

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

-8 JUN 1925

Date of writing Report 14 May 1925 When handed in at Local Office 19 Port of Hamburg
 No. in Survey held at Flensburg Date, First Survey 12th June 1923 Last Survey 25th April 1925
 Reg. Book. on the "Steel Se. Sr." "Stad Vaardingen" (Number of Visits 21) Gross 6325
 Tons Net 3767
 Built at Flensburg By whom built Flensburger Schiffsbau Gesellschaft Yard No. 391 When built 1925
 Engines made at Flensburg By whom made Flensburger Schiffsbau Ges. Engine No. 354 when made 1925
 Boilers made at Flensburg By whom made Flensburger Schiffsbau Ges. Boiler No. 1065-1068 when made 1925
 Registered Horse Power 699 Owners Halcyon-Lijn Port belonging to Rotterdam
 Nom. Horse Power as per Rule 698, 699 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c. Description of Engines One triple expansion reciprocating engine
 Dia. of Cylinders 31 1/8" - 50 3/8" - 84 3/8" Length of Stroke 53 3/8" Revs. per minute 75 No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals as per rule 16.1" as fitted 16.3" Dia. of Crank pin 16.3" Crank webs Mid. length breadth 24.02" Thickness parallel to axis 10.04"
 Mid. length thickness 10.04" shrunk Thickness around eye-hole 6.6"
 Diameter of Thrust shaft under collars as per rule 16.12" as fitted 16.14" Diameter of Tunnel shaft as per rule 15.36" as fitted 15.4" Diameter of Screw shaft as per rule 16.9" as fitted 17.1" 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 watertight 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 plastic material insoluble in water and non-corrosive no
 If two liners are fitted, is the shaft lapped or protected between the liners no Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated no

Pitch of Propeller 16 1/4" No. of Blades 4 State whether Moveable yes Total Surface 98 sq square feet.
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 4.33" Stroke 31.49" Can one be overhauled while the other is at work yes
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 4.33" Stroke 31.49" Can one be overhauled while the other is at work yes

Total number and size of power driven Feed and Bilge Auxiliary Pumps 3 for feed 1 pair simplex 10.04" x 13.97" x 17.72"; 1 Injector 200 lbs. per minute; for bilge also Ballast pump
 No. and size of Pumps connected to the Main Bilge Line 1 simplex 10.04" x 13.97" x 17.72"; 2 each of 4.33" x 31.49"
 No. and size of Ballast Pumps vertical simplex 10.04" x 13.97" x 17.72" No. and size of Lubricating Oil Pumps, including Spare Pump 2 of 3.94"; 1 of 3.54"
 Are two independent means arranged for circulating water through the Oil Cooler yes No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 5 each of 3.54"; 3 each of 1.97" and in Holds, &c. from holds = 10, each of 3.54"
fore peak = 1 of 3.94"; from tanks = 2, each of 4.92"; 15, each of 3.94"; 7, each of 3.54"; after peak = 1 of 3.94"

No. and size of Main Water Circulating Pump 1 of 9.45" No. and size of Donkey Pump Direct Suctions to the Engine Room Bilges 1 of 3.94" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges 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 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 (deep tanks) fore hold suction How are they protected wooden casings
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another yes Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from cylinder platform

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 10010.4 square feet
 Is Forced Draft fitted yes No. and Description of Boilers 4 single ended multitubular Working Pressure 185 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? no

PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers no Donkey Boilers no
 (If not state date of approval)
 General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR. State the articles supplied:— All spare articles as required in Section 37, page 88 of the Rules (1924-25) have been supplied.

The foregoing is a correct description,

Manufacturer.



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Lloyd's Register

003240-003244-015 Foundation

Dates of Survey while building
 During progress of work in shops - - 12/6.23-26/9.23-1/3.24-3/6-14/7-30/7-27/8-19/9-8/10-17/10-22/10-11/11-27/11.24
 During erection on board vessel - - 2/1.25-22/1-10/2-18/2-10/3-24/3-18/4-25/4.25
 Total No. of visits 21

Dates of Examination of principal parts - Cylinders 12.6.23-3.6.24 Slides 12.6.23-3.6.24
 Covers 3.6.24-8.10.24 Pistons 14.7.24-19.9.24 Rods 30.7.24-8.10.24
 Connecting rods 14.7.24-19.9.24 Crank shaft 12/6.23-8/10.24 Thrust shaft 30/7.24
 Tunnel shafts 2/1.25 Screw shaft 27/11.24-2/1.25 Propeller 30/7.24-24/3.25-18/4.25
 Stern tube 2/1.25; 7/1.25; 22/1.25 Engine and boiler seatings 2/1.25-22/1.25 Engines holding down bolts 22/1.25
 Completion of pumping arrangements 18/2.25 Boilers fixed 22/1.25 Engines tried under steam 18/4.25
 Completion of fitting sea connections 5/1.25 Stern tube 22/1.25 Screw shaft and propeller 24/3.25
 Main boiler safety valves adjusted 18/4.1925 Thickness of adjusting washers
 Material of Crank shaft *Siem. Mart. Steel* Identification Mark on Do. LLOYDS - 4th 5241-M.K. 8.10.24
 Material of Thrust shaft *etc* Identification Mark on Do. LLOYDS - 11726-K.H. 24.8.23
 Material of Tunnel shafts *etc* Identification Marks on Do. LLOYDS - 11819-21 K.H. 13.6.24 11835 K.H. 24.6.24
 Material of Screw shafts *etc* Identification Marks on Do. LLOYDS - 3615-G. 313.23; 3735-G. 11.4.23
 Material of Steam Pipes *etc* Test pressure 570 lbs. Date of Test 10/2.25-18/2.25
 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 the Rules for carrying and burning oil fuel been complied with *✓*
 Is this machinery duplicate of a previous case *yes* If so, state name of vessel *Melbourne, Robert, Stolberg & Cannstatt*

General Remarks (State quality of workmanship, opinions as to class, &c.)
Material & workmanship of engine & boilers are of good quality; the outfit is ample. The materials used in the construction, are made at Works recognised by the Committee and have been tested in conformity with the requirements of the Rules. Engine & Boilers have been built in accordance with the approved plans and the Secretary's letters: E. 8/1.23; 20/4.23; 14/6.23; 18/6.24; 5/9.24 and otherwise in conformity with the Rules. The Crankshaft, which was tested by the Surveyors to the Germanischer Lloyd, was found to be sound and free from surface defects; - see Secretary's letter of 14/5.23. I attended to a 6 hours trial, when the Machinery has given full satisfaction under full working and manœuvring conditions. It is eligible in my opinion for certification L.M.C. - 4,25 and "Tail Shaft (C.L.)."

It is submitted that
 this vessel is eligible for
THE RECORD. + L.M.C. 4.25. F.D. CL.

J.W.D.
 18/6/25

M. Cook
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6 : 0 :
 Special ... £ 109 : 19 :
 Donkey Boiler Fee ... £ - : - :
 Travelling Expenses (if any) £ 37 : 11 :
 When applied for, 13th May 1925
 When received, 19th May 1925

Committee's Minute
 Assigned + Lond. 4. 25



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