

REPORT ON MACHINERY.

No. 645886
SAT. 13 AUG 1910

Date of writing Report 27th July 1910 When handed in at Local Office -2 AUG 1910 Port of Birkenhead
 No. in Survey held at Birkenhead Date, First Survey 25 Aug Last Survey 27 July 1910
 Reg. Book. 1352 on the twin S.S. "Snaefell" (Number of Visits 8)
 Master Birkenhead Built at Birkenhead By whom built Cammell Laird & Co. Ltd When built 1910
 Engines made at Birkenhead By whom made Cammell Laird & Co. Ltd when made 1910
 Boilers made at ditto By whom made ditto when made 1910
 Registered Horse Power _____ Owners Isle of Man Steam Packet Co. Ltd Port belonging to Douglas
 Nom. Horse Power as per Section 28 670 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion twin screw No. of Cylinders 8 No. of Cranks 8
 Each engine 2 1/2" - 3 1/2" - 40" - 40" Length of Stroke 30" Revs. per minute _____ Dia. of Screw shaft as per rule 11.33 Material of Engt. Steel
 Dia. of Cylinders 2 1/2" - 3 1/2" - 40" - 40" Length of Stroke 30" Revs. per minute _____ Dia. of Screw shaft as fitted 11 1/2" screw shaft) shaft
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liners 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 Cedervall's pat. gland fitted Length of stern bush 4-5"
 Dia. of Tunnel shaft as per rule 10.09 Dia. of Crank shaft journals as per rule 10.59 Dia. of Crank pin 11 3/8" Size of Crank webs 7 1/2" x 8" Dia. of thrust shaft under
 collars 10 7/8" Dia. of screw 10-6" Pitch of Screws 12-9" No. of Blades 3 State whether moceable no Total surface 35.4 ft² each
 No. of Feed pumps 2 Diameter of ditto 9" Stroke 24" Can one be overhauled while the other is at work yes Independent feed
 No. of Bilge pumps 2 Diameter of ditto 3 3/4" Stroke 16" Can one be overhauled while the other is at work yes pumps.
 No. of Donkey Engines 2 duplex Sizes of Pumps 9" x 6 1/2" x 10" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room One of 2 1/2" x two of 2" In Holds, &c. two of 2" in each hold
two of 2" in each boiler room one of 2 1/2" in tunnel.
 No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size yes 2 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 none
 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 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
 Dates of examination of completion of fitting of Sea Connections 24-5-10 of Stern Tube 11-2-10 Screw shaft and Propeller 24-5-10
 Is the Screw Shaft Tunnel watertight see ship report is it fitted with a watertight door yes worked from upper grating

BOILERS, &c.—(Letter for record (70)) Manufacturers of Steel Steel Co. of Scotland
 Total Heating Surface of Boilers 11158 Is Forced Draft fitted yes No. and Description of Boilers 4 single ended
 Working Pressure 195 lbs. Tested by hydraulic pressure to 390 lbs. Date of test 18-2-10 No. of Certificate 1905
 Can each boiler be worked separately yes Area of fire grate in each boiler 75 1/2 ft² No. and Description of Safety Valves to
 each boiler 2 direct spring Area of each valve 11.79" Pressure to which they are adjusted 195 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork no side timbers Int'l dia. of boilers 15-0" Length 11-7" Material of shell plates Steel
 Thickness 1 1/32" Range of tensile strength 28 1/2/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R.L.
 lang. seams J.P. D.B.S. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 9 3/4" Lap of plates or width of butt straps 21 1/16"
 Per centages of strength of longitudinal joint rivets 91.78 Working pressure of shell by rules 225 lbs. Size of manhole in shell 16 1/2" x 19 1/2"
 plate 84.61 Size of compensating ring 9" x 1 1/2" No. and Description of Furnaces in each boiler 3 Morrison's Single Material Steel Outside diameter 4-2"
 Length of plain part top Thickness of plates bottom } 21" Description of longitudinal joint welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 214 Combustion chamber plates: Material Steel Thickness: Sides 19" Back 19" Top 19" Bottom 15"
 Pitch of stays to ditto: Sides 7 1/2" x 7 3/8" Back 8 1/2" x 7 3/8" Top 7 1/2" x 7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 212
 Material of stays Iron Diameter at smallest part 1.422" Area supported by each stay 60.84" Working pressure by rules 195 lbs End plates in steam space:
 Material Steel Thickness 1" Pitch of stays 15 1/2" x 15 1/2" How are stays secured Dr W. Working pressure by rules 197 Material of stays Steel
 Diameter at smallest part 2 5/8" Area supported by each stay 232.5" Working pressure by rules 242 Material of Front plates at bottom Steel
 Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 13 5/8" x 6" Working pressure of plate by rules 311
 Diameter of tubes 2 1/2" Pitch of tubes 3 1/2" x 3 1/2" Material of tube plates Steel Thickness: Front 1" Back 13/16" Mean pitch of stays 7" x 7"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 211 Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 7 1/4" x 1 1/2" Length as per rule 31 19/32" Distance apart 7 1/4" Number and pitch of stays in each three 7 1/2"
 Working pressure by rules 196 Superheater or Steam chest; how connected to boiler none 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 _____

