

REPORT ON MACHINERY

No. 31687
THU. JUL. 16. 1912

Date of writing Report 4.7.12 When handed in at Local Office 15/7/12 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 31st May/11 Last Survey 8th July 1912
 Reg. Book. on the 315 "Indrakuala" (Number of Visits) Gross 5691
 Master Smith Built at Glasgow By whom built E. B. Bunnell & Co. When built 1912
 Engines made at Glasgow By whom made Dunsen & Jackson Ltd (397) when made 1912
 Boilers made at ditto By whom made ditto when made 1912
 Registered Horse Power Owners India Line Ltd Port belonging to Liverpool
 Nom. Horse Power as per Section 28 687 Is Refrigerating Machinery fitted for cargo purposes? Is Electric Light fitted?

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 26 1/2 - 45 - 70 Length of Stroke 54 Revs. per minute 75 Dia. of Screw shaft 15.66 as per rule 17.14 Material of screw shaft S
 Is 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
 in the propeller boss Yes If the liner is in more than one length are the joints burned 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
 liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 5-9
 Dia. of Tunnel shaft as per rule 14.33 13.97 Dia. of Crank shaft journals as per rule 14.66 15.04 Dia. of Crank pin 15 1/2 Size of Crank webs 29.10 1/2 Dia. of thrust shaft under
 collars 15 3/8 Dia. of screw 19.0 Pitch of Screw 19.0 No. of Blades 4 State whether moveable Yes Total surface 120
 No. of Feed pumps 2 Diameter of ditto Stroke 30 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 30 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 3 Sizes of Pumps 7.9 2.18 10.5 12.15 7.48 12 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4-3 1/2 In Holds, &c. 2-3 1/2 in each hold

No. of Bilge Injections 1 sizes 7 1/2 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2
 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
 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 Four hold suction How are they protected plated over
 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
 Dates of examination of completion of fitting of Sea Connections 4-6-12 of Stern Tube 4-6-12 Screw shaft and Propeller 4-6-12
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from UER Platform
 Manufacturers of Steel Colville & Spence

BOILERS, &c.—(Letter for record R.R.) Manufacturers of Steel Colville & Spence
 Total Heating Surface of Boilers 2851 Is Forced Draft fitted No No. and Description of Boilers 2 Double ended
 Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 14-6-12 No. of Certificate 11647
 Can each boiler be worked separately Yes Area of fire grate in each boiler 120 ft No. and Description of Safety Valves to
 each boiler 2 Direct Spring Area of each valve 12.56 Pressure to which they are adjusted 205 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 1-6 Mean dia. of boilers 14.0 Length 18.6 Material of shell plates S
 Thickness 13/16 Range of tensile strength 28 1/2 - 32 Are the shell plates welded or flanged Descrip. of riveting: cir. seams TR
 long. seams TR. D.B.S. Diameter of rivet holes in long. seams 13/16 Pitch of rivets 10 1/16 Lap of plates or width of butt straps 1-10 5/8
 Per centages of strength of longitudinal joint plate 84.5 Working pressure of shell by rules 205 Size of manhole in shell 16 x 12
 Size of compensating ring McNeil No. and Description of Furnaces in each boiler 6 Morrison Material S Outside diameter 4-4
 Length of plain part top 23 bottom 132 Description of longitudinal joint welded No. of strengthening rings
 Working pressure of furnace by the rules 212 Combustion chamber plates: Material S Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 1 1/16
 Pitch of stays to ditto: Sides 9 1/8 + 8 7/8 Back 8 3/4 + 9 1/2 stays are fitted with nuts or riveted heads Yes Working pressure by rules 203
 Material of stays Iron Diameter at smallest part 2.309 Area supported by each stay 81 Working pressure by rules 201 Material of stays S
 Material S Thickness 13/16 Pitch of stays 18 1/2 + 14 How are stays secured DN Working pressure by rules 208 Material of Front plates at bottom S
 Diameter at smallest part 6.33 Area supported by each stay 315 Working pressure of plate by rules
 Thickness 1 1/16 Material of Lower back plate S Thickness 1 1/16 Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes 3 1/4 Pitch of tubes 15 1/2 + 4 3/8 Material of tube plates S Thickness: Front 1 1/16 Back 1 Mean pitch of stays 11 3/4
 Pitch across wide water spaces 14 3/16 Working pressures by rules 211 Girders to Chamber tops: Material Iron Depth and
 thickness of girder at centre 13 x 1 (2) Length as per rule 4-0 Distance apart 9 1/8 Number and pitch of stays in each 4 at 8 3/4
 Working pressure by rules 208 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
 separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
 holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

