

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 15 When handed in at Local Office 24-5-1932 Port of Glasgow  
 No. in Survey held at Glasgow Date, First Survey 29-9-31 Last Survey 23-5-1932  
 Reg. Book. on the new steel S/S "HARMATRIS" (Number of Visits 100)  
 Built at Port Glasgow By whom built Lithgows Ltd Yard No. 853 Tons Gross 5395 Net 3195  
 Engines made at Glasgow By whom made Davie Rowan & Co Ltd Engine No. 942 When built 1932  
 Boilers made at Glasgow By whom made Davie Rowan & Co Ltd Boiler No. 942 when made 1932  
 Registered Horse Power Owners J & C. Harrison Ltd Port belonging to London  
 Nom. Horse-Power as per Rule 502 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 Trade for which Vessel is intended

**ENGINES, &c.**—Description of Engines Triple expansion  
 Dia. of Cylinders 25"-43"-72" Length of Stroke 48" No. of Cylinders 3 Revs. per minute 73  
 Crank shaft, dia. of journals as per Rule 14.196 Crank pin dia. 14 3/4" No. of Cranks 3  
 Intermediate Shafts, diameter as per Rule 13.52" Crank webs Mid. length breadth 23" Thickness parallel to axis 9 1/4"  
 Tube Shafts, diameter as per Rule 14" Thrust shaft, diameter at collars as per Rule 14.196" Thickness around eye-hole 6 3/4"  
 Screw Shaft, diameter as per Rule 15.06" Is the tube shaft fitted with a continuous liner yes  
 Bronze Liners, thickness in way of bushes as per Rule 13" Thickness between bushes as per Rule 3/4" 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 yes  
 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  
 Propeller, dia. 18'6" Pitch 17'9" No. of Blades 4 Material Bronze whether Moveable yes Total Developed Surface 92.5 sq. feet  
 Feed Pumps worked from the Main Engines, No. none Diameter - Stroke - Can one be overhauled while the other is at work -  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 24" Can one be overhauled while the other is at work yes  
 Feed Pumps No. and size 2 @ 7"-9 1/2" x 21" Pumps connected to the Main Bilge Line No. and size Ballast pump  
 How driven steam How driven steam  
 Ballast Pumps, No. and size one @ 12"-10 1/2" x 24" 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 3 @ 3" Hold suction fitted at G.R. Plan sizes as below. Not verified at G.R.  
 In Holds, &c. No. 1 hold - 2 @ 3". No. 2 hold - 2 @ 3 1/2". No. 3 hold - 2 @ 2 1/2". No. 4 hold - 2 @ 3". Tunnel well - 1 @ 2 1/2".

**Main Water Circulating Pump Direct Bilge Suctions, No. and size one @ 8"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one @ 4 3/4"  
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes  
 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 yes  
 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 both  
 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 four hold suction How are they protected under wood casing  
 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 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 yes Is it fitted with a watertight door yes worked from Bridge Deck

**MAIN BOILERS, &c.**—(Letter for record (S/R)) Total Heating Surface of Boilers 6850 sq. ft.  
 Is Forced Draft fitted yes No. and Description of Boilers 2 SB & 1 aux Working Pressure 220 lbs  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes also on auxiliary boiler.  
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? -

**PLANS.** Are approved plans forwarded herewith for Shafting no Main Boilers yes Auxiliary Boilers yes Donkey Boilers -  
 Superheaters no (If not state date of approval) General Pumping Arrangements no Oil fuel Burning Piping Arrangements -

**SPARE GEAR.** State the articles supplied:— As per Rules and in addition - two cast iron propeller blades, one propeller shaft complete, one spindle for centrifugal circulating pump.  
 Also for the Andrew & Cameron HP valve gear - one steam valve rod, one exhaust valve rod, two crosshead blocks for valve rods, two crosshead pins for valve rods, four steel and four bronze cam rollers and two cams.

The foregoing is a correct description,

For David Rowan & Co. Ltd  
 Arch. H. Grierson.

Manufacturer.

010328-010337-0182

If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?

NOTE.—The words which do not apply should be deleted.



© 2021

Lloyd's Register  
 Foundation



1931 Sep: 29 Oct: 1 2 6 7 8 9 12 14 16 19 21 22 23 26 30 Nov: 2 3 4 5 9 11 12 17 18 19 20  
During progress of work in shops - 23 24 26 27 30 Dec: 2 3 4 7 8 9 10 21 24 25 (1932) Jan: 13 15 21 25 26 27 Feb: 2 3 4 8  
Dates of Survey while building - 10 11 17 18 22 23 24 25 26 Mar: 2 3 8 10 11 14 15 16 18 21 22 24 25 30 Apr: 1 2 4 7 11 14  
During erection on board vessel - 15 19 22 23 26 27 29 May: 1 3 4 5 10 11 12 13 17 18 19 23  
Total No. of visits - 100 -

Dates of Examination of principal parts—Cylinders 3-2-32 Slides 25-3-32 Covers 27-11-32  
Pistons A-2-32 Piston Rods 21-3-32 Connecting rods 24-11-31  
Crank shaft 24-2-32 Thrust shaft 2-3-32 Intermediate shafts 15-3-32  
Tube shaft ✓ Screw shaft 22-3-32 Propeller 8-3-32  
Stern tube 30-3-32 Engine and boiler seatings Erk Engines holding down bolts 4-5-32  
Completion of fitting sea connections Erk  
Completion of pumping arrangements 11-5-32 Boilers fixed 5-5-32 Engines tried under steam 23-5-32  
Main boiler safety valves adjusted 12-5-32 Thickness of adjusting washers 1/16" both 1/32" Starboard 1/16" Port 1/32" Assembly both 1/32"  
Crank shaft material J. Steel Identification Mark LLOYD'S N24192 L.C.D. 24-2-32 Thrust shaft material J. Steel Identification Mark LLOYD'S N24192 L.C.D. 2-3-32  
Intermediate shafts, material J. Steel Identification Marks LLOYD'S N24192 L.C.D. 15-3-32 Tube shaft, material — Identification Mark LLOYD'S N24192 L.C.D. 2-3-32  
Screw shaft, material J. Steel Identification Mark LLOYD'S N24192 L.C.D. 22-3-32 Steam Pipes, material Steel Test pressure 660 Date of Test 25-3-32  
Is an installation fitted for burning oil fuel no 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 no If so, have the requirements of the Rules been complied with —  
Is this machinery duplicate of a previous case no If so, state name of vessel —

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

The materials and workmanship are good.  
The machinery has been constructed under special survey in accordance with the Rules, satisfactorily fitted in the vessel, tried under steam and found good.  
It is eligible in my opinion for Classification and the Record.  
+ LMC 5, 32.

Cam operated HP valve gear fitted. Approved plan herewith.

24/5/32

GLASGOW.

The amount of Entry Fee ... £ 6 : - :  
Special ... £ 100 : 2 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 25 MAY 1932  
When received, 27.5.32

S. Davis  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 31 MAY 1932

Assigned + LMC 5, 32

CERTIFICATE WRITTEN 2.6.32



© 2021

Lloyd's Register Foundation