

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

5 AUG 1936

Date of writing Report 19 When handed in at Local Office 3. 8. 36 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 17. 12. 35 Last Survey 29. 7. 1936
 Reg. Book. on the new steel S/S "TREWELLARD". (Number of Visits 75) Gross 5201 Tons Net 3076
 Built at Port Glasgow By whom built Lithgows Ltd Yard No. 883 When built 1936
 Engines made at Glasgow By whom made David Rowan & Co. Ltd Engine No. 989 When made 1936
 Boilers made at Glasgow By whom made David Rowan & Co. Ltd Boiler No. 989 When made 1936
 Registered Horse Power 499 for M.B. Owners Hain SS Co Port belonging to London
 Nom. Horse Power as per Rule 434 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended for machinery part only.

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute 72
 Dia. of Cylinders 22½-36-65 Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13.44 Crank pin dia. 13½ Crank webs Mid. length breadth 2¼" Thickness parallel to axis 8¾"
 as fitted 13⅞ Mid. length thickness 8¾" shrunk Thickness around eye-hole 6⅞"
 Intermediate Shafts, diameter as per Rule 12.8 Thrust shaft, diameter at collars as per Rule 13.44
 as fitted 13¼ as fitted 13⅞
 Tube Shafts, diameter as per Rule 14.34 Screw Shaft, diameter as per Rule 14.78 Is the tube shaft fitted with a continuous liner yes
 as fitted 14.78 as fitted 14.78
 Bronze Liners, thickness in way of bushes as per Rule 7.37 Thickness between bushes as per Rule 5.5 Is the after end of the liner made watertight in the propeller boss yes
 as fitted 3¼ as fitted 1½
 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 4-11½
 Propeller, dia. 18-6 Pitch 18-9 No. of Blades 4 Material Bronze whether Movable no Total Developed Surface 110 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 4½ Stroke 27" Can one be overhauled while the other is at work yes
 Feed Pumps No. and size one @ 9½"-7 x 21. How driven steam Pumps connected to the Main Bilge Line No. and size Ballast pump How driven steam
 Ballast Pumps, No. and size one @ 10½"-14 x 24 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 3 @ 3"
 In Pump Room — In Holds, &c. No. 1 hold - 2 @ 3". No. 2 hold - 2 @ 3½". Gross bunker - 2 @ 2½"
 No. 3 hold - 2 @ 3". No. 4 hold - 2 @ 3". Tunnel well - 1 @ 2½". all fitted at bulk.
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 10" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one @ 5"
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-bones 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 forward hold suction How are they protected under timber boards
 What pipes pass through the deep tanks no 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 upper decks

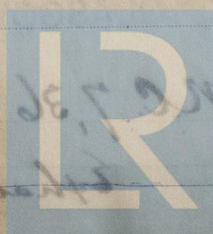
MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 6032 sq. ft.
 Is Forced Draft fitted yes No. and Description of Boilers 2 SB & 1 aux. Working Pressure 230 lbs. sq. in.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED?
 IS AN AUXILIARY DONKEY BOILER FITTED? yes If so, is a report now forwarded? yes
 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 —

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes
 State the principal additional spare gear supplied one propeller shaft and one C.I. propeller.

The foregoing is a correct description,
 For David Rowan & Co. Ltd
 Arch. N. Grierson

Manufacturer.



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Foundation

GLASGOW In Duplicate

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

1935 Dec.: 17. 18. 24. 27 (1936) Jan.: 7. 9. 16 Feb.: 5¹⁰. 14. 18. 19. 20. 24. 25. 28 Mar.: 3. 4. 5
During progress of work in shops - - 10. 16. 23. 26. 27. 30. 31 Apr.: 3. 6. 7. 8. 9. 10. 14. 15. 17. 20. 21. 27. 29. 30 May.: 4. 5. 7. 8. 11
Dates of Survey while building During erection on board vessel - - 12. 13. 19. 20. 21. 22. 25. 27. 28. 29 June.: 1. 2. 4. 5. 8. 10. 15. 16. 17. 18. 19. 23. 25. 26. 30 July.: 1
Total No. of visits 75
Dates of Examination of principal parts—Cylinders 10-2-36 Slides 20-4-36 Covers 10-3-36
Pistons 30-3-36 Piston Rods 29-4-36 Connecting rods 28-2-36
Crank shaft 6-4-36 Thrust shaft 5-6-36 Intermediate shafts 14-4-36
Tube shaft - Screw shafts 4-6-36 & 8-6-36 Propeller 4-6-36 & 15-6-36
Stern tube 28-5-36 Engine and boiler seatings Etc Engines holding down bolts 2-7-36
Completion of fitting sea connections Etc
Completion of pumping arrangements 16-7-36 Boilers fixed 2-7-36 Engines tried under steam 29-7-36
Main boiler safety valves adjusted 8-7-36 Thickness of adjusting washers Port bl.-bol 3/8". Centre bl.-bol 3/8". Star bl. P 3/8 57/16
Crank shaft material S. Steel Identification Mark * LLOYD'S N° 5936 L.C.D. 6-4-36 Thrust shaft material S. Steel Identification Mark * LLOYD'S N° 5936 L.C.D. 5-6-36
Intermediate shafts, material S. Steel Identification Marks * LLOYD'S N° 5936 L.C.D. 14-4-36 Tube shaft, material - Identification Mark * LLOYD'S N° 5936 L.C.D. 5-6-36
Screw shaft, material S. Steel Identification Mark * LLOYD'S N° 5936 L.C.D. 4-6-36 Steam Pipes, material Steel Test pressure 690 Date of Test 21-5-36
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 -
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.)
* In addition to these marks, the original forging marks as shown in reports herewith are stamped on each shaft.
The materials and workmanship are good.
The machinery has been constructed under Special Survey, satisfactorily fitted in the vessel, tried under steam and found good.
It is eligible in my opinion for Classification and the record LMC 7.36 also the notation "Exhaust turbine driving steam compressor".

Andrew & Cameron's cam operated valve gear is fitted for high pressure steam and exhaust.
Rowan - Götaverken Turbo compressor (TCS8) fitted Report on form 10 herewith
3/8/36.

The amount of Entry Fee ... £ 5 : :
Special ... £ 90 : 2 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 4 = AUG 1936
When received, 7/8/1936 R.E.J. 10/8

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

Committee's Minute GLASGOW 4 = AUG 1936

Assigned + L.M.C. 7.36 7D

Exhaust Turbine driving steam compressor.



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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?