

REPORT ON MACHINERY.

Belfast No. 21710
MON 10 MAY 1897

Port of Belfast

No. in Survey held at Belfast Date, first Survey 6th May 1896 Last Survey Feb'y 22nd 1897
 Reg. Book. 28452 (Number of Visits 28452)
 on the Steel Twin Screw Steamer "Kamakura Maru" Tons } Gross
 Master Built at Belfast By whom built Workman Clark & Co. Ltd When built 1894 } Net
 Engines made at Glasgow By whom made Barelay, Curle & Co. Ltd when made 1894
 Boilers made at Belfast By whom made Workman Clark & Co. Ltd when made 1894
 Registered Horse Power 554 Owners Nippon Yusen Kaisha Port belonging to Sokio
 Horse Power as per Section 28 554

ES, &c.— Description of Engines (Twin Screw Triple Expansion) No. of Cylinders (Six)
 Dia. of Cylinders (20" 33 1/2" 56") Length of Stroke (48") Revolutions per minute 90 Diameter of Screw shaft as per rule 11 1/2"
 Diameter of Tunnel shaft as per rule 11 1/2" Diameter of Crank shaft journals (12 1/2") Diameter of Crank pin 12 1/2" Size of Crank webs 8 1/2" x 24" x 22 1/2" ac.
 Diameter of screws 15" 0" Pitch of screws 14" 6" No. of blades 4 State whether moveable Yes Total surface 41 sq ft
 No. of Feed pumps Two Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps Two Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines Four Sizes of Pumps See other side No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room None In Holds, &c. No 1 hold, two 3 1/2" diam. No 2 hold, two 3 1/2"
No 3 hold, two 3 1/2" No 4 hold, two 3 1/2" No 5 hold, two 3 1/2" No 6 hold, two 3 1/2" Tunnel, two 3"
 No. of bilge injections 2 sizes 4" Connected to condenser, or to circulating pump See p. Is a separate donkey suction fitted in Engine room & size See 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 None
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Larger valves; smaller 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 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
 Are pipes carried through the bunkers Forward bilge suction How are they protected Strong wooden 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock Before launch Is the screw shaft tunnel watertight Yes
 Is it fitted with a watertight door Yes worked from Deck level

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 9241 sq ft
 No. and Description of Boilers Two double & two single ended Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs
 Date of test 12.9.96 Can each boiler be worked separately Yes Area of fire grate in each boiler 102.5 sq ft No. and Description of safety valves to
 each boiler Two Cockburn's Area of each valve 9.62 sq ft Pressure to which they are adjusted See p. Are they fitted
 with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork Several feet Mean diameter of boilers 13' 6"
 Length 14' 0" 0" Material of shell plates Steel Thickness 1 1/16" Description of riveting: circum. seams middle, toe, long. seams Double strap
 Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 10" x 5" Lap of plates or width of butt straps 21 1/2"
 Percentages of strength of longitudinal joint 91.6 Working pressure of shell by rules 220 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 2' 8" x 2' 4" x 1 1/2" No. and Description of Furnaces in each boiler See Superheater Material Steel Outside diameter 11 1/4"
 Length of plain part 3' 0" Thickness of plates 5/8" Description of longitudinal joint Welded No. of strengthening rings —
 Working pressure of furnace by the rules 237 Combustion chamber plates: Material Steel Thickness: Sides 3/8" Back 3/8" Top 3/8" Bottom 3/4"
 Pitch of stays to ditto: Sides 7/8" Back 7/8" Top 7/8" If stays are fitted with nuts or riveted heads None Working pressure by rules 266 lbs
 Material of stays Steel Diameter at smallest part 1 3/8" Area supported by each stay 50.7 Working pressure by rules 233 1/2 End plates in steam space:
 Material Steel Thickness 1 1/16" Pitch of stays 15" max How are stays secured As per rule Working pressure by rules 237 lbs Material of stays Steel
 Diameter at smallest part 2 1/2" Area supported by each stay 194 max Working pressure by rules 223 Material of Front plates at bottom Steel
 Thickness 1" Material of Lower back plate Steel Thickness 2 3/32" Greatest pitch of stays As above Working pressure of plate by rules 200 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 11 1/2" x 11 3/4" Material of tube plates Steel Thickness: Front 29/32" Back 13/16" Mean pitch of stays 8 7/8"
 Pitch across wide water spaces 14 1/4" Working pressures by rules 200 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 9" 1/4" 5.2 Length as per rule 3' 4 1/4" Distance apart 7 1/8" Number and pitch of Stays in each Four at 7 1/8" 4.2
 Working pressure by rules 200 lbs 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
— Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness
 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 —



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 Form No. 1B

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