

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Received at London Office

APR 26 1939

Date of writing Report 19 When handed in at Local Office 25. 4. 39 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 5. 8. 38 Last Survey 20-4 1939
 Reg. Book. on the new S/S "ADVISER". (Number of Visits 69) Tons Gross 6348 Net 3886
 Built at Port Glasgow By whom built Lithgows Ltd Yard No. 917 When built 1939
 Engines made at Glasgow By whom made David Rowan & Co Ltd Engine No. 1029 When made 1939
 Boilers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 1029 When made 1939
 Registered Horse Power Owners T & J Harrison Port belonging to Liverpool
 Nom. Horse Power as per Rule 867 (Inducement Exhaust tube) Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended

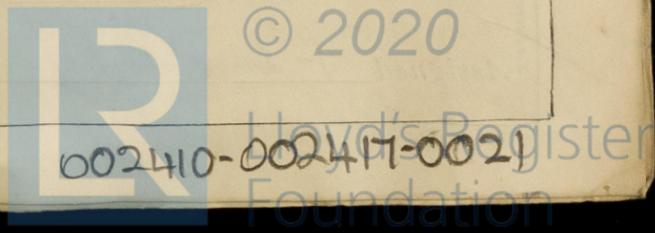
ENGINES, &c.—Description of Engines Triple expansion with Bauer Wash exhaust turbines, geared OR & Revs. per minute 85
 Dia. of Cylinders 29-47-81 Length of Stroke 54" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 16.117" as fitted 16 1/4" Crank pin dia. 16 1/4" Crank webs Mid. length breadth 26" Thickness parallel to axis 10 3/4" Mid. length thickness 10 3/4" Thickness around eye-hole 7 3/4"
 Intermediate Shafts, diameter as per Rule 15.62" as fitted 15 3/4" Thrust shaft, diameter at collars as per Rule 16.117" as fitted 4.25" (16.7326")
 Tube Shafts, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 17.161" as fitted 17 1/4" Is the tube screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule 8.25" as fitted 7/8" Thickness between bushes as per Rule 6.18" as fitted 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 no If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 6'-0"
 Propeller, dia. 18'-6" Pitch 20'-0" No. of Blades 4 Material C.I. blades whether Moveable yes Total Developed Surface 125 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 5 1/2" Stroke 24" Can one be overhauled while the other is at work yes
 Feed Pumps No. and size 2 @ 12" - 9" x 24" Pumps connected to the Main Bilge Line No. and size Ballast pump and General Service 1 @ 12" - 9" x 24" & 1 @ 12" - 9" x 24" & 1 @ 12" - 9" x 24" How driven Steam Main Bilge Line How driven Steam
 Ballast Pumps, No. and size 1 @ 10 1/2" - 13" 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 2 @ 3 1/2" in Engine room. 2 @ 3" in stokehold In Holds, &c. N°1 hold - 2 @ 3 1/2". N°2 hold - 2 @ 3 1/2". N°3 hold - 2 @ 3 1/2".
 Deep tanks - 2 @ 3 1/2" Thrud recess - 2 @ 2". N°5 hold - 2 @ 3 1/2". N°6 hold well - 1 @ 3". Tunnel well - 1 @ 3".
 Main Water Circulating Pump Direct Bilge Suctions, No. and size one @ 14" 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-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 forward hold suction How are they protected under timber beams
 What pipes pass through the deep tanks none 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 top platform

MAIN BOILERS, &c.—(Letter for record Y) Total Heating Surface of Boilers 13205
 Is Forced Draft fitted no No. and Description of Boilers 2 DB & 1 SB Working Pressure 215 lbs
 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 - Donkey Boilers -
 Superheaters yes 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. one propeller box. three cast iron and one bronze propeller blades. two Thomson coupling one valve spindle.

