

REPORT ON OIL ENGINE MACHINERY.

No. 129.

-6 SEP 1934

Date of writing Report 3rd Sept. 1934 when handed in at Local Office 3rd Sept. 1934 Port of Wintertthur
 No. in Survey held at Wintertthur Date, First Survey 7th Feb. 1934 Last Survey 29th Aug. 1934
 Reg. Book. Number of Visits

on the Triple Screw vessel Tons } Gross
 } Net
 Built at Belfast By whom built Workman, Clark & Co. Ltd. Yard No. 534 When built 1934
 Engines made at Wintertthur By whom made Subzer Bros. Ltd. Engine No. 6450 When made 1934
 Donkey Boilers made at _____ By whom made _____ Boiler No. _____ When made _____
 Horse Power 11000 (Two engs.) Owners New Zealand Shipping Co. Ltd. Port belonging to London
 Horse Power as per Rule 2238 (2 engs.) Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

le for which vessel is intended 28 3/8" / 49 3/16"
ENGINES, &c. Type of Engines Subzer Solid Injection Engines 2 or 4 stroke cycle 2 Single or double acting single
 Maximum pressure in cylinders 800 lb. sq. in. Diameter of cylinders 720 mm. Length of stroke 1250 mm. No. of cylinders 16 (2 engs.) No. of cranks 16 (2 engs.)
 Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 910 mm. 930 Is there a bearing between each crank Yes
 Revolutions per minute 126 Flywheel dia. 2350 mm. Weight 4250 Kg. Means of ignition Compression Kind of fuel used heavy fuel oil
 Crank Shaft, dia. of journals as per Rule 455 mm. 446 Crank pin dia. 490 mm. Crank Webs Mid. length breadth ✓ Thickness parallel to axis 305 mm. ✓
 as fitted 490 " Mid. length thickness ✓ shrunk Thickness around eye-hole 244 " ✓
 Main Shaft, diameter as per Rule 495 " Intermediate Shafts, diameter as per Rule 361 mm. 368 Thrust Shaft, diameter at collars as per Rule 379 " 367
 as fitted 490 " as fitted 380 " as fitted 490 " ✓

Shaft, diameter as per Rule _____ as fitted _____ Is the { tube } shaft fitted with a continuous liner {
 as fitted _____ Thickness between bushes as per rule _____ Is the after end of the liner made watertight in the
 as fitted _____
 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 no 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 _____

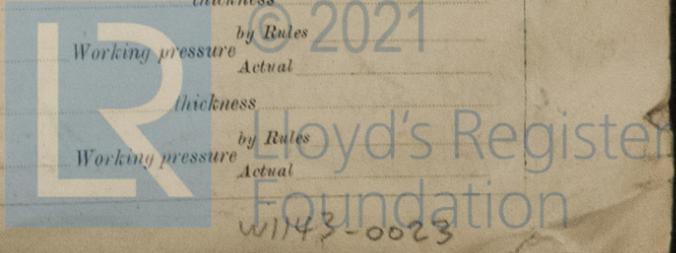
Propeller, dia. _____ Pitch _____ No. of blades _____ Material _____ whether Moveable _____ Total Developed Surface _____ sq. feet
 Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes Means of lubrication _____
 Thickness of cylinder liners 45 mm. Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with _____
 Insulating material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine _____
 Cooling Water Pumps, No. _____ Is the sea suction provided with an efficient strainer which can be cleared within the vessel _____
 special arrangements are made for dealing with cooling water if discharged into bilges _____

Pumps worked from the Main Engines, No. ✓ Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓
 Pumps connected to the Main Bilge Line { No. and Size _____
 { How driven _____
 Auxiliary Pumps, No. and size _____ Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size _____
 independent means arranged for circulating water through the Oil Cooler _____ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge _____
 Suctions, No. and size:—In Machinery Spaces _____ In Pump Room _____

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size _____
 Are the Bilge Suctions in the Machinery Spaces _____
 Are the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes _____
 Are they easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges _____
 Are Sea Connections fitted direct on the skin of the ship _____ Are they fitted with Valves or Cocks _____
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates _____ Are the Overboard Discharges above or below the deep water line _____
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel _____ Are the Blow Off Cocks fitted with a spigot and brass covering plate _____
 How are they protected _____
 Are pipes pass through the bunkers _____ Have they been tested as per Rule _____
 Are pipes pass through the deep tanks _____
 Are Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times _____

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 _____ Is the Shaft Tunnel watertight _____ Is it fitted with a watertight door _____ worked from _____
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork _____
 Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Suctioning Air Pumps, No. 1. Tandem D.A. each eng. Diameter 1660 mm. Stroke 750 mm. Driven by Crankshaft.
 as per Rule _____ No. — _____
 as fitted _____ Position — _____

RECEIVERS:— Is each receiver, which can be isolated, fitted with a safety valve as per Rule _____
 Are the internal surfaces of the receivers be examined and cleaned _____ Is a drain fitted at the lowest part of each receiver _____
 High Pressure Air Receivers, No. _____ Cubic capacity of each _____ Internal diameter _____ thickness _____
 unless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure _____
 Actual _____
 Working Air Receivers, No. _____ Total cubic capacity _____ Internal diameter _____ thickness _____
 unless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure _____
 Actual _____



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

PLANS. Are approved plans forwarded herewith for Shafting 17-1-34, 16-4-34 Receivers (If not, state date of approval)

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

Sulzer Brothers

The foregoing is a correct description.

Handwritten signature/initials in blue ink.

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: Crank shaft, Flywheel shaft, Thrust shaft, Intermediate shafts, Tube shaft, Engines holding down bolts

Completion of fitting sea connections, Completion of pumping arrangements, Engines tried under working conditions, Crank shaft, Material, Thrust shaft, Material, Tube shaft, Material, Identification Mark, Screw shaft, Material, Identification Mark

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

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo 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

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 constructed under special survey in accordance with the requirements of the Rules, the Secretary's letters, and the approved plans. Materials and workmanship good. Full power trials of engines in shop satisfactory.

These engines have been dispatched to Messrs. Workman, Clark & Co. Ltd., Belfast, to be installed in the vessel.

The amount of Entry Fee, Special, Donkey Boiler Fee, Travelling Expenses (if any)

W.B. Fallis, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Assigned, See Bel. J.E. 11408



vertical text on the left margin: (The Surveyors are requested not to write on or below the space for Committee's Minute.)