

pt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 14361

Received at London Office

14 MAY 1947

Date of writing Report 3. 5. 1947. When handed in at Local Office 14. 5. 1947 Port of BELFAST.

No. in Survey held at WARRENPOINT & BELFAST. Date, First Survey 18. Sept. 1946 Last Survey 30-4-1947
Reg. Book. Number of Visits 39

7577 on the Twin Screw vessel M.V. "JUANITA BEAZLEY"
Gross Tons 1236
Net Tons 677

built at WARRENPOINT & BELFAST. By whom built WARRENPOINT SHIPYARD CO., HARLAND & WOLFF Yard No. 7102. When built 1947.

Engines made at COLCHESTER. By whom made BRITANNIA WORKS (MRS. DAVEY PAYMAN & CO) Engine No. 90213, 90214, 90215, 90218. When made 1945

Monkey Boilers made at CRADLEY HEATH. By whom made CRADLEY BOILER CO. LTD. Boiler No. 33292 When made 1947.

Brake Horse Power 1520 Owners ANGLO-EQUADORIAN OIL FIELDS LTD. Port belonging to LONDON

nom. Horse Power as per Rule 230 MN=281 on an M.P. 7110 16/0 (normal rating) Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES.

Trade for which vessel is intended CARRYING PETROLEUM IN BULK.

Oil Engines, &c. Type of Engines V 12 PAXMAN RICARDO DIESEL ENG 2 or 4 stroke cycle 4 Single or double acting SINGLE
Maximum pressure in cylinders 850 lb/sq. in. ENGINES BUILT UNDER SURVEY FOR MINISTRY OF SUPPLY CERTIFICATE ATTACHED.

Mean Indicated Pressure. Diameter of cylinders 7 ins. Length of stroke 7 3/4 ins. No. of cylinders 48 No. of cranks

Span of bearings, adjacent to the crank, measured from inner edge to inner edge. Is there a bearing between each crank

Revolutions per minute 1100 Flywheel dia. Weight. Means of ignition. Kind of fuel used DIESEL OIL.

Crank Shaft, Solid forged dia. of journals as per Rule. Crank pin dia. Crank webs Mid. length breadth. Thickness parallel to axis. Kind of fuel used DIESEL OIL. r=1.5

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 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 tube shaft. No. If so state type. Length of bearing in Stern Bush next to and supporting propeller 17 1/2 ins.

Propeller, dia. 3 FT 6 INS. Pitch 2 FT 7 INS. No. of blades 3 Material ADMIRALTY NO. 1 ALLOY whether moveable No. Total developed surface 5 1/2 sq. feet

Method of reversing Engines. Is a governor or other arrangement fitted to prevent racing of the engine when declutched. YES. Means of lubrication FORCED. Thickness of cylinder liners. Are the cylinders fitted with safety valves. 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. To FUNNEL. Cooling Water Pumps, No. 4. 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. NONE. Diameter. Stroke. Can one be overhauled while the other is at work.

Pumps connected to the Main Bilge Line. No. and size 2 - 70 TONS/HOUR. How driven ELECTRICALLY.

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 1 - 70 TONS/HOUR IN PUMP ROOM. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 4.

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 3 - 2 1/2 INS. In pump room 2 - 3 1/2 INS.

In holds, &c. 2 - 2 1/2 INS. Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 - 3 1/2 INS.

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes. YES. 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. YES.

Are all Sea Connections fitted direct on the skin of the Ship. AS APPROVED. 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. OR CONTROLLED FROM ABOVE PLATED. Are the overboard discharges above or below the deep water line. YES.

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. YES.

What pipes pass through the bunkers. NONE. How are they protected. Have they been tested as per Rule. YES.

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. 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. NONE. No. of stages. diameters. stroke. driven by.

Auxiliary Air Compressors, No. NONE. No. of stages. diameters. stroke. driven by.

Small Auxiliary Air Compressors, No. NONE. No. of stages. diameters. stroke. driven by.

What provision is made for first charging the air receivers.

Scavenging Air Pumps, No. NONE. diameter. stroke. driven by.

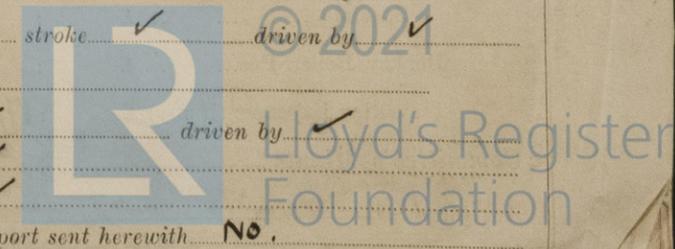
Auxiliary Engines crank shafts, diameter as per Rule. No. Position.

