

REPORT ON OIL ENGINE MACHINERY.

No. 85

18 JAN 1929

Date of writing Report 31st Aug. 1928 When handed in at Local Office 31st Aug. 1928 Port of Winterthur
 No. in Survey held at Winterthur Date, First Survey 26th Aug. 1927 Last Survey 30th Aug. 1928
 Reg. Book. Number of Visits 00

on the Single } Screw vessel "POELOE LAOET" Tons { Gross 9272
Triple }
Quadruple }
 Built at Amsterdam By whom built Messrs. The Nederlandsche Yard No. 189 When built 1928
 Engines made at Winterthur By whom made Messrs. Sulzer Bros. Engine No. 5708 When made 1928
 Donkey Boilers made at Flushing & Rotterdam By whom made Kon. M.Y. De Schelde Rotterdam Boiler No. 472 When made 1928
 Brake Horse Power 7040 Owners Messrs. The Nederland. S.S. Co. Port belonging to Amsterdam
 Com. Horse Power as per Rule 1450 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which vessel is intended East Indies

ENGINES, &c.—Type of Engines Sulzer Diesel Engine 2 or 4 stroke cycle 2 Single or double acting single
 Maximum pressure in cylinders 550 lbs. Diameter of cylinders 820 mm. Length of stroke 1440 mm. No. of cylinders 8 No. of cranks 8
 Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 1230 mm. Is there a bearing between each crank yes
 Revolutions per minute 100 Flywheel dia. 2840 mm. Weight 4600 kg. Means of ignition Compression Kind of fuel used heavy fuel oil
 Crank Shaft, dia. of journals as per Rule 560 mm. Crank pin dia. 580 mm. Crank Webs Mid. length breadth 1040 mm. Thickness parallel to axis 390 mm.
 as fitted 580 " Mid. length thickness 360 " shrunk Thickness around eye-hole 310 "
 Flywheel Shaft, diameter as per Rule 560 " Intermediate Shafts, diameter as per Rule 440 mm. Thrust Shaft, diameter at collars as per Rule 462 "
 as fitted 580 " as fitted 440 mm. as fitted 580 "
 Propeller Shaft, diameter as per Rule 490 mm. Is the { tube } shaft fitted with a continuous liner { yes }
 as fitted 490 mm. as fitted

Propeller Liners, thickness in way of bushes as per Rule 23 mm. Thickness between bushes as per rule 20 mm. Is the after end of the liner made watertight in the
 as fitted 23 mm. as fitted 20 mm. 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 Continued liner
 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 no
 If two liners are fitted, is the shaft lapped or protected between the liners no Is an approved Oil Gland or other appliance fitted at the after
 end of the tube shaft Vickers propeller box Length of Bearing in Stern Bush next to and supporting propeller 1960 mm.
 Propeller, dia. 5795 mm. Pitch 42.56 or 4" No. of blades 4 Material brass whether Moveable no Total Developed Surface 10.12 M² sq. feet
 Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication
 provided oil Thickness of cylinder liners 60 mm. Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with
 conducting 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. 2 Combined piston & cyl. cooling Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 No. 10 & 280 m³ per hr. (1 stand by) Diameter 170 mm. Stroke 150 mm. Can one be overhauled while the other is at work yes

Bilge Pumps connected to the Main Bilge Line { No. and Size one 250 tons center How driven Electrically }
 Lubricating Oil Pumps, including Spare Pump, No. and size 2 Combined bearing & crosshead pumps.
 No. and size one 250 tons center 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 5 - 3 1/2", 2 - 3" Direct to main engine bilge pump
 Holds, &c. 10 - 3 1/2", 2 - 3 1/2" deep tanks, 1 - 3" Cofferdam; 1 - 3" tunnel; 1 - 3 1/4" funnel well - 1 - 3" off plate
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 - 6" Ballast pump
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces
 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 no, connected to cast steel boxes Are they fitted with Valves or Cocks Valves & cocks
 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 below
 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
 Are the pipes pass through the bunkers oil bunkers How are they protected no
 Are the pipes pass through the deep tanks none Have they been tested as per Rule no
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

