

# REPORT ON MACHINERY.

No. 83921

Received at London Office 15 JAN 1921

Form of writing Report 10 When handed in at Local Office 15 JAN 1921 Port of London  
 Date, First Survey Mar 22<sup>nd</sup> 1916 Last Survey 30<sup>th</sup> November 1920  
 (Number of Visits 8 (during construction))  
 Survey held at *Engines 614<sup>B</sup>* S. Mary Nickerson, Tons }  
 on the *Engines 614<sup>B</sup>* Built at *Chester* By whom built *J. J. Abdala + Mitchell Ltd.* When built }  
 Engines made at *King Lynn* By whom made *Dodman & Co. Ltd.* when made *1920*  
 Boilers made at ✓ By whom made ✓ when made ✓  
 Registered Horse Power ✓ Owners ✓ Port belonging to ✓  
 Net Gross

Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓  
 m. Horse Power as per Section 28

GINES, &c.—Description of Engines *Compound surface condensing* No. of Cylinders *2* No. of Cranks *2*  
 a. of Cylinders *15" + 31 1/2"* Length of Stroke *24"* Revs. per minute ✓ Dia. of Screw shaft *as fitted 7 1/4"* Material of *Steel*  
 the screw shaft fitted with a continuous liner the whole length of the stern tube *Yes* Is the after end of the liner made water tight  
 the propeller boss ✓ 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 ✓ If two  
 ers are fitted, is the shaft lapped or protected between the liners ✓ " Length of stern bush *2-5"*

a. of Tunnel shaft *as per rule 6.59* Dia. of Crank shaft journals *as per rule 6.42 6.95* Dia. of Crank pin *6 3/4"* Size of Crank webs *4 1/2 x 12 5/8* Dia. of thrust shaft under  
 bars *6 3/4"* Dia. of screw *8-0"* Pitch of Screw *10-0* No. of Blades *4* State whether moveable *No* Total surface *24 1/2*  
 b. of Feed pumps *1* Diameter of ditto *2 1/4"* Stroke *12* Can one be overhauled while the other is at work ✓  
 c. of Bilge pumps *1* Diameter of ditto *2 1/4"* Stroke *12* Can one be overhauled while the other is at work ✓  
 d. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room In Holds, &c.

e. 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 the sluices on Engine room bulkheads 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  
 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

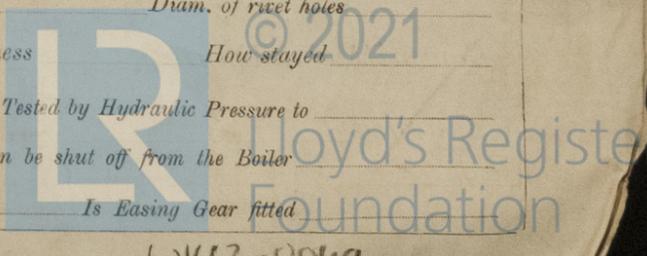
MANUFACTURERS, &c.—(Letter for record ) Manufacturers of Steel  
 Total Heating Surface of Boilers *Not Known* Is Forced Draft fitted No. and Description of Boilers  
 Working Pressure *130 lb.* Tested by hydraulic pressure to Date of test No. of Certificate

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  
 Rivet 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 rivets. Working pressure of shell by rules Size of manhole in shell  
 plate

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  
 Location of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules  
 Material of stays Area 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  
 Area 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 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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