

REPORT ON MACHINERY.

Received at London Office

MIN 29 MAY 1911

Date of writing Report 27th May 1911 When handed in at Local Office 10 Port of Copenhagen

No. in Survey held at Copenhagen Date, First Survey 24th October 10 Last Survey 27th May 1911

Reg. Book. 14 in plan on the Steel S.S. "St. Petersburg" (Number of Visits 46)

Master E. Klingenberg Built at Copenhagen By whom built A. S. Njebenhavn's Flydedok og Skibsverft When built 1911

Engines made at Copenhagen By whom made A. S. Njebenhavn's Flydedok og Skibsverft when made 1911

Boilers made at Copenhagen By whom made A. S. Njebenhavn's Flydedok og Skibsverft when made 1911

Registered Horse Power 138 Owners Russian East Asiatic Steamship Co Port belonging to Libau

Nom. Horse Power as per Section 28 138 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Inverted triple expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 16 1/2, 27 & 44 Length of Stroke 30 Revs. per minute 95 Dia. of Screw shaft 10 Material of screw shaft S.M. 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 yes

If two liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 3-9

Dia. of Tunnel shaft 8 1/2 Dia. of Crank shaft journals 8 1/2 Dia. of Crank pin 8 1/8 Size of Crank webs 5 1/2 x 16 1/2 Dia. of thrust shaft under collars 8 1/8

Dia. of screw 12-0 Pitch of Screw 11-9 No. of Blades 4 State whether moveable no Total surface 46 sq ft

No. of Feed pumps 2 Diameter of ditto 4 Stroke 7 1/2 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 14 Can one be overhauled while the other is at work yes

No. of Donkey Engines 3 Sizes of Pumps Ballast - 6 x 8 x 6, Donkey - 6 x 4 x 6, Sarcinatory - 4 1/2 x 4 x 4 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 1 off 2 1/2, 3 off 2 In Holds, &c. After hold 2 off 2, Fore hold 2 off 2, Tunnel 1 off 2 1/2

No. of Bilge Injections one sizes 5 Connected to condenser, or to circulating pump circ. pump Is a separate Donkey Suction fitted in Engine room & size yes 2 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 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 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 none How are they protected yes

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 30/3-11 of Stern Tube 30/3-11 Screw shaft and Propeller 1/4-11

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 Wm. Beardmore & Co. Ltd. & David Colville & Sons

Total Heating Surface of Boilers 2445 Is Forced Draft fitted no No. and Description of Boilers Two single ended multitubular

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 23rd March 1911 No. of Certificate 318 & 319

Can each boiler be worked separately yes Area of fire grate in each boiler 34.2 sq ft No. and Description of Safety Valves to each boiler Two patent spring loaded

Area of each valve 4.85 sq in Pressure to which they are adjusted 180 lbs. Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12 Mean dia. of boilers 11-7 Length 10-9 Material of shell plates S.M. Steel

Thickness 1 Range of tensile strength 28-32 Tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double riv. lap

long. seams double riv. double lap Diameter of rivet holes in long. seams 1 Pitch of rivets 6 1/2 Lap of plates or width of butt straps 15

Per centages of strength of longitudinal joint rivets 90 Working pressure of shell by rules 187 lbs. Size of manhole in shell 12 x 16

plate 84.7 Size of compensating ring 24 x 28 x 1 No. and Description of Furnaces in each boiler 2 off Deighton type Material S.M. Steel Outside diameter 3-9 1/4

Length of plain part top 9 1/6 + 3/32 Thickness of plates bottom 9 1/6 + 3/32 Description of longitudinal joint welded No. of strengthening rings 1

Working pressure of furnace by the rules 208 lbs. Combustion chamber plates: Material S.M. Steel Thickness: Sides 7/16 Back 5/8 Top 9/16 + 3/32 Bottom 7/16

Pitch of stays to ditto: Sides 10 1/16 x 7 3/4 Back 8 1/2 x 8 1/2 Top 7 3/4 x 8 1/2 If stays are fitted with nuts or riveted heads both outside Working pressure by rules 187 lbs.

Material of stays S.M. Steel Diameter at smallest part 1 1/2 Area supported by each stay 78 Working pressure by rules 183 lbs. End plates in steam space: Material S.M. Steel

Thickness 7/8 Pitch of stays 16 3/8 x 14 1/4 How are stays secured nuts & riv. washers outside Working pressure by rules 184 lbs. Material of stays S.M. Steel

Diameter at smallest part 2 7/2 Area supported by each stay 232 Working pressure by rules 222 lbs. Material of Front plates at bottom S.M. Steel

Thickness 7/8 Material of Lower back plate S.M. Steel Thickness 13/16 Greatest pitch of stays 13/4 x 8 1/2 Working pressure of plate by rules 184 lbs.

Diameter of tubes 3 1/4 Pitch of tubes 1 7/16 x 4 1/2 Material of tube plates S.M. Steel Thickness: Front 7/8 Back 13/16 Mean pitch of stays 11 3/16

Pitch across wide water spaces 13 3/4 Working pressures by rules 267 lbs. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7 3/4 x 1 1/4 Length as per rule 7-1 1/16 Distance apart 7 3/4 Number and pitch of stays in each 2 off 8 1/16

Working pressure by rules 230 lbs. Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately yes

Diameter 13 Length 13 Thickness of shell plates 13 Material Steel Description of longitudinal joint double riv. lap Diam. of rivet holes 13

Pitch of rivets 13 Working pressure of shell by rules 13 Diameter of flue 13 Material of flue plates Steel Thickness 13

If stiffened with rings yes Distance between rings 13 Working pressure by rules 13 End plates: Thickness 13 How stayed 13

Working pressure of end plates 13 Area of safety valves to superheater 13 Are they fitted with easing gear 13

W1430-0024

