

# YACHT

## REPORT ON OIL ENGINE MACHINERY.

No. 9544

Rpt. 4b.

Received at London Office APR 4 1939

Date of writing Report 30-3-39 When handed in at Local Office 3-4-39 Port of MANCHESTER.

No. in Survey held at MANCHESTER Date, First Survey 21 MARCH 39 Last Survey 28 MARCH 1939

Reg. Book. 1175 on the Compass Aux Sch. Single Screw vessel YACHT "CHIMERE." Tons Gross Net

Built at GOSPORT By whom built CAMPER & NICHOLSON, LD. Yard No. When built 1908-6

Engines made at MANCHESTER By whom made L. GARDNER & SONS, LD. Engine No. 46066 When made 1939

Donkey Boilers made at - By whom made Sir Stephenson H. Kent & Co. Boiler No. - When made

Brake Horse Power 102 Owners L. GARDNER & SONS, LD. Port belonging to PORTSMOUTH

Nom. Horse Power as per Rule 117. Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted YES.

Trade for which vessel is intended YACHT.

Oil Engines, &c. Type of Engines VERTICAL SOLID INJECTION. 2 or 4 stroke cycle 4 Single or double acting SINGLE.

Maximum pressure in cylinders 650 LBS/SQ IN. Diameter of cylinders 5 1/2" Length of stroke 7 3/4" No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 108 LBS/SQ IN. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 5/8" Is there a bearing between each crank YES.

Revolutions per minute 800. Flywheel dia. 29 1/2" Weight 584 LBS Means of ignition COMPRESSION Kind of fuel used HEAVY OIL.

Crank Shaft, Solid forged dia. of journals as per Rule AS APPROVED as fitted 4.125" Crank pin dia. 3.625" Crank Webs Mid. length breadth 5 1/2" Mid. length thickness 1 1/8" shrunk Thickness parallel to axis SOLID. Thickness around eye-hole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner

Bronze Liners, 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 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 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 REVERSE GEAR Is a governor or other arrangement fitted to prevent racing of the engine when disengaged YES Means of lubrication FORCED Thickness of cylinder liners 1/10" Are the cylinders fitted with safety valves NO 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 Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. NONE Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size How driven

Is the cooling water led to the bilges 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 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size ONE GEAR TYPE APPROX. 210 GALLS/HOUR

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 the Bilge Suctions 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 Are they fitted with Valves or Cocks

Are all Sea Connections fitted direct on the skin of the ship 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 Have they been tested as per Rule

What pipes pass through the deep tanks

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

What provision is made for first Charging the Air Receivers

Scavenging Air Pumps, No. Diameter No. Position Is a report sent herewith

Auxiliary Engines crank shafts, diameter as per Rule as fitted

Have the Auxiliary Engines been constructed under special survey



W315-0074

**AIR RECEIVERS:**—Have they been made under survey State No. of Report or Certificate  
 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  by Rules   
**Starting Air Receivers, No.**  Total cubic capacity  Internal diameter  thickness   
 Seamless, lap welded or riveted longitudinal joint  Material  Range of tensile strength  Working pressure  Actual

**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  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   
 State the principal additional spare gear supplied

The foregoing is a correct description;  
**L. GARDNER & SONS LTD.**  
 William Gardner Manufacturer.

Dates of Survey while building  Director 1939 MARCH 21, 22, & 28.  
 { During progress of work in shops - - }  
 { During erection on board vessel - - }  
 Total No. of visits 3

Dates of Examination of principal parts—Cylinders 21-3-39 Covers 21-3-39 Pistons 21-3-39 Rods - Connecting rods 21-3-39  
 Crank shaft 21-3-39 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 -  
 Crank shaft, Material STEEL Identification Mark LLOYDS 94692 14-3-39 J.W.L. 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 -  
 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   
 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 HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS THE ENGINE SHOWN SATISFACTORY RESULTS. IN MY OPINION THIS ENGINE IS SUITABLE FOR THE PURPOSE INTENDED AND WHEN SATISFACTORILY INSTALLED ON BOARD AND REPORTED UPON BY THE SOCIETY'S SURVEYORS WILL BE ELIGIBLE FOR THE NOTATION OF + LLOYDS MACHINERY CERTIFICATE (WITH DATE)

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

The amount of Entry Fee .. £	:	:	When applied for,
<u>3/8</u> Special ... .. £	6	0:0	<u>30-3-1939</u> <u>M</u>
Donkey Boiler Fee ... .. £	:	:	When received,
Travelling Expenses (if any) £	10	0:0	<u>19-5-1939</u>

*J. Meier*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned See Lon. Rpt. 17503

