

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

11 JUL 1932

Date of writing Report 26-5-1932 When handed in at Local Office 27-5-1932 Port of Greenock
 No. in Survey held at Port Glasgow Date, First Survey 4th April 1932 Last Survey 12th April 1932
 Reg. Book. on the SS HARMATRIS (Number of Visits 2)
 Built at Port Glasgow By whom built Lithgows Ltd. Yard No. 853 Tons Gross 5395.31
 Engines made at Glasgow By whom made J. Rowan & Co Ltd Engine No. When built 1932
 Boilers made at " By whom made " Boiler No. When made "
 Registered Horse Power Owners Willis Steamship Company, Limited Port belonging to London
 Nom. Horse Power as per Rule MANAGERS J. & C. Harrison, Ltd
 Trade for which Vessel is intended Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines

Dia. of Cylinders Length of Stroke No. of Cylinders Revs. per minute
 Crank shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank webs Mid. length breadth Mid. length thickness No. of Cranks Thickness parallel to axis Thickness around eye-hole
 Intermediate Shafts, diameter as per Rule as fitted Thrust shaft, diameter at collars as per Rule as fitted
 Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the {tube} {screw} 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 ☒
 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 Length of Bearing in Stern Bush next to and supporting propeller
 Propeller, dia. Pitch No. of Blades Material whether Movable Total Developed Surface sq. feet
 Feed Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
 Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
 Feed Pumps {No. and size How driven Pumps connected to the {No. and size How driven Main Bilge Line
 Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler
 Bilge Pumps;—In Engine and Boiler Room Suctions, connected to both Main Bilge Pumps and Auxiliary
 In Pump Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size

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 Space 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 stokehold plates 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 yes.
 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

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers

Is Forced Draft fitted No. and Description of Boilers Working Pressure

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers
 (If not state date of approval)
 Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

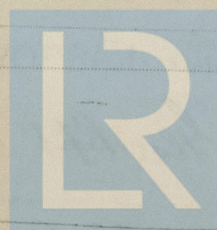
SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description,

Manufacturer.



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NOTE.—The words which do not apply should be deleted.
 If not, state whether, and when, one will be sent.
 Is a Report also sent on the Hull of the Ship? YES.

Dates of Survey while building
During progress of work in shops - -
(1932) April 4. 12.
During erection on board vessel - - -
Total No. of visits 2.

Dates of Examination of principal parts—Cylinders
Pistons
Crank shaft
Tube shaft
Stern tube
Completion of fitting sea connections
Completion of pumping arrangements
Main boiler safety valves adjusted
Crank shaft material
Intermediate shafts, material
Screw shaft, material
Is an installation fitted for burning oil fuel
Have the requirements of the Rules for the use of oil as fuel been complied with
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo
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

Slides
Piston Rods
Thrust shaft
Screw shaft
Engine and boiler seatings
Boilers fixed
Thickness of adjusting washers
Identification Mark
Identification Marks
Identification Mark
Steam Pipes, material
Is the flash point of the oil to be used over 150° F.
If so, have the requirements of the Rules been complied with

Covers
Connecting rods
Intermediate shafts
Propeller
Engines holding down bolts
Engines tried under steam
Identification Mark
Identification Mark
Test pressure
Date of Test

General Remarks (State quality of workmanship, opinions as to class, &c.) The propeller, stern tube, tail shaft & sea connections have been satisfactorily fitted on board. The vessel has left for Glasgow for installation of machinery by Messrs D. Rowan & Co. Ltd.
Glasgow Surveyors notified.

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

Committee's Minute GLASGOW 31 MAY 1932

Assigned See Gls. Rph. No. 52530.

J. D. Avery
Engineer Surveyor to Lloyd's Register of Shipping.



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