

REPORT ON MACHINERY.

Port of *Amsterdam*

MUN. NOV 18 1901

Received at London Office

15

No. in Survey held at *Amsterdam* Date, first Survey *23. November. 00* Last Survey *25 October 1901*
 p. Book. (Number of Visits *54.*)
 57 on the *Steel Screw Steamer Voorburg* Tons { Gross *3056*
 Net *1956*
 Built at *Amsterdam* By whom built *Ned Scheepbouw Maats* When built *1901*
 Engines made at *Amsterdam* By whom made *Ned Fab. Werk & Spoor Maat* when made *1901*
 Movers made at *Amsterdam* By whom made *Ned Fab. Werk & Spoor Maat* when made *1901*
 Registered Horse Power *264.* Owners *Stoom Maats Amsterdam* Port belonging to *Amsterdam*
 Horse Power as per Section 28 *264.* Is Refrigerating Machinery fitted *No* Is Electric Light fitted *No*

INES, &c.—Description of Engines *Triple Expansive Inverted* No. of Cylinders *three* No. of Cranks *three*
 of Cylinders *23x36x60"* Length of Stroke *42* Revs. per minute *75* Dia. of Screw shaft *as per rule 11 1/16" 47*
 of Tunnel shaft *as per rule 10 7/8" 38* Dia. of Crank shaft journals *as per rule 11 7/16" 10.92* Dia. of Crank pin *11 1/2"* Size of Crank webs *17x4 1/2"* Dia. of thrust shaft under
 of *11 1/4"* Dia. of screw *15'-0"* Pitch of screw *14'-0"* No. of blades *4* State whether moveable *No* Total surface *80 sq ft*
 of Feed pumps *two* Diameter of ditto *3 3/4"* Stroke *24"* Can one be overhauled while the other is at work *Yes.*
 of Bilge pumps *two* Diameter of ditto *4 1/2"* Stroke *6 1/2"* Can one be overhauled while the other is at work *Yes.*
 of Donkey Engines *two* Sizes of Pumps *4 1/2 x 8 1/2 x 10 duplex ballast* No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room *four of 3' diam* In Holds, &c. *Six of 3' diam*

of bilge injections *On sizes 6"* Connected *to circulating pump* *Yes* Is a separate donkey suction fitted in Engine room & size *Yes - 3"*
 all the bilge suction pipes fitted with roses *Yes* Are the roses in Engine room always accessible *Yes* Are the sluices on Engine room bulkheads always accessible *Yes*
 all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Valves & Cocks.*
 they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *Yes* Are the discharge pipes above or below the deep water line *Above*
 they each fitted with a discharge valve always accessible on the plating of the vessel *Yes* Are the blow off cocks fitted with a spigot and brass covering plate *Yes.*
 pipes are carried through the bunkers *None.* How are they protected *—*
 all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *Yes.*
 the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *Yes.*
 were stern tube, propeller, screw shaft, and all connections examined *during Construction* Is the screw shaft tunnel watertight *Yes*
 fitted with a watertight door *Yes* worked from *Engine platform.*

ERS, &c.— (Letter for record *B*) Total Heating Surface of Boilers *4520 sq ft* Is forced draft fitted *No*
 and Description of Boilers *Two cyl single ended* Working Pressure *160 lbs* Tested by hydraulic pressure to *320 lbs*
 of test *21 Sept* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *64 sq ft* No. and Description of safety valves to
 boiler *Two direct spring* Area of each valve *8.19 sq in* Pressure to which they are adjusted *160 lbs* Are they fitted with easing gear *Yes*
 least distance between boilers or uptakes and bunkers or woodwork *18"* Mean dia. of boilers *46.50* Length *31.40* Material of shell plates *Steel*
 test *24* Range of tensile strength *45-51 kg* Are they welded or flanged *plain* Descrip. of riveting: cir. seams *2 fold* long. seams *5 fold.*
 ter of rivet holes in long. seams *27* Pitch of rivets *180* Lap of plates or width of butt straps *404*
 ntages of strength of longitudinal joint *87.5%* Working pressure of shell by rules *11.9 kg* Size of manhole in shell *300 x 400*
 compensating ring *150 x 24* No. and Description of Furnaces in each boiler *Three plain* Material *Steel* Outside diameter *1120*
 of plain part *top 2240* Thickness of plates *bottom 10* Description of longitudinal joint *welded* No. of strengthening rings *None*
 ng pressure of furnace by the rules *11.4* Combustion chamber plates: Material *Steel* Thickness: Sides *18* Back *18* Top *18* Bottom *24 1/2*
 of stays to ditto: Sides *255 x 270* Back *220 x 300* Top *270 x 255* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *11.9 & 11.4*
 ial of stays *Steel* Diameter at smallest part *41.5* Area supported by each stay *6885* Working pressure by rules *12.4* End plates in steam space:
 ial *Steel* Thickness *30.5* Pitch of stays *570 x 570* How are stays secured *nuts Wash* Working pressure by rules *11.4* Material of stays *Steel*
 ter at smallest part *86* Area supported by each stay *32490* Working pressure by rules *12.5* Material of Front plates at bottom *Steel*
 test *20* Material of Lower back plate *Steel* Thickness *20* Greatest pitch of stays *350 x 300* Working pressure of plate by rules *12.*
 ter of tubes *83* Pitch of tubes *120 x 120* Material of tube plates *Steel* Thickness: Front *20* Back *20* Mean pitch of stays *360 x 240*
 across wide water spaces *360* Working pressures by rules *11.4 kg* Girders to Chamber tops: Material *Steel* Depth and
 ss of girder at centre *185 x 25.4* Length as per rule *765* Distance apart *255* Number and pitch of Stays in each *two 270*
 ng pressure by rules *12.5* Superheater or Steam chest; how connected to boiler *—* Can the superheater be shut off and the boiler worked
 ly *—* Diameter *—* Length *—* Thickness of shell plates *—* Material *—* Description of longitudinal joint *—* Diam. of rivet
 Pitch of rivets *—* Working pressure of shell by rules *—* Diameter of flue *—* Material of flue plates *—* Thickness *—*
 ned with rings *—* Distance between rings *—* Working pressure by rules *—* End plates: Thickness *—* How stayed *—*
 ng pressure of end plates *—* Area of safety valves to superheater *—* Are they fitted with easing gear *—*

