

Rpt. 4.

REPORT ON MACHINERY.

No. 73308

Date of writing Report 15.7.1920 When handed in at Local Office 16.7.1920 Port of NEWCASTLE-ON-TYNE
No. in Survey held at South Shields Date, First Survey 5th January Last Survey 5th July 1920
Reg. Book. 20951 on the S.S. "Mogador" (Number of Vials 39)
Master Built at Kiel By whom built Harland & Wolff Tons Gross 2,233 Net 1,349
Engines made at Kiel By whom made Harland & Wolff When built 1905
Boilers made at By whom made when made 1905
Registered Horse Power 154 Owners Louis Hart de Protectorat du Harve when made 1905
Nom. Horse Power as per Section 28 192 Is Refrigerating Machinery fitted for cargo purposes No Port belonging to Carabianca

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders $20\frac{1}{2} \times 32\frac{1}{2} \times 51\frac{1}{2}$ Length of Stroke $35\frac{1}{2}$ Revs. per minute Dia. of Screw shaft as per rule 10.26 Material of screw shaft as fitted 10.26
Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liner Is the after end of the liner made water tight
in the propeller boss Yes If the liner is in more than one length are the joints burned Yes 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 Yes If two
liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 6'-6"
Dia. of Tunnel shaft as per rule 9.08 Dia. of Crank shaft journals as per rule 7.83 Dia. of Crank pin 10.9 Size of Crank webs $62 \times 30\frac{1}{2}$ Dia. of thrust shaft under
collars 10.4 Dia. of screw 12.4 Pitch of Screw 13'-6" No. of Blades 4 State whether moveable No Total surface
No. of Feed pumps 2 Diameter of ditto $3\frac{1}{2}$ Stroke $21\frac{1}{2}$ Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto $4\frac{1}{2}$ Stroke $21\frac{1}{2}$ Can one be overhauled while the other is at work Yes
No. of Donkey Engines 2 Sizes of Pumps BALLAST $9\frac{1}{2} \times 7\frac{1}{2} \times 9\frac{1}{2}$ FRESH $5\frac{1}{2} \times 3\frac{1}{2} \times 3\frac{1}{2}$ No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 2-3 1-5 (Direct) In Holds, &c. No 1 - 2.3 No 2 - 2.3
Jurnal well 10.3
No. of Bilge Injections 1 sizes $5\frac{1}{2}$ Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes 5"
Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads 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 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 are carried through the bunkers None How are they protected
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 Upper platform

BOILERS, &c.—(Letter for record (S) Manufacturers of Steel
Total Heating Surface of Boilers 32,400 Is Forced Draft fitted No No. and Description of Boilers 2 Multitubular single ended
Working Pressure 185 lbs Tested by hydraulic pressure to 290 lbs Date of test 22.6.20 No. of Certificate
Can each boiler be worked separately Yes Area of fire grate in each boiler 50 ft No. and Description of Safety Valves to
each boiler 2 Spring loaded Area of each valve 4.66 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 1'-1" Mean dia. of boilers $12'-10\frac{1}{2}$ Length 10'-10" Material of shell plates
Thickness $1\frac{1}{4}$ Range of tensile strength 42-46 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DR Lap
long. seams Double butt skip Diameter of rivet holes in long. seams $1\frac{1}{4}$ Pitch of rivets $16\frac{1}{2}$ Lap of plates or width of butt straps 20.8"
Per centages of strength of longitudinal joint rivets 90% plate 82% Working pressure of shell by rules 210 lbs Size of manhole in shell 16" x 12"
Size of compensating ring $4\frac{3}{4} \times 1\frac{1}{4}$ No. and Description of Furnaces in each boiler 2 Brighton Material Steel Outside diameter 3'-11"
Length of plain part top Thickness of plates crown 7.5 Description of longitudinal joint held No. of strengthening rings None
bottom Thickness of plates bottom 7.5
Working pressure of furnace by the rules 205 lbs Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides $4\frac{1}{2}$ Back $4\frac{1}{2}$ Top $4\frac{1}{2}$ If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 256 lbs
Material of stays Area at smallest part 1.22 Area supported by each stay 54.6 Working pressure by rules 247.5 End plates in steam space:
Material Thickness 1.5 Pitch of stays $15\frac{3}{4} \times 15\frac{3}{4}$ How are stays secured DN + washers Working pressure by rules 200 lbs Material of stays
Area at smallest part 6.1 Area supported by each stay 248 Working pressure by rules 256 lbs Material of Front plates at bottom
Thickness 1.5 Material of Lower back plate Thickness 1 Greatest pitch of stays Working pressure of plate by rules
Diameter of tubes $3\frac{1}{2}$ Pitch of tubes $4\frac{1}{2}$ Material of tube plates Thickness: Front 1 Back 1 Mean pitch of stays $11\frac{1}{2}$
Pitch across wide water spaces $11\frac{1}{4}$ Working pressures by rules 314 lbs Girders to Chamber tops: Material Depth and
thickness of girder at centre 8: 116 Length as per rule 24.4 Distance apart $4\frac{1}{2}$ Number and pitch of stays in each 3: $4\frac{1}{4}$
Working pressure by rules 242 lbs Steam dome: description of joint to shell None % of strength of joint
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed
SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

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