

REPORT ON OIL ENGINE MACHINERY.

No 55037.

Received at London Office

31 JUL 1948

Date of writing Report 19 30 JUL 1948 When handed in at Local Office HULL Port of HULL
 No. in Survey held at Hull Date, First Survey 4-5-48 Last Survey 19-7-48
 Reg. Book. 29783 on the Single Screw vessel m.v. "MYTONGATE" Number of Visits 17

Built at Willington Quay on Tyne By whom built Clelands (Successors) Ltd. Yard No. 86024 When built 1938
 Engines made at Stockholm By whom made A/B Atlas-Diesel Engine No. - When made 1946
 Donkey Boilers made at - By whom made - Boiler No. - When made -
 Brake Horse Power 450 Owners Hull Gates Shipping Co., Ltd. Port belonging to Hull
 Gross Tons 410
 Net Tons 215

Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended Coastal services.

OIL ENGINES, &c.—Type of Engines 450 BHP 2 or 4 stroke cycle 2 Single or double acting single
 Maximum pressure in cylinders 60 KG Diameter of cylinders 250 m/m Length of stroke 420 m/m No. of cylinders 5 No. of cranks 5
 Mean Indicated Pressure 7.01 KG Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 m/m. Is there a bearing between each crank Yes
 Revolutions per minute 350 Flywheel dia. 1150 Weight 1200 KG Means of ignition compression Kind of fuel used Diesel

Crank Shaft, Solid forged dia. of journals as per Rule Crank pin dia. 170 Crank Webs shrunk Mid. length breadth 226.3 Thickness parallel to axis -
 Bobbin All built as fitted 170 Mid. length thickness 95 m/m Thickness around eye-hole -

Flywheel-Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule approved 4 5/8 Thrust Shaft, diameter at collars as per Rule approved 204.5 m/m.
 Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule existing shaft retained 5 5/8" T.O.C. Is the screw shaft fitted with a continuous liner No

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule 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 Yes
 If so, state type G. S.B. & Rep. Co. Length of Bearing in Stern Bush next to and supporting propeller 21.5
 Propeller, dia. 1760 m/m pitch 1550 m/m No. of blades 4 Material Bronze whether Moveable solid Total Developed Surface - sq. feet

Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes Means of lubrication forced
 Thickness of cylinder liners 25 m/m 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. 1 on M.E. 1 aux. also Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Bilge Pumps worked from the Main Engines, No. 1 Diameter 6" x 6" Stroke 1" Can one be overhauled while the other is at work -
 Pumps connected to the Main Bilge Line { No. and Size 1 on M.E. 1 duplex 6" x 6" 1 centrif. 2 1/2" bore
 How driven motors

Is the cooling water led to the bilges No 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 both bilge pumps as above Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 on M.E.
 Are two independent means arranged for circulating water through the Oil Cooler yes-in series Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 2 - 2" AER. 1 - 2 1/2" F.E.R. (as previously fitted). In Pump Room -
 In Holds, &c. 2 - 2 1/2"

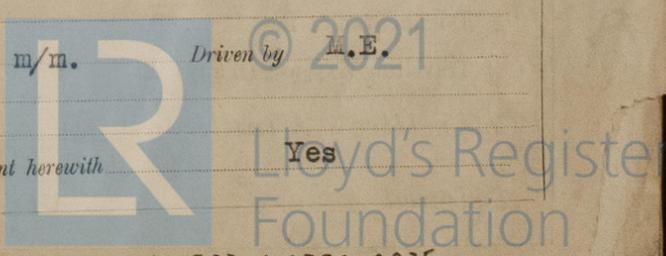
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 - 2 1/2"
 Are all the Bilge Suction pipes in Holds and Tunnels Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges No - see remarks
 Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Yes
 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 above
 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 -

What pipes pass through the bunkers - How are they protected -
 What 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 all water connections 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 -

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. 1 No. of stages 2 Diameters 55 m/m Stroke 240 m/m Driven by M.E.
 Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 95mm 90mm Stroke - Driven by Diesel engine
 Small Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -

What provision is made for first Charging the Air Receivers Hand start engine driven compressor
 Scavenging Air Pumps, No. 1 Diameter 650mm Stroke 240 m/m. Driven by M.E.
 Auxiliary Engines crank shafts, diameter as per Rule Position -
 as fitted see rpt. 4C Is a report sent herewith Yes

Have the Auxiliary Engines been constructed under special survey - Is a report sent herewith Yes



"MYWONGATE".