Is there an 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 engine room & bridge deck
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork no
 Air Compressors, No. 2 No. of stages 3 Diameters 570/480/150 Stroke 720 mm. Driven by Crank shaft
 Auxiliary Air Compressors, No. 1 (4 Cyls.) No. of stages 3 Diameters 310/270/70 Stroke 180 " Driven by Aux. Engine
 Auxiliary Air Compressors, No. 1 (1 ") No. of stages 2 Diameters 110/35 Stroke 120 " Driven by Hot bulb Engine
 Scavenging Air Pumps, No. 1 double D.C. motor driven scavenging turbo blower intake volume 950 m³ per min Driven by Electric motor
 Auxiliary Engines crank shafts, diameter as per Rule 199 mm. 150 mm.
 as fitted 215 " 160 "

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
 Are the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces Injection res.
 Is there a drain arrangement fitted at the lowest part of each receiver yes
 High Pressure Air Receivers, No. 1 Starting res. Cubic capacity of each 800 " Internal diameter 566 mm. thickness 12 mm.
 unless, lap welded or riveted longitudinal joint seamless Material S.M. steel Range of tensile strength 55-61.3 kg/mm² Working pressure by Rules 76.6 kg/cm²
 Starting Air Receivers, No. 2 Total cubic capacity 22 cub. metres Internal diameter 1400 mm. thickness 23.5 mm.
 unless, lap welded or riveted longitudinal joint riveted Material S.M. steel Range of tensile strength 28 to 32 tons Working pressure by Rules 427 lbs.

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Yes

Yes

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval)

28-7-27

Receivers 3-5-27, 11-5-27, 22-4-28 Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

As per attached list

The foregoing is a correct description,

Swain Brothers Limited
Coventry, Warwickshire
Manufacturer.

Dates of Survey while building
During progress of work in shops - 26-6-27, 7-9-27, 16-9-27, 29-9-27, 4-10-27, 11-10-27, 3-11-27, 7-11-27, 10-11-27, 24-11-27, 30-11-27, 12-12-27, 16-12-27, 19-12-27, 4-1-28, 5-1-28, 6-1-28, 11-1-28, 13-1-28, 20-1-28, 24-1-28, 30-1-28, 1-2-28, 2-2-28, 6-2-28, 7-2-28, 13-2-28, 23-2-28, 24-2-28, 29-2-28, 2-3-28, 13-3-28, 22-3-28, 27-3-28, 2-4-28, 3-4-28, 10-4-28, 16-4-28, 19-4-28, 27-4-28, 16-5-28, 23-5-28, 18-7-28, 26-7-28, 30-7-28, 30-8-28.
Total No. of visits 13.14 July 9-29 Aug 19 Sept. 1-11.25 Dec. 3-9.16.17.20.21 Nov. 4.10.12.13.20.28.29.30 11-e-1928
15 January 1929

Dates of Examination of principal parts - Cylinders 10-4-28 Covers 3-4-28 Pistons 3-4-28 Rods 3-4-28 Connecting rods 10-4-28.

Crank shaft 16-4-28 Flywheel shaft 16-4-28 Thrust shaft 16-4-28 Intermediate shafts 11-8-28 Tube shaft -

Screw shaft 20-11-28 Propeller 20-11-28 Stern tube 17-7-28 Engine seatings 4-11-28 Engines holding down bolts 13-11-28

Completion of fitting sea connections 13-7-28 Completion of pumping arrangements 20-11-28 Engines tried under working conditions 29-30 Dec. 28

Crank shaft, Material Ann. S. M. Eng. Stl. Identification Mark Lloyd's PK 184, 22-11-27 Flywheel shaft, Material Ann. S. M. Eng. Steel Identification Mark Lloyd's JA 2123, 8-9-27

Thrust shaft, Material -do- Identification Mark see flywheel shaft Intermediate shafts, Material Ann. S. M. S Identification Marks 509, 2242, 30-5-28

Tube shaft, Material -do- Identification Mark Ann. S. C. Screw shaft, Material Ann. S. M. S Identification Mark Lloyd's S 2242-55, 30-5-28

Is the flash point of the oil to be used over 150° F. Yes

Is this machinery duplicate of a previous case No If so, state name of vessel Yes M.V. Poulou Foubiah

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has 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 engine in shops satisfactory.

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

The amount of Entry Fee ... £ 6-0-0. When applied for, 31st Aug 1928
Special ... £ 136-5-0.
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : When received, 1st Sept. 1928

Committee's Minute TUE 29 JAN 1929
Assigned See Ans. Feb. 1928 No 11320

W.G. Vallis
Engineer Surveyor to Lloyd's Register of Shipping.

