

REPORT ON OIL ENGINE MACHINERY.

No. 19206.

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 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 ^{Single} ~~Triple~~ ~~Quadruple~~ 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 Ltd. Engine No. 2167/5 When made 1945. 2ho.
 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 = 106 ^{= 114 = MN} 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" as fitted 5 5/8"
 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 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 12 sq. feet

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 de-clutched 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 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" Are 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
 fitted 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
 compartment 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 1/4" Stroke 15 5/8" Driven by Main Engine
 Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 1 1/8" + 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. 1 Position In Engine room Starboard Side
 as fitted 3 1/4" as fitted 3 1/4"

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 Receivers Separate Fuel Tanks

(If not, state date of approval)

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 Wienhol 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 £ : : When received,

Donkey Boiler Fee £ : : *13 : 6*

Travelling Expenses (if any) £ : : *13 : 6*

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

Committee's Minute *FRI. 9 APR 1948*

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

CERTIFICATE WRITTEN.