Have the auxiliary engines been constructed under special survey. NO. SUPPLIED BY ADMIRALTY. Is a report sent herewith. NO.

r=1.5

End 25/6/47

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electric starting
AIR RECEIVERS:—Have they been made under survey. **NONE FITTED.** ✓ State No. of report or certificate. ✓

Is each receiver, which can be isolated, fitted with a safety valve as 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 by Rules. ✓

IS A DONKEY BOILER FITTED **YES.** ✓ If so, is a report now forwarded. **YES.** ✓

Is the donkey boiler intended to be used for domestic purposes only. **YES.** ✓

PLANS. Are approved plans forwarded herewith for shafting. **4.2.46** ✓ Receivers. ✓ Separate fuel tanks. **7.1.47** ✓

Donkey boilers. **SEE BOILER REPORT.** General pumping arrangements. **8.1.46, 3.10.46** Pumping arrangements in machinery space. **3.10.46**

Oil fuel burning arrangements. **G.2.46** ✓ TORSIONAL OSCILLATION CALCULATION APPROVED FOR SIMILAR VESSEL "PETRONAVE I" LONDON LETTER **21.6.46**

LIST OF MACHINERY PLANS RETURNED ATTACHED. **SPARE GEAR.**

Has the spare gear required by the Rules been supplied. **YES.** ✓

State the principal additional spare gear supplied. **SEE ATTACHED LIST.**

NOTE:- During the construction of this vessel, the Builders, The Waterport Shipyard Co. Ltd went into liquidation. The owners with direct labour carried on and launched the vessel. Messrs Barkland and Wolff completed her at Belfast. Hence the Liquidation for the Waterport Shipyard Co. was Messrs Barkland Wolff remain a partner to sign on behalf of the manufacturer.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops - ✓
During erection on board vessel - SEP. 18, 46, NOV. 12, 15, DEC. 11, 12, 19, 20, JAN. 47. 20, 21, 22, 23, FEB. 1, 25, MARCH 6, 7, 10, 11, 12, 13, 14, 17, 19, 27, 28, 31, APRIL 1, 4, 15, 16, 17, 21, 22, 24, 25, 28, 29, 30.
Total No. of visits. **38**

Dates of examination of principal parts—Cylinders. ✓ Covers. ✓ Pistons. ✓ Rods. ✓ Connecting rods. ✓

Crank shaft. ✓ Flywheel shaft. ✓ Thrust shaft. ✓ Intermediate shafts. **23.1.47** ✓ Tube shaft. ✓

Screw shafts. **23.1.47** ✓ Propellers. **19.12.47** ✓ Stern tube. **22.1.47** ✓ Engine seatings. **6.3.47, 11.3.47** ✓ Engine holding down bolts. **6.3.47, 11.3.47** ✓

Completion of fitting sea connections. **23.1.47** ✓ Completion of pumping arrangements. **29.9.47** ✓ Engines tried under working conditions. **15.4.47, 25.4.47** ✓

Crank shaft, material. ✓ Identification mark. ✓ Flywheel shaft, material. ✓ Identification mark. ✓

Thrust shaft, material. ✓ Identification mark. ✓ Intermediate shafts, material. **MILD STEEL** Identification marks. **NONE**

Tube shaft, material. ✓ Identification mark. ✓ Screw shaft, material. **MILD STEEL** Identification mark. **NONE**

Identification marks on air receivers. ✓

Brinell tests carried out on intermediate shafts, screw shafts, and couplings and found satisfactory

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. ✓ **(?)**

Description of fire extinguishing apparatus fitted. **STEAM JETS AND 4-20GALLON EXTINGUISHERS.**

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. **M.V. "PETRONAVE I"**

General Remarks (State quality of workmanship, opinions as to class, &c.) **The whole of the machinery has been efficiently installed on board the vessel and tried under full working conditions at sea and found satisfactory. The machinery is in my opinion eligible for record and notation in the Society's Register Book of Oil Engine LMC. TS. D.B. 100 lbs.**

The amount of Entry Fee ... £ **41 : 8** :
Special ... £ : : When applied for ... 19.
Donkey Boiler Fee... £ : : When received ... 19.
Travelling Expenses (if any) £ **17/6** :

Committee's Minute **FRI, 27 JUN 1947**

Assigned **+ LMC 4.47 Oil Eng. D.B. 100 lbs**

R.S. Muschison
Engineer Surveyor to Lloyd's Register of Shipping.



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