

REPORT ON OIL ENGINE MACHINERY.

No. 23800.

Received at London Office

19 JAN 1949

Date of writing Report 10th JAN 1949 When handed in at Local Office 14th JAN 1949 Port of GREENOCK
 No. in Survey held at GREENOCK Date, First Survey 13th APRIL 1948 Last Survey 30th Dec. 1948
 Reg. Book. GREENOCK Number of Visits 53

on the Single Twin Triple Quadruple Screw vessel **BRITISH PROGRESS** Tons ^{Gross} _{Net}
 Built at GLASGOW By whom built BLYTHSWOOD S.B. & CO. LD. Yard No. 89 When built 1948
 Engines made at GREENOCK By whom made JOHN G. KINCAID & CO. LD. Engine No. 1202 When made 1948
 Donkey Boilers made at do By whom made do Boiler No. 190 When made 1948
 Brake Horse Power 3200 Owners BRITISH TANKER CO. LD. Port belonging to
 Nom. Horse Power as per Rule 488 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES
 Trade for which vessel is intended OPEN SEA SERVICE

OIL ENGINES, &c. Type of Engines DIESEL (under piston Duplex) 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 650 lb Diameter of cylinders 7 1/4" Length of stroke 15 1/2" No. of cylinders 6 No. of cranks 6
 Mean Indicated Pressure 115 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 9 8/8" Is there a bearing between each crank Yes
 Revolutions per minute 115 Flywheel dia. 24 9/7" Weight 2499 Kg. Means of ignition Compression Kind of fuel used Diesel oil
 Crank Shaft, Solid forged dia. of journals as per Rule App. Crank pin dia. 5 5/7" Crank Webs Mid. length breadth 9 8/7" Thickness parallel to axis 3 10/7"
Semi built as fitted 5 5/7" Mid. length thickness 3 10/7" shrunk Thickness around eye hole 2 9/2 5/7"
All built Flywheel Shaft, diameter as per Rule App. Intermediate Shafts, diameter as per Rule App. Thrust Shaft, diameter at collars as per Rule App.
 as fitted 17" as fitted 16" Is the tube shaft fitted with a continuous liner Yes
 Tube Shaft, diameter as per Rule App. as fitted 16" Is the screw shaft fitted with a continuous liner Yes
 Bronze Liners, thickness in way of bushes as per Rule 3/16" Thickness between bushes as per Rule 9/16" Is the after end of the liner made watertight in the
 as fitted 1 1/16" as fitted 1 1/16" 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 tube
 shaft No If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5' 4"
 Propeller, dia. 15' 9" Pitch 10' 9" No. of blades 4 Material Brass whether Moveable No Total Developed Surface 88 sq. feet

Method of reversing Engines Air pump motor Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
Forced Thickness of cylinder liners 53% top Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
4 1/2 bottom non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Yes
 Cooling Water Pumps, No. Two M.E. drive Two standby Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Bilge Pumps worked from the Main Engines, No. None Diameter Stroke Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size One 170 tons/hr Two 100 tons/hr
 How driven Steam
 Is the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
 arrangements
 Ballast Pumps, No. and size One 170 tons/hr Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One M.E. 100 tons/hr
One Steam 100 tons/hr
 Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 Pumps, No. and size:—In Machinery Spaces Three @ 3 1/2" In Pump Room Four @ 1 1/2"

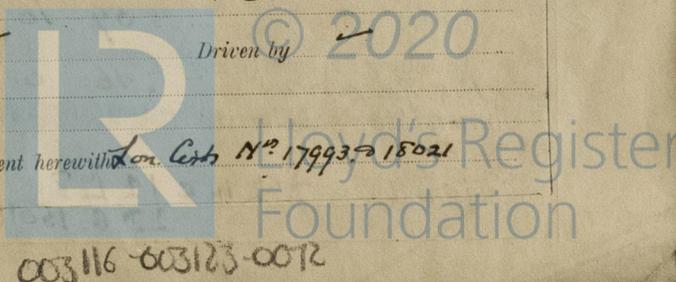
In Holds, &c. Two @ 2 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two @ 6"
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces
 ed from easily accessible mud-boxes, placed above the 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 platform 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 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 None Is it fitted with a watertight door worked from

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
 Main Air Compressors, No. No. of stages Diameters Stroke Driven by
 Auxiliary Air Compressors, No. Two No. of stages Two Diameters 1 1/4" & 4 3/4" Stroke 8" Driven by Steam
 Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

What provision is made for first Charging the Air Receivers Steam compression as above
 scavenging Air Pumps, No. Diameter Stroke Driven by
 Auxiliary Engines crank shafts, diameter as per Rule No.
 as fitted Position

Have the Auxiliary Engines been constructed under special survey Is a report sent herewith Yes Lon. Cert. No. 17993 & 15021



