

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

31 AUG 1927

of writing Report 27<sup>th</sup> August 1927 When handed in at Local Office 19 Port of Copenhagen  
 in Survey held at Elsinore Date, First Survey 2<sup>nd</sup> May Last Survey 4<sup>th</sup> August 1927  
 Book. 82 on the Steel S. FREDENSBRO (Number of Visits 12) Tons { Gross 2914  
 Net 2133  
 at Copenhagen By whom built M. Ballica Vægtfab. Yard No. ✓ When built 1921-2  
 Engines made at Elsinore By whom made Helsingors Jernskibs og Maskinbyggeri Engine No. 254 when made 1927  
 Boilers made at København By whom made Københavns Mask. Værksted Boiler No. ✓ when made 1920  
 Registered Horse Power ✓ Owners M/S. Østerrøiske Compagnie Port belonging to Copenhagen  
 Horse Power as per Rule 212 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

**ES, &c.—Description of Engines.** Vertical Triple Expansion.  
 Cylinders 20" x 32" x 53" Length of Stroke 36 Revs. per minute 80-85 No. of Cylinders 3 No. of Cranks 3  
 Crank shaft journals as per rule 10.65" Dia. of Crank pin 10 3/4" Crank webs Mid. length breadth 17" Thickness parallel to axis 6 7/8"  
 as fitted 10 3/4" Mid. length thickness 6 7/8" shrunk Thickness around eye-hole 5"  
 of Thrust shaft under collars as per rule 10.65" Diameter of Tunnel shaft as per rule 10 1/4" Diameter of Screw shaft as per rule 11.97" Is the Screw shaft  
 as fitted 10 3/4" as fitted 10 1/4" as fitted 12 1/2"  
 a continuous liner the whole length of the stern tube No Is the after end of the liner made watertight in the propeller boss ✓  
 er is in more than one length are the joints burned ✓ If the liner does not fit tightly at the part  
 e bearings in the stern tube, is the space charged with plastic material insoluble in water and non-corrosive ✓  
 ers are fitted, is the shaft lapped or protected between the liners ✓ Is an approved appliance fitted at the after end of the shaft to permit  
 y efficiently lubricated ✓ Length of Stern Bush ✓ Diameter of Propeller 15' 3"  
 Propeller ✓ No. of Blades ✓ State whether Moveable ✓ Total Surface ✓ square feet.  
 Feed Pumps fitted to the Main Engines 2" Diameter of ditto 4" Stroke 9" Can one be overhauled while the other is at work yes  
 Bilge Pumps fitted to the Main Engines 2" Diameter of ditto 4 1/4" Stroke 18" Can one be overhauled while the other is at work yes  
 ber and size of power driven **Feed and Bilge Auxiliary Pumps**  
 size of Pumps connected to the **Main Bilge Line**  
 size of **Ballast Pumps** No. and size of **Lubricating Oil Pumps**, including Spare Pump  
 independent means arranged for circulating water through the **Oil Cooler** No. and size of suction connected to both Main Bilge Pumps and Auxiliary  
 ps;—In Engine and Boiler Room and in Holds, &c.

ze of **Main Water Circulating Pump Bilge Suctions** No. and size of **Donkey Pump Direct Suctions**  
 ine Room Bilges ✓ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes ✓  
 ilge 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  
 nections with the sea direct on the skin of the ship ✓ Are they Valves or Cocks ✓  
 ae sufficiently high on the ship's side to be seen without lifting the stokehold plates ✓ Are the Discharge Pipes above or below the deep water line ✓  
 ach fitted with a Discharge Valve always accessible on the plating of the vessel ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate  
 s are carried through the bunkers ✓ How are they protected ✓  
 pes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times ✓  
 ngement 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  
 nt to another ✓ Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

**BOILERS, &c.—**(Letter for record ✓) Total Heating Surface of Boilers ✓  
 d Draft fitted ✓ No. and Description of Boilers ✓ Working Pressure ✓  
**REPORT ON MAIN BOILERS NOW FORWARDED?** No  
**DONKEY BOILER FITTED?** ✓ If so, is a report now forwarded? ✓

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

**GEAR.** State the articles supplied:— 2 pair connecting rod top end brasses and 4 bolts, 1 set connecting  
horn end brasses with 2 bolts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of  
set of I.P. - 1 set of L.P. piston packing rings, 12 packing bolts, 1 set of H.P. - 1 set of I.P. piston  
valve packing rings, 1 slide valve spindle, 1 guide shoe, 2 half eccentric straps, 6" Kinghorn's  
discs for the air pump, 2 valve discs and seats for the feed pumps, 2 valve discs and  
for the bilge pumps, 1 air pump bucket rod, 32 condenser tubes, 50 screw ferrules.

The foregoing is a correct description,

Manufacturer.

Elsinore 19 Aug 1927  
 AKTIESELSKABET  
 HESLINGORS JERNSKIBS- OG MASKINBYGGERI  
 Lloyd's Register  
 Foundation



1927: 2/5 - 6/5 - 9/6 - 25/6 - 28/6 - 2/7 - 6/7 - 8/7 - 15/7 - 21/7 - 26/7 - 4/8

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

12.

Dates of Examination of principal parts - Cylinders 2/5 - 6/5 - 9/6 - 25/6 - 28/6 - 6/7 Slides 6/5 - 28/6  
Covers 6/5 - 28/6 Pistons 6/5 - 28/6 Rods 28/6 - 21/7  
Connecting rods 25/6 - 6/7 Crank shaft 9/6 - 25/6 - 28/6 - 2/7 - 6/7 - 8/7 Thrust shaft 15/7  
Tunnel shafts ✓ Screw shaft ✓ Propeller ✓  
Stern tube ✓ Engine and boiler settings ✓ Engines holding down bolts ✓  
Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓  
Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓  
Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓  
Material of Crank shaft Siemens Martin Ingot Steel. Identification Mark on Do. No. 5234 H. 21.7.27 - LP. LLOYD'S  
Material of Thrust shaft Siemens Martin Ingot Steel. Identification Mark on Do. LLOYD'S No. 2021-MK-HJ 13.5.27-909.  
Material of Tunnel shafts ✓ Identification Marks on Do. ✓  
Material of Screw shafts ✓ Identification Marks on Do. ✓  
Material of Steam Pipes ✓ Test pressure ✓ Date of Test ✓  
Is an installation fitted for burning oil fuel ✓ 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 No If so, state name of vessel ✓

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

The machinery has been built under Special Survey and in accordance with the requirements of the Rules, the approved plans, and the requirements contained in the Secretary's letters E dated 22/3 - 20/6 - 12/7 - 1927.

The material used in the construction has been tested as required by the Rules, as per certificates produced or by us, and the workmanship is of good description throughout.

The machinery has been dispatched to Kiel for installation in the above named vessel and an interim certificate as per copy enclosed has been forwarded to the Society's Surveyors at Hamburg.

The amount of Entry Fee ... £ 4,500.00  
Special ... £  
Donkey Boiler Fee ... £  
Travelling Expenses (if any) £ 116.00

When applied for,

19

When received,

29.9.27

E. Schiffer, M. A. S.  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

TUES. 27 SEP 1927

Assigned

See Ham. rpt. No 17628



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Foundation