

REPORT ON MACHINERY.

No. 61374

FRI. NOV. 24 1911

Received at London Office

Date of writing Report

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When handed in at Local Office

NOV 22 1911

Port of NEWCASTLE ON TYNE.

No. in Survey held at Newcastle on Tyne
Reg. Book. on the S/S GoldenfelsDate, First Survey 24th Apr 1911 Last Survey 17th Nov 1911
(Number of Visits 54)Master Walker Built at Walker By whom built Swan Hunter & Wigham Richardson When built 1911Engines made at Walker By whom made Swan Hunter & Wigham Richardson Ltd when made 1911Boilers made at Walker By whom made Hitto when made 1911Registered Horse Power 606 Owners Hansa Deutsche Dampfschiffahrtsgesellschaft Port belonging to BremenNom. Horse Power as per Section 28 606 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yesENGINES, &c.—Description of Engines Inverted Quadruple Expansion No. of Cylinders 4 No. of Cranks 4Dia. of Cylinders 26 $\frac{1}{2}$, 39, 56, 80 Length of Stroke 54 Revs. per minute 60 Dia. of Screw shaft as per rule 16.35 Material of steel
as fitted 16.96 screw shaftIs 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 tightin 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If twoliners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 7' 0"Dia. of Tunnel shaft as per rule 14.51 Dia. of Crank shaft journals as per rule 15.23 Dia. of Crank pin 15.9 Size of Crank webs 5 $\frac{1}{2}$ x 10 $\frac{1}{2}$ Dia. of thrust shaft undercollars 15.13 Dia. of screw 20' 0" Pitch of Screw 20' 6" No. of Blades 4 State whether moveable yes Total surface 120 ft²No. of Feed pumps 2 Diameter of ditto 4 $\frac{3}{8}$ Stroke 28" Can one be overhauled while the other is at work yesNo. of Bilge pumps 2 Diameter of ditto 4 $\frac{5}{8}$ Stroke 28" Can one be overhauled while the other is at work yesNo. of Donkey Engines 2 Sizes of Pumps F. 9 $\frac{3}{8}$ x 6 x 11 $\frac{1}{2}$; B. 13 $\frac{3}{4}$ x 15 $\frac{1}{4}$ x 23 $\frac{1}{2}$ No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room 7 of 3 $\frac{1}{2}$, 1 in tunnel well 3" In Holds, &c. 2 of 3 $\frac{1}{2}$ in eachNo. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 3 $\frac{1}{2}$ "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 yesAre all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks bothAre 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 & belowAre 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 yesWhat pipes are carried through the bunkers forward suction How are they protected strong wood casingsAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yesDates of examination of completion of fitting of Sea Connections 14.9.11 of Stern Tube 14.9.11 Screw shaft and Propeller 14.9.11Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platformBOILERS, &c.—(Letter for record yes) Manufacturers of Steel J. Spencer & SonsTotal Heating Surface of Boilers 7955 ft² Is Forced Draft fitted yes No. and Description of Boilers 3 S. E. Cyl. & 1 HullWorking Pressure 213 lbs Tested by hydraulic pressure to 426 lbs Date of test 27.9.11 No. of Certificate 8206Can each boiler be worked separately yes Area of fire grate in each boiler 63 ft² No. and Description of Safety Valves toeach boiler 2 spring Area of each valve 12.56 ft² Pressure to which they are adjusted 218 lbs Are they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork 21" Mean dia. of boilers 15' 3" Length 12' 0" Material of shell plates steelThickness 1 $\frac{1}{2}$ " Range of tensile strength 28 $\frac{1}{2}$ /32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams t & d r laplong. seams t & d r s Diameter of rivet holes in long. seams 1 $\frac{1}{32}$ " Pitch of rivets 10 $\frac{1}{4}$ " Lap of plates or width of butt straps 22 $\frac{1}{2}$ "Per centages of strength of longitudinal joint 89 Working pressure of shell by rules 230 lbs Size of manhole in shell 16 x 12"Size of compensating ring flanged saddle No. and Description of Furnaces in each boiler 3 Morrison Material steel Outside diameter 47 $\frac{1}{2}$ "Length of plain part top 1' 32" Thickness of plates bottom 1' 32" Description of longitudinal joint weld No. of strengthening rings yesWorking pressure of furnace by the rules 223 lbs Combustion chamber plates: Material steel Thickness: Sides 2 $\frac{1}{32}$ " Back 2 $\frac{1}{32}$ " Top 2 $\frac{1}{32}$ " Bottom 1"Pitch of stays to ditto: Sides 7 $\frac{1}{2}$ x 7 $\frac{1}{2}$ " Back 7 $\frac{1}{2}$ x 7 $\frac{1}{2}$ " Top 7 $\frac{1}{2}$ x 7 $\frac{1}{2}$ " If stays are fitted with nuts or riveted heads nuts Working pressure by rules 241 lbsMaterial of stays iron Diameter at smallest part 2.03" Area supported by each stay 62.01 ft² Working pressure by rules 245 lbs End plates in steam space:Material steel Thickness 1 $\frac{3}{16}$ " Pitch of stays 17 $\frac{1}{2}$ x 15" How are stays secured d n & w Working pressure by rules 251 lbs Material of stays steelDiameter at smallest part 6.65 ft² Area supported by each stay 262.5 ft² Working pressure by rules 264 lbs Material of Front plates at bottom steelThickness 1 $\frac{1}{4}$ " Material of Lower back plate steel Thickness 1 $\frac{1}{2}$ " Greatest pitch of stays as per plan Working pressure of plate by rules 248 lbsDiameter of tubes 2 $\frac{1}{2}$ " Pitch of tubes 8 $\frac{1}{2}$ x 3 $\frac{1}{2}$ " Material of tube plates steel Thickness: Front 1" Back 7 $\frac{1}{8}$ " Mean pitch of stays 11 $\frac{1}{2}$ x 7 $\frac{1}{2}$ "Pitch across wide water spaces 13 $\frac{1}{2}$ " Working pressures by rules 225 lbs Girders to Chamber tops: Material steel Depth andthickness of girder at centre 10 $\frac{1}{2}$ x 1 $\frac{3}{8}$ " Length as per rule 33 $\frac{1}{2}$ " Distance apart 7 $\frac{1}{2}$ " Number and pitch of stays in each 3-7 $\frac{1}{2}$ "Working pressure by rules 244 lbs Superheater or Steam chest, how connected to boiler yes Can the superheater be shut off and the boiler workedseparately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivetholes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yesIf stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yesWorking pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

006358-006368-0081

