

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 13560

Received at London Office

4 NOV 1943

Date of writing Report 19 When handed in at Local Office 19 Port of Belfast

No. in Survey held at Date, First Survey Last Survey 19
Reg. Book. Number of Visits

on the Single Triple Quadruple Screw vessel MV. "EMPIRE TRAVELLER" Tons Gross Net

Built at Belfast By whom built Harland & Wolff Ltd Yard No. 1189 When built 1943

Engines made at By whom made Engine No. When made

Donkey Boilers made at Belfast By whom made Harland & Wolff Ltd Boiler No. 608259 When made 1942

Brake Horse Power 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

OIL ENGINES, &c. — Type of Engines 2 or 4 stroke cycle Single or double acting

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

Mean Indicated Pressure

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

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

Crank Shaft, Solid forged dia. of journals as per Rule as fitted Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis.
Semi built as fitted Crank webs Mid. length thickness shrunk Thickness around eye-hole
All built

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 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 Is the tube shaft fitted with a continuous liner yes

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 yes 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 yes 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 5'-0"

Propeller, dia. 15'-6" Pitch 12'-0" No. of blades 4 Material Bronze whether moveable fixed Total developed surface 75 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 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. 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 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 yes Are they fitted with valves or cocks both 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. No. of stages diameters stroke driven by

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

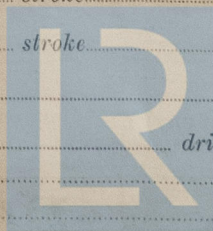
Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

What provision is made for first charging the air receivers

Scavenging Air Pumps, No. diameter stroke driven by

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

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



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AIR RECEIVERS:—Have they been made under survey yes State No. of report or certificate 2994
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 yes Is a drain fitted at the lowest part of each receiver yes
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 Actual
Starting Air Receivers, No. 2 Total cubic capacity 900 cu ft Internal diameter 6'-0 5/16" thickness 1"
Seamless, lap welded or riveted longitudinal joint knitted Material Steel Range of tensile strength 28/32 ton Working pressure by Rules Actual 356 lbs

IS A DONKEY BOILER FITTED (2) yes 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 26/5/41 Separate fuel tanks
Donkey boilers 26/5/41 General pumping arrangements Pumping arrangements in machinery space 7/4/43
Oil fuel burning arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied
State the principal additional spare gear supplied
The foregoing is a correct description, Manufacturer.

Dates of Survey while building { During progress of work in shops - 1942 Sept 21, Oct 13, 15, 20, 1943 June 9, 10, 15, 16, 22, 24, 25, 27, July 1, 2, 8, 9, 23, 29, 30.
During erection on board vessel - -
Total No. of visits
Dates of examination of principal parts—Cylinders Covers Pistons Rods Connecting rods
Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft ✓
Screw shaft 22/6/43 Propeller 25/6/43 Stern tube 16/6/43 Engine seatings Engine holding down bolts
Completion of fitting sea connections 16/6/43 Completion of pumping arrangements Engines tried under working conditions
Crank shaft, material Identification mark Flywheel shaft, material Identification mark
Thrust shaft, material Identification mark Intermediate shafts, material Identification marks
Tube shaft, material Identification mark Screw shaft, material Steel Identification mark LLOYDS NO 6933 WH 23887A 13.4.43.
Identification marks on air receivers No 236 No 237
LLOYDS TEST 556 lbs sq LLOYDS TEST 556 lbs sq
WP 356 lbs sq WP 356 lbs sq
13.10.42 RS. 15.10.42 RS.

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 If so, state name of vessel
General Remarks (State quality of workmanship, opinions as to class, &c. The air receivers and donkey boilers, Propeller, and Screw shaft have been fitted in place and the vessel has proceeded to the Clyde for machinery to be installed. RS.

The amount of Entry Fee ... £ :
Special ... £ :
Donkey Boiler Fee... £ :
Travelling Expenses (if any) £ :
When applied for 19
When received 19
Committee's Minute
Assigned See General No 67705