DONKEY BOILER— No. 102. Description *Horizontal cyl. two furnaces*
 Made at *Amsterdam* By whom made *Kid Taber Werk & Spoor Mst* When made *1901* Where fixed *on main deck*
 Working pressure *90* tested by hydraulic pressure to *180* No. of Certificate *36* Fire grate area *287* Description of safety valves *direct spring*
 No. of safety valves *two* Area of each *5.94* Pressure to which they are adjusted *90 lb* If fitted with easing gear *Yes* If steam from main boilers can enter the donkey boiler *No* Dia. of donkey boiler *2900* Length *2765* Material of shell plates *steel* Thickness *14.5* Range of tensile strength *41,150* Descrip. of riveting long. seams *Overlapped Rivets* Dia. of rivet holes *14* Whether punched or drilled *drilled* Pitch of rivets *100*
 Lap of plating *162* Per. centage of strength of joint *79.5* Thickness of shell crown plates *—* Radius of do. *—* No. of Stays to do. *—*
 Dia. of stays *—* Diameter of furnace *Top 866 Bottom* Length of furnace *1865* Thickness of furnace plates *12* Description of joint *Welded* Thickness of furnace crown plates *—* Stayed by *—* Working pressure of shell by rules *6.5 kg*
 Working pressure of furnace by rules *6.5 kg* Diameter of uptake *—* Thickness of uptake plates *—* Thickness of water tubes *—*

SPARE GEAR. State the articles supplied:— *Propellor, two bolts & nuts for main bearing, crank pin and crosshead, one set of coupling bolts, 16 & 18 P. piston rings, one set of pump bolts, one set of valves for feed and bilge pumps two feed check valves, one set of safety valve springs, 40 Condensing valves, 1/2" and 5/8" boiler tubes, bolts and nuts as required.*
 The foregoing is a correct description.

Manufacturer.

Dates { During progress of work in shops -
 of Survey { During erection on board vessel -
 while building { Total No. of visits

23rd of November 1900
25th of October 1901
54.

Is the approved plan of main boiler forwarded herewith *Yes*
 " " " donkey " " " *Yes*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has built according to the Society rules and the approved plans of main & donkey boilers are now returned to London Office, all castings as far as practicable have been tested under pressure and were found sound and tight. The materials used for shafting, rods, etc. duly tested as required. Fitting engines in ship and lining of shafting carefully examined. Main & donkey boiler material tested as required by rules, all boilers tested to twice the working pressure found tight and no settling. Steam and feed pipes and boiler mountings tested under hydraulic pressure to 400 lbs. Safety valves adjusted and set to working pressures. Examined engines while under steam found same working satisfactory and without hitches. All pumping machinery tested and in good working condition. Boilers tight in every respect.

I am of opinion that this vessel is eligible to be recorded in the Register Book.

LMC - 10.1901

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.01

The amount of Entry Fee... £ 2 : 0 :
 Special ... £ 33 : 4 :
 Donkey Boiler Fee ... £ 2 : 2 :
 Travelling Expenses (if any) £ 1 : 2 : 8

When applied for,

When received,

Committee's Minute

TUES. NOV 19 1901

Assigned

+ LMC 10.01

MACHINERY CERTIFICATE
 WRITTEN.

J. H. H. H.
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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