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Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 115006

D.O.

Date of writing Report 15-4-1947 When handed in at Local Office 30 APR 1947 Port of Sp. India. Received at London Office 30 APR 1947 22 OCT 1947

No. in Survey held at Colchester Date, First Survey 9-4-47 Last Survey 11-4-1947 Reg. Book. Number of Visits 1-20

Actual. on the Single } Screw vessel ADULES EX L.C.T. No 835 Tons Gross Net

Built at By whom built Consented, The Southampton Dock Co. Ltd. When built 71095 (51046)

Engines made at Colchester By whom made Denny, Parsons & Co. Ltd. Engine No. 82062 (51047) When made 1

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

Brake Horse Power 400 (3450 HP) Owners Port belonging to

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

Trade for which vessel is intended Coastal Service, Middle East.

IL ENGINES, &c. Type of Engines Heavy Oil 2 or 4 stroke cycle 4 Single or double acting S.

Maximum pressure in cylinders 850 lb sq. in. Diameter of cylinders 7" Length of stroke 7 3/4" No. of cylinders 12 No. of cranks 12

Mean Indicated Pressure 81 lb sq. in. Is there a bearing between each crank Yes

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 7 1/8" Flywheel dia. NONE Weight Means of ignition Compression Kind of fuel used Diesel

Revolutions per minute 1000 Crank pin dia. 4 1/8" Crank Webs Mid. length breadth 7" Thickness parallel to axis shrunk

Crank Shaft, dia. of journals as per Rule 4 1/2" as fitted 4 1/2" Mid. length thickness 19 1/2" Thickness around eyehole

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

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

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 Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication

Acid Thickness of cylinder liners 3/16" 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. Com Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. Diameter Stroke 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

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

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

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

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. No. of stages Diameters Stroke Driven by

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

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

Exhausting Air Pumps, No. Diameter Stroke Driven by

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



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AIR RECEIVERS:—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

High Pressure Air Receivers, No. *1* Cubic capacity of each *100* Internal diameter *18* thickness *1/2*

Seamless, lap welded or riveted longitudinal joint Material *Steel* Range of tensile strength *40,000* Working pressure *100* by Rules Actual

Starting Air Receivers, No. *1* Total cubic capacity *100* Internal diameter *18* thickness *1/2*

Seamless, lap welded or riveted longitudinal joint Material *Steel* Range of tensile strength *40,000* Working pressure *100* by Rules Actual

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting Receivers Separate Fuel Tanks

(If not, state date of approval)

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

State the principal additional spare gear supplied



H.P. Rom
The foregoing is a correct description,
CONTRACTS MANAGER

Dates of Survey while building

During progress of work in shops -- *9-4-47* & *11-4-47*

During erection on board vessel --

Total No. of visits

Dates of Examination of principal parts—Cylinders *9-4-47* Covers *9-4-47* Pistons *9-4-47* Rods Connecting rods *9-4-47*

Crank shafts *9-4-47* Flywheel shaft *9-4-47* Thrust shaft *9-4-47* Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine sealings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shafts Material *Steel* Identification Mark *S/4019/H* Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark 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 If so, state name of vessel

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

The Engines have been opened up, examined & reconditioned by the Engine maker.

Repairs. No 80062 A. Main bearing, 7 propeller bushes, 6 liners, 1 piston, 1 head, 4 forged connecting rods renewed.

No 71095. Main bearing, 7 propeller bushes, 6 liners, 5 pistons, 1 forged rod & one connecting rod renewed.

The engines have been tested under full load brake condition & have been dispatched to Southampton to be fitted on board a converted L.C.A. (M) vessel and will be eligible to be classed, in my opinion & L.M.C. when efficiently fitted on board a classed vessel.

The amount of Entry Fee .. £	:	:	When applied for,
Special £	8	8	30 APR 1947
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	1	5	19

Joywell
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW** 21 OCT 1947

Assigned SEE ACCOMPANYING MACHINERY REPORT



Rpt. 13

Date of ...

No. in Reg.

Built at

Owners

Electrical

Is vessel

Have plan

Heating

has the g

trip switch

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