

REPORT ON OIL ENGINE MACHINERY.

No. 90,085.

20 OCT 1926

pt. 4b

Port of London
Date, First Survey Nov. 6th 1925 Last Survey May 3rd 1926
When handed in at Local Office Bedford

on the Single Screw vessel SHROPSHIRE
Tons Gross _____
Net _____

By whom built Glasgow Fairfield Shipbuilding Co. Yard No. 619 When built 1926
By whom made Glasgow Fairfield Shipbuilding Co. Engine No. _____ When made _____
By whom made Bedford W. H. Allen Sons & Co. Ltd. Boiler No. 27904/11/3 When made 1926
Owners Bibby S.S. Co. Ltd. Port belonging to Liverpool

Brake Horse Power 400 each set
Nom. Horse Power as per Rule 100 each set
Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

Trade for which vessel is intended The oil engine replaced an Allen by boiler year 19-37

MAIN ENGINES, &c. Type of Engines THREE SETS Burneister & Nain 2 or 4 stroke cycle Yes Single or double acting Yes
Maximum pressure in cylinders 500 lbs/sq Diameter of cylinders 410 Length of stroke 600 No. of cylinders 4 No. of cranks 4
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 476 Is there a bearing between each crank Yes
Revolutions per minute 240 Flywheel dia. 2180 Weight 7 Tons Means of ignition Compression Kind of fuel used Heavy Oil

Crank Shaft, dia. of journals as per Rule 226 Crank pin dia. 240 Crank Webs Mid. length breadth 380 Thickness parallel to axis shrunk
as fitted 235 Crank Webs Mid. length thickness 127 Thickness around eyehole _____

Flywheel Shaft, diameter as per Rule 235 Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
as fitted 235 Intermediate Shafts, diameter as fitted Thrust Shaft, diameter at collars as fitted

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

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the propeller boss _____
as fitted Thickness between bushes 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 _____

Propeller, dia. _____ Pitch _____ No. of blades _____ Material _____ whether Moveable _____ Total Developed Surface _____ sq. feet
Method of reversing Engines _____ Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes Means of lubrication _____

Thickness of cylinder liners 345 Are the cylinders fitted with safety valves Yes 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. _____ Is the sea suction provided with an efficient strainer which can be cleared within the vessel _____
Bilge Pumps worked from the Main Engines, No. _____ Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____

Pumps connected to the Main Bilge Line { No. and Size _____ How driven _____
Ballast Pumps, No. and size _____ Lubricating Oil Pumps, including Spare Pump, No. and size A number of engine driven

Are two independent means arranged for circulating water through the Oil Cooler _____
Pumps, No. and size:—In Machinery Spaces _____ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge _____

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 they fitted with Valves or Cocks _____
led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges _____

Are all Sea Connections fitted direct on the skin of the ship _____ Are the Overboard Discharges above or below the deep water line _____
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates _____ Are the Blow Off Cocks fitted with a spigot and brass covering plate _____

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel _____ How are they protected _____
What pipes pass through the bunkers _____ 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. One per engine No. of stages Three Diameters 62x285x325 Stroke 250 Driven by Crank direct
Small Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____

Scavenging Air Pumps, No. _____ Diameter _____ Stroke _____ Driven by _____
Auxiliary Engines crank shafts, diameter as per Rule _____
as fitted _____

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Fusible plug
Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces _____

Is there a drain arrangement fitted at the lowest part of each receiver Yes
High Pressure Air Receivers, No. One per engine Cubic capacity of each 90 litres Internal diameter 9 3/4 thickness 3/8
Seamless, lap welded or riveted longitudinal joint Yes Material Steel Range of tensile strength 29,32,30 Working pressure by Rules 821 lbs/sq

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 _____

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Lloyd's Register Foundation

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

As per attached List

The foregoing is a correct description.

W.H. Allen

Manufacturer.

W.H. ALLEN, SONS & CO., LD.

Dates of Survey while building: During progress of work in shops - Nov. 6th Dec 3rd 1925; During erection on board vessel - Feb. 1st, 15th, 20th, 25th Mar. 8th Apr. 6th, 22nd May 3rd 1926; Total No. of visits 11.

Dates of Examination of principal parts - Cylinders 15-2-26, 25-2-26; Covers 15-2-26, 25-2-26; Pistons 20-2-26; Rods; Connecting rods 15-2-26, 20-2-26

Crank shafts 1-2-26; 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 April 7th 1926

Crank shafts Material Steel; Identification Mark N°1; Flywheel shaft, Material N°2; Identification Mark N°3

Thrust shaft, Material; Identification Mark N°1085 SHF TCR; Intermediate shafts, Material N°1048 SHF TCR; Identification Marks N°1131 SHF TCR

Tube shaft, Material; Identification Mark 16-12-25; Screw shaft, Material 24-11-25; Identification Mark 15-1-25

Is the flash point of the oil to be used over 150° F.

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. These three Electric Generating

sets consist of multipole compound wound D.C type Dynamo with interpoles, of a capacity of 265 k.W. each at 240 RPM. The voltage being 220 and amperage 1205.

They are driven by Diesel Engines of 400 B.H.P. and each set has been constructed under special survey and in accordance with approved plans and the requirements of the Rules.

The workmanship & material, so far as can be seen, are good and satisfactory. Full load and 15% overload bench trials of a duration of 6 and 2 hrs. respectively have been witnessed.

The sets, which are numbered 27904, 1, 2 & 3 have been shipped to Glasgow to be installed in Messrs. Fairfield's S & E Co. No 619 and, in my opinion, are eligible for inclusion in the classification and record of T.L.M.C. of the vessel.

The amount of Entry Fee ... £ 30: -; Special ... £ : ; Donkey Boiler Fee ... £ : ; Travelling Expenses (if any) £ 8-14-3: -

Arthur Habner
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 19 OCT 1926

Assigned T.L.M.C. 10.26 on Glasgow Report No 46030.

