

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

19 JUN 1935

Date of writing Report 1935 When handed in at Local Office 8.5.35 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 29.10.34 Last Survey 30.4.1935
 Reg. Book. on the new steel S/S "HARPA GON" (Number of Visits 62)
 Built at Port Glasgow By whom built Litchgous Ltd Yard No. 874 Tons Gross 5719 Net 3778
 Engines made at Glasgow By whom made David Rowan & Co Ltd Engine No. 972 When built 1935
 Boilers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 972 When made 1935
 Registered Horse Power Owners Loran & Co (J. C. Thomson) Port belonging to London
 Nom. Horse Power as per Rule 475 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

Revs. per minute

Dia. of Cylinders 23½"-37½"-68" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13.634" Crank pin dia. 14½" Crank webs Mid. length breadth 23" Mid. length thickness 14" Thickness parallel to axis 14" Thickness around eye-hole 6 13/16"
 Intermediate Shafts, diameter as per Rule 12.985" Thrust shaft, diameter at collars as per Rule 13.634"
 Tube Shafts, diameter as fitted 13½" Screw Shaft, diameter as per Rule 14.526" as fitted 15" Is the tube screw shaft fitted with a continuous liner? yes
 Bronze Liners, thickness in way of bushes as per Rule 74" Thickness between bushes as per Rule 55" as fitted 1/16" 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 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 no If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 5'0"

Propeller, dia. 18'6" Pitch 20'0" No. of Blades 4 Material Bronze whether Movable yes Total Developed Surface 92 sq. feet
 Feed Pumps worked from the Main Engines, No. none Diameter - Stroke 27" Can one be overhauled while the other is at work -
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4½" Stroke 27" Can one be overhauled while the other is at work yes

Feed Pumps No. and size 2@ 9½"-7"×21" How driven Steam Pumps connected to the Main Bilge Line No. and size Ballast pump How driven steam
 Ballast Pumps, No. and size 1@ 10½"-12"×24" Lubricating Oil Pumps, including Spare Pump, No. and size 4
 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 2@ 2" & 1@ 3" In Holds, &c. 1@ 1" hold - 2@ 3" N°2 hold - 2@ 3½" & 1@ 2" N°3 hold - 4@ 2½" N°4 hold 2@ 3" Tunnel well - 1@ 2½" Dry tank - 1@ 2½" Loppendam - 1@ 2" Fitted at Port Glasgow

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1@ 9" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1@ 4¾"
 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 How are they protected
 What pipes pass through the deep tanks no deep tank 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 upper deck

MAIN BOILERS, &c.—(Letter for record (S) T) Total Heating Surface of Boilers 6706 sq ft
 Is Forced Draft fitted yes No. and Description of Boilers 2 SB & 1 auxy Working Pressure 220 lb

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no 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 no Main Boilers yes Auxiliary Boilers yes Donkey Boilers -
 (If not state date of approval)
 Superheaters no General Pumping Arrangements no Oil fuel Burning Piping Arrangements No. of fuel pipes sent to G.R. for completion of survey 1 Please return to G.R. in due course for duplicate vessel.

SPARE GEAR.
 Has the spare gear required by the Rules been supplied yes
 State the principal additional spare gear supplied One propeller shaft and two C.I. propeller blades.

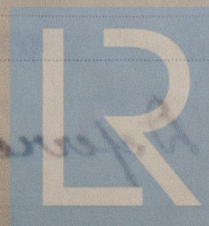
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Shipping.

W43-0124

The foregoing is a correct description,

For David Rowan & Co. Ltd
 Dock N. Trierson

Manufacturer.



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Lloyd's Register
Foundation

1934 Oct: 29 31 Nov: 1 5 7 12 16 21 27 28 29 Dec: 3 4 10 11 14 17 20 24 27 29
During progress of work in shops -- 1935 Jan: 2 9 18 29 31 Feb: 7 8 11 12 13 14 19 22 25 26 Mar: 1 6 11 14 15 20 21
Dates of Survey while building During erection on board vessel --- 25 27 28 Apr: 1 2 3 4 5 8 9 11 12 16 17 19 24 26 29 30

Total No. of visits 562
Dates of Examination of principal parts—Cylinders 31-1-35 Slides 22-2-35 Covers 28-12-34
Pistons 22-2-35 Piston Rods 8-4-35 Connecting rods 11-12-34
Crank shaft 8-2-35 Thrust shaft 4-4-35 Intermediate shafts 11-2-35
Tube shaft — Screw shaft 28-3-35 Propeller 28-3-35
Stern tube 9-4-35 Engine and boiler seatings GNR Engines holding down bolts 29-4-35

Completion of fitting sea connections GNR
Completion of pumping arrangements GNR Boilers fixed GNR Engines tried under steam GNR
Main boiler safety valves adjusted GNR Thickness of adjusting washers GNR
Crank shaft material J. Steel Identification Mark LLOYD'S N° 5161 L.C.D. 11-2-35 Thrust shaft material J. Steel Identification Mark LLOYD'S N° 5161 L.C.D. 11-2-35
Intermediate shafts, material J. Steel Identification Marks LLOYD'S N° 5161 L.C.D. 11-2-35 Tube shaft, material — Identification Mark LLOYD'S N° 5161 L.C.D. 11-2-35
Screw shaft, material J. Steel Identification Mark LLOYD'S N° 5161 L.C.D. 11-2-35 Steam Pipes, material Steel Test pressure 660 lbs. Date of Test 24-4-35
Is an installation fitted for burning oil fuel yes Is the flash point of the oil to be used over 150°F. yes
Have the requirements of the Rules for the use of oil as fuel been complied with yes
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 —
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 no If so, state name of vessel —

General Remarks (State quality of workmanship, opinions as to class, &c.)
GLASGOW 30-4-35 To complete the survey the whole of the fitting out requires to be done with the exception of the lining up of shafting and the fitting of holding down bolts. This will be done at the builders yard at Port Glasgow when the vessel has returned. GNR surveys advised.

NOW DONE Shafting lined and engine coupling checked. Chocks and holding down bolts fitted and examined. Boilers and auxiliary machinery placed on board but not secured. Oil fuel heating coils tested, fitted in the settling tank and petested and the settling tanks placed on board. A number of steel main and auxiliary steam pipes tested. The remaining steam pipes, the feed pipes and the oil fuel pipes will be made at Messrs Gair & Rowan Works Glasgow and tested as required.

4/5/35
The amount of Entry Fee £ 5 : : When applied for, 13th JUNE 1935.
Special 4/5 GNR £ 77 : 5 :
Donkey Boiler Fee ... £ 19 : 5 :
Travelling Expenses (if any) £ : : When received, 18.6.35

Committee's Minute GLASGOW 8 MAY 1935 9.5m. GLASGOW 18 JUN 1935
Assigned Deferred See GNR Rpt 19975
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