

# REPORT ON OIL ENGINE MACHINERY.

No 122254

Received at London Office

21 FEB 1945

Date of writing Report 20-1-45 When handed in at Local Office 20-1-45 Port of Liverpool  
 No. in Survey held at NORTHWICH Date, First Survey Feb 15<sup>th</sup>/44 Last Survey Jan 16<sup>th</sup> 1945  
 Reg. Book. Single on the Triple Screw vessel M.V. "EMPIRE TAPLEY" A/Ms 751. Tons Gross 305 Net 103  
 Built at Northwich By whom built Isaac Pimblett & Sons Ltd Yard No. 662 When built 1945  
 Engines made at Glasgow By whom made British Auxiliaries Ltd Engine No. 461 When made 1943  
 Donkey Boilers made at By whom made Boiler No. When made  
 Brake Horse Power 560 460 Owners Port belonging to  
 Nom. Horse Power as per Rule 101 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which vessel is intended

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

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 310 Flywheel dia. Glasgow report No. 67440 Weight Means of ignition Kind of fuel used  
 Crank Shaft, { Solid forged dia. of journals as per Rule Crank pin dia. Crank Webs Mid. length breadth Thickness parallel to axis  
 { Semi built dia. of journals as fitted { Mid. length thickness shrunk Thickness around eyehole  
 { All built { Thrust Shaft, diameter at collars as per Rule  
 Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 113 7/8  
 Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 7 1/16 Is the 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 Yes If so, state type Vickers Duplex Length of Bearing in Stern Bush next to and supporting propeller 2'-2" (approved)  
 Propeller, dia. 68" Pitch 51 1/4" No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 11 sq. feet  
 Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine Yes Means of lubrication  
 Forced Thickness of cylinder liners Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with  
 non-conducting material lagged 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. One 110 x 60 m/h Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
 Bilge Pumps worked from the Main Engines, No. One Diameter 110 m/h Stroke 60 m/h Can one be overhauled while the other is at work  
 Pumps connected to the Main Bilge Line { No. and Size 1-4100 gall/hr | 1-5'x5'-9.5 (23 ton/hr) | 1-Rotary 23 ton/hr  
 { How driven M.E. Driven | Star, Out. Aux Eng | Star, Inn. Aux Eng  
 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 1-5'x5' (23 ton/hr) Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2—each 2575 gall/hr  
 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 3-2 1/2" In Pump Room Hand pump  
 In Holds, &c.  
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 1/2" (also 1-2 1/2" to oily bilge)  
 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 yes Both  
 Are all Sea Connections fitted direct on the skin of the ship On Kingston Board 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 yes Are the Overboard Discharges above or below the deep water line above  
 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  
 That pipes pass through the bunkers How are they protected  
 That 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 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 Is it fitted with a watertight door worked from  
 Is 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 2 Diameters 140. 55 1/2 Stroke 240 1/2 Driven by Main Eng.  
 Auxiliary Air Compressors, No. One No. of stages 2 Diameters 4 1/2 x 17 1/8 Stroke 23 1/4 Driven by Port Aux Eng.  
 Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by  
 What provision is made for first Charging the Air Receivers Hand starting Diesel engine driving aux. compressors  
 Scavenging Air Pumps, No. One Diameter 720 1/2 Stroke 240 1/2 Driven by Main Eng.  
 Auxiliary Engines crank shafts, diameter Approved (Man. Rpt.) No. 60445 (Gen. Comp.) No. 60430 (Cargo Pp.) No. 60431 (Rotary Pp.) No. 60437. Gen. & GS Pp. Star. Inn. Star. Inn.  
 Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Yes Man. rpts. No. 11904 11905.



AIR RECEIVERS: — Have they been made under survey

State No. of Report or Certificate C. 48328

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

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

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

Thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

IS A DONKEY BOILER FITTED?

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)

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

The foregoing is a correct description.

ISAAC PIMLOTT & SONS, LTD.,

Manufacturer.

Managing Director

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

15/2/44 - 16/1/45

34

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

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

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

Identification Mark

Identification Marks on Air Receivers

2 off: N. 48328

Lloyds Test.

555 lbs. W.P. 355 u

J.M.C.L. 31.3.43.

(see gls Rpt N. 67474).

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

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

The Machinery of this vessel has been built under special survey, and is in accordance with the approved plans and the Specification. The engines have been installed, together with the auxiliaries, and a full power basin trial carried out at Northwich with satisfactory results.

The materials & workmanship are of good quality.

In my opinion the machinery of this vessel is eligible to be classed in the Register Book with a notation of

LCMC 1.45.

TS. 09 —

The amount of Entry Fee .. £

When applied for,

Bal. Special Fee ... £ 6 : 6

When received,

Donkey Boiler Fee ... £

Travelling Expenses (if any) £ 4 : 17/6

Committee's Minute

Assigned

+ LMC 1.45  
Oil Engines. O.G.

C. Reed

Engineer Surveyor to Lloyd's Register of Shipping.



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