

REPORT ON OIL ENGINE MACHINERY.

No. 67440

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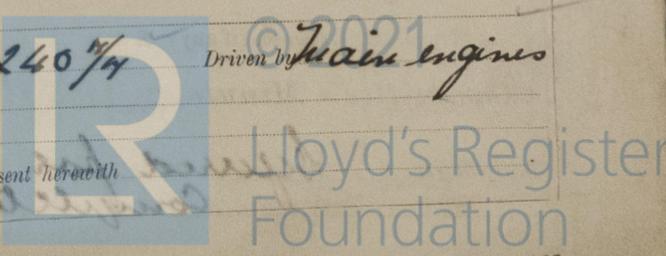
When handed in at Local Office 7. 8. 1943 Port of Glasgow
 Date, First Survey 7th May 1943 Last Survey 6th Aug. 1943
 Number of Visits 10
 No. in Survey held at Glasgow
 Reg. Book. 70848
 Single }
 Twin } Screw vessel EMPIRE TABLEY
 Triple }
 Quadruple }
 Built at Northwich By whom built Messrs Isaac Pimblott & Co Ltd Yard No. 1 When built 1943
 Engines made at Glasgow By whom made Messrs British Auxiliary Engine No. 161 When made 1943
 Donkey Boilers made at By whom made Boiler No. When made
 Brake Horse Power 560 Owners Port belonging to
 Nom. Horse Power as per Rule 101 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended
 Type of Engines Heavy Oil Type M46I 2 or 4 stroke cycle 2 Single or double acting Single
 Maximum pressure in cylinders 782 lb per sq in Diameter of cylinders 250 7/8 Length of stroke 420 7/8 No. of cylinders 6 No. of cranks 6
 Mean Indicated Pressure 96.7
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 366 7/8 Is there a bearing between each crank Yes
 Revolutions per minute 375 Flywheel dia. 900 7/8 Weight 369 Kgs Means of ignition Compression Kind of fuel used Diesel
 Crank Shaft, { Solid forged } dia. of journals as per Rule 158 7/8 Crank pin dia. 170 7/8 Crank Webs Mid. length breadth 226 3/4 Thickness parallel to axis ✓
 { Semi built } as fitted 170 7/8 Mid. length thickness 95 7/8 shrunk Thickness around eye hole ✓
 { All built }
 Flywheel Shaft, diameter as per Rule 158 7/8 Intermediate Shafts, diameter as per Rule 113 7/8 Thrust Shaft, diameter at collars as per Rule 119 7/8
 as fitted 170 7/8 at ends as fitted ✓ as fitted 205 7/8

Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube { screw } shaft fitted with a continuous liner {
 as fitted 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 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. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
 Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
 Forced Thickness of cylinder liners 19.5 7/8 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
 non-conducting 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
 Cooling Water Pumps, No. One 110 7/8 x 60 7/8 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 110 7/8 Stroke 60 7/8 Can one be overhauled while the other is at work
 Pumps connected to the Main Bilge Line { No. and Size How driven
 Is 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

Ballast Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 of each 25 7/5 gallons per Hour
 Are 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
 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 the Bilge Suctions in the Machinery Spaces
 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 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
 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. One No. of stages 2 Diameters 140 7/8 - 55 7/8 Stroke 240 7/8 Driven by Main Engines
 Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
 Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
 What provision is made for first Charging the Air Receivers
 Scavenging Air Pumps, No. One Diameter 720 7/8 Stroke 240 7/8 Driven by Main Engines
 Auxiliary Engines crank shafts, diameter as per Rule Position
 as fitted Is a report sent herewith



AIR RECEIVERS:—Have they been made under survey *yes* State No. of Report or Certificate *C.48327*

Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes*

Can the internal surfaces of the receivers be examined and cleaned *yes* Is a drain fitted at the lowest part of each receiver *yes*

Injection Air Receivers, No. *None* 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. *2* Total cubic capacity *30 cub. ft.* Internal diameter *21"* thickness *13/32"*

Seamless, lap welded or riveted longitudinal joint *Riveted* Material *Steel* Range of tensile strength *Shell 28/32 tons* Working pressure by Rules *355 lb* Actual *355 lb*

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 *9.6.42* Receivers *16.5.33* Separate Fuel Tanks

Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes*

State the principal additional spare gear supplied *as per attached list*

The foregoing is a correct description.

For BRITISH AUXILIARIES, LIMITED

Manufacturer.

Dates of Survey while building: During progress of work in shops - *1943 May 7, 20, 24, 31 Jun 14 Jul 5, 9, 13, 14 Aug 6*; During erection on board vessel - *10*; Total No. of visits *10*

Dates of Examination of principal parts—Cylinders *7-5-43*, Covers *20-5-43*, Pistons *20-5-43*, Rods *31-5-43*, Connecting rods *31-5-43*

Crank shaft *31-5-43*, Flywheel shaft *31-5-43*, Thrust shaft *31-5-43*, 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 *LLOYDS No. 1619 F.H. 7-1-43*, Flywheel shaft, Material *✓*, Identification Mark *✓*

Thrust shaft, Material *steel*, Identification Mark *LLOYDS No. 1167 T.T. 11-5-43*, Intermediate shafts, Material *✓*, Identification Marks *✓*

Tube shaft, Material *✓*, Identification Mark *✓*, Screw shaft, Material *✓*, Identification Mark *✓*

Identification Marks on Air Receivers *No. 48327 LLOYDS TEST. 555 lb. W.P. 355 lb. J.M.L. 31-3-43.*

These Receivers fitted to Yard No. 663 Receiver from Eng No. 462 fitted to this vessel (No. 48328)

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 *✓* 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 *yes* If so, state name of vessel *M/V BEN HANN. Gls No. 61494*

General Remarks (State quality of workmanship, opinions as to class, &c.) *These engines have been built under Special Survey in accordance with the Rules and approved plans. The material and workmanship are good. On completion they have been tried on the bench at full load with satisfactory results. They are to the order of Messrs Isaac Pimblott & Sons Ltd Northwich and intended for a vessel building at their yard.*

Certificate (if required) to be sent to... (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee *£3.0.0* When applied for *10 AUG 1943*
Special *£16.17.0*
£25.5.0
Donkey Boiler Fee *£* When received *10/43*
Travelling Expenses (if any) *£*

G. E. Murdoch
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 10 AUG 1943*

Assigned *Deferred for completion*

LIVERPOOL 20 FEB 1945
Lloyd's Register Foundation
See Minute on Liverpool S.C. Machinery Report.