

REPORT ON MACHINERY.

WED. 20 DEC 1905

Port of Belfast

Received at London Office 800

No. in Survey held at Belfast
Reg. Book. S.S. Malakand
on the

Date, first Survey Feb. 24th Last Survey Feb. 14th 1905

(Number of Visits 52)

Tons { Gross 7653
Net 4928

Master Built at Belfast By whom built Harland & Wolff When built 1905

Engines made at Belfast By whom made Harland & Wolff when made 1905

Boilers made at By whom made when made

Registered Horse Power Owners H. Brocklebank Port belonging to Liverpool

Nom. Horse Power as per Section 28 685 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Single Screw Quadruple Co. of Cylinders 4 No. of Cranks 4

Dia. of Cylinders 26 1/2 - 39 1/2 - 56 - 78 1/2 Length of Stroke 54 Revs. per minute 71 Dia. of Screw shaft 15.83 Material of S. Steel

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 ✓ If two

liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 64

Dia. of Tunnel shaft 14.57 Dia. of Crank shaft journals 15.29 Dia. of Crank pin 16 Size of Crank webs 2 1/2 x 1 1/4 of thrust shaft under

collars 15 3/4 Dia. of screw 18.6 Pitch of screw 20.0 No. of blades 4 State whether moveable Yes Total surface 95 1/2 sq ft.

No. of Feed pumps 3 Diameter of ditto 5 1/4 Stroke 30 Can one be overhauled while the other is at work ✓

No. of Bilge pumps 2 Diameter of ditto 5 Stroke 30 Can one be overhauled while the other is at work Yes

No. of Donkey Engines Sizes of No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4-3 1/2 2-2 1/2 In Holds, &c. 9-8 1/2 6-2 1/2

No. of bilge injections 1 sizes 9 1/2 Connected to condenser, or to circulating pump Pump separate donkey suction fitted in Engine room & size Yes-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

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 Both

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock Recent shaft tunnel watertight State Dis

Is it fitted with a watertight door Yes worked from Engine Room

BOILERS, &c.— (Letter for record 9) Total Heating Surface of Boilers forced draft fitted No

No. and Description of Boilers 2 Double End Cyl. Working Pressure 215 lb Tested by hydraulic pressure to 430 lb

Date of test 13-10-05 in each boiler be worked separately Yes Area of fire grate in each boiler No. and Description of safety valves

each boiler 3 - West Spring Pressure to which they are adjusted 215 lb Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork about 40 Mean dia. of boilers 14'-5 1/2" Length 18'-9" Material of shell plates Steel

Thickness 1 1/2" Range of tensile strength 29-32 Are they welded or flanged No Descrip. of riveting: cir. seams Lap Riv. long. seams Butt Rivels

Diameter of rivet holes in long. seams 1 7/8" Pitch of rivets 10" Lap of plates width of butt straps 22 1/4"

Per centages of strength of longitudinal joint Working pressure of shell by rules 246 lb Size of manhole in shell 16" x 12"

Size of compensating ring No. and Description of Furnaces in each boiler 6 - Brighton Material Steel Outside diameter 46 1/4"

Length of plain part Thickness of plates Description of longitudinal joint Weld No. of strengthening rings

Working pressure of furnace by the rules 244 lb Combustion chamber plates: Material Steel Thickness: Sides 1 1/2" Back ✓ Top 1 1/2" Bottom 3"

Pitch of stays to ditto: Sides 7 1/2 x 4 Back ✓ Top 7 1/2 x 7 1/2 stays are fitted with nuts or riveted heads Nuts in side Working pressure by rules 216 lb

Material of stays Steel Diameter at smallest part 7 1/2 x 1 1/8" Area supported by each stay 54 1/2 Working pressure by rules 218 lb Material of stays Steel

Material Steel Thickness 1 1/8" Pitch of stays 16" x 14 1/2" How are stays secured Nuts & Washers Working pressure by rules 200 lb Material of stays Steel

Diameter at smallest part 2 1/2" Area supported by each stay 232 sq Working pressure by rules 240 lb Material of Front plates at bottom Steel

Thickness 1 1/2" Material of Lower back plate ✓ Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes 2 1/2" Pitch of tubes 4" x 4" Material of tube plates Steel Thickness: Front 1 1/2" Back 3/4" Mean pitch of stays 8" x 8"

Pitch across wide water spaces 14" Working pressures by rules 330 lb Material of Chamber tops: Material Iron Depth and

thickness of girder at centre 9 x (7 1/2 x 2) Length as per rule 49 1/2" Distance apart 7 1/2" Number and pitch of Stays in each 6 - 7 1/2"

Working pressure by rules 295 lb 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

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

If not, state whether, and when, one will be sent

Is a Report also sent on the Hull of the Ship?



