

REPORT ON OIL ENGINE MACHINERY.

No. 116897

Received at London Office

of writing Report 19 ¹⁹⁴⁸ When handed in at Local Office ^{18 AUG 1948} Port of London

in Survey held at Leamington Date, First Survey 18 Mar 1948 Last Survey 29 Apr 1948
Reg. Book. Single Screw vessel M.V. "Aspidochelone" Number of Visits 4

Build at Leamington By whom built Leamington Diesel Eng Co. Yard No. 822 When built 1948
Engines made at Leamington By whom made Leamington Diesel Eng Co. Engine No. 822 When made 1948
Boilers made at Leamington By whom made Leamington Diesel Eng Co. Boiler No. 822 When made 1948

Horse Power 300 Owners M.V. Port belonging to Leamington
Horse Power as per Rule 95 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No
Trade for which vessel is intended Coastal

OIL ENGINES, &c. — Type of Engines 2 S.C.S.A. 2 or 4 stroke cycle 2 Single or double acting Single
Maximum pressure in cylinders # 700 lbs Diameter of cylinders 240% Length of stroke 345% No. of cylinders 6 No. of cranks 6
Mean Indicated Pressure 80 lbs Span of bearings, adjacent to the crank, measured from inner edge to inner edge 321% Is there a bearing between each crank Yes
Revolutions per minute 330 Flywheel dia. 23.6" Weight 465 lbs Means of ignition Compression Kind of fuel used Pool diesel
Crank Shaft, Solid forged dia. of journals as per Rule Crank pin dia. 150% Crank webs Mid. length breadth 200% Thickness parallel to axis shrunk
Aluminum as fitted 150% as fitted 150% Mid. length thickness 83% Thickness around eye hole shrunk

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the { tube / screw } shaft fitted with a continuous liner No
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the propeller boss No
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner No
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 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 tube shaft No
If so, state type Oil Gland Length of bearing in Stern Bush next to and supporting propeller as per Rule

Propeller, dia. as per Rule Pitch as per Rule No. of blades as per Rule Material as per Rule whether moveable as per Rule Total developed surface as per Rule sq. feet
Method of reversing Engines Air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of as per Rule
Thickens of cylinder liners as per Rule Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled Yes
If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned to the engine as per Rule

Cooling Water Pumps, No. 1 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. 1 Diameter 123% Stroke 125% Can one be overhauled while the other is at work No
Pumps connected to the Main Bilge Line No. and size How driven as per Rule

Is the cooling water led to the bilges as per Rule If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements as per Rule
Ballast Pumps, No. and size as per Rule Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1. 9 S.P.L.

Are two independent means arranged for circulating water through the Oil Cooler as per Rule Suctions, connected to both main bilge pumps and auxiliary bilge pumps, No. and size:—In machinery spaces as per Rule In pump room as per Rule
Independent Power Pump Direct Suctions to the engine room bilges, No. and size as per Rule

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes as per Rule Are the bilge suction in the machinery spaces led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges as per Rule
Are all Sea Connections fitted direct on the skin of the Ship as per Rule Are they fitted with valves or cocks as per Rule Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates as per Rule Are the overboard discharges above or below the deep water line as per Rule
Are they each fitted with a discharge valve always accessible on the plating of the vessel as per Rule Are the blow off cocks fitted with a spigot and brass covering plate as per Rule
That pipes pass through the bunkers as per Rule How are they protected as per Rule
That pipes pass through the deep tanks as per Rule Have they been tested as per Rule as per Rule

Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times as per Rule
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 as per Rule Is the shaft tunnel watertight as per Rule Is it fitted with a watertight door as per Rule worked from as per Rule
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork as per Rule

Main Air Compressors, No. 1 No. of stages 1 diameters 110% stroke 80% driven by M.E.
Auxiliary Air Compressors, No. 1 No. of stages 1 diameters as per Rule stroke as per Rule driven by as per Rule
Small Auxiliary Air Compressors, No. 1 No. of stages 1 diameters as per Rule stroke as per Rule driven by as per Rule
That provision is made for first charging the air receivers as per Rule

Scavenging Air Pumps, No. 1 diameter 536% stroke 300% driven by Main engine
Auxiliary Engines crank shafts, diameter as per Rule No. as per Rule Position as per Rule
Have the auxiliary engines been constructed under special survey as per Rule Is a report sent herewith as per Rule

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17/8/48

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AIR RECEIVERS:—Have they been made under survey Existing
 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. Is a drain fitted at the lowest part of each receiver.
Injection Air Receivers, No. 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. Total cubic capacity Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure

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 2.7.48 Receivers Separate fuel tanks
 (If not, state date of approval)
 Donkey boilers General pumping arrangements Pumping arrangements in machinery space

SPARE GEAR.
 Has the spare gear required by the Rules been supplied no. (existing)
 State the principal additional spare gear supplied

The foregoing is a correct description,
 For & on behalf of
THE NEWBURY DIESEL CO. LTD.

Dates of Survey while building
 During progress of work in shops - - 1948 MAR 18. APR 15. 26. 29
 During erection on board vessel - - -
 Total No. of visits 4 (on logs)
 Dates of examination of principal parts—Cylinders 15.4.48 Covers 18.3.48 Pistons 15.4.48 Rods Connecting rods
 Crank shaft 29.4.48 Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft Propeller Stern tube Engine scatings Engine holding down bolts
 Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions
 Crank shaft, material Semin Steel Identification mark 326 BH Flywheel shaft, material, Identification mark
 Thrust shaft, material " " Identification mark 551 CP Intermediate shafts, material Identification marks
 Tube shaft, material Con Rods. Identification mark 653 BH Screw shaft, material Identification mark
 Identification marks on air receivers

Is the flash point of the oil to be used over 150°F
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with
 Description of fire extinguishing apparatus fitted
 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 Yes. If so, state name of vessel Engine No 739.

General Remarks (State quality of workmanship, opinions as to class, &c. This engine has been built under Special Survey in accordance with the approved plans & the requirements of the Rules. Steel used in its manufacture has been made at works approved by the Committee & under the supervision of their Surveyors. The workmanship is good & the engine in my opinion eligible to receive the notation L.M.C. (with date) when satisfactory in the vessel intended. It has now been despatched to Messrs F. J. Eward at Greenbaths.

Attached Engrg Rpts No. 46182 46288 and No. 712333
 The Torsional Vibration Characteristics of the Machinery appear in Spec Letter 2/2/48 for a
 Semi Speed 1330 provided a NOTICE BOARD, stating that the engine is not to be operated
 continuously between 232 + 269 RPM and the Engine Tachometer
 marked accordingly.
 The amount of Entry Fee ... £
 Special ... $\frac{2}{3}$... £ 25 : 6/8 :
 Donkey Boiler Fee... ... £ : :
 Travelling Expenses (if any) £ 20 : :
 When applied for 19
 When received 19
FRI. 20 AUG 1948
 Assigned See Lon. 116912
A. C. Wedgwood
 Engineer Surveyor to Lloyd's Register of Shipping

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