AIR RECEIVERS: - Have they been made under survey? *Yes*
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule? *Yes*
 Can the internal surfaces of the receivers be examined and cleaned? *Yes*
 Injection Air Receivers, No. *None* Cubic capacity of each *✓* Internal diameter *✓* thickness *✓*
 Seamless, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *✓*
 Starting Air Receivers, No. *Two* Total cubic capacity *900 cu ft* Internal diameter *6'-0 1/8" to 5'-10 1/4"* thickness *3/32" to 1/16"*
 Seamless, lap welded or riveted longitudinal joint *TRDBS* Material *SMS* Range of tensile strength *29/33 tons* Working pressure *by Rules 357 lb Actual 356 lb*

IS A DONKEY BOILER FITTED? *Yes* If so, is a report now forwarded? *Yes*
 Is the donkey boiler intended to be used for domestic purposes only? *No*
 PLANS. Are approved plans forwarded herewith for Shafting *4-1-47 220-3-47* Receivers *11-12-47* Separate Fuel Tanks *23-12-47 24-2-48*
 Donkey Boilers *20-12-47* General Pumping Arrangements *19-12-47*
 Oil Fuel Burning Arrangements *27-1-48* **TORSIONAL VIBRATION CHARACTERISTICS** *4/1/47 1/11/48*

SPARE GEAR.
 Has the spare gear required by the Rules been supplied? *Yes see separate list*
 State the principal additional spare gear supplied *Spare Screw shaft LR 16353 CNH 10/8/48*

The foregoing is a correct description for JOHN G. KINCAID & CO. LIMITED.

J. Conway
 Chief Draughtsman.

Dates of Survey while building: During progress of work in shops - - (1948) APRIL 15-19. MAY 10. 17. 18-31. JUNE 2. 4. 24. 25-30. JULY 1. 19. 22. 28-30. AUG. 2. 4. 5. 6. 11. 13-31. SEPT. 2-7-8.
 During erection on board vessel - - 13. 20. 24. 27. 28. OCT. 1. 5. 6. 8. 12. 14. 18. 22. 25. 28. 29. NOV. 2. 4. 5. 8. 11. 14. 15. 29. DEC. 28-30.
 Total No. of visits *53*
 Dates of Examination of principal parts - Cylinders *30/6/48* Covers *2/8/48* Pistons *24/6/48* Rods *10/9/48* Connecting rods *10/9/48*
 Crank shaft *10/9/48* Flywheel shaft *✓* Thrust shaft *10-9-48* Intermediate shafts *11-8-48* Tube shaft *✓*
 Screw shaft *1-7-48* Propeller *1-7-48* Stern tube *7-6-48* Engine seatings *7-9-48* Engines holding down bolts *5-10-48*
 Completion of fitting sea connections *Glasgow* Completion of pumping arrangements *28-12-48* Engines tried under working conditions *25-12-48*
 Crank shaft, Material *SMS* Identification Mark *LR 16351 CNH 10/9/48* Flywheel shaft, Material *✓* Identification Mark *✓*
 Thrust shaft, Material *SMS* Identification Mark *LR 16149 CNH 10/9/48* Intermediate shafts, Material *SMS* Identification Mark *LR 16353 CNH 11/5/48*
 Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *SMS* Identification Mark *LR 16353 CNH 17/48*
 Identification Marks on Air Receivers *N° 2494 LLOYDS TEST 584 lb. 356 w.p. CNH 18/8/48* *N° 2495 LLOYDS TEST 584 lb. 356 w.p. CNH 20/8/48*

Is the flash point of the oil to be used over 150° F. *Yes*
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with? *Yes*
 Description of fire extinguishing apparatus fitted *Steam under boiler & engine platform. 10-2 galn portables 1-10 galn with hose*
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo? *Tanker* If so, have the requirements of the Rules been complied with? *Yes*
 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? *Yes* If so, state name of vessel *"BRITISH COUNCILOR" GRT FE N° 23770*

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery has been constructed under Special Survey in accordance with the Rules & approved plans. The materials & workmanship are all of a sound & good. The engine & boiler have been efficiently installed in the vessel & tested on a sea trial under full working conditions with satisfactory results. This installation is eligible in my opinion to be classed in the Society's Register books with Record + LMC 12-48 & Notation Screw shaft CL. 2 DB 150 lbs. F.O. fitted for oil fuel FP above 150° F.*
Lifting certificates common to this engine and K 201 to follow and K 189. K 190. K 200 already reported will be forwarded on completion of the contract

The amount of Entry Fee .. £ 200 : When applied for, 14th JAN 1949
 Special £ :
 Donkey Boiler Fee ... £ 59 : 10 : When received, 19
 Travelling Expenses (if any) £ 16 : 0 :
 AIR RECEIVERS
 Committee's Minute *GLASGOW 18 JAN 1949*
 Assigned *Lmc 12.48 20.8.150lb F.D. OIL ENG*

Charles H. Hamilton
 Engineer Surveyor to Lloyd's Register of Shipping.



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