

REPORT ON MACHINERY.

No. 4411

Received at London Office

t. 4a.

Date of writing Report 1-10-1919 Port of Manchester
 To. in Survey held at Manchester Date, First Survey 10 May 18 Last Survey 14-8-1919
 Reg. Book. STANDARD STEAM TURBINES & DR. REDUCTION GEAR. (Number of Visits 20) Gross 6537
SS War Head Tons Net 4040
 Built at Chepstow By whom built National Shipyard When built 1920
 Engines made at Manchester By whom made British Westinghouse Co. when made 1919
 Boilers made at Huddersfield By whom made Darby Brown & Sons Ld. when made 1919
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Shaft Horse Power at Full Power 2900 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

TURBINE ENGINES, &c.—Description of Engines H.P. & L.P. RATEAU TURBINES & DR. GEAR No. of Turbines 2
 Diameter of Rotor Shaft Journals, H.P. 4 1/2" L.P. 4 1/2" Diameter of Pinion Shaft 1 1/2" 4 1/2", 2 1/2" 9"
 Diameter of Journals 1 1/2" 4 1/2", 2 1/2" 9" Distance between Centres of Bearings 1 1/2" 27", 2 1/2" 46 1/2" Diameter of Pitch Circle 1 1/2" 6.302", 2 1/2" 13.379"
 Diameter of Wheel Shaft 1 1/2" 9", 2 1/2" 14 3/4" Distance between Centres of Bearings 1 1/2" 26", 2 1/2" 45 1/2" Diameter of Pitch Circle of Wheel 1 1/2" 49.656", 2 1/2" 76.765"
 Width of Face 1 1/2" 18", 2 1/2" 33 1/2" Diameter of Thrust Shaft under Collars 15" Diameter of Tunnel Shaft as per rule _____ as fitted _____
 Diameter of same as per rule _____ as fitted _____ Diameter of Propeller _____ Pitch of Propeller _____
 State whether Moveable _____ Total Surface _____ Diameter of Rotor Drum, H.P. _____ L.P. _____ Astern _____
 Revs. per Minute at Full Power, Turbine 3500 Propeller _____

PARTICULARS OF BLADING.

	H.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.
WHEEL EXPANSION	<u>5/8" & 1 1/8"</u>	<u>3' 2 1/2" & 3' 3 3/4"</u>	<u>2</u>	<u>1 3/8"</u>	<u>3' 3 3/8"</u>	<u>1</u>	<u>H.P.</u>		
"	<u>3/16"</u>	<u>3' 2 3/8"</u>	<u>1</u>	<u>1 7/8"</u>	<u>3' 3 3/8"</u>	<u>1</u>	<u>1 7/8" & 2 1/4"</u>	<u>3' 2 3/8" & 3' 3 3/4"</u>	<u>2</u>
"	<u>1"</u>	<u>3' 3"</u>	<u>1</u>	<u>2 1/2"</u>	<u>3' 4 1/2"</u>	<u>1</u>			
"	<u>1 5/16"</u>	<u>3' 2 5/8"</u>	<u>1</u>	<u>3 7/8"</u>	<u>3' 5 1/8"</u>	<u>1</u>	<u>L.P.</u>		
"	<u>1 1/8"</u>	<u>3' 3 1/8"</u>	<u>1</u>	<u>4 3/4"</u>	<u>3' 6 3/4"</u>	<u>1</u>	<u>2 1/16"</u>	<u>3' 4 1/16"</u>	<u>1</u>
"				<u>6 1/8"</u>	<u>3' 8 1/8"</u>	<u>1</u>	<u>4"</u>	<u>3' 6"</u>	<u>1</u>
"				<u>7"</u>	<u>3' 9"</u>	<u>1</u>			

and size of Feed pumps _____
 and size of Bilge pumps _____
 and size of Bilge suction in Engine Room _____
 In Holds, &c. _____

of Bilge Injections _____ sizes _____ Connected to condenser, or to circulating pump _____ Is a separate Donkey Suction fitted in Engine Room & size _____
 all the bilge suction pipes fitted with roses _____ Are the roses in Engine room always accessible _____
 all connections with the sea direct on the skin of the ship _____ Are they Valves or Cocks _____
 they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the Discharge Pipes above or below the deep water line _____
 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 _____
 at pipes are carried through the bunkers _____ How are they protected _____
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times _____
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges _____
 the Screw Shaft Tunnel watertight _____ Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers _____ Is Forced Draft fitted _____ No. and Description of Boilers _____
 Working Pressure _____ Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____
 each boiler be worked separately _____ Area of fire grate in each boiler _____ No. and Description of Safety Valves to _____
 boiler _____ Area of each valve _____ Pressure to which they are adjusted _____ Are they fitted with easing gear _____
 allest distance between boilers or uptakes and bunkers or woodwork _____ Mean dia. of boilers _____ Length _____ Material of shell plates _____
 thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____
 g. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____
 percentages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____
 of compensating ring _____ No. and Description of Furnaces in each Boiler _____ Material _____ Outside diameter _____
 length of plain part _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____
 working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____
 ch of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____
 Material of stays _____ Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space _____
 Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____
 meter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____
 thickness _____ Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____
 meter of tubes _____ Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
 ch across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and _____
 thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____
 working pressure by rules _____ Steam dome: description of joint to shell _____ % of strength of joint _____ Diameter _____
 thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diameter of rivet holes _____ Pitch of rivets _____
 working pressure of shell by rules _____ Crown plates: Thickness _____ How stayed _____

010012-010023-0085

