

REPORT ON OIL ENGINE MACHINERY.

No. 109702

Received at London Office

Date of writing Report JUNE 24th 1941 When handed in at Local Office JUNE 24th 1941 Port of LONDON

No. in Survey held at FAVERSHAM Date, First Survey 7 JUNE 1940 Last Survey JUNE 17th 1941
Reg. Book. 18050 on the Single Screw vessel M.V. "EMPIRE CRAG" Tons 332 Gross 153 Net
Number of Visits 8 (EIGHT)

By whom built JAMES POLLOCK & SONS LTD. Yard No. 1777 When built 1941
Engines made at MANCHESTER By whom made CROSSELEY BROS. Engine No. 125886 When made 1941
Monkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
Indicated Horse Power 330 Owners MINISTRY OF SHIPPING, Port belonging to London
Nom. Horse Power as per Rule 116 Managers T. J. METCALFE Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

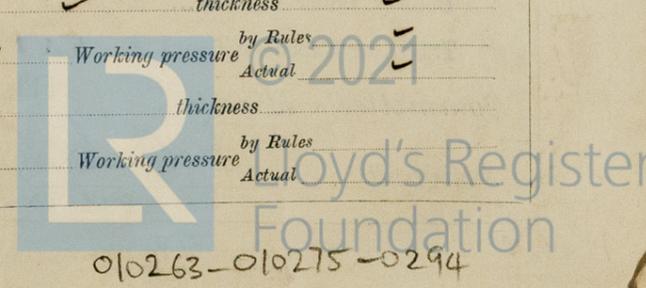
Trade for which vessel is intended Coasting
Type of Engines Vertical Solid Injection (HRE) 2 or 4 stroke cycle 2 Single or double acting S.A.
Maximum pressure in cylinders 690 lbs/sq. in. Diameter of cylinders _____ Length of stroke _____ No. of cylinders _____ No. of cranks _____
Position of bearings, adjacent to the Crank, measured from inner edge to inner edge _____ Is there a bearing between each crank _____
Revolutions per minute 300 Flywheel dia. _____ Weight _____ Means of ignition Compression Kind of fuel used Heavy Oil
Crank Shaft, dia. of journals _____ Crank pin dia. _____ Crank Webs _____ Mid. length thickness _____ Thickness parallel to axis _____
Flywheel Shaft, diameter _____ Intermediate Shafts, diameter _____ Thrust Shaft, diameter at collars _____
Main Shaft, diameter _____ Screw Shaft, diameter _____ Is the shaft fitted with a continuous liner _____
Bronze Liners, thickness in way of bushes _____ Thickness between bushes _____ 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 no 2 hermetic gland Length of Bearing in Stern Bush next to and supporting propeller 24"
Propeller, dia. 5'-10" Pitch 3'-9" No. of blades 3 Material cast iron whether Moveable no Total Developed Surface 13.25 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 _____
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 both If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine _____
Boiling Water Pumps, No. 2 (one attached + 3 reserve) Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
Large Pumps worked from the Main Engines, No. one Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____
Pumps connected to the Main Bilge Line { No. and Size 2
How driven Main Engine + auxiliary diesel

Lubricating Oil Pumps, including Spare Pump, No. and size 2 attached (no spare)
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 1 at 3" direct bilge, 2 at 2 1/2" (1 fwd + 1 aft) In Pump Room _____
In Holds, &c. 2 at 2 1/2" (1 port + 1 starboard)

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 at 3"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strainer-boxes yes Are the Bilge Suctions in the Machinery Spaces _____
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. one No. of stages two Diameters _____ Stroke _____ Driven by Main Engine
Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by Hand operated
Small Auxiliary Air Compressors, No. one No. of stages two Diameters H.P. 1/8, L.P. 3/4 Stroke _____ Driven by Diesel Engine
Scavenging Air Pumps, No. one Diameter _____ Stroke _____ Driven by Main Engine

Auxiliary Engines crank shafts, diameter _____
AIR RECEIVERS:—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
High Pressure Air Receivers, No. none 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. 2 Total cubic capacity 30 cu. ft. Internal diameter _____ thickness _____
Seamless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure by Rules _____ Actual _____



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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 herewith for Shafting (If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

State the principal additional spare gear supplied

Handwritten notes and signatures in the spare gear section, including names like 'M.V. EMPIRE CREEK' and 'FAVERSHAM MANCHESTER'.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops - -; During erection on board vessel - -; Total No. of visits: 8

Dates of Examination of principal parts: Crank shaft, Flywheel shaft, Thrust shaft, Intermediate shafts, Tube shaft, Screw shaft, Propeller, Stern tube, Engine seatings, Engines holding down bolts, Completion of fitting sea connections, Completion of pumping arrangements, Engines tried under working conditions.

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 M.V. EMPIRE CREEK MCH. RPT. 109598

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been installed under special survey, the workmanship and material being satisfactory and in my opinion the machinery of this vessel is eligible to have the notation of + Lloyd's machinery certificate 6,41.

NOTE:- For other particulars see Report 4b no. 10440.

The amount of Entry Fee £ 9:13:44; Special £ 2:8:4; Donkey Boiler Fee £ ; Travelling Expenses (if any) £ 5:1:1

J.E. Surpie, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute, Assigned, FRI, 11 JUL 1941



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