

REPORT ON OIL ENGINE MACHINERY.

No. 50553

5 MAR 1940

Received at London Office MAR 6 1940

Date of writing Report 19... When handed in at Local Office 19... Port of **HULL**

No. in Survey held at Reg. Book. **Goole** Date, First Survey **4.12.39** Last Survey **10.2.1940** Number of Visits **10**

on the **Single** Screw vessel

"ALACRITY"

Tons { Gross **554** Net **283**

Built at **Goole** By whom built **The Goole Shipbuilding & Engineering Co. Ltd** No. **347** When built **1940**

Engines made at **Newbury** By whom made **Newbury Diesel Co.** Engine No. **726** When made

Donkey Boilers made at **✓** By whom made **✓** Boiler No. **✓** When made **✓**

Brake Horse Power **500** Owners **J. J. Everard Sons Ltd** Port belonging to **London**

Nom. Horse Power as per Rule **139** Is Refrigerating Machinery fitted for cargo purposes **✓** Is Electric Light fitted **✓**

Trade for which vessel is intended **boasting**

IL ENGINES, &c. Type of Engines **Heavy Oil, solid injection (L-type) 2 or 4 stroke cycle 2** Single or double acting **S.A.**

Maximum pressure in cylinders **700 lbs** Diameter of cylinders **320 mm** Length of stroke **426 mm** No. of cylinders **5** No. of cranks **5**

Mean Indicated Pressure

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **448 mm** Is there a bearing between each crank **✓**

Revolutions per minute **300** Flywheel dia. **900 mm** Weight **885 lbs** Means of ignition **compression** Kind of fuel used **Diesel oil**

Crank Shaft, { Solid forged dia. of journals **as per Rule 190 mm** Crank pin dia. **190 mm** Crank Webs Mid. length breadth **252 mm** Thickness parallel to axis **✓** All bolts as fitted **190 mm** Mid. length thickness **106 mm** Thickness around eye-hole **✓**

Flywheel Shaft, diameter **as per Rule 190 mm** Intermediate Shafts, diameter **as per Rule 77.5 mm** Thrust Shaft, diameter at collars **as per Rule 77.5 mm**

Tube Shaft, diameter **as per Rule** Screw Shaft, diameter **as per Rule 67.5 mm** Is the tube screw shaft fitted with a continuous liner **✓**

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 **✓** If so, state type **Newark type** Length of Bearing in Stern Bush next to and supporting propeller **30 1/2"**

Propeller, dia. **6'-4"** Pitch **3'-8 1/2"** No. of blades **4** Material **Brass** whether Moveable **Solid** Total Developed Surface **14 1/2** sq. feet

Method of reversing Engines **Direct** Is a governor or other arrangement fitted to prevent racing of the engine when declutched **✓** Means of lubrication **force**

Thickness of cylinder liners **32 mm** Are the cylinders fitted with safety valves **✓** 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. **One - 11 1/2" x 120" DA and connection to auxiliary pump** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **✓**

Bilge Pumps worked from the Main Engines, No. **2** Diameter **110 mm** Stroke **120 mm** Can one be overhauled while the other is at work **✓**

Pumps connected to the Main Bilge Line { No. and Size **2 - 110 x 120 mm** How driven **Main engine** } **one buffer pressure 40 tons** **Aux. engine**

Is the cooling water led to the bilges **1/2 bore pipe from deck. comp. only.** 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 **One - 1 1/2" diam buffer** Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size **One spare 12 gallon**

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 **4 @ 2 1/2" dia and one @ 2 3/8" dia** In Pump Room **✓**

In Holds, &c. **One peak 3" dia** Hold **3 @ 2 1/2" dia** After peak **2 1/2" dia** bilge

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **one @ 2 3/4" dia included above**

Are all the Bilge Suction pipes in Holds **and Tunnel Wall** fitted with strum-boxes **✓** Are the Bilge Suctions in the Machinery Spaces

and 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 **above**

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 **none**

Do all pipes pass through the bunkers **none** How are they protected **✓**

Do all 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 **✓**

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 **none** Is it fitted with a watertight door **✓** worked from **✓**

On 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 **one** Diameters **110 mm** Stroke **110 mm** Driven by **Main engine**

