

REPORT ON OIL ENGINE MACHINERY.

No. 53665
12 JUL 1933

of writing Report 10 When handed in at Local Office 10 7 33 Port of *Glasgow*
 in Survey held at Book. Date, First Survey 18 4 33 Last Survey 24 6 1933
 Number of Visits 12

on the *Single* *Twin* *Triple* *Quadruple* Screw vessel *James Buchanan's Lugart No. 1114.* Tons *Gross* *Net*

By whom built Yard No. When built
 By whom made *James Buchanan's Ltd.* Engine No. 161 When made 1933
 By whom made Boiler No. When made
 Owners Port belonging to
 Horse Power as per Rule 390 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 e for which vessel is intended

ENGINES, &c.—Type of Engines *British Polar Diesel* 2 or 4 stroke cycle 2 Single or double acting *Single*
 Maximum pressure in cylinders 700 lbs. Diameter of cylinders 250 7/8 Length of stroke 420 7/8 No. of cylinders 6 No. of cranks 6
 of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 7/8 Is there a bearing between each crank *Yes*
 ations per minute 300 Flywheel dia. 900 7/8 Weight 0.671 tons Means of ignition *Compression* Kind of fuel used *Diesel oil*
 k Shaft, dia. of journals as per Rule 158 7/8 as fitted 160 Crank pin dia. 160 7/8 Crank Webs Mid. length breadth 214 7/8 Mid. length thickness 90 7/8 Thickness parallel to axis *Yes* Thickness around eye-hole *Yes*
 Steel Shaft, diameter as per Rule 158 7/8 as fitted 160 Intermediate Shafts, diameter as per Rule 113 7/8 as fitted 110 Thrust Shaft, diameter at collars as per Rule 118-6 7/8 as fitted 160
 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

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

eller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
 od of reversing Engines *Direct* Is a governor or other arrangement fitted to prevent racing of the engine *Yes* Means of lubrication
 Thickness of cylinder liners 19.5 7/8 Are the cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers *water cooled* lagged with
 ducting material *Yes* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

g Water Pumps, No. 1. 140 7/8 dia. x 60 7/8 Stroke the sea suction provided with an efficient strainer which can be cleared within the vessel
 special arrangements are made for dealing with cooling water if discharged into bilges
 Pumps worked from the Main Engines, No. 1. Diameter 110 7/8 Stroke 60 7/8 Can one be overhauled while the other is at work
 connected to the Main Bilge Line No. and Size How driven

t Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 2 5/8 3 1/2 cu. ft. per minute
 independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 No. and size:—In Machinery Spaces In Pump Room
 s, &c.

ndent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
 the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces
 easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
 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
 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

oes pass through the bunkers How are they protected
 oes pass through the deep tanks Have they been tested as per Rule
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

angement 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
 vent to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

d vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
 ir Compressors, No. 6 one No. of stages 2 Diameters 140 7/8 455 7/8 Stroke 240 7/8 Driven by *Main Engines*
 ry Air Compressors, No. No. of stages Diameters Stroke Driven by

uxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
 ing Air Pumps, No. 6 one Diameter 420 7/8 D.A. Stroke 240 7/8 Driven by *Main Engines*
 ry Engines crank shafts, diameter as per Rule as fitted No. Position

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yes (Starting Air)*
 the internal surfaces of the receivers be examined and cleaned *Yes* Is a drain fitted at the lowest part of each receiver *Yes*
 Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

ess, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual
 ing Air Receivers, No. 2 Total cubic capacity 35.2 Ccf Internal diameter 21 1/2 thickness 13 3/16
 less, lap welded or riveted longitudinal joint *Painted* Material S Range of tensile strength 28-32 Working pressure by Rules Actual 35.5

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

4b.

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)

Y/N (crank)

Receivers

Y/N

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

No. See London letter dated 28.6.33.

State the principal additional spare gear supplied

As per list approved in above London letter.

The foregoing is a correct description.

For BRITISH LLOYD'S REGISTER, LIMITED,

John Rogers

Manufacturer.

6.7.33.

GENERAL MANAGER.

Dates of Survey while building

During progress of work in shops--	1933 Apr. 18	May 1. 2. 10. 18. 20. 22. 27	June 2. 13. 16. 24
During erection on board vessel--			
Total No. of visits	12		

Dates of Examination of principal parts—Cylinders 18.5.33 Covers 18.5.33 Pistons 24.5.32 Rods — Connecting rods 20.5.32

Crank shaft 10.5.33 Flywheel shaft 10.5.33 Thrust shaft 10.5.33 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 1st. best steel Identification Mark 3077. CSP. 9th Flywheel shaft, Material — Identification Mark —

Thrust shaft, Material do. Identification Mark 319. Ind. 9th 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

If so, state name of vessel

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

The Machinery has been built under special Survey and in accordance with the Rules. The materials and workmanship are good and on completion was tried on the bench under full power and found in order. The machinery has been despatched to Hull for fitting on board.

10/7/33

The amount of Entry Fee

Special Fee £ 29 : 0

Donkey Boiler Fee £ 1 : 6 : 4

Travelling Expenses (if any) £ 1 : 6 : 4

When applied for,

11 JUL 1933

When received,

10.8.1933

Committee's Minute GLASGOW 11 JUL 1933 WED. 9 AUG 1933

Assigned Deferred.



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