

REPORT ON MACHINERY.

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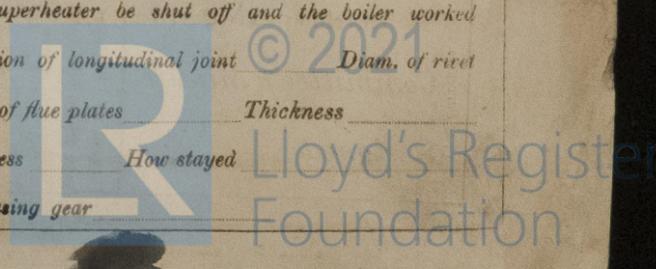
Date of writing Report 31 March 1914 When handed in at Local Office 19 Port of Amsterdam
 No. in Survey held at Amsterdam Date, First Survey 6 Jan 1913 Last Survey 30 March 1914
 Reg. Book. 1472 on the Stul twin Sea Motor vessel "ARTEMIS" (Number of Visits 44)
 Master T. Zedeker Built at Amsterdam By whom built Ned. Schepb. N^o 4 Tons } Gross 3803
 Engines made at Amsterdam By whom made Werkspoor when made 1914 Net 2312
 Boilers made at Amsterdam By whom made Werkspoor when made 1914
 Registered Horse Power 2400 Owners Ned. Ind. Tankstamb. N^o 1 Port belonging to Copenhagen
 Nom. Horse Power as per Section 28 400 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines four cycle "Werkspoor" Diesel engine No. of Cylinders 12 No. of Cranks 6
 Dia. of Cylinders 520 mm Length of Stroke 350 mm Revs. per minute 130 Dia. of Screw shaft as per rule Material of screw shaft S.M.S.
 Is 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 in 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 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes
 If two liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 1100 mm
 Dia. of Tunnel shaft as per rule Dia. of Crank shaft journals as per rule Dia. of Crank pin 320 mm Size of Crank webs 45°/180 Dia. of thrust shaft under collars 270 mm Dia. of screw 350 mm Pitch of Screw 2000 mm No. of Blades 3 State whether moveable no Total surface 4.11 m²
 No. of Feed pumps 1 Diameter of ditto 100 mm Stroke 250 mm Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 100 mm Stroke 250 mm Can one be overhauled while the other is at work yes
 No. of Donkey Engines 1 ballast donkey Sizes of Pumps 5 1/4" x 3 1/4" x 5" duplex No. and size of Suctions connected to both Bilge and Donkey pumps 2 diam 4" 2 diam 1 1/2" in pump room 2 diam 3"
 In Engine Room 1 fuel " 3 diam 80 mm 3.14 In Holds, &c. 2 diam 4" 2 diam 1 1/2" in pump room 2 diam 3"
 No. of Bilge Injections 2 sizes 80 mm Connected to condenser or circulating pump Is a separate Donkey Suction fitted in Engine room & size yes 80 mm
 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 yes
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves & cocks
 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 yes
 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 yes How are they protected yes
 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
 Dates of examination of completion of fitting of Sea Connections 18 July 1913 of Stern Tube 16 July 1913 Screw shaft and Propeller 19 July 1913
 Is the Screw Shaft Tunnel watertight no tunnel Is it fitted with a watertight door yes worked from yes

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

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
 Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
 Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers 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 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 Diameter 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
 Diameter 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 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
 separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
 holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

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VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description	Made at	By whom made	When made	Where fixed		
		Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
	Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment		
	If fitted with easing gear	If steam from main boilers can enter the donkey boiler			Dia. of donkey boiler	Length	
	Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams			
	Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates	
	Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays		
	Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint		
	Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by			
	Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey			

SPARE GEAR. State the articles supplied:— 2 cylinders complete; 3 pistons + 168 springs, one crankshaft & one tailshaft, 2 sets crossheads brasses, crank pin brasses, bearings with bolts, 2 sets of coupling bolts, 2 guide faces, H.P. & L.P. air pumps complete with 2 extra sets of valves, 2 sets of valves for bilge & cool pumps, 2 air starting valves compl; 16 in & outlet valves for cyl. 6 fuel inlet valves compl + 4 springs, 3 shoes for thrust block

The foregoing is a correct description,
Yungok Manufacturer.

Dates of Survey while building	During progress of work in shops	Jan 6, Feb 10, 24, 27, March 10, 20, 31, April 1, 2, 4, 5, 7, 9, 22, 23, May 5, 15, 19, 24, 29, 30, June 2, 10, 13, 24, July 16, 18, 21, 24, 28, Aug. 8, 9, 12, 14, 20, 22, 25, 29, Oct. 3, 4, 7, 14, 17, 22, 24, 27, Nov. 1, 5, 15, 21, 25, Dec. 9.
	During erection on board vessel	Dec 13, 1914, Jan 2, 10, 14, 22, 26, 29, Feb 20, 27, March 3, 6, 18, 19, 30.
	Total No. of visits	44

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders	21 March 1914	Covers	✓	Pistons	Aug 12, Dec 13	Rods	Aug 12, Dec 13
Connecting rods	Aug 14, Sept 20	Crank shaft	Aug 14, 20	Thrust shaft	July 20, 27	Tunnel shafts	Aug 8, 20
Stern tube	13 June & 16 July	Steam pipes tested	5 Sept 1913	Engine and boiler seatings	Aug 8, Feb 23, 27	Engines holding down bolts	March 6-19
Completion of pumping arrangements	6 March	Boilers fixed	Sept 21	Engines tried under steam	19, 20, 30 March		
Main boiler safety valves adjusted	6 March	Thickness of adjusting washers	3/16" brass & 1/16"				
Material of Crank shaft	SMS	Identification Mark on Do.	4739 H2 4-13	Material of Thrust shaft	SMS	Identification Mark on Do.	12 MB 6, 34 MB 6
Material of Tunnel shafts	SMS	Identification Marks on Do.	4901 HA 7-13	Material of Screw shafts	SMS	Identification Marks on Do.	10 MB 6, 40 MB 6
Material of Steam Pipes		Test pressure	✓				

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

This Vessel's Machinery has been fitted in an efficient material used in the construction of good quality and tested as required. Workmanship throughout good. All cylinders & water jackets throughout good and tested under hydraulic pressure as per rules, found sound & tight. Air pumps & coolers tested to twice the working pressure. Starting air receivers in accordance with approved plans & tested to 60 atm & safety valves adjusted to 18 atm. All injection air & floating air bottles tested as required with satisfactory results. Main & auxiliary pumping arrangements in good working order, fuel pipe arrangements fitted & tested as required. Motors & auxiliary machinery on several trials found work satisfactory. Six fire extinguishers in different apartments fitted. We are of opinion that this vessel should be recorded in the Society's register book **LMC 3.14.**

The amount of Entry Fee	£ 36. -	When applied for,	
Special	52 8. -		19
Donkey Boiler Fee		When received,	
Travelling Expenses (if any)	£ 20. 10		19

Committee's Minute

Assigned

7.10.14

+ LMC 3.14

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



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Lloyd's Register Foundation

Certificate (if required) to be sent to Surveyor Amsterd.