

REPORT ON MACHINERY

No. 74157

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Date of writing Report 19 When handed in at Local Office 28/2/1921 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at Newcastle on Tyne Date, First Survey 18th March 1920 Last Survey 24th Feb 1921
 Reg. Book. Contract No 357 5/8 CHRISTIANSBORG (Number of Visits 25)
 on the
 Master Built at By whom built Koninklijke Maats de Schelde When built
 Engines made at Wallsend on Tyne By whom made The Parsons Marine Steam Turbine Co Ltd when made 1921
 Boilers made at By whom made [Contract No. 189] when made
 Registered Horse Power Owners Port belonging to
 Shaft Horse Power at Full Power 1350 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

TURBINE ENGINES, &c.—Description of Engines Impulse Reaction Turbines, Double Reduction Gear No. of Turbines 2
 Diameter of Rotor Shaft Journals, H.P. 3 1/2" L.P. 4 1/2" Diameter of Pinion Shaft Primary 3" Secondary 7"
 Diameter of Journals Primary 3" Secondary 7" Distance between Centres of Bearings Primary 1'5" Secondary 3'6"
 Diameter of Wheel Shaft Journals 1'-0" Distance between Centres of Bearings Primary 47-776" Secondary 85-054"
 Width of Face Primary 7" Secondary 1'-6 1/2" Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule as fitted
 No. of Screw Shafts ONE Diameter of same as per rule as fitted Diameter of Propeller Pitch of Propeller [Solid]
 No. of Blades State whether Moveable Total Surface Diameter of Rotor Drum, H.P. 13 1/2" L.P. 16 1/2" 27" Astern L.P. 22"
 Thickness at Bottom of Groove, H.P. 1" L.P. 1" Astern 1" Revs. per Minute at Full Power, Turbines 3,500 Propeller 70

PARTICULARS OF BLADING.

	H. P.			L. P.			HP & LP ASTERNS.		
	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	7/8"	14 3/4"	10	1st 1 1/8"	1'-9 7/8"	4	HP Ast: 2 Row Wheel		
2ND	1 5/16"	16 3/8"	8	2nd 2 3/16"	1'-10 7/8"	4	Eff: height = 1", 1 1/2", 2"		
3RD	1 3/16"	20 1/8"	5	3rd 2 3/16"	2'-0 1/8"	4	LP Ast: eff. height = 1 3/16", 1 1/4", 2 3/16"		
4TH	1 1/16"	20 5/8"	5	4th 1 7/8"	2'-6 3/4"	2	1st 7/8"	1'-11 3/4"	1
5TH	1 3/8"	21 1/4"	5	5th 2 3/8"	2'-7 3/4"	2	2nd 1 1/4"	2'-0 1/2"	1
6TH				6th 2 3/8"	2'-9 1/2"	1	3rd 1 3/4"	2'-1 1/2"	1
7TH				7th 4 1/2"	3'-0"	1	4th 1 3/4"	2'-1 1/2"	1
8TH				8th 4 1/2"	3'-0"	1	5th 1 3/4"	2'-1 1/2"	1

No. and size of Feed pumps
 No. and size of Bilge pumps
 No. and size of Bilge suction in Engine Room
 In Holds, &c.
 No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size
 Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible
 Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks
 Are 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
 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 are carried through the bunkers How are they protected
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges
 Is 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
 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler
 Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
 Smallest 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
 long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell plates
 Size of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings bottom
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch 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
 Diameter 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
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch 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



