

REPORT ON OIL ENGINE MACHINERY.

No. 67774

Received at London Office

25 NOV 1943

Date of writing Report

When handed in at Local Office

22. 11. 1943 Port of Glasgow

No. in Survey held at Reg. Book.

Glasgow

Date, First Survey

30th Dec 1941 Last Survey 12th Dec 1943

Number of Visits 44

on the ^{Single} ~~Triple~~ ~~Quadruple~~ Screw vessel

"**TREUANION**"

Tons Gross 7376.27 Net 5133.54

Built at Port Glasgow

By whom built Lithgorn Ltd.

Yard No. 985 When built 1943

Engines made at Glasgow

By whom made Harland & Wolff, Ltd.

Engine No. 8462/2 When made 1943

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 3300

Owners Ministry of War Transport

Port belonging to

Nom. Horse Power as per Rule 490

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines Heavy oil, airless injection 2 or 4 stroke cycle 4 Single or double acting S.A.

Maximum pressure in cylinders 700 lbs ✓ Diameter of cylinders 29 1/8" 740 mm. Length of stroke 591 1/16" 1500 mm. No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 128 ✓ Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 972 mm. Is there a bearing between each crank yes

Revolutions per minute 110 ✓ Flywheel dia. 2489 mm. Weight 2590 Kgs. Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, { Solid forged dia. of journals as per Rule Appl. 505 mm. Crank pin dia. 505 mm. Crank Webs Mid. length breadth 980 mm. Thickness parallel to axis 310 mm. Semi built as fitted 505 mm. BORED 230 mm. Mid. length thickness 310 mm. Thickness around eye hole 292.5 mm. All built BORED 115 mm.

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule Appl. 13 3/8" fitted 13 3/8" Thrust Shaft, diameter at collars as per Rule Appl. 454 mm. as fitted 454 mm.

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule Appl. 14 1/8" as fitted 14 1/8" Is the screw shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule Appl. 3/16" as fitted 3/16" Thickness between bushes as per Rule Appl. 9/16" as fitted 9/16" 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 ✓

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 12-06 ✓ Length of Bearing in Stern Bush next to and supporting propeller 4-11 1/2" ✓

Propeller, dia. 16-0" Pitch 10-6" No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 94 sq. feet

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when detached yes

Means of lubrication freed Thickness of cylinder liners 53 to 61 mm. 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. 1 ✓ Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. none 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 1 engine driven 180 tons/hour

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 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

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

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



AIR RECEIVERS: - Have they been made under survey State No. of Report or Certificate

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 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?

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 Crank & Thrust shafts Receivers (If not, state date of approval)

Separate Fuel Tanks

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.

Wm. L. Wright. Manufacturer.

Dates of Survey while building: During progress of work in shops... During erection on board vessel... Total No. of visits: 44

Dates of Examination of principal parts - Cylinders 16-7-43 Covers 16-7-43 Pistons 6-5-43 Rods 6-5-43 Connecting rods 29-7-43

Crank shaft 16-10-43 Flywheel shaft Thrust shaft 1-2-43 Intermediate shafts 22-10-43 12-11-43 Tube shaft

Screw shaft 22-10-43 Propeller 15-9-43 Stern tube 15-9-43 Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material Steel Identification Mark Lloyd's 8462/2 P.9 Flywheel shaft, Material Identification Mark

Thrust shaft, Material Steel Identification Mark Lloyd's 53957 P.9 Intermediate shafts, Material Steel Identification Marks See below

Tube shaft, Material Identification Mark Screw shaft, Material Steel Identification Mark Lloyd's 53777 P.9

Identification Marks on Air Receivers

Intermediate Shafts: - No. 1 Lloyd's 53956; No. 2 53306; No. 3 53923; No. 4 53237; No. 5 53237; No. 6 53875; No. 7 53618; No. 8 54164. P.9.

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 yes. If so, state name of vessel Engines duplicate of A/88 MSM. Glasgow Report No. 65986.

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

This machinery has been built under Special Survey and in accordance with the approved plans, the Rules of this Society, and the Ministry of War Transport Specification.

The materials and workmanship are good.

The machinery has been despatched to Greenock to be installed on board the vessel yard No 985, building by Messrs Lithgow's Ltd.

On completion it will be eligible in my opinion to be classed in the Register Book with record of + LMC C.L. with date.

This engine has been efficiently installed in this vessel, for recommendations see Greenock reports No 22560.

Charles G. Hunter

The amount of Entry Fee £ 5 : - : Special 2/3 of £ 98-10-0 £ 65 : 13 : Donkey Boiler Fee £ 16 : 8 : Travelling Expenses (if any) £ : : When applied for, 23 NOV 1943 When received, 19

P. Fitzgerald

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 23 NOV 1943

Assigned deferred for completion



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