

Date of writing Report 22-2-1922 When handed in at Local Office 19 Port of Rotterdam
 Date, First Survey 1-9-20 Last Survey 21-2-1922
 in Survey held at Schiedam Date, First Survey 1-9-20 Last Survey 21-2-1922
 Reg. Book. on the Steel Screw Steamer "GEMMA" (Number of Visits 40)
 Gross Tons 8420
 Net Tons 5334
 Master Built at Schiedam By whom built New Waterway Shipb. Co When built 1922
 Engines made at London & Rugby By whom made The British Thomson Houston Co Ltd when made 1921
 Boilers made at Schiedam By whom made New Waterway Shipb. Co when made 1922
 Registered Horse Power 915 NHP Owners Newell, Goudubans & Stoomvaart Port belonging to Rotterdam
 Shaft Horse Power at Full Power 4000 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

TURBINE ENGINES, &c.—Description of Engines Curtis impulse Turbine, double No. of Turbines 2
 Diameter of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shaft See London report of 84631
 Diameter of Journals Distance between Centres of Bearings Diameter of Pitch Circle
 Diameter of Wheel Shaft Distance between Centres of Bearings Diameter of Pitch Circle of Wheel
 Width of Face Diameter of Thrust Shaft under Collars 15 3/4"
 Diameter of Tunnel Shaft as fitted 15" (14 1/4" Rule Size)
 No. of Screw Shafts One CL Diameter of same as fitted 16 1/2" Diameter of Propeller 19'6" Pitch of Propeller 16'6"
 No. of Blades 4 State whether Moveable No Total Surface 119 sq ft Diameter of Rotor Drum, H.P. L.P. Astern
 Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine Propeller 85

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.
1st EXPANSION									
2nd									
3rd									
4th									
5th									
6th									
7th									

No. and size of Feed pumps 2 Woodruff pumps 10" x 13 1/2" x 21"
 No. and size of Bilge pumps 4 5" x 5" x 6", 10" x 7" x 12", 10" x 12" x 12", 7" x 5" x 8"
 No. and size of Bilge suction in Engine Room Well. 3 à 3 1/2" in tunnel à 3"
 In Holds, &c. 2 in No. 1 hold à 3 1/2"; 2 in No. 2 hold à 3 1/2"; 2 in No. 3 hold à 3 1/2"; 2 in No. 4 hold à 3 1/2"; 2 in No. 5 hold à 3 1/2"
 No. of Bilge Injections 1 sizes 1 1/2" Connected to circulating pump Is a separate Donkey Suction fitted in Engine Room & size 1 à 4"
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line Above
 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 are carried through the bunkers bilge pipes How are they protected Casings
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel William Beardmore & Co Ltd
 Total Heating Surface of Boilers 13400 sq ft Forced Draft fitted Yes No. and Description of Boilers 4 Single ended Marine boilers
 Working Pressure 180 lbs Tested by hydraulic pressure to 270 lbs Date of test 6-10-21 No. of Certificate 454
 Can each boiler be worked separately Yes Area of fire grate in each boiler 80.5 sq ft No. and Description of Safety Valves to each boiler 2 spring loaded Area of each valve 12.5 sq ft Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 10" Mean dia. of boilers 17" Length 12" Material of shell plates Steel
 Thickness 1 1/8" Range of tensile strength 20-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams lap 2 x riv long. seams Double butt 3x riv Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 9 1/8" Lap of plates or width of butt straps 21 1/8"
 Per centages of strength of longitudinal joint rivets 97 Working pressure of shell by rules 190 lbs Size of manhole in shell 17 3/4" x 20 3/4" plates 84.1
 Size of compensating ring 9 3/4" x 3 3/4" Mac Alister and Description of Furnaces in each Boiler 4 Mansons Material Steel Outside diameter 3'10"
 Length of plain part top Thickness of plates crown 3 9/16" Description of longitudinal joint Welded No. of strengthening rings None bottom 3 1/16"
 Working pressure of furnace by the rules 192 lbs Combustion chamber plates: Material Steel Thickness: Sides 3/4" Back 3/4" Top 3/4" Bottom 1 1/8"
 Pitch of stays to ditto: Sides 8 1/2" x 8 1/2" Back 8 1/2" Top 8 1/2" x 9" If stays are fitted with nuts or riveted heads riveted heads Working pressure by rules 211 lbs
 Material of stays Steel Area at smallest part 1.76 sq ft Area supported by each stay 68 sq ft Working pressure by rules 207 lbs End plates in steam space
 Material Steel Thickness 1 1/8" Pitch of stays 10 1/2" x 17" How are stays secured nutted outside Working pressure by rules 182 lbs Material of stays Steel
 Diameter at smallest part 5.99 sq ft Area supported by each stay 315 sq ft Working pressure by rules 196 lbs Material of Front plates at bottom Steel
 Thickness 7/8" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 232 lbs
 Diameter of tubes 3" Pitch of tubes 4" Material of tube plates Steel Thickness: Front 7/8" Back 3/4" Mean pitch of stays 8" x 12"
 Pitch across wide water spaces 15" Working pressures by rules 224 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9" x 2" x 7/8" Length as per rule 3'0" Distance apart 9" Number and pitch of stays in each 3 à 8 1/2"
 Working pressure by rules 100 lbs 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

