

RECEIVED

MAY 1950 Rpt. 4a.

REPORT ON STEAM TURBINE MACHINERY. No. 45447

D.O.

Received at London Office 1 MAY 1950

Date of writing Report 10 When handed in at Local Office 2.5.1950 Port of GLASGOW.

No. in Survey held at Date, First Survey 23.12.48 Last Survey 15.4.1950

Reg. Book. on the S/O RDIA B.W. 108. (Number of Visits 4)

Built at DUMBARTON. By whom built Wm DENNY, Bros LD Tons Gross

Engines made at GLASGOW By whom made BARCLAY CURLE & CO Yard No. 1433 When built

Boilers made at By whom made Engine No. BW108 When made 1950

Boiler No. When made

Shaft Horse Power at Full Power 1020 Owners H. H. Pappard Port belonging to

Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which Vessel is intended

STEAM TURBINE ENGINES, &c.—Description of Engine One LP Turbine with D.R. Gearing, Hydraulic Coupling

No. of Turbines Ahead One Direct coupled, single reduction geared to One propelling shafts. No. of primary pinions to each set of reduction gearing One.

direct coupled to Alternating Current Generator phase periods per second Direct Current Generator rated Kilowatts Volts at revolutions per minute;

for supplying power for driving Propelling Motors, Type rates Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

Table with columns: H.P., I.P., L.P., ASTERN. Rows: 1ST EXPANSION, 2ND, 3RD, 4TH, 5TH, 6TH, 7TH, 8TH, 9TH, 10TH, 11TH, 12TH. Columns include HEIGHT OF BLADES, DIAMETER AT TIP, NO. OF ROWS.

Shaft Horse Power at each turbine H.P. I.P. L.P. 1020 Revolutions per minute, at full power, of each Turbine Shaft H.P. I.P. L.P. 3320 1st reduction wheel 485 main shaft 90.

Rotor Shaft diameter at journals H.P. I.P. L.P. 170 7/8 Pitch Circle Diameter 1st pinion 8.784 1st reduction wheel 60.2024 main wheel 78.2728 2nd pinion 15.1404 main wheel 265 7/8 Face 1st reduction wheel 260 7/8 main wheel 600 7/8

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st pinion A 225 7/8 1st reduction wheel A 360 7/8 main wheel 525 7/8

TRANSMISSION Flexible Pinion Shafts, diameter 1st 115 7/8 Pinion Shafts, diameter at bearings External 1st 125 7/8 2nd 320 7/8 Internal 1st 35 7/8 2nd 250 7/8 diameter at bottom of pinion teeth 1st 8.2074 2nd 14.3679

Wheel Shafts, diameter at bearings 1st 250 7/8 diameter at wheel shroud, main 500 7/8 Generator Shaft, diameter at bearings 1st 1448 7/8 Propelling Motor Shaft, diameter at bearings main 1890 7/8

Intermediate Shafts, diameter as per rule as fitted Thrust Shaft, diameter at collars as per rule as fitted Tube Shaft, diameter as per rule as fitted

Screw Shaft, diameter as per rule as fitted Is the tube screw shaft fitted with a continuous liner Bronze Liners, thickness in way of bushes as per rule as fitted

Thickness between bushes as per rule as fitted Is the after end of the liner made watertight in the propeller boss 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 Length of Bearing in Stern Bush next to and supporting propeller.

Propeller, diameter Pitch No. of Blades State whether Moveable Total Developed Surface square feet. If Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine Can the H.P. or I.P. Turbine exhaust direct to the

Condenser No. of Turbines fitted with astern wheels Feed Pumps No. and size How driven

Pumps connected to the Main Bilge Line No. and size 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, No. and size:—In Engine and Boiler Room In Holds, &c.

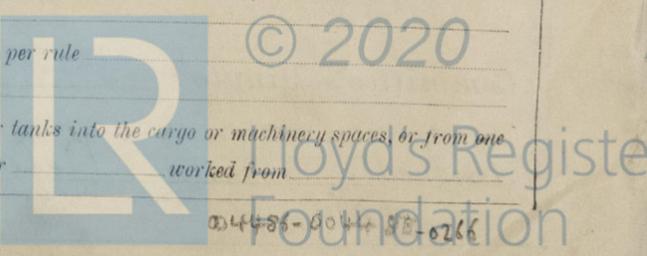
Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes.

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 Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Overboard Discharges above or below the deep water line Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

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



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  an Auxiliary Boiler fitted? If so, is a report now forwarded?  
 Plans Are approved plans forwarded herewith for Shafting  Main Boilers  Auxiliary Boilers  Donkey Boilers   
 (If not state date of approval)  
 Superheaters  General Pumping Arrangements  Oil Fuel Burning Arrangements   
 Spare Gear. State the articles supplied:— Spare gear supplied as per Rule requirements, and attached list.

FOR BARCLAY, CURLE & Co., Ltd

Wm G Bivona

Manufacturer

The foregoing is a correct description,

Dates of Survey while building  
 During progress of work in shops -- 1949 Dec 23 1950 Mar 17 Apr 4 15  
 During erection on board vessel ---  
 Total No. of visits  
 Dates of Examination of principal parts—Casings 17.3.50 Rotors 30.12.49 Blading 17.3.50 Gearing 28.3.50  
 Wheel shaft 5.4.50 Thrust shaft 5.4.50 Intermediate shafts Tube shaft Screw shaft  
 Propeller Stern tube Engine and boiler seatings Engine holding down bolts  
 Completion of pumping arrangements Boilers fixed Engines tried under steam  
 Main boiler safety valves adjusted Thickness of adjusting washers

TRANSMISSION  
 Rotor shaft, Material and tensile strength O.H.15 Identification Mark LR18147 DB 891 30.12.49  
 Pinion shaft, Material and tensile strength O.H.15 Identification Mark LR18147 DB 894 30.12.48  
 1st Reduction Wheel Shaft, Material and tensile strength O.H.15 Identification Mark LR18147 DB 894 30.12.49  
 Wheel shaft, Material O.H.15 Identification Mark LR18147 30.12.49 Thrust shaft, Material O.H.15 Identification Mark HAI.896 23.12.48  
 Intermediate shafts, Material Identification Marks Tube shaft, Material Identification Marks  
 Screw shaft, Material Identification Marks 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

Is this machinery a duplicate of a previous case If so, state name of vessel Yes GLASGOW 74945  
 General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been constructed under Special Survey in accordance with the Society's Rules and the approved plans. Materials and workmanship are good.

The machinery has been despatched to Greenock to be installed Messrs B's Denny Bros Yard No 1433  
 This turbine has been effectually installed & coupled to the Main engine for recommendations please see Machinery FE GRK No 24205.  
 Charles W Hunter Greenock 6/9/50

The amount of Entry Fee ... £ 29.15  
 Special ...  
 Donkey Boiler Fee ...  
 Travelling Expenses (if any) ...

When applied for, 10 MAY 1950  
 When received, 19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 10 MAY 1950  
 Assigned Defered for comp.



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