

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

11 JUL 1925

of writing Report *7.7.25* When handed in at Local Office *8/7/25* Port of *Trinite*  
 in Survey held at *Trinite* Date, First Survey *May 8* Last Survey *June 27 1925*  
 Book. *86* on the *S/S. 12 RADIA. ex "OLDENNIS ex 12 RADIA."* (Number of Visits *11*)  
 at *SUNDERLAND* By whom built *W. DOXFORD & SONS LTD.* Yard No. *—* Tons { Gross *3525.66*  
 when made at *SUNDERLAND* By whom made *W. DOXFORD & SONS LTD.* Engine No. *—* when made *1910*  
 when made at *SUNDERLAND* By whom made *W. DOXFORD & SONS LTD.* Boiler No. *—* when made *1910*  
 rated Horse Power *300* Owners *ATLANTIC TOWNSHIP LTD. PACIFIC* Port belonging to *DOUBROVNIK.*  
 Horse Power as per Rule *300* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *YES.*

**ENGINES, &c.—Description of Engines:**  
 of Cylinders *36" x 42" x 68"* Length of Stroke *42"* Revs. per minute *66* No. of Cylinders *3* No. of Cranks *3*  
 as per rule *12.5"* as fitted *12.5"* Dkt. of Crank pin *12.75"* Crank webs *17.75"* Mid. length breadth *8.25"* Thickness parallel to axis *8.25"*  
 as fitted *12.5"* as per rule *12.5"* as fitted *12.5"* Mid. length thickness *11.75"* Thickness around eye-hole *13.11"*  
 of Thrust shaft under collars *12.5"* Diameter of Tunnel shaft *12.4"* Diameter of Screw shaft *13.93"* Is the Screw shaft  
 as fitted *12.5"* as fitted *12.4"* as fitted *13.93"*

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*  
 liner is in more than one length are the joints burned *one length* If the liner does not fit tightly at the part  
 the bearings in the stern tube, is the space charged with plastic material insoluble in water and non-corrosive *—*  
 liners 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  
 ing efficiently lubricated *—* Length of Stern Bush *68"* Diameter of Propeller *16-1"*  
 Propeller *16-4"* No. of Blades *4* State whether Moveable *No* Total Surface *82.7* square feet.  
 Feed Pumps fitted to the Main Engines *2* Diameter of ditto *4"* Stroke *28"* Can one be overhauled while the other is at work *No*  
 Bilge Pumps fitted to the Main Engines *2* Diameter of ditto *4"* Stroke *28"* Can one be overhauled while the other is at work *No*  
 number and size of power driven Feed and Bilge Auxiliary Pumps *3-ONE 9" x 9" x 9 1/2" ONE 6" x 5" x 6" ONE 4 9/16" x 3" x 3 1/2"*  
 size of Pumps connected to the Main Bilge Line *ONE 9" x 9" x 9 1/2"*  
 size of Ballast Pumps *ONE 9" x 9" x 9 1/2"* 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  
 pumps:—In Engine and Boiler Room *Two, 3"* Bilge suction *—* and in Holds, &c. *182 Bilge suction 2 1/2" in hold No. 1.*  
*182, 2 bilge suction diam. 3", hold 183-2 bilge suction diam. 2 1/2", hold No. 4 - and*  
*1 suction diam. 3". Tunnel space and bilge suction diam. 3". Fore & after each each one 2 1/2".*  
 size of Main Water Circulating Pump Bilge Suctions *ONE suction diam. 4"* No. and size of Donkey Pump Direct Suctions  
 Engine Room Bilges *ONE DIAM. 4 1/2"* Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes *yes.*  
 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.*  
 connections with the sea direct on the skin of the ship *yes.* Are they Valves or Cocks *Valve*  
 size 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*  
 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.*  
 pipes are carried through the bunkers *NONE* How are they protected *—*  
 pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *yes.*  
 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  
 vent to another *yes.* Is the Screw Shaft Tunnel watertight *yes.* Is it fitted with a watertight door *yes.* worked from *Eng. Room*  
**BOILERS, &c.—**(Letter for record *5.*) Total Heating Surface of Boilers *2877.7* *Total = 5755* *2877.7* *Each Boiler*  
 and Draft fitted *No* No. and Description of Boilers *Two cylindrical* Working Pressure *160 lbs.*

REPORT ON MAIN BOILERS NOW FORWARDED? *yes.*  
 DONKEY BOILER FITTED? *yes.* If so, is a report now forwarded? *yes.*  
 Are approved plans forwarded herewith for Shafting *yes.* Main Boilers *yes.* Auxiliary Boilers *—* Donkey Boilers *yes.*  
 (If not state date of approval)  
 Pumping Arrangements *yes.* Oil fuel Burning Piping Arrangements *—*

**E GEAR.** State the articles supplied:—  
*As per rules requirements complete and good.*  
*1 spare tailshaft and propeller.*

The foregoing is a correct description,

Manufacturer.



During progress of work in shops - - -

Dates of Survey while building

During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts - Cylinders 8/5/1925 Slides 8/5/1925

Covers 8/5/1925 Pistons 8/5/1925 Rods 8/5/1925

Connecting rods 8/5/1925 Crank shaft 8/5/1925 Thrust shaft 8/5/1925

Tunnel shafts 8/5/1925 Screw shaft 22/6/1925 Propeller 22/6/1925

Stern tube 22/6/25 Engine and boiler seatings Engines holding down bolts 8/5/1925

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 27/6/1925 Thickness of adjusting washers ✓

Material of Crank shaft Steel Identification Mark on Do. DARLINGTON-FORGED & CO. N<sup>o</sup> 781 B.C. 781 3.10.09

Material of Thrust shaft - - - Identification Mark on Do. " " B.C. 781 4.4.10 D.M.

Material of Tunnel shafts - - - Identification Marks on Do. " " B.C. 781 4.4.10 D.M.

Material of Screw shafts - - - Identification Marks on Do. " " B.C. 781 4.4.10 D.M.

Material of Steam Pipes Copper Test pressure 340 lbs. 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 YES If so, state name of vessel S/S. ISTINA

General Remarks (State quality of workmanship, opinions as to class, &c. The quality of the machinery and workmanship is good, all part of machinery examined and repaired as recommended. The vessel's machinery is eligible in my opinion to be entered in Reg. Book with notation of L.M.C. 6.25. -

# PARTICULARS OF AUXILIARY MACHINERY.

Ballast pump = 9" x 9" x 9 1/2" N<sup>o</sup> 1268-1909 GATESHEAD, suction from sea, tanks, & bilges delivery: over board canoverrier

I. Warkington = 4 9/16" x 3" x 3 1/2" Suction sea, hotwell, fresh water tanks, delivery Main hauler & Donkey hauler

II. Warkington = 6" x 5" x 6" Birmingham 1909. Suction pipe from Bailer, sea, tanks, hotwells, and fresh water tanks, delivery Bailer, donkey haulers, over board, and deck.

Evaporators = Type Marisan Richardson N<sup>o</sup> 2321-7.3.1910.

Water capacity 18 tons in 24 hours

Elec. Light Dynamos = W. HALLEN & Co. London N<sup>o</sup> 189 engine one cylinder N<sup>o</sup> 2776. 390 rev. per min. 60 Ampere 110 Valt

Dinamos tested 25% over load with satisfactory results please see Electric Report.

The amount of Entry Fee ... £ 780- : When applied for, 8/7/1925

Special ... £ : When received, 25

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

Committee's Minute

Assigned

Engine Surveyor to Lloyd's Register of Shipping



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