

YACHT

20554

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No.

8303

15 APR 1935

Received at London Office

Date of writing Report 3rd April 1935 When handed in at Local Office 12th April 1935 Port of ManchesterNo. in Reg. Book 3277 on the Single Screw vessel Yacht "LILY MAID IV" Date, First Survey 1st March 1935 Last Survey 24th April 1935 Number of Visits 6 (incl)

Built at Sarnouville, S. 70. By whom built Chant. Nav. de Sarnouville Yard No. When built 1928-740. Engines made at Manchester By whom made L. Gardner & Son Ltd Engine No. 33354 When made 1935 Donkey Boilers made at By whom made L. Boiler No. When made Brake Horse Power 102 Owners Captain C. E. A. Rumbold Port belonging to Jersey, C.I. Nom. Horse Power as per Rule 146 18 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Trade for which vessel is intended Yacht

L. ENGINES, &c. Type of Engines Vertical, unless fuel injected, 2 or 4 stroke cycle 4 Single or double acting Single

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

Mean Indicated Pressure 108 lb. Mean of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 15/16" approx 6 5/8" Is there a bearing between each crank Yes

Revolutions per minute 800 Flywheel dia. 29 1/2" Weight 514 lb Means of ignition Compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule 3.25" Crank pin dia. 3 5/8" Crank Webs Mid. length breadth 5 1/2" Thickness parallel to axis Solid

as fitted 4 3/8" Mid. length thickness 1 5/8" Thickness around eyehole

Intermediate Shafts, diameter as per Rule as fitted 3 (min) Driven Shaft, diameter at collars as per Rule as fitted 2 1/2 (min)

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

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. 30" Pitch 20" No. of blades 3 Material Bronze whether Moveable No Total Developed Surface 348 sq. feet

Method of reversing Engines Reversing gear Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Thickness of cylinder liners 4 1/16" Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

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 - on engine 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 2 1/2" Stroke 1 1/4" Can one be overhauled while the other is at work

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

If 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

Bilge Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

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

Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes 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

All Sea Connections fitted direct on the skin of the ship 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

Do pipes pass through the bunkers How are they protected

Do pipes pass through the deep tanks Have they been tested as per Rule

All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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 on a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

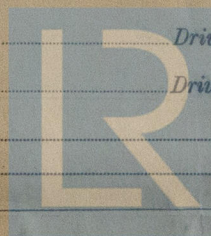
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

All Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Exhausting Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted



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AIR 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

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)

Yes (Check Receiver)

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

The following spare gear supplied:-
10 piston rings One sprayer assembly
One lubricating oil pump
2 Inlet valve springs 2 Exhaust valve springs
3 Fuel pump delivery springs 3 Fuel pump plunger
1 Air starting valve spring 1 Governor spring (outside)
1 Lub. oil Relief valve spring. A number of washers, gaskets

The foregoing is a correct description,

L. GARDNER & SONS LD.

William Gardner.

Manufacturer.

Dates of Survey while building
During progress of work in shops-- 1st, 5th, 8th, 15th, 25th, 29th March 1935
During erection on board vessel--
Total No. of visits 6 (incl)

Dates of Examination of principal parts—Cylinders 1-3-35 Covers 1-15-35 Pistons 16-3-35 Rods 1-3-35 Connecting rods 1-3-35

Crank shaft 1-3-35 DRIVING Flywheel shaft 8-3-35 DRIVEN Thrust shaft 8-3-35 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 *LLOYD'S N° 50194* DRIVING Flywheel shaft, Material *Steel* Identification Mark *LLOYD'S N° 50194*

DRIVEN Thrust shaft, Material *Steel* Identification Mark *LLOYD'S N° 50194* 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 No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.

This propelling engine, Messrs L. Gardner & Son Ltd. type 643. has been built under special survey and the materials have been tested in accordance with the Rules

The materials so far as can be seen are sound and the workmanship is good

The engine has been tested under full load in the ship and found satisfactory

This engine has been sent to Messrs Luke Bros. & Co. Ltd. for installation in the vessel.

The amount of Entry Fee .. £ : : When applied for,
Special ... *4/5* ... £ *4* : *4* : *12/4* 1935
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : *9/5* 1935

Committee's Minute TUE. 20 AUG 1935

Assigned

See Jan. Rpt. 15937

FRI. 30 AUG 1935

Engineer Surveyor to Lloyd's Register of Shipping.



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