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



1938 Aug: 5. 10. 23. 30 Sep: 2. 5. 6. 14. 15. 19. 22. 29. 30 Oct: 3. 5. 7. 12. 13. 14. 17. 18. 21
 During progress of work in shops -- 25. 27. 28 Nov: 1. 3. 9. 11. 14. 18. 24. 25. 29 Dec: 2. 6. 15. 26. 28. 29. 30 (1939) Jan: 10. 24
 Dates of Survey while building During erection on board vessel --- 26. 27 Feb: 1. 6. 7. 8. 15. 16. 17. 18. 20. 21 Mar: 1. 2. 9. 10. 13. 14. 15. 17. 27. 28. 29 Apr: 3. 11
 Total No. of visits 69

Dates of Examination of principal parts—Cylinders 26-1-39 Slides 7-2-39 Covers 26-1-39
 Pistons 26-1-39 Piston Rods 8-2-39 Connecting rods 26-1-39
 Crank shaft 26-12-38 Thrust shaft See exhaust turb Ryle Intermediate shafts 21-2-39
 Tube shaft - Screw shaft 8-2-39 Propeller 27-1-39
 Stern tube 7-2-39 Engine and boiler seatings GWR Engines holding down bolts 3-4-39
 Completion of fitting sea connections GWR
 Completion of pumping arrangements 20-4-39 Boilers fixed 3-4-39 Engines tried under steam 20-4-39
 Main boiler safety valves adjusted 11-4-39 Thickness of adjusting washers Port. bh - P 7/16" 5/8" Starboard bh - both 1/2" For both both 7/16"
 Crank shaft material J. Steel Identification Mark 8219 LCO 2672-38 Thrust shaft material J. Steel Identification Mark 4-10-38 GA
 Intermediate shafts, material J. Steel Identification Marks 8219 LCO 21-239 Tube shaft, material - Identification Mark -
 Screw shaft, material J. Steel Identification Mark 8219 LCO 8-2-39 Steam Pipes, material Steel Test pressure 645 Date of Test 28-3-39
 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 yes* If so, state name of vessel "Scientist" (Glb Rpt No 60115)

General Remarks (State quality of workmanship, opinions as to class, &c.)
 * Walschaert Valve gear (in "Scientist") not fitted with these engines. The valve gear is ordinary Stephenson's link motion on all cylinders.

The materials and workmanship are good.
 The machinery has been constructed under special survey. Satisfactorily fitted on the vessel, tried under steam and found good.
 It is eligible in my opinion for Classification and the Record -
 + LMC 4,39 also notation "LP turbine with W.R. gearing and hydraulic coupling.

For particulars of L.P. turbine see Glb Rpt No 60845

Rb
 25/4/39

The amount of Entry Fee ... £ 6 : : When applied for,
 main engine only (731 NHP) ... £ 111 : 11 : 25 APR 1939
 Special ...
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : 29. 4 19. 39 4/5

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

Committee's Minute GLASGOW 25 APR 1939

Assigned -/- dmc 4.39

Date of writing
 No. in Survey Reg. Book.
 Built at
 Engines made
 Boilers made
 Shaft Horsepower
 Nom. Horsepower
 Trade for work
 TEAM T
 No. of Turbine
 direct coupled to
 for supplying power
 rated
 TURBINE
 LADING
 1ST EXPANSION
 2ND
 3RD
 4TH
 5TH
 6TH
 7TH
 8TH
 9TH
 0TH
 1TH
 2TH
 Shaft Horsepower
 Rotor Shaft
 Distance between
 Transom
 Flexible Pin
 Shafts, diameter
 Wheel Shafts,
 Intermediate
 Screw Shaft,
 Thickness between
 made by fusion of
 elastic material
 other appliances
 Propeller, diameter
 Single Screw
 Condenser
 Pumps connected
 Ballast Pump
 are two independent
 pumps, No. and
 Holds, &c.
 Main Water C
 lages, No. and s
 re the Bilge Suck
 re all Sea Con
 re they fixed suff
 re they each fitte
 hat pipes pass t
 hat pipes pass t
 e all Pipes, Co
 the arrangement
 Department to an

