

# REPORT ON OIL ENGINE MACHINERY.

No. 110,623

Received at London Office 3 SEP 1942  
Port of London  
Date, First Survey 17 July 1942 Last Survey 18 Aug 1942  
Number of Visits 5

When handed in at Local Office 21 Aug 42  
Survey held at Bedford  
Book No. 2136 on the <sup>Single</sup> ~~Triple~~ ~~Quadruple~~ Screw vessel  
Name M.V. "GOLDFINDER"  
Tons { Gross 294 Net 166  
Built at Harburg By whom built G. Renck jun K.G. Yard No. - When built 1938.6  
Engines made at Bedford By whom made W.H. Allen Sons & Co Ltd Engine No. K2/44143. When made 1942.  
Boiler No. - When made -  
Boilers made at - By whom made -  
Horse Power 250 Owners J. J. Wilson Port belonging to London  
Nom. Horse Power as per Rule 48 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -  
Trade for which vessel is intended -

ENGINES, &c. Type of Engines Heavy Oil 2 or 4 stroke cycle 4 Single or double acting single  
Maximum pressure in cylinders 750 lb/sq. in. Diameter of cylinders 230 Z Length of stroke 300 Z No. of cylinders 6 No. of cranks 6  
Pitch of bearings, adjacent to the Crank, measured from inner edge to inner edge 282 Z Is there a bearing between each crank -  
Revolutions per minute 600 Flywheel dia. 1040 Z Weight 1400 lb Means of ignition Compression Kind of fuel used Diesel Oil  
Crank Shaft, dia. of journals as per Rule 139 Z Crank pin dia. 150 Z Crank Webs Mid. length breadth 70 Z Thickness parallel to axis -  
as fitted 140 Z Mid. length thickness 204 Z Thickness around eye-hole -  
Flywheel Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule - Thrust Shaft, diameter at collars as per Rule in way of collar  
as fitted crank shaft as fitted - Is the { tube } shaft fitted with a continuous liner { screw }  
Main Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule - Is the after end of the liner made watertight in the  
as fitted - Thickness between bushes as per rule -  
Bronze Liners, thickness in way of bushes as fitted -  
Propeller boss 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 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 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 Clutch Is a governor or other arrangement fitted to prevent racing of the engine when declutched - Means of lubrication  
Forced Thickness of cylinder liners 17 Z Are the cylinders fitted with safety valves - Are the exhaust pipes and silencers water cooled or lagged with  
non-conducting material - 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. one 90 Z x 80 Z Is the sea suction provided with an efficient strainer which can be cleared within the vessel -  
Bilge Pumps worked from the Main Engines, No. one Diameter 90 Z Stroke 80 Z Can one be overhauled while the other is at work -  
Pumps connected to the Main Bilge Line { No. and Size (one 90 Z x 80 Z) How driven Main Engine }

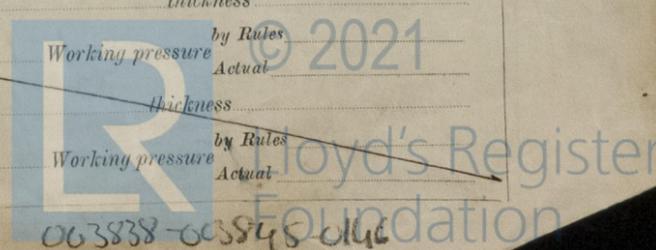
Ballast Pumps, No. and size - Lubricating Oil Pumps, including Spare Pump, No. and size one geared.  
Are two independent means arranged for circulating water through the Oil Cooler - Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
Pumps, No. and size: - In Machinery Spaces - In Pump Room -  
In Holds, &c. -

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size - Are the Bilge Suctions in the Machinery Spaces  
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes - 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 -  
What pipes pass through the bunkers - How are they protected -  
What pipes pass through the deep tanks - Have they been tested as per Rule -

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times -  
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 - Is the Shaft Tunnel watertight - Is it fitted with a watertight door - worked from -  
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork -  
Main Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -  
Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -  
Small Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -  
Scavenging Air Pumps, No. - Diameter - Stroke - Driven by -  
Auxiliary Engines crank shafts, diameter as per Rule - as fitted -

IR RECEIVERS: - 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 -  
High Pressure Air Receivers, No. - Cubic capacity of each - Internal diameter - thickness -  
Seamless, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules Actual  
Starting Air Receivers, No. - Total cubic capacity - Internal diameter - thickness -  
Seamless, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules Actual

Rpt. to Dub. 16.9.42



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) 23.5.39

Receivers

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

3 supplies: one set of piston rings; 1 set of cylinder head studs and nuts; 1 set of rubber joint rings; 1 gudgeon pin & bush; 1 bottom end bearing with bolts and nuts; 2 main bearing bolts & nuts; 1 set of coupling bolts; 3 links for cam shaft chain; 1 fuel pump complete; 1 injection pipe

The foregoing is a correct description,

W.H. ALLEN, SONS & Co., Ltd. Manufacturer.

H.A. Clarke. 28/8/42.

Dates of Survey while building

During progress of work in shops - - -  
During erection on board vessel - - -  
Total No. of visits

1942. July 17, 21, 24 Aug 11, 18

Dates of Examination of principal parts - Cylinders 17.7.42 Covers 24.7.42 Pistons 17.7.42 Rods 21.7.42 Connecting rods 21.7.42  
Crank shaft 17.7.42 Flywheel shaft ✓ Thrust shaft Intermediate shafts ✓ Tube shaft ✓  
Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings ✓ Engines holding down bolts ✓  
Completion of fitting sea connections ✓ Completion of pumping arrangements ✓ Engines tried under working conditions 11.8.42.  
Crank shaft, Material Steel Identification Mark 18.5.38 Flywheel shaft, Material Identification Mark  
Thrust shaft, Material Identification Mark HAS 17.7.42 Intermediate shafts, Material Identification Marks ✓  
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material Identification Mark ✓

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

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.) This engine was originally not constructed under Special Survey, but on completion was tested upon the bench and afterwards placed in stock. see correspondence

The engine was dismantled, engine frame examined & tested by hydraulic pressure, liner tested to 1000 lb. cylinder heads renewed; all forgings examined & the steel found to have been made at approved works & tested in accordance with the requirements of the Rules. The engine was reconstructed under Special Survey, the workmanship is good and on completion was tested upon the bench under full & overload condition ahead & astern and found satisfactory & is eligible in my opinion to have the record of H.M.C. (with date) when fitted on board the vessel. The engine has now been dispatched to Dublin for fitting on board.

The amount of Entry Fee ... £ : : When applied for, 3 SEP 1942  
Special 2/3 of £ 15 ... £ 10 : 0 :  
Donkey-Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ 1 : 17 : 6

J.H. Barnett  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 15 DEC 1942

Assigned

See Sub. 5793



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