

# B. REPORT ON OIL ENGINE MACHINERY.

No. 118523

ing Report 14 July 1949 When handed in at Local Office 15 July 1949 Port of London.  
 Survey held at Hewbury Berks. Date, First Survey 1 Feb 1949 Last Survey 18.6.1949  
 Number of Visits FIVE  
 Single on the Twin Triple Quadruple Screw vessel T.D.S.  
 By whom built Hewbury Berks. Yard No. 3 When built 1949  
 By whom made Hewbury Diesel Eng Co. Ltd Engine No. 830  
 By whom made 300 Boiler No. 93 When made 1949  
 Owners 93 Port belonging to Is Refrigerating Machinery fitted for cargo purposes  
Is Electric Light fitted

&c. — Type of Engines 2 S.C.S.A. (In F) 2 or 4 stroke cycle 2 Single or double acting Single  
 in cylinders 700 lbs Diameter of cylinders 240% Length of stroke 345% No. of cylinders 6 No. of cranks 6  
 Pressure 80 lbs Ahead Firing Order in Cylinders 1 5 3 4 2 6 Span of bearings, adjacent to the crank, measured  
 inner edge 321% Is there a bearing between each crank Yes Revolutions per minute 330  
 Weight 465 lbs Moment of inertia of flywheel (16lbs. in<sup>2</sup> or Kg.cm.<sup>2</sup>) 150% Means of ignition Commutator Kind of fuel used Pool Anglo  
 dia. of journals as per Rule 150% Crank pin dia. 150% Crank webs Mid. length breadth 200% Thickness parallel to axis shrunk  
 as fitted 150% Mid. length thickness 83% Thickness around eyehole shrunk  
 Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule 6"  
 Screw Shaft, diameter as per Rule as fitted Is the tube shaft fitted with a continuous liner Yes  
 Thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes  
 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-  
 two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after  
 If so, state type Length of bearing in Stern Bush next to and supporting propeller  
 Pitch No. of blades Material whether moveable Total developed surface sq. feet  
 of propeller (16lbs. in<sup>2</sup> or Kg.cm.<sup>2</sup>) Kind of damper, if fitted  
 Engines Air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of  
 Thickness of cylinder liners 32% Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled  
 conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned  
 Cooling Water Pumps, No. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
 led from the Main Engines, No. ONE Diameter 125% Stroke 55% Can one be overhauled while the other is at work Yes  
 to the Main Bilge Line No. and size How driven  
 led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping  
 and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size ONE 9 S.P.M.  
 means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary  
 and size:—In machinery spaces In pump room  
 er Pump Direct Suctions to the engine room bilges, No. and size Are the bilge suction pipes in the machinery spaces led from easily  
 tion pipes in holds and tunnel well fitted with strum-boxes Are they fixed  
 s, placed above the level of the working floor, with straight tail pipes to the bilges Are the overboard discharges above or below the deep water line  
 tions fitted direct on the skin of the Ship Are they fitted with valves or cocks  
 the ship's side to be seen without lifting the platform plates Are the blow off cocks fitted with a spigot and brass covering plate  
 d with a discharge valve always accessible on the plating of the vessel How are they protected  
 hrough the bunkers Have they been tested as per Rule  
 hrough the deep tanks s, valves and pumps in connection with the machinery and all boiler mountings accessible at all times  
 s, valves and pumps in connection with the machinery and all boiler mountings accessible at all times Is the shaft tunnel watertight  
 at 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  
 compartment to another Is it fitted with a watertight door worked from worked from  
 what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork worked from  
 essors, No. ONE No. of stages ONE diameters 110% stroke 80% driven by Main Engine  
 mpressors, No. ONE No. of stages ONE diameters 110% stroke 80% driven by Main Engine  
 Air Compressors, No. ONE No. of stages ONE diameters 110% stroke 80% driven by Main Engine  
 made for first charging the air receivers driven by  
 umps, No. ONE Double acting diameter 536% stroke 300% driven by Crank  
 crank shafts, diameter as per Rule as fitted Position Position  
 engines been constructed under special survey Is a report sent herewith



AIR RECEIVERS:—Have they been made under survey... *Yes. (B.C.)* State No. of report or certificate... *337*

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, welded or riveted longitudinal joint ... Material ... Range of tensile strength ... Working pressure ...

Starting Air Receivers, No. *2* Total cubic capacity *26 cu ft* Internal diameter *19"* thickness *1/2"*  
Seamless, welded or riveted longitudinal joint *Riveted* Material *Steel* Range of tensile strength *28/32* 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 ... (If not, state date of approval) ...  
Donkey boilers ... General pumping arrangements ... Pumping arrangements in machinery space ...

Oil fuel burning arrangements ...  
Have Torsional Vibration characteristics been approved ... *Yes (B.C.)* Date of approval ...

SPARE GEAR.

Has the spare gear required by the Rules been supplied ...  
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 - *1949. FEB 1. MAR 2. 7. 18. MAY 18*  
During erection on board vessel - ...  
Total No. of visits *5 (In shops)*

Dates of examination of principal parts—Cylinders *8/3/49* Covers *28. 4. 49* Pistons ... Rods ... Connect ...  
Crank shaft ... Flywheel shaft ... Thrust shaft ... Intermediate shafts ...  
Screw shaft ... Propeller ... Stern tube ... Engine seatings ... Engine holding down ...

Completion of fitting sea connections ... Completion of pumping arrangements ... Engines tried under working conditions ...  
Crank shaft, material ... Identification mark *4688 T.H.S* Flywheel shaft, material ... Identification ...  
Thrust shaft, material *2770 G.H.B.* Identification mark *12/10/48* Intermediate shafts, material ... Identification ...  
Tube shaft, material ... Identification mark ... Screw shaft, material ... Identification mark ...

Identification marks on air receivers *B.C. 6973 H.W.B. 17. 2. 49. B.C. 6974 H.W.B. 17. 2. 49.*

Welded receivers, state Makers' Name ...  
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 *M.V. Festivity*

General Remarks (State quality of workmanship, opinions as to class, &c. ... *This engine has been built under supervision of the British Corporation including the manufacture of all main parts. Full power & manoeuvring trials were witnessed by Lloyd's Register. The engine is in my opinion suitable for fitting in a vessel classed Society.*

The amount of Entry Fee ...  
Special (B.C. rule) ...  
Donkey Boiler Fee ...  
Travelling Expenses (if any) ...  
Committee's Minute ...  
Assigned ...

When applied for *26 July 1949*  
When received ...  
TUES. 3 JAN 1950  
See hon 119096

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