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IN D.O.

REPORT ON OIL ENGINE MACHINERY.

No. 111723

Received at London Office 25 FEB 1944

Date of writing Report 15TH FEB 1944 When handed in at Local Office 25 FEB 1944 Port of IPSWICH

No. in Survey held at LOWESTOFT Date, First Survey 19 Oct 1943 Last Survey 14TH FEB 1944
Reg. Book. Number of Visits 15

on the Single } Screw vessel N.A.V. "CHATTENDEN" Tons Gross 322.02
Triple }
Quadruple }

Built at LOWESTOFT By whom built RICHARDS IRONWORKS LTD. Yard No. 311 When built 1943

Engines made at MANCHESTER By whom made CROSSLEY BROS. LTD. Engine No. 13167 When made 1942

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

Brake Horse Power 330 Owners ADMIRALTY Port belonging to LONDON

Nom. Horse Power as per Rule 116 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

Trade for which vessel is intended GOVERNMENT SERVICE

OIL ENGINES, &c.—Type of Engines

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Mean Indicated Pressure Is there a bearing between each crank

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

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

Crank Shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank Webs Mid. length breadth shrunk Thickness parallel to axis

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 4 3/4" Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 5 3/8" Is the screw shaft fitted with a continuous liner NO

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

shaft NO If so, state type Length of Bearing in Stern Bush next to and supporting propeller 20"

Propeller, dia. 65" Pitch 46" No. of blades 4 Material BRONZE whether Moveable NO Total Developed Surface 10.98 sq. feet

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

Thickness of cylinder liners MANIFOLD WATERCOOLED Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material PIPES LAGGED If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine YES

Cooling Water Pumps, No. 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 ONE 4 1/4" x 3" ONE 2" S.P. Cent. pump. Aux DIESEL

How driven MAIN ENGINE 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 ONE 2" S.P. CENT. PUMP Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

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 THREE — 2 @ 2" + 1 @ 2 1/2" In Pump Room

In Holds, &c. THREE @ 2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE — 2 1/2"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES Are the Bilge Suctions 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 YES Are they fitted with Valves or Cocks VALVES

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates YES Are the Overboard Discharges above or below the deep water line BOTH

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

What pipes pass through the bunkers NONE How are they protected

What 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 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 NONE 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. No. of stages Diameters Stroke Driven by

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

Small Auxiliary Air Compressors, No. ONE No. of stages ONE Diameters 3 1/4" Stroke 3 1/4" Driven by AUX. DIESEL

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted APPROVED 3 1/2" JOURNALS 3 1/4" P.M.S. No. ONE (SEE OVER) Position PORT SIDE ENGINE ROOM

Im. 3.35. T.

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Safety valves fitted on compressors*

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. ☒ 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* 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 ☒ Receivers ☒ Separate Fuel Tanks *6-10-42*
(If not, state date of approval)

Donkey Boilers ☒ General Pumping Arrangements *10-4-41* Pumping Arrangements in Machinery Space *10-3-41*
Oil Fuel Burning Arrangements ☒

SPARE GEAR.

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

State the principal additional spare gear supplied

The foregoing is a correct description,

FOR RICHARDS IRONWORKS LIMITED

L. E. Richards

Manufacturer.

Dates of Survey while building { During progress of work in shops -- }
{ During erection on board vessel -- } *1943: Oct 19 30 Nov 5 10 12 29 30 Dec 8 15 (1944 Jan 3 11 Feb 28 9 14*
Total No. of visits *15*

Dates of Examination of principal parts—Cylinders ☒ Covers ☒ Pistons ☒ Rods ☒ Connecting rods ☒
Crank shaft ☒ Flywheel shaft ☒ Thrust shaft ☒ Intermediate shafts *14-10-43* Tube shaft ☒
Screw shaft *14-10-43* Propeller *14-10-43* Stern tube *11-10-43* Engine seatings *24-9-43* Engines holding down bolts *11-1-44*
Completion of fitting sea connections *11-10-43* Completion of pumping arrangements *8-2-44* Engines tried under working conditions *8-2-44 29-2-44*
Crank shaft, Material ☒ Identification Mark ☒ Flywheel shaft, Material ☒ Identification Mark ☒
Thrust shaft, Material ☒ Identification Mark ☒ Intermediate shafts, Material *STEEL* Identification Marks *LLOYDS T.M.B. 864 10-9-42*
Tube shaft, Material ☒ Identification Mark ☒ Screw shaft, Material *STEEL* Identification Mark *LLOYDS T.M.B. 869 10-9-42*

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 *"EMPIRE SPORTSMAN"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery (Manchester Report, nos. 11353 & 11387) has been efficiently fitted on board this vessel, in accordance with the approved plans & Rule requirements, examined under working conditions & found satisfactory and is eligible, in my opinion, to have notation of + L.M.C. 2,44.*

NOTE! In addition to the above, a generating set comprising a 2 cyl, 2-stroke diesel engine no. 56665 made by the National Gas & Oil Co., Ltd., driving a G.E.C. 7.5kW generator is fitted on the starboard side of the Engine Room for O.G. purposes only.

This generating set is an Admiralty supply and has not been built in accordance with the requirements of the Society's Rules but the set has been efficiently installed under Survey, and in accordance with the Society's Rules, examined under working conditions & found satisfactory.

The amount of Entry Fee .. £ : : When applied for, *25 FEB 1944*
Special *12 29 0 0 (2 1/2%)* £ : :
Less change due *2 10 0 0* £ : :
Donkey Boiler Fee ... £ : : When received, *12 5 0*
Travelling Expenses (if any) £ : : 19

Committee's Minute

Assigned

+ L.M.C. 2,44

FRI. 3 MAR 1944

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



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