

REPORT ON OIL ENGINE MACHINERY.

No. 59289

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Date of writing Report 15. 1. 1938 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 30. Aug Last Survey 6. Jan 1938
 Reg. Book. Number of Visits 17
 on the Single Screw vessel Engine No. 285 M.S. Coxwold
 Triple
 Quadruple
 Built at Boyle By whom built Messrs Boyle S.B. & Repairing G. 26 Yard No. 330 When built 1938
 Engines made at Glasgow By whom made British Auxiliaries Engine No. 285 When made 1938
 Donkey Boilers made at By whom made Boiler No. When made
 Brake Horse Power 725 Owners Port belonging to
 Nom. Horse Power as per Rule 125 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines Heavy Oil Type M. 44 M. 2 or 4 stroke cycle 2 Single or double acting Single
 Maximum pressure in cylinders 782 lb/sq. in. 780 Diameter of cylinders 13 3/8 Length of stroke 22 7/16 No. of cylinders 4 No. of cranks 4
 Mean Indicated Pressure 99.5 lb/sq. in. Flywheel dia. 1550 mm Weight 2580 Kgs Means of ignition Compression Kind of fuel used Diesel
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 484 mm Is there a bearing between each crank Yes
 Revolutions per minute 300 Crank pin dia. 235 mm Crank Webs Mid. length breadth 346.3 mm Thickness parallel to axis
 Crank Shaft, dia. of journals as per Rule 211 mm as fitted 235 mm Crank pin dia. 235 mm Mid. length thickness 122 mm Thickness around eyehole
 Flywheel Shaft, diameter as per Rule 211 mm as fitted 260 Intermediate Shafts, diameter as per Rule 137 mm Thrust Shaft, diameter at collars as per Rule 144 mm as fitted 260 mm
 Tube 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
 Bronze 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 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
 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 disengaged Yes Means of lubrication Forced
 Thickness of cylinder liners 25.5 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged 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 120 mm x 140 mm DAY 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 90 mm S.A. Stroke 140 mm 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 @ 280 litres per min
 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 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
 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 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 L.P. 175 mm H.P. 70 mm Stroke 350 mm 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
 Scavenging Air Pumps, No. One Diameter 770 mm Stroke 350 mm Driven by Main Engines
 Auxiliary Engines crank shafts, diameter as per Rule as fitted Position



AIR RECEIVERS:—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*

High Pressure 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. *Two* Total cubic capacity *800 litres* Internal diameter *650 7/16 25.6"* thickness *14 7/16 .55"*

Seamless, lap welded or riveted longitudinal joint *riveted* Material *Steel* Range of tensile strength *28/32 lbs* Working pressure *by Rules* *392 lbs* *Actual* *355 lbs*

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 *15.5.37* Receivers *20/7/34* 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 *See attached list*

The foregoing is a correct description of *BRITISH AUXILIARIES, LIMITED,*

Manufacturer.

MANAGER.

Dates of Survey while building { During progress of work in shops -- 1937 Aug: 30 Sep: 23 Oct: 27 Nov: 2 11 29 Dec: 2 6 10 16 20 23 27 29 30 (1938) }
{ During erection on board vessel -- Jan: 6 }
Total No. of visits *16 17*

Dates of Examination of principal parts—Cylinders *16.12.37* Covers *27.10.37* Pistons *11.11.37* Rods *23.12.37* Connecting rods *23.12.37*

Crank shaft *15.11.37 (FR)* Flywheel shaft *and* Thrust shaft *5.2.37 (FR)* 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 *LLOYD No. 8227* Flywheel shaft, Material *and* Identification Mark _____

Thrust shaft, Material *Steel* Identification Mark *LLOYD No. 2986* 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*

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 *Yes* If so, state name of vessel _____

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 materials and workmanship are good. They have been tried on the bench at full power with Satisfactory results. They have been shipped to Messrs Goole Shipbuilding & Repairing Co. Ltd Goole for fitting on board a vessel No. 330.*)

15/1/38

The amount of Entry Fee ... £ 3. 0. 0 : When applied for, *18 JAN 1938*
23/5-0 Special *4/5 Gls. 7/6* £ 25. 0. 0 :
1/8 Hull 1/6 £ 6 5. 0 :
Donkey Boiler Fee ... £ : When received,
Travelling Expenses (if any) £ : *16 Mar 1938*

Committee's Minute *GLASGOW 18 JAN 1938*

Assigned *Deferred.*

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

FRI, 8 APR 1938

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