

REPORT ON STEAM TURBINE MACHINERY.

No. 87074

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Date of writing Report 21st Apr 1931 When handed in at Local Office 21st Apr 1931 Port of Newcastle-on-Tyne
 No. in Survey held at Newcastle Date, First Survey 12 June 1930 Last Survey 21st April 1931
 Reg. Book. 75620 on the Steel S.S. "KINGSWOOD" (Number of Visits 22)
 Built at Newcastle By whom built Northumberland S.S. Co. (1927) Ltd Tons Gross 5055
 Engines made at Newcastle By whom made H.S. Mariney & Co. Engine No. 1929-5 Net 3077
 Boilers made at " By whom made " Boiler No. " When built "
 Shaft Horse Power at Full Power 575 Owners Joseph Constantine S.S. Line Ltd Port belonging to Middlesbro
 Nom. Horse Power as per Rule 520 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended FOR REGISTER BOOK

STEAM TURBINE ENGINES, &c.—Description of Engines Parsons Marine S.T. Co No 270

No. of Turbines One Direct coupled, single reduction geared double reduction geared to Main propelling shaft. No. of primary pinions to each set of reduction gearing One
 direct coupled to Alternating Current Generator phase periods per second rated Kilowatts Volts at revolutions per minute;
 for supplying power for driving 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							2"	2'-8 1/2"	2			
3RD							2 1/8"	2'-10 1/2"	2			
4TH							4"	3'-0 1/2"	2			
5TH							5 3/4"	3'-4"	2			
6TH							5 3/4"	3'-4"	2			
7TH												
8TH												
9TH												

Shaft Horse Power at each turbine { H.P. 575 I.P. 2500 L.P. 2500 }
 Revolutions per minute, at full power, of each Turbine Shaft { H.P. 381 I.P. 65.5 L.P. 2500 }
 Propeller Shaft diameter at journals { H.P. 4 3/4" I.P. 4 3/4" L.P. 4 3/4" }
 Pitch Circle Diameter { 1st pinion 5.809" 1st reduction wheel 37.875" 2nd pinion 11.37" main wheel 66.024" }
 Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 6 1/8" 1st reduction wheel 10 1/4" 2nd pinion 13" main wheel 13" }
 Flexible Pinion Shafts, diameter { 1st 3" 2nd 3" }
 Pinion Shafts, diameter at bearings { External 1st 4 1/2" 2nd 9" Internal 1st 4 1/2" 2nd 9" }
 Wheel Shafts, diameter at bearings { 1st 9" main 13 1/2" }
 Generator Shaft, diameter at bearings 38.246"
 Propelling Motor Shaft, diameter at bearings 66.66"
 Intermediate Shafts, diameter { as per rule 12 3/4" as fitted }
 Thrust Shaft, diameter at collars { as per rule 13 1/2" as fitted }
 Tube Shaft, diameter { as per rule 13 1/2" as fitted }
 Propeller Shaft, diameter { as per rule 13 1/2" as fitted }
 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 Yes
 Is the liner in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
 Is the space charged with a plastic material insoluble in water and non-corrosive Yes
 Is the shaft tapped or protected between the liners Yes
 Is an approved Oil Gland other appliance fitted at the after end of the tube shaft Yes
 Length of Bearing in Stern Bush next to and supporting propeller as fitted
 Propeller, diameter as fitted Pitch as fitted No. of Blades as fitted State whether Moveable as fitted Total Developed Surface as fitted square feet.
 Can the H.P. or I.P. Turbine exhaust direct to the condenser Yes
 No. of Turbines fitted with astern wheels as fitted Feed Pumps { No. and size as fitted How driven as fitted }
 Pumps connected to the Main Bilge Line { No. and size as fitted How driven as fitted }
 Lubricating Oil Pumps, including Spare Pump, No. and size Two 4" x 3 1/2" x 9" stroke
 Are two independent means arranged for circulating water through the Oil Cooler Yes Ballast + Sanitary Pumps
 Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge pumps, No. and size:—In Engine and Boiler Room as fitted

Main Water Circulating Pump Direct Bilge Suctions, No. and size as fitted
 Independent Power Pump Direct Suctions to the Engine Room as fitted
 Bilges, No. and size as fitted 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 Yes
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold plates Yes Are the Overboard Discharges above or below the deep water line Yes
 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 as fitted How are they protected as fitted
 What pipes pass through the deep tanks as fitted Have they been tested as per rule Yes
 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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