

REPORT ON MACHINERY.

No. 12133

Received at London Office

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Date of writing Report 10-2-1922 When handed in at Local Office

Port of Rotterdam

To. in Survey held at Rotterdam

Date, First Survey 29-10-21 Last Survey 1-2-1922

Reg. Book. 4455 on the 5/3 "OOSTKERK" ex EASTMINSTER ABBEY.

(Number of Visits 16)

Master Built at Kiel By whom built Howalds Werke A.G. Tons Gross 8123 Net 5060

Engines made at Kiel By whom made Howalds Werke A.G. When made 1914

Boilers made at do By whom made do when made 1914

Registered Horse Power Owners N.V. Vereenigde Nederl. Scheepv. Maatschappij Port belonging to Copenhagen

Com. Horse Power as per Section 28 727.2 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Vertical Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 33 1/2 x 53 1/4 x 86 1/2 Length of Stroke 54 Revs. per minute 60 Dia. of Screw shaft as per rule 18.0 as fitted 18 1/2 Material of screw shaft

the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight

the propeller boss Yes If the liner is in more than one length are the joints burned no If the liner does not fit tightly at the part

tween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive no If two

ners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 0.4

Dia. of Tunnel shaft as per rule 16.8 as fitted 16 1/2 Dia. of Crank shaft journals as per rule 17.65 as fitted 18 Dia. of Crank pin 10 1/2 Size of Crank webs 8 1/4 x 11 1/2 Dia. of thrust shaft under

bars 17 3/16 Dia. of screw 19 Pitch of Screw 19.4 No. of Blades 4 State whether moveable Yes Total surface 110 sq

No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work Independent

No. of Bilge pumps 2 Diameter of ditto 5 Stroke 28 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 4 Weir's Sizes of Pumps 20 1/4 x 10 1/4 x 14 1/4 2 x 8 1/2 x 11 1/4 x 20 3/4 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 4 a 3 1/2 and 1 independent 1 in tunnel 2 3/2 In Holds, &c Hold No. I. 2 a 3 1/2 hold II. 2 a 3 1/2 hold

III. 2 a 3 1/2 hold No. IV. 2 a 3 1/2 hold V. 2 a 3 1/2 hold No. VI. 2 a 3 1/2

No. of Bilge Injections 1 sizes 8 1/4 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes a 5

Are 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

Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks both

Are 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 Below

Are 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

That pipes are carried through the bunkers none How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers 9694 sq Is Forced Draft fitted Yes No. and Description of Boilers 4 single ended boilers

Working Pressure 205 lbs. Tested by hydraulic pressure to 310 lbs. Date of test 21-10-21+21-1-22 No. of Certificate

Can each boiler be worked separately Yes Area of fire grate in each boiler 60 sq No. and Description of Safety Valves to

each boiler 2 spring loaded Area of each valve 4 1/8 Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork over 10 Mean dia. of boilers 15.6 1/2 Length 11.11 5/8 Material of shell plates

Thickness 3/8 Range of tensile strength Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Lap 2 x riv.

Long. seams double butt 4 x riv. Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 19 1/16 Lap of plates or width of butt straps 24 x 1 1/16

Percentages of strength of longitudinal joint rivets 87.6 Working pressure of shell by rules 206 lbs Size of manhole in shell 11 1/8 x 15 3/4

Size of compensating ring 12 x 1 1/2 No. and Description of Furnaces in each boiler 3 fox's Material Outside diameter 48 1/2

Length of plain part top bottom Thickness of plates crown bottom 3/16 Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 239 lbs Combustion chamber plates: Material Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 1/16

Pitch of stays to ditto: Sides 7/8 x 7/8 Back 7/8 x 7/8 Top 7/8 x 8 1/8 If stays are fitted with nuts or riveted heads nutted Working pressure by rules 242 lbs

Material of stays Area at smallest part 177.9 Area supported by each stay 619.0 Working pressure by rules 251 lbs End plates in steam space:

Material Thickness 1/8 Pitch of stays 15 3/4 x 15 3/4 How are stays secured nutted Working pressure by rules 237 lbs Material of stays

Area at smallest part 649.0 Area supported by each stay 243.0 Working pressure by rules 247 lbs Material of Front plates at bottom

Thickness 1/8 Material of Lower back plate Thickness 1/16 Greatest pitch of stays 14 3/8 Working pressure of plate by rules 200 lbs

Diameter of tubes 3 1/8 Pitch of tubes 4 1/8 Material of tube plates Thickness: Front 1/8 Back 1/16 Mean pitch of stays 8 1/4

Pitch across wide water spaces 14 3/8 Working pressures by rules 226 lbs Girders to Chamber tops: Material Depth and

Thickness of girder at centre 2 x 7/4 x 9 1/8 Length as per rule 35 1/2 Distance apart 8 1/4 Number and pitch of stays in each 3 x 7/8

Working pressure by rules Steam dome: description of joint to shell none % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Schmidt's Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve 1 1/16 Pressure to which each is adjusted 220 lbs Is Easing Gear fitted Yes

W578-0253

IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *2 top end bolts and nuts, 2 bottom end bolts and nuts, 2 main bearing bolts and nuts, one set of coupling bolts, one set of bilge pump valves, one set of valves for independent feed pump, a set of piston springs, 1 eccentric strap complete, 1 air pump rod, 1 valve spindle, 40 condenser tubes and ferrules, 12 boiler tubes, 1 set of safety valve spring, a quantity assorted bolts and nuts and iron of various sizes.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - }
Total No. of visits *16.*

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *25-1-22* Slides *29-10-21* Covers *29-10-21* Pistons *29-10-21* Rods *29-10-21*
Connecting rods *29-10-21* Crank shaft *11-10-21* Thrust shaft *11-10-21* Tunnel shafts *11-10-21* Screw shaft *18-1-22* Propeller *18-1-22*
Stern tube *18-1-22* Steam pipes tested *29-10-21* Engine and boiler seatings ✓ Engines holding down bolts *11-10-21*
Completion of pumping arrangements *1-2-21* Boilers fixed ✓ Engines tried under steam *24-1-22*
Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓
Main boiler safety valves adjusted *20-1-22* Thickness of adjusting washers *1-24 1/2 in. 3-24 in. 5-24 1/2 in. 7-25 1/2 in. 2-24 1/2 in. 4-22 in. 6-23 1/2 in. 8-22 1/2 in.*
Material of Crank shaft Identification Mark on Do. *GL* Material of Thrust shaft Identification Mark on Do. *GL*
Material of Tunnel shafts Identification Marks on Do. *GL* Material of Screw shafts Identification Marks on Do. *GL*
Material of Steam Pipes *Steel* Test pressure *620 lbs.*

Is an installation fitted for burning oil fuel *No*

Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case *No* If so, state name of vessel ✓

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

This vessels Machinery has been examined as required by the Rules, scantlings found as per report, boilers tested as required and all found in order, the whole found in a good working condition when tried under steam and I am of Opinion that this vessel is eligible to be recorded in the Society's Register Book with L.M.C. 2-22.

The amount of Entry Fee ... £ *4600.00.*
Special ... £
Donkey Boiler Fee ... £
Travelling Expenses (if any) £

When applied for,

19

When received,

19

Committee's Minute

Assigned

L.M.C. 2-22 F.D. C.L.

C.H. Bourse
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation

CERTIFICATE WRITTEN