

REPORT ON STEAM TURBINE MACHINERY. No. 48950

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Date of writing Report 9. March 1929 When handed in at Local Office 9. 3. 1929 Port of Glasgow
No. in Survey held at Glasgow Date, First Survey 25. 10. 27 Last Survey 4. 3. 1929
Reg. Book. on the T. S. S. "VICEROY OF INDIA" (Number of Visits 141)
Built at Glasgow By whom built A. Stephen & Son Ltd. Yard No. 519 Tons Gross 19648
Engines made at Rugby By whom made British Thomson Houston & Co Engine No. When built 1929
Boilers made at Glasgow By whom made Yarrow & Co Ltd. Boiler No. 1549 When made 1929
Shaft Horse Power at Full Power 17000 Owners P. & O. S. S. N. & Co. Port belonging to Glasgow
Nom. Horse Power as per Rule 3565 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes
Trade for which Vessel is intended Passenger

STEAM TURBINE ENGINES, &c.—Description of Engines High Pressure Curtis Impulse
No. of Turbines Ahead Direct coupled, single reduction geared } to propelling shafts. No. of primary pinions to each set of reduction gearing
Astern double reduction geared }
direct coupled to Alternating Current Generator phase periods per second } rated Kilowatts Volts at revolutions per minute;
for supplying power for driving Direct Current Generator }
Propelling Motors, Type
rated Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

TURBINE BLADING.	H. P.			I. P.			L. P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1ST EXPANSION												
2ND												
3RD												
4TH												
5TH												
6TH												
7TH												
8TH												
9TH												
10TH												
11TH												
12TH												

Shaft Horse Power at each turbine H.P. I.P. L.P. 17000
Revolutions per minute, at full power, of each Turbine Shaft H.P. I.P. L.P. 933 1/2
Rotor Shaft diameter at journals H.P. I.P. L.P. Pitch Circle Diameter 1st pinion 1st reduction wheel 2nd pinion main wheel
Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st pinion 1st reduction wheel 2nd pinion main wheel
Flexible Pinion Shafts, diameter 1st 2nd Pinion Shafts, diameter at bearings External Internal 1st 2nd diameter at bottom of pinion teeth 1st 2nd
Wheel Shafts, diameter at bearings 1st main diameter at wheel shroud, 1st main Generator Shaft, diameter at bearings
Intermediate Shafts, diameter as per rule 17 as fitted 18 Thrust Shaft, diameter at collars as per rule 17 P3 as fitted 19 Tube Shaft, diameter as per rule as fitted None
Screw Shaft, diameter as per rule 18.6.1 Is the shaft fitted with a continuous liner Yes Bronze Liners, thickness in way of bushes as per rule as fitted 1
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 One length 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 No If two liners are fitted, is the shaft lapped or protected between the liners No Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No
Propeller, diameter 18'-9" Pitch 20'-5" No. of Blades 3 State whether Movable Yes Total Developed Surface 101 square feet
If Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine No
Condenser Yes No. of Turbines fitted with astern wheels No Feed Pumps No. and size 4, 250, 190, 160, 140 Tons per hour capacity How driven Electric Motors
Pumps connected to the Main Bilge Line No. and size 4, 250, 190, 160, 140 Tons per hour capacity How driven Electric Motors
Ballast Pumps, No. and size 1, 250 Tons per hour Lubricating Oil Pumps, including Spare Pump, No. and size Six London Report
Are two independent means arranged for circulating water through the Oil Cooler Yes
Pumps, No. and size:—In Engine and Boiler Room 3, 250, 190, 160, 140 Tons per hour capacity In Holds, &c. No 1, 1-3/2, No 2, 1-3/2, 2-2 1/2, No 3, 1-3/2, 2-2 1/2, No 4, 2-3, 3-3, No 5, 2-3, 3-3, No 6, 2-3, 3-3
Main Water Circulating Pump Direct Bilge Suctions, No. and size 2, 22"
Bilges, No. and size 2, 6 1/2"
Are all the Bilge Suction pipes in Holds and Tunnel Wall 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 pipes to the bilges Yes
Are all Sea Connections fitted direct on the skin of the ship Yes or No Walls Are they fitted with Valves or Cocks Yes
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 Below
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 bulkheads None How are they protected
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

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