

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 25 June 1948 When handed in at Local Office 25 June 1948 Port of CARDIFF Received at London Office 26 July 1948
 No. in Survey held at CARDIFF Date, First Survey 13.4.48 Last Survey 21.6.48
 Reg. Book. 23185 on the S.S. "EMPIRE CONSENT" (Number of Visits 10)
 Built at KRIMPEN a/d YSEL By whom built N.Y.C. VAN DER GIESSEN & ZONEN'S SCHIPS. Yard No. Tons } Gross 1942
 Engines made at AMSTERDAM By whom made YERSCHURE & Co's SCHIPSW. Engine No. Net 964
 Boilers made at AMSTERDAM By whom made YERSCHURE & Co's SCHIPSW. Boiler No. 316/317 When built 1944
 Registered Horse Power 1200 Owners MINISTRY OF TRANSPORT Port belonging to LONDON When made 1944
 Nom. Horse Power as per Rule 276 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES
 Trade for which Vessel is intended

ENGINES, &c. Description of Engines DOUBLE COMPOUND LENTZ Revs. per minute 80/90.
 Dia. of Cylinders 420 MM & 900 MM Length of Stroke 900 MM No. of Cylinders 4 No. of Cranks 4
 Crank shaft, dia. of journals 290 MM Crank pin dia. 290 MM Crank webs 35 7/16 Mid. length breadth 560 MM Thickness parallel to axis 155 MM
 Intermediate Shafts, diameter 300 MM Thrust shaft, diameter at collars 285 MM Mid. length thickness 168 MM Thickness around eye-hole 132.5 MM
 Tube Shafts, diameter Screw Shaft, diameter 306 MM Is the screw shaft fitted with a continuous liner YES
 Chrome Steel Liners, thickness in way of bushes 18 MM Thickness between bushes 12 MM 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
 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
 If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube
 Propeller, dia. 4300 MM Pitch 3570 MM No. of Blades 4 Material CAST IRON whether Moveable NO Total Developed Surface sq. feet
 Feed Pumps worked from the Main Engines, No. NONE Diameter Stroke Can one be overhauled while the other is at work
 Bilge Pumps worked from the Main Engines, No. NONE Diameter Stroke Can one be overhauled while the other is at work
 Feed Pumps { No. and size 2/200 MM x 140 MM x 375 MM Pumps connected to the { No. and size 3/1 @ 200 MM x 140 MM x 375 MM / 225 x 250 x 310 / 120 x 150 x 120
 How driven STEAM Main Bilge Line { How driven STEAM STEAM STEAM
 Ballast Pumps, No. and size 1 @ 225 MM x 250 MM x 310 MM Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler Suctions, connect to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room ER 2 (P.S.) @ 80 MM (S) TUNNEL 2 @ 90 (F&A) BOILER ROOM 2 (P.S.) @ 80 MM
 In Pump Room DRY TANK 2 @ 80 MM PORT BUNKER (LEFT) 1 @ 70 MM In Holds, &c. Nº 1 (P.S.) 2 @ 65 MM Nº 2 (P.S.) 2 @ 80 MM Nº 3 (P.S.) 2 @ 80 MM
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 125 MM (STORB SIDE) Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
 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 YES
 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 pass through the bunkers NONE How are they protected
 What pipes pass through the deep tanks NONE Have they been tested as per Rule
 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 UPPER DECK

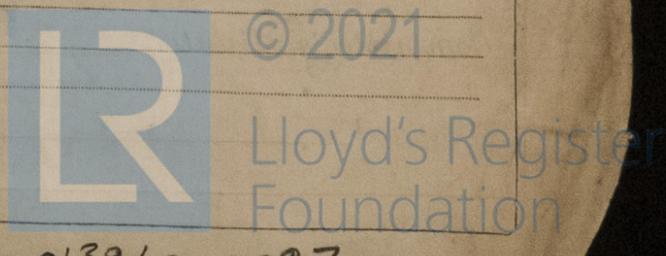
MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 490 M²
 Which Boilers are fitted with Forced Draft MAIN BOILERS Which Boilers are fitted with Superheaters MAIN BOILERS
 No. and Description of Boilers 2-CLY. MULTITUBULAR "CAPUS" TYPE (SUPHT) Working Pressure 216 lbs/sq"
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? YES
 IS A DONKEY BOILER FITTED? NO If so, is a report now forwarded?
 Can the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting YES Main Boilers YES Auxiliary Boilers Donkey Boilers
 Superheaters YES General Pumping Arrangements YES Oil fuel Burning Piping Arrangements NOT FITTED

SPARE GEAR.
 Has the spare gear required by the Rules been supplied YES (EXCEPT SPARE PROPELLER & 1 SET OF PADS FOR THRUST BLOCK)
 State the principal additional spare gear supplied

The foregoing is a correct description.

Manufacturer.



26110

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 ✓ Slides ✓ Covers ✓

Pistons ✓ Piston Rods ✓ Connecting rods ✓

Crank shaft ✓ Thrust shaft ✓ Intermediate shafts ✓

Tube shaft ✓ Screw shaft ✓ Propeller ✓

Stern tube ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓

Completion of fitting sea connections ✓

Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓

Main boiler safety valves adjusted **YES** Thickness of adjusting washers **PORT BOILER** PY. $\frac{3}{8}$. SY. $\frac{3}{8}$. SUP. $\frac{3}{8}$. **STARBD BOILER** PY. $\frac{3}{8}$. SY. $\frac{3}{8}$. SUP. $\frac{3}{8}$.

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 **STEEL** Test pressure **650** lbs Date of Test **12.5.48**

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 **NO**

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.)

THE MACHINERY OF THIS VESSEL WAS BUILT UNDER SURVEY AND TO CLASS OF GERMANISCHER LLOYD. THE MACHINERY HAS BEEN SPECIALLY EXAMINED, CHECKED AS FAR AS PRACTICABLE AND FOUND OR PLACED IN GOOD CONDITION AND IN ACCORDANCE WITH APPROVED PLANS. THE MATERIAL AND WORKMANSHIP APPEAR GOOD AND MACHINERY IS ELIGIBLE IN MY OPINION TO BE CLASSED WITH RECORD OF LMC 6/48.

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

The amount of Entry Fee	£	When applied for,
Special	... £ 56 14 4	19
Donkey Boiler Fee	... £	When received,
Travelling Expenses (if any)	£	19

Thomas Donaldson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 23 JUL 1948**

Assigned *See minute on Rpt. 9*

