

REPORT ON OIL ENGINE MACHINERY.

No. 51081.

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Port of

HULL

No. in Survey held at
Reg. Book.

Date, First Survey 9.8.40. Last Survey 18.12.1940

Number of Visits 17

on the Single
Triple
Quadruple Screw vesselEMPIRE CLIFF.Tons { Gross 873
Net 459

Built at Goole By whom built Goole S.B. & Rep. Co. Ltd. Yard No. 357 When built 1940-12.
Engines made at Glasgow By whom made British Auxiliaries Ltd. Engine No. 376 When made do.
Donkey Boilers made at Croft By whom made ✓ Boiler No. ✓ When made ✓
Brake Horse Power 520 Owners The Ministry of Shipping Port belonging to Goole
Nom. Horse Power as per Rule 118 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
Trade for which vessel is intended Coasting 9 1/16 16 9/16

IL ENGINES, &c. Type of Engines Heavy Oil (Type M.47. I.) 2 or 4 stroke cycle 2 Single or double acting S.A.
Maximum pressure in cylinders 782 1/2 lb/sq. in. Diameter of cylinders 250 mm Length of stroke 420 mm No. of cylinders 7 No. of cranks 7
Mean Indicated Pressure 96.7 lb/sq. in.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 366 mm Is there a bearing between each crank Yes
Revolutions per minute 300 Flywheel dia. 1050 mm Weight 625 lbs Means of ignition Comp. Kind of fuel used Heavy oil

Crank Shaft, { Solid forged
Semi built
All built } dia. of journals as per Rule 155 mm as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 226 mm shrunk Thickness parallel to axis ✓
Mid. length thickness 95 mm Thickness around eyehole ✓

Flywheel Shaft, diameter as per Rule 155 mm as fitted 170 mm Intermediate Shafts, diameter as per Rule 117 mm (4.61") as fitted 5 7/16" Thrust Shaft, diameter at collars as per Rule 123 mm as fitted 170 mm

Tube Shaft, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 5.38" as fitted 6 1/8" Is the { tube
screw } shaft fitted with a continuous liner { Yes

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 Yes If so, state type See Eng. app. 12.8.40. Length of Bearing in Stern Bush next to and supporting propeller 23 1/2"

Propeller, dia. 44" Pitch 49 No. of blades 4 Material C.I. whether Moveable Solid Total Developed Surface 14.2 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 mm 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 Up funnel

Cooling Water Pumps, No. 12 1/2 3/4 x 60 1/2 D.A. 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. One Diameter 120 mm Stroke 60 mm Can one be overhauled while the other is at work ✓

Pumps connected to the Main Bilge Line { No. and Size One Duplex 50 l/s/h } One Centrifugal 47 l/s/h } One 120 mm x 60 mm }
How driven Electric Motor } Electric Motor } Main Engine }

Is the cooling water led to the bilges One 3/4 pipe from ✓ If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements None

Ballast Pumps, No. and size 2 2 1/2 3/4 x 60 1/2 D.A. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 2 1/2 3/4 x 60 1/2 D.A. each

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces 4 2 3" dia In Pump Room ✓

In Holds, &c. Holds 2 2 3" for 'A' + 2 2 3" for 'B', 4 x 'A' peaks. 1 2 3" each, No 1 D.B.T. 3 2 3", No 2. 4 2 3" dia.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 2 3" dia included above

Are all the Bilge Suction pipes in Holds and Tunnel 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 Yes

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 None How are they protected ✓

What pipes pass through the deep tanks None 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 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 None 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 70 x 175 mm Stroke 170 mm Driven by Main Engine

Auxiliary Air Compressors, No. One No. of stages 2 Diameters 86 x 212 mm Stroke 1000 RPM Driven by Aux Engine

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

What provision is made for first Charging the Air Receivers Aux Engine hand starting

Scavenging Air Pumps, No. One Diameter 650 mm Opp. piston Stroke 170 mm Driven by Main Engine

Auxiliary Engines crank shafts, diameter as per Rule ✓ as fitted ✓ No. 40 HP. Position For'd. Star'd. Driven by Aux Engine

Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Yes No. 14525 + 6

