

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office MAY 29 1940

Date of writing Report 10 When handed in at Local Office 25 MAY 1940 Port of HULL

No. in Survey held at Hull Date, First Survey 29.3.40 Last Survey 12.5.1940
 Reg. Book. 39527 on the "EMPIRE SUCCESS" ex "IRIA" (Number of Visits 31) Gross Tons 6009
 Net Tons 3646

Built at Hamburg By whom built Vulcan-werke Yard No. 18 When built 1921
 Engines made at Do. By whom made Do. Engine No. 1921 When made 1921
 Boilers made at Do. By whom made Do. Boiler No. 1921 When made 1921

Registered Horse Power 820 Owners Ministry of Shipping Port belonging to London
 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended General cargo to South Africa or such other use as reqd by Government.

ENGINES, &c.—Description of Engines Reciprocating (triple) but now disconnected Revs. per minute 72
 Dia. of Cylinders 31 1/2, 52 1/2, 84 3/8 Length of Stroke 59 1/2 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals 17 1/2 as per Rule 17 1/2 Crank pin dia. 18.1 Crank webs Mid. length breadth 28.5 Thickness parallel to axis 11.75
 as fitted 17 1/2 Mid. length thickness 11.8 Thickness around eye-hole 9
 Intermediate Shafts, diameter 16 1/2 as per Rule 16 1/2 Thrust shaft, diameter at collars 17 1/2 as fitted 17 1/2 (see sketch)

Tube Shafts, diameter 27 as per Rule 27 Screw Shaft, diameter 19 1/2 as fitted 19 1/2 (see sketch) Is the tube screw shaft fitted with a continuous liner Yes
 as fitted 27 as fitted 19 1/2

Bronze Liners, thickness in way of bushes 32 as per Rule 32 Thickness between bushes 3/8 as fitted 3/8 Is the after end of the liner made watertight in the stern tube Yes
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length.
 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 tube Yes
 If so, state type Yes Length of Bearing in Stern Bush next to and supporting propeller 6' 0"

Propeller, dia. 20.75 Pitch 18.75 No. of Blades 4 Material Special bronze whether Moveable Yes Total Developed Surface 120 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 3.9 Stroke 27 1/2 Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4.75 Stroke 27 1/2 Can one be overhauled while the other is at work Yes

Feed Pumps { No. and size 2 independent Weirs Pumps connected to the { No. and size 2 of 4.75 x 27.5 off 8, 16, 10
 How driven 12" x 22" x 9" (steam) Main Bilge Line How driven M.E. Ind. duplex, steam.
 Ballast Pumps, No. and size 1 duplex type 8", 16", 10" Lubricating Oil Pumps, including Spare Pump, No. and size 2 ind. Weirs (steam)

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 In ER 5-4, 2-3 1/2, 1-4 1/4 In BR 4-4
 In Pump Room Yes In Holds, &c. 12-4", 1-4" in Cofferdam & 2-2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size one 15" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1-3 1/2" 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 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 Both
 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 pass through the bunkers Vertical for bilge suction How are they protected Woods + steel plate covers
 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 Trunnel watertight Yes Is it fitted with a watertight door Yes worked from top of ER.

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 11,970 sq. ft.
 Which Boilers are fitted with Forced Draft All Which Boilers are fitted with Superheaters All
 No. and Description of Boilers 4 SE Multitubular Working Pressure 206 lb.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes
 Can the donkey boiler be used for domestic purposes only Yes

PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes
 (If not state date of approval)
 Superheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

SPARE GEAR.
 Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied Scramshaft (ex), 9 coupling bolts + nuts, Thompson coupling, 6 propeller studs, 1 set thrust pads, 1 boom end brace, 1 pair crosshead brasses, 1/2 eccentric strap, 1/2 main bearing, 1 air pump rod, 1 set HP packings, 1 set drag links.

The foregoing is a correct description.

Manufacturers.



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Dates of Survey while building
 During progress of work in shops -- 1940. MAR. 29, 30. APR. 1, 2, 3, 4, 5, 6, 9, 12, 15, 16, 17, 18, 20, 22, 23, 24, 25, 26, 30. MAY. 1, 2, 3, 6, 7, 8, 9, 10, 11, 12.
 During erection on board vessel --
 Total No. of visits 31.

Dates of Examination of principal parts—Cylinders 1940 ap my Slides 1940 ap my Covers 1940 ap my
 Pistons 1940 ap my Piston Rods Connecting rods
 Crank shaft Thrust shaft Intermediate shafts
 Tube shaft Screw shaft 5.4.40 Propeller 5.4.40
 Stern tube 5.4.40 Engine and boiler seatings 1940 ap my Engines holding down bolts 1940 ap my
 Completion of fitting sea connections
 Completion of pumping arrangements 12.5.40 Boilers fixed ✓ Engines tried under steam 12.5.40
 Main boiler safety valves adjusted 10.5.40 Thickness of adjusting washers 25 2 9 23 13 7 27 13 19 29 15 13 17 27 29 32 16 32 32 16 8 32 16 32 16 32 32
 Crank shaft material Steel Identification Mark Thrust shaft material Steel Identification Mark
 Intermediate shafts, material Identification Marks Tube shaft, material ✓ Identification Mark
 Screw shaft, material Identification Mark Steam Pipes, material Steel Test pressure Date of Test
 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 the use of oil as fuel been complied with ✓
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No If so, have the requirements of the Rules been complied with ✓
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with Yes
 Is this machinery duplicate of a previous case If so, state name of vessel Similar to S.S. Bochum

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The particulars of the engine and dimensions of their various parts have been checked as far as practicable and found to agree substantially with first entry report on S.S. Bochum.
 The workmanship and materials appear good.
 The Bauw. Wack turbine shaft is broken and turbine is out of use.
 The machinery has been tried under working conditions and found satisfactory and is eligible in my opinion to be classed in the Register Book with LMC 5,40 on completion also
 FO & CL.

The amount of Entry Fee ... £ : :
 Special (including £2) £ 38 : - :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, see to the full 30.5.40 19
 When received, 6th July 1940 R.S.J. 8/4

W.S. Shields & P. O'Leary
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute FRI, 21 JUN 1940
 Assigned No action to be taken
 see vol 26 50675

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

