

REPORT ON BOILERS.

No. 12446

Received at London Office

-2 DEC 1931

When handed in at Local Office

19

Port of **AMSTERDAM**

held at **AMSTERDAM**

Date, First Survey *4 June 1930* Last Survey *24 November 1931*

(Number of Visits *10*) Tons ^{Gross} **8268** _{Net} **4867**

Steel Twin Screw Vessel **"MAJA"**

Built at **Krimpen** By whom built **N.V.C.v.d.Giessen & Zaan** ^{Card No.} **618** When built **1931**

Amsterdam By whom made **Werkspoor N.V.** Engine No. - When made **1931**

Amsterdam By whom made **Werkspoor N.V.** Boiler No. - When made **1931**

Power **713** Owner **Petroleum Maats. "La Cerena"** Port belonging to **The Hague**

BULAR BOILERS—MAIN, AUXILIARY, OR—DONKEY.

of Steel *Phosphor* (Letter for Record *2*)

Surface of Boilers *1452 sq. ft.* Is forced draught fitted *Yes* Coal or Oil fired *oil fired*

Position of Boilers *2 Horizontal marine boilers* Working Pressure *150 lb*

Working pressure to *175 lb* Date of test *19.3.31* No. of Certificate *2054, 545* Can each boiler be worked separately *Yes*

Rate in each Boiler *4* No. and Description of safety valves to each boiler *Two spring loaded*

Set of valves per boiler ^{per Rule *11.89 inch*} _{as fitted *11.2*} Pressure to which they are adjusted *150 lb* Are they fitted with easing gear *Yes*

By boilers, state whether steam from main boilers can enter the donkey boiler *4*

Clearance between boilers or uptakes and bunkers or woodwork *2'6"* Is oil fuel carried in the double bottom under boilers *4*

Clearance between shell of boiler and tank top plating *In between etc.* Is the bottom of the boiler insulated *Yes*

Shell dia. of boilers *3200 mm* Length *3200 mm* Shell plates: Material *Steel* Tensile strength *28 3/4 - 33 tons*

Are the shell plates welded or flanged *No* Description of riveting: circ. seams ^{end *Abt riveted*} _{inter. *4*}

Diameter of rivet holes in ^{circ. seams *25 mm*} _{long. seams *25 mm*} Pitch of rivets ^{*84 mm*} _{*150 mm*}

Strength of circ. end seams ^{plate *40*} _{rivets *45*} Percentage of strength of circ. intermediate seam ^{plate *4*} _{rivets *5*}

Strength of longitudinal joint ^{plate *80.8 %*} _{rivets *78.5 %*} _{combined *88. %*} Working pressure of shell by Rules *154 lb*

Number of stay straps ^{outer *19 mm*} _{inner *19 mm*} No. and Description of Furnaces in each Boiler *2 Morrison's furnaces*

Material *Steel* Tensile strength *26/30 tons* Smallest outside diameter *842 mm*

Thickness of plates ^{top *11 mm*} _{bottom *11 mm*} Description of longitudinal joint *Welded*

Are there stiffening rings on furnace or c.c. bottom *4* Working pressure of furnace by Rules *180 lb*

Material *Steel* Tensile strength *24-30 tons* Thickness *23 mm* Pitch of stays *400 mm x 400 mm*

Are stays secured *Double nutted* Working pressure by Rules *152 lb*

Material ^{front *Steel*} _{back *Steel*} Tensile strength ^{*26-30 tons*} _{*24-30 tons*} Thickness ^{*23 mm*} _{*19 mm*}

Are stay tubes in nests *250 mm* Pitch across wide water spaces *360 mm* Working pressure ^{front *155 lb*} _{back *200 lb*}

Material *Steel* Tensile strength *28/32 tons* Depth and thickness of girder

160 mm x 52 mm Length as per Rule *650 mm* Distance apart *200 mm* No. and pitch of stays

2 x 110 mm Working pressure by Rules *165 lb* Combustion chamber plates: Material *Steel*

Tensile strength *26/30 tons* Thickness: Sides *14 mm* Back *14 mm* Top *14 mm* Bottom *14 mm*

to ditto: Sides *210 mm x 185 mm* Back *215 mm x 189 mm* Top *210 mm x 200 mm* Are stays fitted with nuts or riveted over *riveted over*

Working pressure by Rules *160 lb* Front plate at bottom: Material *Steel* Tensile strength *26-30 tons*

23 mm Lower back plate: Material *Steel* Tensile strength *26-30 tons* Thickness *23 mm*

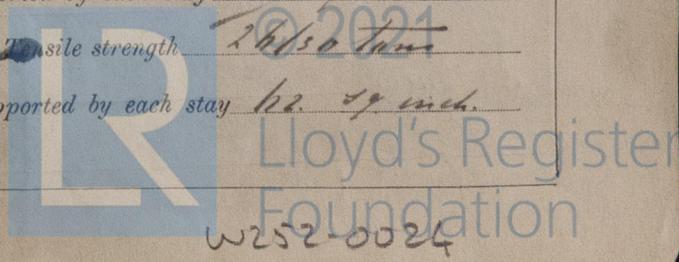
Are stays at wide water space *330 mm x 150 mm* Are stays fitted with nuts or riveted over *nutted*

Working pressure *530 lb* Main stays: Material *Steel* Tensile strength *28-32 tons*

Body of stay, or threads *2 3/8"* No. of threads per inch *8* Area supported by each stay *250 sq. inch*

Working pressure by Rules *154 lb* Screw stays: Material *Steel* Tensile strength *26/30 tons*

Body of stay, or threads *1 3/8"* No. of threads per inch *11* Area supported by each stay *162 sq. inch*



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Working pressure by Rules 113 1/2 Are the stays drilled at the outer ends Yes Margin stays: Diameter 1 1/2 { At turned off part. 1 1/2 or Over threads 1 1/2 }
 No. of threads per inch 11 Area supported by each stay 61 sq. inch Working pressure by Rules 200 1/2
 Tubes: Material Lapland iron External diameter { Plain 2 3/4 Stay 2 3/4 } Thickness { 1/4 } No. of threads per inch 11
 Pitch of tubes 100 mm Working pressure by Rules 215 1/2 Manhole compensation: Size of opening in shell plate 240 mm x 440 mm Section of compensating ring 1629 mm No. of rivets and diameter of rivet holes 28 - 25 mm
 Outer row rivet pitch at ends 780 mm Depth of flange if manhole flanged 80 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 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,
WERKSPOR N.V. Manufacturer

Dates of Survey { During progress of work in shops - 1/10/19, 2/10/19, 9/10, 14/10, 23/10, 1921 Are the approved plans of boiler and superheater forwarded herewith Yes (If not state date of approval.) London, letter 5.5.20 }
 while building { During erection on board vessel - 24/10, 24/11 } Total No. of visits 10

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. M.S. Magdala' Lund Reg. No. 12403

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The boilers have been built under specific survey, in accordance with the approved plan and Licuting's letter, material tested as required and workmanship good.

Survey Fee ... £ 146.80 : : When applied for, 19 19
 Travelling Expenses (if any) £ : : When received, 17.12.19

H. V. Blom
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 8 DEC 1921
 Assigned Sec. F. C. Rpl.

