

# REPORT ON MACHINERY.

Received at London Office **MUN OCT 16 1922**  
 Date of writing Report **2 Oct. 1922** When handed in at Local Office **19** Port of **Rotterdam**  
 No. in Survey held at **Dordrecht** Date, First Survey **29.10.19** Last Survey **23.9. 1922**  
 Reg. Book. on the **Steel Screw Steamer "MAJA"** (Number of Visits **12**) Tons { Gross **460.** Net **364.**  
 Master Built at **Vlaardingen** By whom built **W. Scheepswerven Gebr. de Waard** When built  
 Engines made at **Dordrecht** By whom made **Machfab. "de Boesbosch"** when made **1922**  
 Boilers made at **Hetten** By whom made **Vulkan Werke** when made **1920**  
 Registered Horse Power Owners **Noordelyke Credit Bank** Port belonging to **Hoogerland**  
 Nom. Horse Power as per Section 28 **115** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **No**

**ENGINES, &c.**—Description of Engines **Vertical Triple Expansion** No. of Cylinders **3** No. of Cranks **3**  
 Dia. of Cylinders **15x15x40** Length of Stroke **24** Revs. per minute **130** Dia. of Screw shaft **8 1/2** Material of **Steel**  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube **No** Is the after end of the liner made water tight in the propeller boss **No** If the liner is in more than one length are the joints burned **No** If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive **No** If two liners are fitted, is the shaft lapped or protected between the liners **No** Length of stern bush **36"**  
 Dia. of Tunnel shaft **7 1/2** Dia. of Crank shaft journals **7 1/2** Dia. of Crank pin **4 2/3** Size of Crank webs **3 1/2 x 3 1/2** No. of Thrust shaft under collars **4** Dia. of screw **9-0** Pitch of Screw **9-0** No. of Blades **4** State whether moveable **No** Total surface **31 sq ft**  
 No. of Feed pumps **2** Diameter of ditto **2 1/4** Stroke **12** Can one be overhauled while the other is at work **Yes**  
 No. of Bilge pumps **2** Diameter of ditto **2 1/4** Stroke **12** Can one be overhauled while the other is at work **Yes**  
 No. of Donkey Engines **2** Sizes of Pumps **6x4x4" 6x7x4"** No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room: **4** in **65** mill. One in tunnel **65** mill. In Holds, &c. **2** in **65** mill. in forehold. **2** in **65** mill. in afterhold.  
 No. of Bilge Injections **1** sizes **3 1/2** Connected **to circulating pump** Is a separate Donkey Suction fitted in Engine room & size **Yes 2 1/2**  
 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 **No**  
 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 **Above**  
 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**  
 What pipes are carried through the bunkers **bold suction pipes** How are they protected **lumberboards**  
 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 **Upper platform**

**BOILERS, &c.**—(Letter for record) Manufacturers of Steel **Shetton report. No 806.**  
 Total Heating Surface of Boilers **2150** Is Forced Draft fitted **No** No. and Description of Boilers **2 Single ended Marine Boilers**  
 Working Pressure **192 lbs** Tested by hydraulic pressure to **250** Date of test **25.5.22** No. of Certificate **25B.**  
 Can each boiler be worked separately **Yes** Area of fire grate in each boiler **33** No. and Description of Safety Valves to each boiler **2 Spring loaded** Area of each valve **4.90** Pressure to which they are adjusted **192 lbs** Are they fitted with easing gear **Yes**  
 Smallest distance between boilers or uptakes and bunkers or woodwork **None** Length **—** Material of shell plates **—**  
 Thickness **—** Range of tensile strength **—** Are the shell plates welded or flanged **—** Descrip. of riveting: cir. seams **—**  
 long. seams **—** Diameter of rivet holes in long. seams **—** Pitch of rivets **—** Lap of plates or width of butt straps **—**  
 Per centages of strength of longitudinal joint **—** Working pressure of shell by rules **—** Size of manhole in shell **—**  
 Size of compensating ring **—** No. and Description of Furnaces in each boiler **2 cf.** Material **—** Outside diameter **—**  
 Length of plain part **—** Thickness of plates **—** Description of longitudinal joint **—** No. of strengthening rings **—**  
 Working pressure of furnace by the rules **—** Combustion chamber plates: Material **—** Thickness: Sides **—** Back **—** Top **—** Bottom **—**  
 Pitch of stays to ditto: Sides **—** Back **—** Top **—** If stays are fitted with nuts or riveted heads **—** Working pressure by rules **—**  
 Material of stays **—** Area at smallest part **—** Area supported by each stay **—** Working pressure by rules **—** End plates in steam space: **—**  
 Material **—** Thickness **—** Pitch of stays **—** How are stays secured **—** Working pressure by rules **—** Material of stays **—**  
 Area at smallest part **—** Area supported by each stay **—** Working pressure by rules **—** Material of Front plates at bottom **—**  
 Thickness **—** Material of Lower back plate **—** Thickness **—** Greatest pitch of stays **—** Working pressure of plate by rules **—**  
 Diameter of tubes **—** Pitch of tubes **—** Material of tube plates **—** Thickness: Front **—** Back **—** Mean pitch of stays **—**  
 Pitch across wide water spaces **—** Working pressures by rules **—** Girders to Chamber tops: Material **—** Depth and thickness of girder at centre **—** Length as per rule **—** Distance apart **—** Number and pitch of stays in each **—**  
 Working pressure by rules **—** Steam dome: description of joint to shell **—** % 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 **—** 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 **—** Pressure to which each is adjusted **—** Is Easing Gear fitted **—**

