

## REPORT ON BOILERS.

No. 14379

10 JUL 1925

Received at London Office

Date of writing Report 2 July 1925 When handed in at Local Office

192

Port of Rotterdam

No. in Survey held at Rotterdam

Date, First Survey 15 Sept 1924

Last Survey 17 March 1925

Reg. Book.

on the

Steel Motor Vessel, "KATENDRECHT"

(Number of Visits 12)

Gross 4609  
Net 2592

Master

Built at Rotterdam

By whom built Tjenwoord

Yard No. 199

When built 1925

Engines made at Rotterdam

By whom made Tjenwoord

Engine No.

When made 1925

Boilers made at Rotterdam

By whom made Tjenwoord

Boiler No. 14596

When made 1925

Nominal Horse Power 430

Owners Hoorn Maatschappij "De Maas"

Port belonging to Rotterdam

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

Manufacturers of Steel Mammemammuker weike als Jchuls Knaust (Letter for Record S)

Total Heating Surface of Boilers 1 x 662 ft<sup>2</sup> = 1324 Is forced draught fitted No Coal or Oil fired Oil

No. and Description of Boilers 2 Multitubular Marine boilers (single ended) Working Pressure 142 lbs

Tested by hydraulic pressure to 275 Date of test 3.8.25 No. of Certificate 805 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler L No. and Description of safety valves to each boiler 2 high lifting spring loaded

Area of each set of valves per boiler {per Rule L as fitted 10052 melle Pressure to which they are adjusted 142 lbs Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No main boilers

Smallest distance between boilers or uptakes and bunkers or woodwork No woodwork Is oil fuel carried in the double bottom under boilers L

Smallest distance between shell of boiler and tank top plating Boilers in top of Engine room Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 2665 melle Length 3050 melle Shell plates: Material S.M. Steel Tensile strength 18-32 tons

Thickness 16 melle Are the shell plates welded or flanged No Description of riveting: circ. seams {end Lap 2 x riv inter. L

long. seams Double butt 2 x riv Diameter of rivet holes in {circ. seams 20 melle Pitch of rivets {63 melle 112 melle

Percentage of strength of circ. end seams {plate 68.25% rivets 47.5% Percentage of strength of circ. intermediate seam {plate L rivets L

Percentage of strength of longitudinal joint {plate 81.5% rivets 83.5% combined 94.5% Working pressure of shell by Rules 10.4 kg per cm<sup>2</sup>

Thickness of butt straps {outer 13.5 melle inner 17 melle No. and Description of Furnaces in each Boiler One Morrison's patent

Material S.M. Steel Tensile strength 41-47.5 kg Smallest outside diameter 1118 melle

Length of plain part {top L bottom L Thickness of plates {crown 13 melle Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom L Working pressure of furnace by Rules 12.65 kg per cm<sup>2</sup>

End plates in steam space: Material S.M. Steel Tensile strength 41-47.5 kg Thickness 20 melle Pitch of stays 440 melle

How are stays secured Double nuts and thimble in plates Working pressure by Rules 10.0 kg per cm<sup>2</sup>

Tube plates: Material {front S.M. Steel Tensile strength 41-47.5 kg Thickness 21 melle back S.M. Steel 41-47.5 kg 22 melle

Mean pitch of stay tubes in nests 116 x 220 melle Pitch across wide water spaces 380 melle Working pressure {front 12.5 kg back 10 kg

Girders to combustion chamber tops: Material S.M. Steel Tensile strength 44.5-51 tons Depth and thickness of girder

at centre 170 x 1 x 17.5 melle Length as per Rule 680 melle Distance apart 215 melle No. and pitch of stays

in each 2 à 200 melle Working pressure by Rules 11.9 kg per cm<sup>2</sup> Combustion chamber plates: Material S.M. Steel

Tensile strength 41-47.5 kg Thickness: Sides 16 melle Back 16 melle Top 16 melle Bottom 25 melle

Pitch of stays to ditto: Sides 200 x 205 melle Back 100 x 102 melle Top 200 x 215 melle Are stays fitted with nuts or riveted over Riveted over

Working pressure by Rules 11.2 kg Front plate at bottom: Material S.M. Steel Tensile strength 41-47.5 kg

Thickness 21 melle Lower back plate: Material S.M. Steel Tensile strength 41-47.5 kg Thickness 21 melle

Pitch of stays at wide water space L Are stays fitted with nuts or riveted over L

Working Pressure L Main stays: Material S.M. Steel Tensile strength 44.5-47.5 kg

Diameter {At body of stay, 40 melle No. of threads per inch 6 Area supported by each stay 1956 cm<sup>2</sup>Over threads 45 melle Working pressure by Rules 15.4 kg per cm<sup>2</sup> Screw stays: Material S.M. Steel Tensile strength 41-47.5 kgDiameter {At turned off part, 1 1/4" No. of threads per inch 11 Area supported by each stay 370 cm<sup>2</sup>Over threads 1 1/4" Working pressure by Rules 15.4 kg per cm<sup>2</sup>

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Working pressure by Rules Are the stays drilled at the outer ends *Yes* Margin stays: Diameter { At turned off part, *1 1/2"* Over threads *1 1/2"*  
No. of threads per inch *9* Area supported by each stay Working pressure by Rules  
Tubes: Material *Steel* External diameter { Plain *46.2 mm* Thickness *4.59* No. of threads per inch *11*  
Pitch of tubes *100 mm* Working pressure by Rules *13 kg per sq cm* Manhole compensation: Size of opening in  
shell plate *410 mm* Section of compensating ring *398 x 16 mm* No. of rivets and diameter of rivet holes *136 at 22 mm*  
Outer row rivet pitch at ends *100 mm* Depth of flange if manhole flanged *—* Steam Dome: Material *1st M. Steel*  
Tensile strength *20.52 tons* Thickness of shell *12 mm* Description of longitudinal joint *Lap single riveted*  
Diameter of rivet holes *22 mm* Pitch of rivets *50 mm* Percentage of strength of joint { Plate *56%* Rivets *52%*  
Internal diameter *800 mm* Working pressure by Rules *12.8 kg per sq cm* Thickness of crown *17 mm* No. and diameter of  
stays *None* Inner radius of crown *610 mm* Working pressure by Rules *25 kg per sq cm*  
How connected to shell *Riveted* Size of doubling plate under dome *398 x 16 mm* Diameter of rivet holes and pitch  
of rivets in outer row in dome connection to shell *80 mm*

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 *Yes*  
The foregoing is a correct description,  
*Maatschappij voor Scheeps- en Werktuigbouw*  
"FLUENDORD."  
Manufacturer.

Dates of Survey { During progress of *1924 15-19 16-24-31 5-7-19-25-29* Are the approved plans of boiler and superheater forwarded herewith  
work in shops - - - *1925 3/9 10* (If not state date of approval.) *16-4-24*  
while building { During erection on *On machinery report* Total No. of visits *11*  
board vessel - - -

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been made under special survey in accordance with the approved plans, Society's Rules and Secretary's letters material tested as required and workmanship good*

Survey Fee ... *On machinery report* When applied for, 192  
Travelling Expenses (if any) £ *report* When received, 192

*J. J. Tetlow*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUES. 14 JUL 1925*

Assigned