10*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been made in accordance with the approved plan, Society's Rules and Secretary's letter, material tested as required and workmanship good*

Survey Fee *£ 205.00*

Travelling Expenses (if any) *£* : : *29.7*

When applied for, 192

When received, 192 *29/7*

Committee's Minute

TUE. 14 JUL 1936

Assigned

See Rot. J.E. 34647



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