

REPORT ON BOILERS.

No. 37532 ^E

Received at London Office

5- APR 1954

of writing Report 27/2 1954 When handed in at Local Office 19 Port of Rotterdam

Survey held at Flushing Date, First Survey 10/2 '52 Last Survey 1/2 1953

on the MV "LENA" (Number of Visits 15) Tons Gross 4503 Net 4250

Built at Flushing By whom built Memo. Kon. my. de Schelde Yard No. 274 When built 1954

By whom made Memo. Kon. my. de Schelde Engine No. 774/5/6 When made 1954

Boiler No. 1161 When made 1954

Owners Trans Mark Import Port belonging to Maamant

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Memo. R. G. Hemmichotte of Hattingen (Letter for Record 15)

Heating Surface of Boilers 109 m² Is forced draught fitted yes Coal or Oil fired oil ✓

Description of Boilers one multitubular marine boiler Working Pressure 15 kg/cm² ✓

Tested by hydraulic pressure to 26 kg/cm² Date of test 13-8-53 No. of Certificate 1171 Can each boiler be worked separately yes

No. and Description of safety valves to each boiler 2 high lifting spring loaded

Pressure to which they are adjusted 15 kg/cm² Are they fitted with easing gear yes ✓

Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler placed on upper platform

Least distance between boilers or uptakes and bunkers or woodwork yes Is oil fuel carried in the double bottom under boilers yes

Least distance between shell of boiler and tank top plating yes Is the bottom of the boiler insulated yes

Least internal dia. of boilers 2200 mm ✓ Length 3072 mm ✓ Shell plates: Material SM steel ✓ Tensile strength 44-50 kg/cm² ✓

Thickness 24 mm ✓ Are the shell plates welded or flanged no ✓ Description of riveting: circ. seams end & trans longitudinal ✓

possible seams excised double butt ✓ Diameter of rivet holes in { circ. seams 29 mm ✓ long. seams 29 mm ✓ Pitch of rivets { 87 mm ✓ 101 mm ✓

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

Percentage of strength of longitudinal joint { plate approx ✓ rivets approx ✓ combined approx ✓ Working pressure of shell by Rules approved

Thickness of butt straps { outer 24 mm ✓ inner 24 mm ✓ No. and Description of Furnaces in each Boiler two main furnaces ✓

Material SM steel ✓ Tensile strength 41-47 kg/cm² ✓ Smallest outside diameter 300 mm ✓

Thickness of plates { crown 15 mm ✓ bottom 15 mm ✓ Description of longitudinal joint welded ✓

Positions of stiffening rings on furnace or c.c. bottom yes Working pressure of furnace by Rules approved

Plates in steam space: Material SM steel ✓ Tensile strength 41-47 kg/cm² ✓ Thickness 24 mm ✓ Pitch of stays 410 x 340 mm ✓

Stays secured secured in plate hole in outside welded double Working pressure by Rules approved

Plates: Material { front SM steel ✓ back SM steel ✓ Tensile strength { 41-47 kg/cm² ✓ 41-47 kg/cm² ✓ Thickness { 24 mm ✓ 24 mm ✓

Pitch of stay tubes in nests 216 mm ✓ Pitch across wide water spaces 216 x 246 mm ✓ Working pressure { front approx ✓ back approx ✓

Stays to combustion chamber tops: Material SM steel ✓ Tensile strength 44-50 kg/cm² ✓ Depth and thickness of girder 750 x 17 mm ✓

Length as per Rule 715 mm ✓ Distance apart 230 mm ✓ No. and pitch of stays 715 mm ✓

Working pressure by Rules approved Combustion chamber plates: Material SM steel ✓

Strength 41-47 kg/cm² ✓ Thickness: Sides 10 mm ✓ Back 19 mm ✓ Top 10 mm ✓ Bottom 11 mm ✓

Stays to ditto: Sides 105 x 185 mm ✓ Back 105 x 185 mm ✓ Top yes ✓ Are stays fitted with nuts or riveted over margin stays riveted ✓

Pressure by Rules approved Front plate at bottom: Material SM steel ✓ Tensile strength 41-47 kg/cm² ✓

Lower back plate: Material SM steel ✓ Tensile strength 41-47 kg/cm² ✓ Thickness 24 mm ✓

Stays at wide water space 216 x 185 mm ✓ Are stays fitted with nuts or riveted over fits with nuts ✓

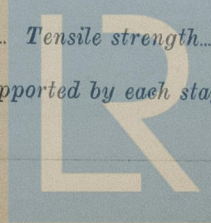
Pressure approved Main stays: Material SM steel ✓ Tensile strength 44-51 kg/cm² ✓

At body of stay 16 mm ✓ No. of threads per inch 6 ✓ Area supported by each stay 240 x 430 mm ✓

Over threads 45 mm ✓ Screw stays: Material SM steel ✓ Tensile strength 41-47 kg/cm² ✓

At turned off part 54 mm ✓ No. of threads per inch 9 ✓ Area supported by each stay 105 x 105 mm ✓

Over threads 30 mm ✓

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Dry Yes

Working pressure by Rules approved Are the stays drilled at the outer ends no Margin stays: Diameter 42 mm At turned off part 42 mm
No. of threads per inch 9 Area supported by each stay 205 x 195 mm Working pressure by Rules approved Over threads 40 mm
Tubes: Material Material External diameter 103 mm Thickness 4 mm No. of threads per inch 9
Pitch of tubes 100 mm Working pressure by Rules approved Manhole compensation: Size of opening 565
shell plate 420 mm Section of compensating ring 400 x 24 mm No. of rivets and diameter of rivet holes 12 x 12 mm
Outer row rivet pitch at ends 116 mm Depth of flange if manhole flanged no Steam Dome: Material Material
Tensile strength 44.5 kg/mm² Thickness of shell 12 mm Description of longitudinal joint Class I welded at 90°
Diameter of rivet holes no Pitch of rivets no Percentage of strength of joint no
Internal diameter 816 mm Working pressure by Rules approved Thickness of crown 17 mm No. and diameter of rivets no
stays no Inner radius of crown 740 mm Working pressure by Rules approved
How connected to shell welded Size of doubling plate under dome 400 x 24 mm Diameter of rivet holes no
of rivets in outer row in dome connection to shell 12 mm x 80 mm

Type of Superheater no Manufacturers of no
Number of elements no Material of tubes no Internal diameter and thickness of tubes no
Material of headers no Tensile strength no Thickness no Can the superheater be shut off from the boiler no
the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler no
Area of each safety valve no Are the safety valves fitted with easing gear no Working pressure no
Rules no Pressure to which the safety valves are adjusted no Hydraulic test no
tubes no forgings and castings no and after assembly in place no Are drain no
valves fitted to free the superheater from water where necessary no

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

The foregoing is a correct description, yes

H.V. K. M. M. De Schelde Manager of no

Dates of Survey while building	During progress of work in shops	During erection on board vessel	Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)	Total No. of visits
1952	18/12	24/12	01/29	1953
	1/1	13/1	14/14	1954
		29/1	1/2	15

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey in accordance with the approved plan, Rules and Secretary's letters, materials used tested as required, workmanship throughout good. The boiler has been reinforced fitted in the vessel, safety valves adjusted to 215 lbs WP. Thickness of waters both 10.0 mm accumulation test good.

Survey Fee ... £ 100.- When applied for when 4.1.19
Travelling Expenses (if any) £ 30.- When received are compl. 19

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

Committee's Minute TUESDAY 6 OCT 1954

Assigned See minute on 1st hull rpt