

REPORT ON MACHINERY.

No. 7483

MON. JAN. 18. 1915

Date of writing Report 13th Jan 1915 When handed in at Local Office 10 Port of Belfast
 No. in Survey held at Belfast Date, First Survey 1st Oct 1913 Last Survey 8th Jan 1915
 Reg. Book. J.S.S. Ebro (Number of Visits 110)
 Master W. J. S. Ebro Built at Belfast By whom built W. J. S. Ebro Tons { Gross 8479 Net 5773
 Engines made at Belfast By whom made W. J. S. Ebro when made 1915
 Boilers made at Belfast By whom made W. J. S. Ebro when made 1915
 Registered Horse Power 1055 Owner Royal Mail S.P. Coy Port belonging to Belfast
 Nom. Horse Power as per Section 28 1067 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engine Twin Screw Quadruple Expansion Cylinders 8 No. of Cranks 8
 Dia. of Cylinders 22"-31 1/2"-45 1/2"-65" Length of Stroke 45" Revs. per minute 90 Dia. of Screw shaft 13 1/4" Material of S. Steel
 as fitted 14 3/8" screw shaft
 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 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 Yes If two
 liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4'-9"
 Dia. of Tunnel shaft 11.9" as per rule 12.6" Dia. of Crank shaft journals 13.25" as per rule 13.25" Dia. of Crank pin 13 1/4" Size of Crank web 24 1/2" x 9" Dia. of thrust shaft under
 collars 13 1/4" Dia. of screw 16'-6" Pitch of Screw 17'-9" No. of Blades 3 State whether moveable Yes Total surface 78 sq ft.
 No. of Feed pumps one Main Engines Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps one Diameter of ditto 5 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines one Sizes of Pumps See other sheet No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 6-3 1/2" In Holds, &c. 10-3 1/2", 6-3" 3-2 1/2"

No. of Bilge Injections 2 sizes 9" Connected to condenser, or to circulating pump Yes 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 Yes
 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 Below
 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 Fore hold suction How are they protected Wood casing
 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 19-8-14 of Stern Tube 2-9-14 Screw shaft and Propeller 2-9-14
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Beaumont & Co. L.
 Total Heating Surface of Boilers 44,940 sq ft Forced Draft fitted Yes No. and Description of Boilers 2 Double End Cylinders
2 Single ended boilers
 Working Pressure 215 lbs Tested by hydraulic pressure to 430 lbs Date of test 10-9-14 No. of Certificate 466
 Can each boiler be worked separately Yes Area of fire grate in each boiler 143 sq ft. No. and Description of Safety Valves to
 each boiler 3-Direct Spring of each valve 14 1/8 sq Pressure to which they are adjusted 215 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork about 15" Mean dia. of boilers 16'-0" Length 20'-0" Material of shell plates Steel
 Thickness 1 1/8" Range of tensile strength 30 1/2 - 33 1/4 tons the shell plates welded or flanged No Descrip. of riveting: cir. seams Top & Bottom
 long. seams Butt Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 10 1/2" Lap of plates or width of butt straps 23 1/4"
 Per centages of strength of longitudinal joint rivets 90.5% plate 84.5% Working pressure of shell by rules 253 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring McAlister No. and Description of Furnaces in each boiler 8-Morrisons Material Steel Outside diameter 44 1/4"
 Length of plain part top 4" bottom 8" Thickness of plates crown 3 1/4" bottom 3 1/4" Description of longitudinal joint Weld No. of strengthening rings 1
 Working pressure of furnace by the rules 248 lbs Combustion chamber plates: Material Steel Thickness: Sides 4 3/4" Back 4 3/4" Top 4 3/4" Bottom 3 1/2"
 Pitch of stays to ditto: Sides 7 1/2" x 7 1/2" Back 7 1/2" x 7 1/2" Top 8" x 8 1/2" If stays are fitted with nuts or riveted heads Nuts inside Working pressure by rules 226 lbs
 Material of stay Steel at smallest part 2' 06 sq Area supported by each stay 68 sq Working pressure by rules 273 lbs End plates in steam space:
 Material Steel Thickness 1 1/4" Pitch of stays 20 x 15 1/4" How are stays secured Butts + Washers Working pressure by rules 216 lbs Material of stays Steel
 Diameter at smallest part 6' 09" x 7' 1/2" supported by each stay 305 sq Working pressure by rules 246 lbs Material of Front plates at bottom Steel
 Thickness 1 1/4" Material of Lower back plate Steel Thickness 1 1/4" Greatest pitch of stays 7 1/2" x 7 1/2" Working pressure of plate by rules 219 lbs
 Diameter of tubes 2 1/2" Pitch of tubes 35" x 3 1/4" Material of tube plate Steel Thickness: Front 1 1/4" Back 1 3/16" Mean pitch of stays 7 1/2" x 7 1/2"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 219 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 7 1/2" x (3/4" x 2) Length as per rule 49 3/8" Distance apart 8 1/2" Number and pitch of stays in each 6-6 1/2" x 8"
 Working pressure by rules 253 lbs Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
 separately Diameter 16" Length 16" Thickness of shell plates 1 1/4" Material Steel Description of longitudinal joint Weld Diam. of rivet
 holes 1 1/8" Pitch of rivets 10" Working pressure of shell by rules 253 lbs Diameter of flue 16" Material of flue plates Steel Thickness 1 1/4"
 If stiffened with rings Yes Distance between rings 16" Working pressure by rules 253 lbs End plates: Thickness 1 1/4" How stayed Weld
 Working pressure of end plates 253 lbs Area of safety valves to superheater 16" Are they fitted with easing gear Yes

