

REPORT ON OIL ENGINE MACHINERY.

No. 73263

Received at London Office

Date of writing Report 19th Sept 1948 When handed in at Local Office 19th Sept 1948 Port of Glasgow
 Survey held at Glasgow Date, First Survey 17.5.48 Last Survey 9.9.48
 g. Book. Number of Visits 7
 Single on the Twin Triple Quadruple Screw vessel M.V. "WARMIA" Tons Gross 1320 Net 1000
 Built at Glasgow By whom built Wm Goble Shipbuilding Co. Yard No. 441 When built 1948
 Engines made at Glasgow By whom made Wm British & Co Engine Ltd. Engine No. 643 When made 1948
 Monkey Boilers made at Glasgow By whom made Glasgow Boiler No. 1 When made 1948
 Brake Horse Power 980 Owners Gdysia - America Shipping Line Ltd. Port belonging to Gdysia
 N. Power as per Rule 225 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted +
 Made for which vessel is intended Coasting

ENGINES, &c. — Type of Engines Heavy oil M.S.B.M. 4/6 2 or 4 stroke cycle 2 Single or double acting single
 Maximum pressure in cylinders 853 lbs/sq. in. Diameter of cylinders 34 1/2 Length of stroke 57 1/2 No. of cylinders 6 No. of cranks 6
 Mean Indicated Pressure 102 lbs/sq. in. Ahead Firing Order in Cylinders 1-6-2-4-3-5 Span of bearings, adjacent to the crank, measured
 from inner edge to inner edge 49 1/2 Is there a bearing between each crank + Revolutions per minute 250
 Flywheel dia. 1200 Weight 3040 lbs Moment of inertia of flywheel (± 6 lbs. in² or Kg. cm.²) 3115 lbs. in² Means of ignition Comp. + Kind of fuel used Gasol
 Crankshaft, dia. of journals 215 as per Rule 235 Crank pin dia. 235 Crank webs Mid. length breadth 324 Thickness parallel to axis +
 as fitted 235 as fitted 130 shrunk Thickness around eyehole +
 Flywheel Shaft, diameter 215 as per Rule 235 Intermediate Shafts, diameter 215 as per Rule 235 Thrust Shaft, diameter at collars 300 as per Rule 6.35
 as fitted 235 as fitted 235 as fitted 235 as fitted 235

Monze Liners, thickness in way of bushes + Thickness between bushes + 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 tube shaft + If so, state type + Length of bearing in Stern Bush next to and supporting propeller +

Propeller, dia. + Pitch + No. of blades + Material + whether moveable + Total developed surface + sq. feet
 Moment of inertia of propeller (± 6 lbs. in² or Kg. cm.²) + Kind of damper, if fitted +

Method of reversing Engines Gasol Is a governor or other arrangement fitted to prevent racing of the engine when declutched + Means of
 lubrication Gasol Thickness of cylinder liners 25.5 Are the cylinders fitted with safety valves + Are the exhaust pipes and silencers water cooled
 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. One Is the sea suction provided with an efficient strainer which can be cleared within the vessel +

Bilge Pumps worked from the Main Engines, No. One Diameter 110 Stroke 120 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 +

Are the 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 + 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 +
 Do all pipes pass through the bunkers + How are they protected +
 Do all 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 +

On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork +

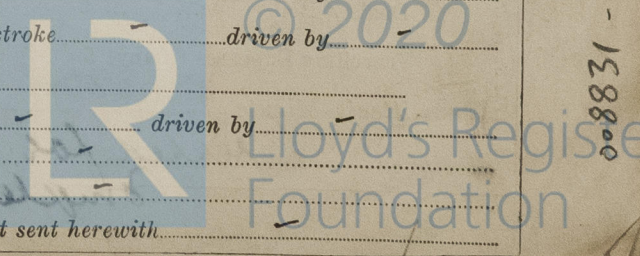
Main Air Compressors, No. One No. of stages Two diameters 55 1/2 13 1/2 stroke 56 1/2 driven by Gasol
 Auxiliary Air Compressors, No. + No. of stages + diameters + stroke + driven by +
 All Auxiliary Air Compressors, No. + No. of stages + diameters + stroke + driven by +

Is provision made for first charging the air receivers +
 Ventilating 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 +

12.10.48

008831 - 008838 - 0154



AIR RECEIVERS:—Have they been made under survey

State No. of report or certificate

C. 64660.

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, welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, 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)

Receivers

Separate fuel tanks

Donkey boilers

General pumping arrangements

Pumping arrangements in machinery space

Oil fuel burning arrangements

Have Torsional Vibration characteristics been approved

Date of approval

22. 1. 47.

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

as required by owner.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building
During progress of work in shops - - 17.5.48. 18.6.48. 29.6.48. 2.7.48. 9.7.48. 9.9.48. 14.9.48
During erection on board vessel - -
Total No. of visits 7 in ship.

Dates of examination of principal parts—Cylinders 2.7.48. Covers 2.7.48. Pistons 18.6.48. Rods 18.6.48. Connecting rods 18.6.48.

Crank shaft 27.2.48. Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engine holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions 9.9.48.

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

Welded receivers, state Makers' Name

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. This engine has been built under Special Survey and in accordance with the Rules and approved Plans.

The materials used and workmanship are good, and on completion the engine was tried on the test bench at the makers' works with satisfactory results.

The engine has now been dispatched to Gaskell to be installed on board the M.S. "Wannia" where Gaskell Shipbuilding Co. Ltd. yard No. 441.

The torsional vibration characteristics have been approved for a service speed of 250 R.P.M. provided a notice beam be fitted at controls, stating that the engine is not to be run continuously between 150 and 175 R.P.M. (See London Letter of 22.1.47.)

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

Committee's Minute

Assigned

When applied for

When received

20 SEP 1948

FBI, 14 JAN 1949

See F.E. mch. rph.

Engineer Surveyor to Lloyd's Register of Shipping

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