

REPORT ON OIL ENGINE MACHINERY.

No 19259.

Received at London Office

Date of writing Report 10th July 1951 When handed in at Local Office 11th July 1951 Port of WEST HARTLEPOOL
 No. in Survey held at HARTLEPOOL Date, First Survey 1951 Last Survey 1951
 Reg. Book. WALLSEND-ON-TYNE SUNDERLAND Number of Visits 1

Single on the Triple Screw vessel M.V. CALLISTO Tons Gross 5844 Net 3373
 built at SUNDERLAND By whom built SHORT BROS. LTD. Yard No. 506 When built 1951
 Engines made at HARTLEPOOL By whom made RICHARDSON, WESTCARTH & CO. LTD. Engine No. 3190 When made 1951
1-SE. WALLSEND NE. MARINE ENG. CO. (1935) LTD. 3203 1951
 Monkey Boilers made at VERTICAL - ANNAN By whom made COCHRAN & CO. ANNAN LTD. Boiler No. 18966 When made 1951
 Brake Horse Power 3300 Owners HUDIG & VEDER, N/V. Port belonging to ROTTERDAM
 Nom. Horse Power as per Rule 688 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES
 Trade for which vessel is intended OPEN SERVICE.

DOXFORD OPPOSED PISTON
ENGINE, &c. Type of Engines AIRLESS INJECTION 2 or 4 stroke cycle 2 Single or double acting SINGLE
 Maximum pressure in cylinders 640 lb/sq. in. Diameter of cylinders 23 5/8" Length of stroke 232 1/2" No. of cylinders 4 No. of cranks 4 (three throw)
 Indicated Pressure 79 lb/sq. in. Crank pin dia. 4 1/2" Crank Webs 1948 Is there a bearing between each crank three throw
 Revolutions per minute 109 Flywheel dia. 424 Means of ignition compression Kind of fuel used Diesel oil
 Crank shaft, dia. of journals 4 1/2" Crank pin dia. 4 1/2" Mid. length breadth 650 Thickness parallel to axis 255
 as fitted 450 Mid. length thickness 255 Thickness around eyehole 200
 Wheel Shaft, diameter as per Rule 4 1/2" Intermediate Shafts, diameter as per Rule 12.5" Thrust Shaft, diameter at collars as per Rule 4 1/2"
 as fitted 450 Is the screw shaft fitted with a continuous liner yes
 e Shaft, diameter as per Rule 13.8" as fitted 14 3/8"
 Size Liners, thickness in way of bushes as per Rule 23.05" as fitted 3/4" Thickness between bushes as per Rule 17.25" as fitted 9/16"
 Is the after end of the liner made watertight in the after boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner —
 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 —
 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 —
 If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 5'-2 1/2"
 Propeller, dia. 15'-9" Pitch 13.59' No. of blades 4 Material M. Bronze whether Moveable No Total Developed Surface 83.8 sq. feet
 Method of reversing Engines Hand lever Is a governor or other arrangement fitted to prevent racing of the engine yes Means of lubrication Hand
 Thickness of cylinder liners 25 Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with lagging material lagged
 Is the exhaust led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine —
 Water Pumps, No. 1-D.A. jacket & piston cooling (chilled water) 220 gpm bore x 510 stroke + 1 Ind. Is the sea suction provided with an efficient strainer which can be cleared within the vessel —
 Pumps worked from the Main Engines, No. none Diameter — Stroke — Can one be overhauled while the other is at work —
 connected to the Main Bilge Line No. and Size 1-C.S. pump 69 tons/hr. 1-Bilge pump 95 tons/hr. 1-Ballast pump 300 tons/hr.
 How driven steam
 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 —
 Pumps, No. and size 1-9'x14'x10' 200 ton/hr. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1-D.A. 110 gpm bore x 510 stroke
 independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge —
 No. and size:—In Machinery Spaces 1-3" R. off. 1-3" S. off. 1-2 1/2" tunnel well after efficient 1-2 1/2"
 &c. No. 1-3" P+S; No. 2-3 1/2" P+S; Deep tank-5" P+S (Bilge or Ballast) No. 4-3 1/2" P+S; No. 5-3" P+S.
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-5" S. 1-3" P. 1-8" P.
 The Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
 Connections fitted direct on the skin of the ship yes (with welded bottom flanges) Are they fitted with Valves or Cocks both
 Raised 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 below
 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
 Pass through the bunkers — How are they protected —
 Pass through the deep tanks — Have they been tested as per Rule —
 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 to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from upper deck
 Vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork —
 Compressors, No. None No. of stages — Diameters — Stroke — Driven by —
 Air Compressors, No. 2 No. of stages 3 Diameters each 125 gpm free air/min Stroke — Driven by steam engine
 Auxiliary Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —
 provision is made for first Charging the Air Receivers — Auxiliary air compressors —
 Charging Air Pumps, No. 2 Diameter 1510 Stroke 510 Driven by M.E. bores
 Auxiliary Engines crank shafts, diameter as per Rule — No. 2-45 K.W. steam generators Position Starboard side fore
 The Auxiliary Engines been constructed under special survey No Is a report sent herewith No

AIR RECEIVERS:—Have they been made under survey

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned

Injection Air Receivers, No.

Seamless, lap welded or riveted longitudinal joint

Starting Air Receivers, No.

Seamless, lap welded or riveted longitudinal joint

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shifting

Donkey Boilers

Oil Fuel Burning Arrangements

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

(Note: Makers engine number changed after machinery installed)
from: 3190 to 3203.

T.V. app'd 14/12/50 for 103 1/2
with band speed of 47-56 1/2

The foregoing is a correct description,

RICHARDSON, WESTGARTH & CO. LIMITED

W. E. O'Meara

Manufacturer.

Dates of Survey while building
During progress of work in shops--
During erection on board vessel--
Total No. of visits

Dates of Examination of principal parts—Cylinders
Crank shaft
Screw shaft
Completion of fitting sea connections
Crank shaft, Material
Thrust shaft, Material
Tube shaft, Material
Identification Marks on Air Receivers

Completion of pumping arrangements
Engines tried under working conditions

Engines holding down bolts
Engines tried under working conditions

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark

Identification Mark
Identification Mark
Identification Mark
Identification Mark