AIR RECEIVERS:— Have they been made under survey... Existing air receivers retained. State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve... **Relief valve on each air receiver.**

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

Injection Air Receivers, No. - 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. - Total cubic capacity **1000 litres.** Internal diameter - thickness -
 Seamless, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules - Actual -

IS A DONKEY BOILER FITTED? **No.** 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 **31.5.48.** Receivers - Separate Fuel Tanks -
 (If not, state date of approval)

Donkey Boilers - General Pumping Arrangements - Pumping Arrangements in Machinery Space -

Oil Fuel Burning Arrangements -
Torsional vibration characteristics 31.5.48. & 12.7.48. subject to torsiograph records. SPARE GEAR.

Has the spare gear required by the Rules been supplied **No, but the following spares necessary to bring them to Rule requirements are on order:**

- State the principal additional spare gear supplied
- 1 set of studs and nuts for one cylinder cover of each design used.
 - 1 gudgeon pin.
 - 1 complete crank pin bearing.
 - 2 crank pin bearing bolts and nuts of each size used.
 - 2 main bearing bolts & nuts.
 - 1 set of pads of each hand for one face of Michell Thrust Block.
 - 1 set of coupling bolts each size used.

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 **4.5.48.** Covers **14.6.48.** Pistons **14.6.48.** Rods - Connecting rods **14.6.48.**
 Crank shaft **4.5.48. & 14.6.48.** Flywheel shaft - Thrust shaft **4.5.48. & 14.6.48.** Intermediate shafts **old shaft retained.** Tube shaft -
 Screw shaft **old shaft retained.** Propeller **old propeller retained.** Stern tube - Engine seatings **14.6.48.** Engines holding down bolts **6.7.48.**
 Completion of fitting sea connections - Completion of pumping arrangements **15.7.48.** Engines tried under working conditions **20.7.48.**
 Crank shaft, Material **SM steel** Identification Mark **LLOYD'S FC 568** Bobbin shaft, Material **SM steel** Identification Mark **LLOYD'S 709**
 Thrust shaft, Material **SM Steel** Identification Mark **LLOYD'S 571** Intermediate shafts, Material - Identification Marks -
 Tube shaft, Material - Identification Mark - Screw shaft, Material - Identification Mark -
 Identification Marks on Air Receivers -

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 **no alteration.**
 Description of fire extinguishing apparatus fitted **Portable chemical and fire hose.**
 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 **No** If so, state name of vessel -

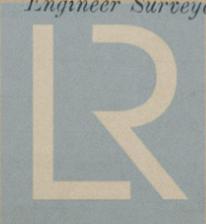
General Remarks (State quality of workmanship, opinions as to class, &c. **This engine built at Stockholm in 1946 and the principal forgings made and tested under the supervision of the Society's Surveyors (See Secretary's letters of 31/5/48). All parts of the engine now examined at Goole and the principal forgings stamped for final inspection. Water jackets tested as required by the Rules. Engine examined during rivet trials & found satisfactory. Speed restriction of 148 - 180 R.P.M. marked on tachometer & notice board. (Also see Secretary's letters of 12th & 22nd July, 1948). Eligible in my opinion to have the Notation +N.E. made '46 fitted '48. No alterations carried out to pumping arrangements except to connect up to new pumps. It was noted that the E.R. bilge suction are not fitted with straight tail pipes from the mud boxes as required by the Rules in force when the vessel was building, but they are in accordance with a copy of the approved plan.**

Noted Subj no action to be taken

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	.. £ 39 : 6	When applied for,
Special £ : :	30 JUL 1948
Donkey Boiler Fee £ : :	When received,
Travelling Expenses (if any)	£ : :	19..

N. Chambers,
 Engineer Surveyor to Lloyd's Register of Shipping.



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Committee's Minute **FRI. 3 SEP 1948**

Assigned **See Rpt. 9**