

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

8 FEB 1933

Date of writing Report 2nd FEBRUARY 1933When handed in at Local Office 3rd FEBRUARY 1933Port of GreenockNo. in Survey held at Port Glasgow
Reg. Book.

Date, First Survey

and

Last Survey 13th December 1932.

(Number of Visits 1)

on the SS HARDINGHAMBuilt at Port Glasgow By whom built Lithgows & Co

Yard No. 858

Tons } Gross 5414.71
Net 3208.21

When built 1933

Engines made at GlasgowBy whom made D. Rowan & Co. Ltd

Engine No.

When made 1933

Boilers made at

By whom made

Boiler No.

When made 1933

Registered Horse Power

Owners Willis Steamship Company LtdPort belonging to London

Nom. Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted YesTrade for which Vessel is intended Foreign

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 Crank pin dia. Mid. length breadth No. of Cranks
 as fitted Crank webs Mid. length thickness Thickness parallel to axis
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule Thickness around eye-hole
 as fitted Is the { tube } shaft fitted with a continuous liner {
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule as fitted
 as fitted Is the after end of the liner made watertight in the
 Bronze Liners, thickness in way of bushes as per Rule 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 LV bush 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
 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 Pumps connected to the { No. and size
 { How driven Main Bilge Line { How driven
 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 Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room
 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 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 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?

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 Shafing 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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Lloyd's Register
Foundation

W405-0091

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

(1932) Dec. 12.

Dates of Examination of principal parts—Cylinders
 Slides
 Covers
 Pistons
 Piston Rods
 Connecting rods
 Crank shaft
 Thrust shaft
 Intermediate shafts
 Tube shaft
 Screw shaft
 Propeller
 Stern tube
 Engine and boiler seatings 13-12-32
 Engines holding down bolts
 Completion of fitting sea connections 13-12-32
 Completion of pumping arrangements
 Boilers fixed
 Engines tried under steam
 Main boiler safety valves adjusted
 Thickness of adjusting washers
 Crank shaft material
 Identification Mark
 Thrust shaft material
 Identification Mark
 Intermediate shafts, material
 Identification Marks
 Tube shaft, material
 Identification Mark
 Screw shaft, material
 Identification Mark
 Steam Pipes, material
 Test pressure
 Date of Test
 Is an installation fitted for burning oil fuel
 Is the flash point of the oil to be used over 150°F.
 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 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

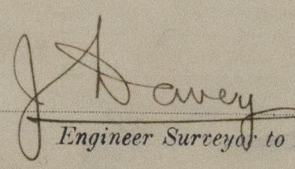
General Remarks (State quality of workmanship, opinions as to class, &c. The propeller, stem tube, & sea connections have been satisfactorily fitted on board. The vessel has left for Glasgow for installation of machinery by Messrs D. Roman & Co. Ltd. Glasgow Surveyors notified.

7 cent - 1000 N laws St Harbours

4807
 3/2/33

Certificate to be sent to
 The Surveyors are requested not to write on or below the space for Committee's Minute.

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


 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 7 FEB 1933

Assigned See accompanying Machinery Report
 (No. 53243)



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