

REPORT ON MACHINERY.

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Date of writing Report 20th June 1908 When handed in at Local Office 29th June 08 Port of Glasgow.
 No. in Survey held at Glasgow. Date, First Survey 14th Feby Last Survey 23rd June 1908.
 Reg. Book. S/S "FELSPAR" (Number of Visits 31)
 on the S/S "FELSPAR" Gross Tons Net Tons
 Master Built at Port Glasgow By whom built A. Rodgers & Co (No 406) When built 1908.
 Engines made at Glasgow By whom made do (No 153) when made 1908.
 Boilers made at do By whom made Ewing & Dawson (Nos 853 & 854) when made 1908.
 Registered Horse Power Owners W. Robertson Port belonging to Glasgow.
 Nom. Horse Power as per Section 28 138 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted yes.

ENGINES, &c.—Description of Engines Triple. Surface Condensing. No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 17"-27 1/2"-44" Length of Stroke 33" Revs. per minute Dia. of Screw shaft 9.18" Material of screw shaft iron
 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 yes. If two liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 37"
 Dia. of Tunnel shaft as per rule none Dia. of Crank shaft journals as per rule 8.69" Dia. of Crank pin 8 3/4" Size of Crank webs 5 3/4" Dia. of thrust shaft under collars 8 3/4" Dia. of screw 11-0" Pitch of Screw 13-1 1/2" No. of Blades 4 State whether moveable no Total surface 35.5 sq ft
 No. of Feed pumps 2 Diameter of ditto 2 3/4" Stroke 16 1/2" Can one be overhauled while the other is at work yes.
 No. of Bilge pumps 2 Diameter of ditto 2 3/4" Stroke 16 1/2" Can one be overhauled while the other is at work yes.
 No. of Donkey Engines Two Sizes of Pumps 7-6" & 3 1/2-6" and 7 1/2" Pulsometer No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 1-2 1/4" & Stakehold 1-2 1/4" In Holds, &c. Two 2"
 No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes 2 1/4"
 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 valves & cocks.
 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 Hold bilge pipes How are they protected wooden box 2 1/4" thick
 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 of Stern Tube Screw shaft and Propeller
 Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel David Colville & Sons Ltd
 Total Heating Surface of Boilers 2467.6 Is Forced Draft fitted no No. and Description of Boilers Two Single Ended.
 Working Pressure 160 lbs. Tested by hydraulic pressure to 320 lbs. Date of test 29.5.08 No. of Certificate 9466
 Can each boiler be worked separately yes. Area of fire grate in each boiler 39.6 sq ft No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 4.9 sq in Pressure to which they are adjusted 165 lbs. Are they fitted with easing gear yes.
 Smallest distance between boilers or uptakes and bunkers or woodwork 2-0" Int. Dia. of boilers 12-0" Length 10-0" Material of shell plates Steel
 Thickness 1" Range of tensile strength 28/32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D. R. L. long. seams D. B. S. Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 1/2" Lap of plates width of butt straps 1-3 5/8"
 Per centages of strength of longitudinal joint rivets 77.3% plate 85.0% Working pressure of shell by rules 165 Size of manhole in shell 16" x 12"
 Size of compensating ring 7 in. heels No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 3-6"
 Length of plain part top 73" bottom 108" Thickness of plates crown 3 23/32" bottom 3 23/32" Description of longitudinal joint welded No. of strengthening rings 1
 Working pressure of furnace by the rules 170 lbs. Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 19/32" Top 37/64" Bottom 23/32"
 Pitch of stays to ditto: Sides 7 1/4" x 8 1/2" Back 8 1/2" x 8 1/2" Top 7 1/4" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 168 lbs.
 Material of stays Steel Diameter at smallest part 1.79" Area supported by each stay 61 sq in Working pressure by rules 197 lbs. End plates in steam space: Material Steel Thickness 6 3/64" Pitch of stays 17 x 15 1/4" How are stays secured D. H. Working pressure by rules 160 Material of stays Steel
 Diameter at smallest part 4.11" Area supported by each stay 267 sq in Working pressure by rules 160 lbs. Material of Front plates at bottom Steel
 Thickness 25/32" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13" Working pressure of plate by rules 162 lbs.
 Diameter of tubes 3 1/2" Pitch of tubes 4 7/8" - 5" Material of tube plates Steel Thickness: Front 25/32" Back 43/64" Mean pitch of stays 9 7/8"
 Pitch across wide water spaces 14 1/2" Working pressures by rules 160 lbs. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x 1 1/2" Length as per rule 31 1/2" Distance apart 8 1/2" Number and pitch of stays in each 3 - 7 1/4"
 Working pressure by rules 160 lbs. 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

