

# YACHT.

10 JUN 1930 17919

## REPORT ON OIL ENGINE MACHINERY.

No. 6904

Rpt. 4b.

Received at London Office

-2 DEC 1929

Date of writing Report 27-11-1929 When handed in at Local Office 30-11-1929 Port of

MANCHESTER

No. in Survey held at Reg. Book.

MANCHESTER

Date, First Survey

7-6-29

Last Survey

26-11-1929

Installing,

10-2-30

Number of Visits

19.

on the <sup>Single</sup> Twin <sup>Triple</sup> Screw ~~vessel~~ yacht "TARANSAY"

Tons { Gross 166.36 Net 74.35

at Aberdeen By whom built Messrs Hall, Russell & Co. Ltd. Yard No. 705 When built 1930

res made at Manchester By whom made L. Gardner & Sons Ltd. Engine No. 28259 28260 When made 1929

Boilers made at By whom made Boiler No. When made

Horse Power 192 Total Owners John A. Ross. Port belonging to R.C.Y.C.

Horse Power as per Rule 54.8 Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted yes

Use for which vessel is intended Yachting.

ENGINES, &c. Type of Engines Vertical, Semi-Diesel, Reversing, Air Starting, 2 or 4 stroke cycle 2 Single or double acting Single

Mean pressure in cylinders 300 lbs/sq. Diameter of cylinders 9 1/2" Length of stroke 10 3/4" No. of cylinders 4 each engine No. of cranks 4

of bearings, adjacent to the Crank, measured from inner edge to inner edge 14 1/4" Is there a bearing between each crank yes.

Revolutions per minute 370 Flywheel dia. 32 7/8" Weight 1200 lbs. Means of ignition Hot bulb. Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule 4 1/4" 4-07" Crank pin dia. 4 1/4" Crank Webs Mid. length breadth 5 5/8" M. d. length thickness 2 3/8" Thickness parallel to axis Solid

Intermediate Shafts, diameter as per Rule 2.87" Thrust Shaft, diameter at collars as per Rule 2.87"

Screw Shaft, diameter as per Rule 3.32" Is the tube screw shaft fitted with a continuous liner two liners

Liner thickness in way of bushes as per Rule 7/16" Thickness between bushes as per rule Is the after end of the liner made watertight in the

liner boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

no liners are fitted, is the shaft lapped or protected between the liners no Is an approved Oil Gland or other appliance fitted at the after end of the tube

yes If so, state type Hall, Russell's Length of Bearing in Stern Bush next to and supporting propeller 1-7 1/2"

Propeller, dia. 3-9" Pitch 3-3" No. of blades 3 Material bronze whether Moveable no Total Developed Surface 4.3 sq. feet

Method of reversing Engines Camshaft driven Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

TO MAIN BEARINGS. Are the cylinders fitted with safety valves No Are the exhaust MANIFOLDS water cooled or lagged with

conducting material WATER COOLED the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Working Water Pumps, No. One on each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Water Pumps worked from the Main Engines, No. 1 on engine Diameter 1 3/4" Stroke 2 3/4" Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size Two 3 1/4" x 4" duplex. How driven electric motor.

Water Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 1 3/8" bore x 3/8" effective strokes. ONE ON EACH ENGINE.

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 One 2" from engine room aft. Two 1 1/2" from O.T. troughs under engines

Folds, &c. One 2" from fwd. accommodation, one 2" from aft. accommodation, one 2" from Cofferdam, one 2" from pipe passage.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 2"

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 strum boxes

Are all Sea Connections fitted direct on the skin of the ship. yes Are they fitted with Valves or Cocks. cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates. yes Are the Overboard Discharges above or below the deep water line on W.L.

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

Are pipes pass through the bunkers. How are they protected.

Are 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. Is it fitted with a watertight door. worked from

On 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. One on each engine No. of stages one Diameters 4 1/2" Stroke 2 3/4" Driven by crank shaft extension.

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

Small Auxiliary Air Compressors, No. one No. of stages one Diameters 3 1/2" Stroke 3" Driven by Gardner 2/3 V Engines.

Reversing Air Pumps, No. crankshaft compression Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule 2.375" Running test only.

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. Safety valves fitted on compressors.

Can the internal surfaces of the receivers be examined. yes. What means are provided for cleaning their inner surfaces Plug in ends (3" gal).

Is there a drain arrangement fitted at the lowest part of each receiver. yes.

High Pressure Air Receivers, No. Not fitted. 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. 4 (176011. 196809) Total cubic capacity 23 CUB. FT. Internal diameter 3-12 1/2" 1-10" thickness 1/4" sides. 1" centres of balls

Seamless, lap welded or riveted longitudinal joint SEAMLESS Material Mild Steel Range of tensile strength 28-32 TONS. Working pressure by Rules 460 lbs/sq. inch

CHESTERFIELD TYPE

003750-003762-0312/12

# TARANSAY

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting Yes.  
Receivers Yes. Separate Tanks Yes.  
Donkey Boilers Yes. General Pumping Arrangements Yes. Oil Fuel Burning Arrangements Yes.

