

Glasgow Dpts. No. 67705

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 Screw vessel MV. "EMPIRE TRAVELLER" Tons Gross...  
Triple  
Quadruple 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... All built as fitted... Mid. length thickness... shrunk... Thickness around eye-hole...

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

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... Yes

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... Yes... 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...

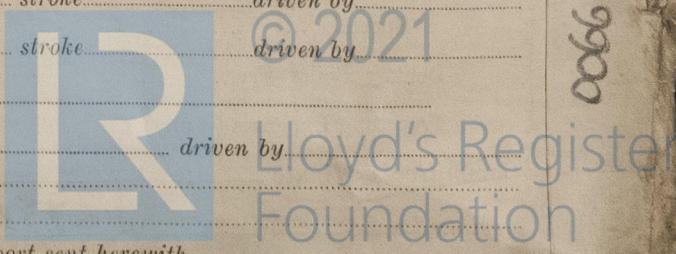
Auxiliary Air Compressors, No... No. of stages... diameters... stroke... driven by...

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... No... as fitted... Position... Have the auxiliary engines been constructed under special survey... Is a report sent herewith...



006601-006613-0296

**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 .....  
**Starting Air Receivers, No.** 2 Total cubic capacity 900 cu ft Internal diameter 6'-0 5/16" thickness 1" Working pressure Actual .....  
 Seamless, lap welded or riveted longitudinal joint knitted Material Steel Range of tensile strength 28/32 ton Working pressure 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 ..... Receivers 26/5/41 Separate fuel tanks .....  
(If not, state date of approval)  
 Donkey boilers 26/5/41 General pumping arrangements ..... Pumping arrangements in machinery space 7/4/43  
 Oil fuel buring 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  
 LLOYDS TEST 556 lpsd  
 WP 356 lpsd  
 13.10.42 AS.  
 No 237  
 LLOYDS TEST 556 lpsd  
 WP 356 lpsd  
 15.10.42 AS.

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. AS.

The amount of Entry Fee ... £ :  
 Special ... £ : When applied for ..... 19  
 Donkey Boiler Fee... £ : When received ..... 19  
 Travelling Expenses (if any) £ :



Committee's Minute GLASGOW 2 NOV 1943  
 Assigned See General No 67705