

REPORT ON OIL ENGINE MACHINERY.

No. 111522

17 NOV 1943

Received at London Office 12 NOV 1943

Date of writing Report Oct. 25th 1943. When handed in at Local Office 12 NOV 1943 Port of London.

No. in Survey held at Newbury. Date, First Survey June 1943 Last Survey 28 October 1943 Reg. Book.

Single on the Main Screw vessel "AMENITY" Tons Gross/Net

Built at Galle. By whom built Galle S.B. Reps Co. Ltd. Yard No. 395 When built 1943.

Engines made at Newbury. By whom made Newbury Diesel Co. Ltd. Engine No. 785 When made 1943.

Monkey Boilers made at. By whom made. Boiler No. When made.

Brake Horse Power 600. Owners F.J. Curran & Sons Ltd. Port belonging to London.

Nom. Horse Power as per Rule 164. Is Refrigerating Machinery fitted for cargo purposes. Is Electric Light fitted Yes.

Trade for which vessel is intended Coasting. 12 5/8" 16 3/4"

OIL ENGINES, &c. - Type of Engines Compression Ignition 2 stroke cycle. Single or double acting Single.

Maximum pressure in cylinders 400 lb/sq. in. Diameter of cylinders 320 mm. Length of stroke 426 mm. No. of cylinders 6. No. of cranks 6.

Mean Indicated Pressure. Span of bearings, adjacent to the crank, measured from inner edge to inner edge 452 mm. Is there a bearing between each crank Yes.

Revolutions per minute 300. Flywheel dia. 900 mm. Weight 500 lb. Means of ignition Compression. Kind of fuel used Gas oil.

Crank Shaft, Solid forged, Semi built, All built. dia. of journals as per Rule As approved. Crank pin dia. 192 mm. Crank webs Mid. length breadth 106 mm. Thickness parallel to axis.

Flywheel Shaft, diameter as per Rule. Intermediate Shafts, diameter as per Rule. Thrust Shaft, diameter at collars as fitted.

Tube Shaft, diameter as per Rule. Screw Shaft, diameter as per Rule. 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 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 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 Strict (Air) a governor or other arrangement fitted to prevent racing of the engine when declutched. Means of lubrication.

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. 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. No.

Pumps connected to the Main Bilge Line. No. and size. 1 - General Sewage Pump. 40 tons per hr. How driven. Auxiliary engine.

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. 2 - 40 ton per hr. Power Driven Lubricating Oil Pumps, including spare pump, No. and size. 1 - M.E. 10 ton per hr. 1 - ELECT. DRIVEN - do.

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. 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 suction 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. one. diameters. 110 mm. stroke 110 mm. driven by Main Eng.

Auxiliary Air Compressors, No. One. No. of stages. two. diameter 328 mm. stroke 100 mm. driven by Aux. Eng.

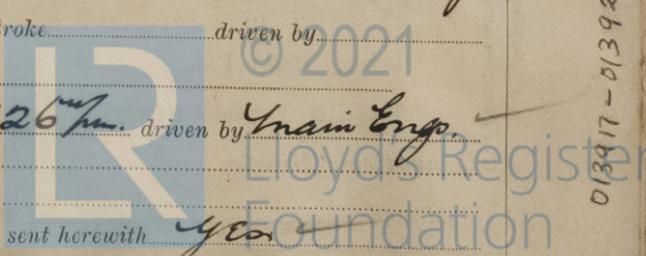
Small Auxiliary Air Compressors, No. No. of stages. diameters. stroke. driven by.

What provision is made for first charging the air receivers.

Scavenging Air Pumps, No. One. diameter 640 mm. stroke 426 mm. driven by Main Eng.

Auxiliary Engines crank shafts, diameter as per Rule. As approved. No. Position.

Have the auxiliary engines been constructed under special survey. Yes. Is a report sent herewith. Yes.



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C 2611
C 2670
C 2611, 2640.

AIR RECEIVERS:—Have they been made under survey *Yes* State No. of report or certificate
 Is each receiver, which can be isolated, fitted with a safety valve *per Rule*
 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*
Starting Air Receivers, No. *✓* Total cubic capacity *✓* Internal diameter *✓* thickness *✓*
 Seamless, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *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 *✓* for shafting *Yes* Receivers *Yes* Separate fuel tanks *Yes*
 (If not, state date of approval)
 Donkey boilers *✓* General pumping arrangements *Yes* Pumping arrangements in machinery space *Yes*
 Oil fuel buring arrangements *✓*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*
 State the principal additional spare gear supplied *See list attached*

Rep & on behalf of
THE NEWBURY DIESEL CO. LTD

The foregoing is a correct description of *[Signature]* Manufacturer.
 SECRETARY

Dates of Survey while building
 During progress of work in shops - *JUNE 17-24 July 18, 15, 23³⁰ Aug. 5-12-19-26. Sept. 2-9-23-30 Oct. 7, 13-14, 21-28*
 During erection on board vessel - *✓*
 Total No. of visits *21 (In shops)*

Dates of examination of principal parts—Cylinders *JUNE 17 JULY 16 AUG 17* Covers *JUNE 17, JULY 16 AUG 19* Pistons *JULY 1-8-15 AUG 17* Rods *✓* Connecting rods *JUNE 17, JULY 8, SEPT. 9*
 Crank shaft *JUNE 17, OCT 14* Flywheel shaft *✓* Thrust shaft *JUNE 24 JULY 16* Intermediate shafts *✓* Tube shaft *✓*
 Screw shaft *✓* Propeller *✓* Stern tube *✓* Engine seatings *✓* Engine holding down bolts *✓*
 Completion of fitting sea connections *✓* Completion of pumping arrangements *✓* Engines tried under working conditions *✓*
 Crank shaft, material *S.M.O.H.S.* Identification mark *LLOYDS NO 825 27643.F.W.* Flywheel shaft, material *✓* Identification mark *✓*
 Thrust shaft, material *S.M.O.H.S.* Identification mark *LLOYDS NO 825 J.F.C. 157/43* Intermediate shafts, material *✓* Identification marks *✓*
 Tube shaft, material *✓* Identification mark *919/43 J.F.S.* Screw shaft, material *✓* Identification mark *✓*
 Identification marks on air receivers *✓*

Is the flash point of the oil to be used over 150°F *✓*
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *✓*
 Description of fire extinguishing apparatus fitted *✓*
 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 *"ABILITY"*

General Remarks (State quality of workmanship, opinions as to class, &c. *This engine has been constructed from materials made at approved works & the workmanship throughout is satisfactory. The engine in my opinion is likely to have notation of R.M.C. (with date) when installed in the vessel & tried under working conditions to the Surveyors satisfaction.*

The amount of Entry Fee ... £ 3 : 0 : 0
 2/3rd Special ... £ 27 : 16 : 8 When applied for *11 Nov 1943*
 Donkey Boiler Fee... £ : : When received *19*
 Travelling Expenses (if any) £ *6 : 14 : 11*

J. L. Smith
 Engineer Surveyor to Lloyd's Register of Shipping.

 Lloyd's Register Foundation

(The Committee's Minute) *FRI. 21 JAN 1944*
 Assigned *see minute on J.C. Rpt.*

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