

## REPORT ON OIL ENGINE MACHINERY.

No. 19206.

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Date of writing Report 23. 2. 1948 When handed in at Local Office 23. 2. 1948 Port of Southampton  
No. in Survey held at Southampton Date, First Survey 9. 5. 47 Last Survey 11. 2. 1948  
Reg. Book. Number of Visits 12  
on the ~~Triple~~ <sup>Single</sup> Screw vessel URANIA ex M.M.S. 1084. Tons Gross 297.02 Net 104.71  
Built at Wivenhoe By whom built Rowhedge Ironworks Yard No. When built 1944.  
Engines made at Belfast By whom made Harland & Wolff & Co. Ltd. Engine No. 2167/5 When made 1945. 2 No.  
Donkey Boilers made at By whom made Boiler No. When made  
Brake Horse Power 500 Owners W. A. Phillips Anderson & Co. Ltd. Port belonging to Southampton.  
Nom. Horse Power as per Rule 114. Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes  
Trade for which vessel is intended Fishing (Fish Hold 14,000 cubic feet capacity)

OIL ENGINES, &c. Type of Engines Heavy Oil 2 or 4 stroke cycle 2 Single or double acting Single  
Maximum pressure in cylinders 700 lb/sq. in. Diameter of cylinders 280 mm Length of stroke 500 mm No. of cylinders 5 No. of cranks 5  
Mean Indicated Pressure 92 lb/sq. in.  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 13 1/4" Is there a bearing between each crank yes  
Revolutions per minute 300 Flywheel dia. 1246 mm Weight 1185 Kgs Means of ignition Kind of fuel used Gas Oil  
Crank Shaft, dia. of journals as per Rule 8 5/8" Crank pin dia. 7 13/16" Crank Webs Mid. length breadth 16 1/2" Thickness parallel to axis 4 3/4"  
as fitted 8 5/8" Mid. length thickness 4 1/4" Thickness around eyehole 3 7/8"  
Flywheel Shaft, diameter as per Rule 8 5/8" Intermediate Shafts, diameter as per Rule 5 3/8" Thrust Shaft, diameter at collars as per Rule 8 5/8"  
as fitted 8 5/8" as fitted 5 3/8" as fitted 8 5/8"  
Tube Shaft, diameter as per Rule 6.660" Screw Shaft, diameter as per Rule 6.638" Is the tube screw shaft fitted with a continuous liner no  
as fitted 6.660" as fitted 6.638"  
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  
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  
Shaft yes If so, state type Nickers Length of Bearing in Stern Bush next to and supporting propeller  
Propeller, dia. 5'8" Pitch 4'11" No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 12 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  
Forced Thickness of cylinder liners 22 mm 20 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with  
non-conducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Funnel  
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 5 5/8" Stroke 140 mm Can one be overhauled while the other is at work  
Pumps connected to the Main Bilge Line No. and Size 2 - 2 1/2" How driven Auxiliary Lister (6 Cylinder Engine) + Main Engine driven  
Is the cooling water led to the bilges no If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping  
arrangements  
Ballast Pumps, No. and size 1 Two Stage Centrifugal Pump 2 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 - 2 1/2"  
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 3 each 2 1/2" No Fore and After Peak Spaces Hand Pump into each  
Holds, &c. 1 - 2 1/2" Power Suction and 1.5" (Hand) Deluge Pump  
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 3 2 1/2" Port + 1 Starboard in way of fore end + 1 aft.  
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 yes Are they fitted with Valves or Cocks yes  
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates no Are the Overboard Discharges above or below the deep water line above  
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  
What pipes pass through the bunkers none 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 yes  
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  
apartment to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door no 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 Drip Trays  
Main Air Compressors, No. 1 No. of stages 2 Diameters 11 5/8" + 13 7/8" Stroke 15 5/8" Driven by Main Engine  
Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 1 5/8" + 3 Stroke 3 1/4" Driven by Aux. Lister  
Small Auxiliary Air Compressors, No. Hand No. of stages 1 Diameters 2 1/2" Stroke 5" Driven by Hand  
Scavenging Air Pumps, No. 1 Diameter Roots Type Stroke Rotary Vanes Driven by Main Engine  
Auxiliary Engines crank shafts, diameter as per Rule 3 1/4" No. In engine room Starboard Side  
as fitted 3 1/4" Position



AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes*

Can the internal surfaces of the receivers be examined and cleaned *yes* Is a drain fitted at the lowest part of each receiver *yes*  
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. *3 main 1 auxiliary* Total cubic capacity *54.8 Cu. ft.* Internal diameter *1' 11" main 11" aux* thickness *1/2"*  
Seamless, lap welded or riveted longitudinal joint *Welded* Material *M.S.* Range of tensile strength *✓* Working pressure by Rules *✓* Actual *350 lbs.*

IS A DONKEY BOILER FITTED? *No*

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)

Receivers *✓*

Separate Fuel Tanks *✓*

Donkey Boilers *✓*

General Pumping Arrangements *✓*

Pumping Arrangements in Machinery Space *✓*

Oil Fuel Burning Arrangements *✓*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes*

State the principal additional spare gear supplied

The foregoing is a correct description,

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—Cylinders *15-5-47* Covers *✓* Pistons *15-5-47* Rods *✓* Connecting rods *15-5-47*  
Crank shaft *15-5-47* Flywheel shaft *✓* Thrust shaft *21-5-47* Intermediate shaft *9-5-47* Tube shaft *✓*  
Screw shaft *9-5-47* Propeller *9-5-47* Stern tube *9-5-47* Engine seatings *15-5-47* Engines holding down bolts *15-5-47*  
Completion of fitting sea connections *✓* Completion of pumping arrangements *✓* Engines tried under working conditions *11-2-48*  
Crank shaft, Material Identification Mark *5.3819 J.K. 5-12-41* Flywheel shaft, Material Identification Mark  
Thrust shaft, Material Identification Mark 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. *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 *No*

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 vessel was built at Wismhol 3-4-5, for Government service. The machinery has now been opened up and examined and sizes checked as per this report. Material and Workmanship appear good. The machinery was examined under working conditions and found in order. The machinery of this vessel is eligible in our opinion to have the record of L.M.C. 2-48 Oil Engines and T.S. 5-47 O.G. An Interim Certificate has been issued at the request of the Owner:- Copy herewith.*

The amount of Entry Fee .. £ *34 : 4* : When applied for, *24/2/48*  
Special ... £ : :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ *13 : 6* : When received, *19*

Committee's Minute

Assigned *LMC 2.48 Oil Eng. S (O.G) 5.47*

CERTIFICATE WRITTEN.

*G. M. Macdonald for P. W. Mason & Self.*  
Engineer Surveyor to Lloyd's Register of Shipping.



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