

Rpt. 4.

No. 1282.

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 31st July 1931 When handed in at Local Office 19 Port of Trinidad Received at London Office 13 AUG 1931
 No. in Survey held at Godwin's & Co. Trinidad Date, First Survey 17th April 1931 Last Survey 31st July 1931
 Reg. Book 12 (Number of Visits 12)
 on the **STEEL TWIN SC "GARDENGA"**
 Built at Tanzig By whom built J. W. Klawitter Yard No. 110
 Engines made at Tanzig By whom made J. W. Klawitter Engine No. 1904
 Boilers made at Tanzig By whom made J. W. Klawitter Boiler No. 389/90 when made 1904
 Registered Horse Power 70 Owners P. J. Jones & Co. Proprietary Ltd. Port belonging to Port Natal
 Nom. Horse Power as per Rule 70 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended Coasting Service between Launceston Marguay and Port Elizabeth.

ENGINES, &c. Description of Engines Two, Triple expansion Revs. per minute 200
 Dia. of Cylinders 244 380 600 mm Length of Stroke 350 mm No. of Cylinders 2 x 3 No. of Cranks 2 x 3
 Crank shaft, dia. of journals 95 14 1/2 115 1/2 135 1/2 as fitted 111 mm Crank pin dia. 115 mm Crank webs Mid. length breadth 150 mm shrunk Thickness parallel to axis 75 mm
 Intermediate Shafts, diameter as per Rule 111 mm as fitted 111 mm Thrust shaft, diameter at collars as per Rule 111 mm as fitted 111 mm
 Tube Shafts, diameter as per Rule 120 1/2 125 mm as fitted 120 1/2 125 mm Is the screw shaft fitted with a continuous liner no liners
 Screw Shaft, diameter as per Rule 120 1/2 125 mm as fitted 120 1/2 125 mm
 Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted 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 junctions made by fusion through the whole thickness of the liner yes
 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 Is an approved Oil Gland or other appliance fitted at the after end of the shaft no Stafford gland
 Length of Bearing in Stern Bush next to and supporting propeller 60 mm
 Propeller, dia. 1700 mm Pitch 1700 mm No. of Blades 3 Material cast steel whether Moveable no Total Developed Surface sq. feet
 Feed Pumps worked from the Main Engines, No. 1 Diameter 110 mm Stroke 100 mm Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 1 Diameter 110 mm Stroke 100 mm Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 1 duplex 110 x 70 / 100 mm 1 duplex 110 x 60 / 100 mm Pumps connected to the { No. and size 1 duplex 110 x 95 mm dia. by 105 mm stroke
 How driven by steam and 2 injectors Main Bilge Line How driven by steam and 1 injector
 Ballast Pumps, No. and size none Lubricating Oil Pumps, including Spare Pump, No. and size none
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 2 of 2 1/2" dia.
 In Holds, &c. 1 in fore hold 2 1/2" dia., 1 in after hold 2" dia., 1 in store forward 2 1/2" dia., 1 in fore peak trimming tank 2 1/2" dia., 1 in after peak feed water tank 2 1/2" dia., self closing cock to each chafe tunnel.
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 - 3 1/2" dia. Independent Power Pump Direct Suctions to the Engine Room Bilges; No. and size 1 - 2" dia.
 Are all the Bilge Suction Pipes in holds and tunnel and 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 Sea Connections fitted direct on the skin of the ship yes Are they fitted with 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 Overboard Discharges 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 bilge suction pipes How are they protected by wooden sheathing
 What pipes pass through the deep tanks yes Have they been tested as per Rule yes
 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 Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from deck

MAIN BOILERS, &c.—(Letter for record 3) Total Heating Surface of Boilers 2 x 72.5 m² 1561 total
 Is Forced Draft fitted no No. and Description of Boilers 2 multitubular 2SB Working Pressure 12 kg/cm²
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes
PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes
 Superheaters yes General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR. State the articles supplied:—
As required by the Rules.

The foregoing is a correct description,

Manufacturer.



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W512009

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 23/6/31 Slides 20/6/31 Covers 23/6/31
 Pistons 23/6/31 Piston Rods 23/6/31 Connecting rods 23/6/31
 Crank shaft 23/6/31 Thrust shaft 23/6/31 Intermediate shafts 23/6/31
 Tube shaft 5/6/31 Screw shaft 5/6/31 Propeller 5/6/31
 Stern tube 5/6/31 Engine and boiler seatings 23/6/31 Engines holding down bolts 23/6/31
 Completion of pumping arrangements 27/7/31 Boilers fixed - Engines tried under steam 28/7/31
 Main boiler safety valves adjusted 28/7/31 Thickness of adjusting washers see Rpt. 9 attached.
 Crank shaft material ☒ Identification Mark ☒ Thrust shaft material ☒ Identification Mark ☒
 Intermediate shafts, material ☒ Identification Marks ☒ Tube shaft, material ☒ Identification Mark ☒
 Screw shaft, material ☒ Identification Mark ☒ Steam Pipes, material ☒ 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 ☒ If so, state name of vessel ☒

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

These engines have been opened out for survey as required for vessels not built under Survey. The arrangements of sea cocks, bilge suction and valves have been made to conform to the requirements of the Rules and the approved plan. Please see also Rpt. 9 attached.
 The intermediate shafting has been covered in with low steel plate casing as approved and access to the stern glands and the shaft bearings has been made by watertight door on top of the trunk above the stern glands. Each tunnel bearing is lubricated by separate oil pipe controlled from oil cups fitted in the upper part of the engine space bulkhead. The bearings are also accessible through manhole with h.t. cover in the tunnel plating above them, when the after hold is not filled with cargo.

The amount of Entry Fee ... £ : :
 Special ... £ : :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 19...
 When received, 19...

G. H. E. Knappe
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 1 SEP 1931

Assigned



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