Auxiliary Air Compressors, No. **one** No. of stages **2** Diameters **?** Stroke **11.1" Cut/line** Driven by **Aux. engine (hand, start)**

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

What provision is made for first Charging the Air Receivers **the above aux. air compressor**

Scavenging Air Pumps, No. **one DA** Diameter **600 mm** Stroke **426 mm** Driven by **Main engine**

Auxiliary Engines crank shafts, diameter **as per Rule** No. **(3040) 14 kW.** Position **Int side of CR.** Driven by **(3040) 5 3/4 kW. 8 base**

Have the Auxiliary Engines been constructed under special survey **✓** Is a report sent herewith **✓** No. **2** See Rpt. **10/2/40**

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Newbury Diesel Eng. Co. No. **727 & 728.**
003240-003244-00291
Lloyd's Register Foundation

See Birmingham Cert. 1318

AIR RECEIVERS:—Have they been made under survey? *Yes*

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. *✓* 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 *✓* 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*

Is the donkey boiler intended to be used for domestic purposes only? *no*

PLANS. Are approved plans forwarded herewith for Shafting *See Plan Rpt?* Receivers *Rpts No. 8 & 9* Separate Fuel Tanks *8.9.39*

Donkey Boilers *✓* General Pumping Arrangements *12.5.39* Pumping Arrangements in Machinery Space *12.5.39*

Oil Fuel Burning Arrangements *✓*

SPARE GEAR.

Has the spare gear required by the Rules been supplied? *Yes* *for short voyages*

State the principal additional spare gear supplied *bylinders, rods & pistons complete*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

- During progress of work in shops-- *1939. DEC. 4, 29*
- During erection on board vessel-- *1940. JAN. 3, 9, 10, 16, 17, 24, FEB. 10*
- Total No. of visits *10*

Dates of Examination of principal parts—

- Cylinders *See Rpt*
- Covers *See Rpt*
- Pistons *See Rpt*
- Rods *See Rpt*
- Connecting rods *See Rpt*
- Crank shaft *See Rpt*
- Flywheel shaft *✓*
- Thrust shaft *See Rpt*
- Intermediate shafts *See Rpt*
- Tube shaft *✓*
- Screw shaft *See Rpt + 4.12.39*
- Propeller *4.12.39*
- Stern tube *See Rpt + 4.12.39*
- Engine seatings *29.12.39*
- Engines holding down bolts *8-1-40*
- Completion of fitting sea connections *4.12.39*
- Completion of pumping arrangements *10.2.40*
- Engines tried under working conditions *10.2.40*

Identification Marks

- Crank shaft, Material *Steel* Identification Mark *10357 PK* Flywheel shaft, Material *✓* Identification Mark *✓*
- Thrust shaft, Material *Steel* Identification Mark *4229 T.A.S* Intermediate shafts, Material *Steel* Identification Marks *4609 T.A.S*
- Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *Steel* Identification Mark *2030 T.A.S*

Identification Marks on Air Receivers

- 3 Riveted Air Rec.*
- No 951-952-953*
- LLOYD'S TEST. 600lbs*
- WP. 400 lbs / 10*
- One small Air Rec?*
- 700510*
- LLOYD'S TEST 1000lbs*
- WP 500 lbs*
- 9-1-39*

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? *No*

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 *SPIRALITY. Hull Rpt No. 50410*

General Remarks (State quality of workmanship, opinions as to class, etc.)

The Machinery of this vessel has been fitted on board. under Special Survey in accordance with the Rules & the approved plans. The workmanship & material are good & when tried under full working conditions it was found satisfactory in every respect & is eligible, in my opinion, to be classed with the records of L.M.C. 2-40-09.

Committee's Minute

Assigned *See H.L. 2.40. oil sup. 50553*

The amount of Entry Fee ... £ : : When applied for, *5 MAR 1940*

Special ... £ : : *11 : 6/8*

Donkey Boiler Fee ... £ : : When received, *1.5.40 R.P.A.*

Travelling Expenses (if any) £ : : *12*

FRI 15 MAR 1940

D. J. ...
Engineer Surveyor to Lloyd's Register of Shipping.

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