

# REPORT ON OIL ENGINE MACHINERY.

No. 93151

of writing Report

When handed in at Local Office

Port of London (Spencer)

Inspected at London Office 10 OCT 1928

in Survey held at

Date, First Survey Dec. 3<sup>rd</sup> 1927 Last Survey Sep. 29<sup>th</sup> 1928

Book

on the Single  
Twin  
Triple  
Quadruple  
Screw vessel

"Viceroy of India" (Auxiliary for Electric Lighting)

Tons Gross  
Net

at Glasgow

By whom built A. Stephens + Sons Ltd

Yard No. 519 When built

ines made at

Spencer

By whom made Pelters (Spencer) Ltd.

Engine Nos. 1356 When made 1928.

key Boilers made at

By whom made

Boiler No. When made

ke Horse Power 250. each engine.

Owners

Port belonging to

Horse Power as per Rule 71. each engine Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

de for which vessel is intended

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

max pressure in cylinders 450 lbs Diameter of cylinders 14" Length of stroke 16" No. of cylinders 4 No. of cranks 4

of bearings, adjacent to the Crank, measured from inner edge to inner edge 16" Is there a bearing between each crank Yes

utions per minute 275 Flywheel dia. 5'-6" Weight 3.7002 Means of ignition Electric Kind of fuel used Grade oil

k Shaft, dia. of journals as per Rule 6.86" Crank pin dia. 7 1/2" Crank Webs Mid. length breadth 10" Mid. length thickness 3 1/2" Thickness parallel to axis } Solid. Thickness around eye-hole }

heel Shaft, diameter as per Rule 10" Intermediate Shafts, diameter as per Rule 10" Thrust Shaft, diameter at collar as per Rule 10"

Shaft, diameter as per Rule 10" Screw Shaft, diameter as per Rule 10" Is the tube screw shaft fitted with a continuous liner

ize Liners, thickness in way of bushes as per Rule 10" Thickness between bushes as per Rule 10" Is the after end of the liner made watertight in the

er 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

o liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after

the tube shaft 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 Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication

Thickness of cylinder liners 1 at top 1/2 at bottom Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers scater cooled or lagged with

nducting material 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. One on each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

s connected to the Main Bilge Line No. and size How driven

st Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

o 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

ds, &c.

endent 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

m 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

y 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

y 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

ipes pass through the bunkers How are they protected

ipes 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

rrangement 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

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

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

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

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

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

g Air Pumps, No. Diameter Stroke Driven by

ry Engines crank shafts, diameter as per Rule as fitted

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

internal surfaces of the receivers be examined No. What means are provided for cleaning their inner surfaces

a drain arrangement fitted at the lowest part of each receiver

ressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

t Air Receivers, No. Total cubic capacity 10.2 feet Internal diameter 14 1/2" thickness 4.002 lbs.

lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28-32 tons Working pressure by Rules



IS A DONKEY BOILER FITTED? ☒

If so, is a report now forwarded? ☒

PLANS. Are approved plans forwarded herewith for Shafting *Crank Shaft*.

Receivers

Separate Tanks

Donkey Boilers ☒

General Pumping Arrangements ☒

Oil Fuel Burning Arrangements ☒

SPARE GEAR. *As per attached list.*

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 *18-12-27 24-3-28 19-12-27 15-1-28*  
*10-12-27 4-2-28 16-3-28 27-2-28* Crank shafts *3-1-28 14-4-28* Flywheel shaft *Linas* Thrust shaft *Linas* Intermediate shafts *3-1-28 19-4-28 11-12-27 17-4-28* Connecting rods

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 19/12/28. A.S.T.* 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*.

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. *These engines have been constructed under special survey & the Society's Rules, the materials & workmanship are good. On completion of the engines were coupled to an electric generator & run at full power for 4 hours & 10% overload for 1 1/2 hours. Engine & generator worked satisfactory throughout the trial. Has now been sent to Glasgow to be fitted in the vessel.*

The amount of Entry Fee ... £ ☒  
Special ... £ *14-4-0*  
Donkey Boiler Fee ... £ ☒  
Travelling Expenses (if any) £ ☒

When applied for,

*15 OCT 1928*

When received,

*Low loc 15/2/29*

*A.E. Farminier.*

Engineer Surveyor to Lloyd's Register of Shipping

TUE. 9 APR 1929

Committee's Minute *GLASGOW 12 MAR 1929*

Assigned Sec Glasgow Report No *48950*

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