SPARE GEAR Main engines:- 1 ignition done; 1 G.P. burner, 1 piston pin, 4 sets piston rings, 1 fuel pump; 2 pairs bottom end bearings, 1 pair belts & nuts of same, 1 set compressor piston rings, 1 air valve & box; 36 crank case air flaps. 1 set pump valves.  
Auxiliary engine:- 6 piston rings, 1 piston pin & nut; 1 pair bottom end bearings, 2 ignition done, 1 sprayer, 12 air inlet flaps, 1 sprayer nipple, 1 G.P. burner.  
Aux. air compressor:- 1 set valves, bearings, & piston rings.

Other items as specified.

The foregoing is a correct description.  
L. GARDNER & SONS, LIMITED.

*L. Gardner & Sons* Manufacturer.

DIRECTOR

Dates of Survey while building: During progress of work in shops - 1929. 7/6/29, 12/6/29, 19/6/29, 9/8/29, 19/9/29, 2/10/29, 4/11/29, 26/11/29. 27-1-30.  
During erection on board vessel - 1930. 7th, 10, 14, 26, March 6, April 5, 8, May 17, 22, 29, June 4.  
Total No. of visits 9 + 10 = 19.

Dates of Examination of principal parts - Cylinders 2-10-29 Covers 2-10-29 Pistons 19-9-29 Rods ✓ Connecting rods 19-9-29  
Crank shaft 19-6-29 19-9-29 Flywheel shaft ✓ Thrust shaft 9-8-29 7-6-29 Intermediate shafts 27-1-30 Tube shaft ✓  
Screw shaft 10-2-30 Propeller 10-2-30 Stern tube 10-2-30 Engine seatings 27-1-30 Engines holding down bolts 26-2-30  
Completion of fitting sea connections 14-2-30 Completion of pumping arrangements 22-5-30. Engines tried under working conditions in shop 4-11-29  
Crank shaft, Material Mild Steel Identification Mark T 833 R. 11° 83 E. Flywheel shaft, Material ✓ Identification Mark ✓  
Thrust shaft, Material Mild Steel Identification Mark T 822. 1341 E. Intermediate shafts, Material Steel Identification Marks 588 P.F.  
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material Steel Identification Mark 589 P.F.

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 Yes  
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 Yes

Is this machinery duplicate of a previous case Yes. If so, state name of vessel See Manchester Report No. 6447.

General Remarks (State quality of workmanship, opinions as to class, &c.) The above main engines of Gardner's Type 4TG and one Gardner 2/3VT Type two cylinder vertical engine No. 28313 direct coupled to a Mather and Platt dynamo No. 43262 of 110 volts, 7K.W. at 550 R.P.M., also clutch coupled to a Gardner's single stage air compressor No. 542, have been built under special survey and the materials tested in accordance with the Society's Rules. The materials so far as can be seen are sound and the workmanship is good. The engines proved satisfactory under shop test on full loads. The above engines are in my opinion eligible for the notation of L.M.C. with dates when fitted on board the vessel in accordance with the Rules requirements.

This machinery has been satisfactorily fitted in the steel screw yacht "TARANSAY" tried under working conditions, & found good. It is eligible in my opinion to have the record of L.M.C. 6.30.

(In installing) P. Fitzgerald. Aberdeen  
It is submitted that this vessel is eligible for THE RECORD + L.M.C. 6.30 - O.G. 2 Oil Engrs. 2 S.C.S.A. 29 9 1/2 - 10 3/4 55 N  
early 4 16/6/30

Amount charged to Gardner & Sons 4/5 (£13-14-0) = £10-19.  
The amount of Entry Fee ... £ ...  
Special ... £13-14-0  
Donkey Boiler Fee ... £10-19-0  
Installing Fee ... £2-15-0  
Travelling Expenses (if any) £ ...  
When applied for, 30-11-29  
When received, 12/6/30  
Receives, £10-19-0  
Per Secy. Section 3-1-30  
J. J. Campbell, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 17 JUN 1930  
Assigned + L.M.C. 6.30 (Oil Engines)  
CERTIFICATE WRITTEN 8.6.30

# YACHT.

17919

Rpt. No. MANCHESTER Port of Continuation of Report No. dated on the

Messrs. L. Gardner & Sons, Ltd.

Hull, Russell's M.Y. No. 705. Plans herewith:-

4TG Engine.  
General Arrgt. pump  
Water & Air Compressing cylinder.  
Crankshaft.  
Flywheel.  
Clutch.  
Connecting Rod.  
Thrust shaft.  
Air Compressor, Fuel Tanks, Air Bottles.

2/3VT Engine.  
General Arrgt.  
Flywheel.  
Connecting Rod.  
Crankshaft.