IS A DONKEY BOILER FITTED?

No ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:—

Two top end bolts and nuts, two bottom end bolts and nuts, two main bearing bolts and nuts, one set of coupling bolts one set of feed and bilge pump valves, a quantity of assorted bolts and nuts and iron of various sizes ✓

The foregoing is a correct description,

N.V. Machinefabriek „DE BIESBOSCH“ de Directie

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1919 Oct 29 1920 Aug 28 Oct 4. Nov 8. 15 1921 Febr 1. During erection on board vessel --- 1922. May 22. July 3. 15. Aug 4. 10. Sept 23. Total No. of visits 12

Is the approved plan of main boiler forwarded herewith Copy of Station report. " " " donkey " " "

Dates of Examination of principal parts—Cylinders 28-8-20 Slides 8-11-20 Covers 8-11-20 Pistons 8-11-20 Rods 29-10-19 Connecting rods 29-10-19 Crank shaft 29-10-19 Thrust shaft 29-10-19 Tunnel shafts 15-11-20 Screw shaft 7-10-20 Propeller 7-10-20 Stern tube 8-11-20 Steam pipes tested 4-8-22 Engine and boiler seatings 22-5-22 Engines holding down bolts 3-6-22 Completion of pumping arrangements 10-8-22 Boilers fixed 3-6-22 Engines tried under steam 23-9-22 Completion of fitting sea connections 22-5-22 Stern tube 22-5-22 Screw shaft and propeller 22-5-22 Main boiler safety valves adjusted 10-8-22 Thickness of adjusting washers 20 mm 21 mm Port

Material of Crank shaft SM Steel Identification Mark on Do. JS-10-19 Material of Thrust shaft SM Steel Identification Mark on Do. JS-10-19

Material of Tunnel shafts SM Steel Identification Marks on Do. Lloyds 301-22-5 JBS-10-5-10 Material of Screw shafts SM Steel Identification Marks on Do. Lloyds 304- JBS-10-5-10

Material of Steam Pipes Steel ✓ Test pressure 580 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. The machinery has been made in accordance with the Rules, approved plans and Secretary's letters, material tested as required and workmanship good, the whole was found in a good working condition during a trial trip on the River Maas and I am of opinion that this vessel is eligible to be recorded in the Society's Register Book with LMC 10-22.09. See above

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.22. 09.

Handwritten signature and date 19/10/22

The amount of Entry Fee ... £ 36.00 When applied for, 12th 1922 Special ... £ 26.00 Donkey Boiler Fee ... £ Travelling Expenses (if any) £ 60.00 When received, 3/11/22

Engineer in Charge to Lloyd's Register of Shipping.

Committee's Minute FRI. 20 OCT. 1922

Assigned + Lond 9.22 O.G.

CERTIFICATE WRITTEN



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Lloyd's Register Foundation

Amsterdam Surveyors

Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.