

REPORT ON MACHINERY.

No. 50726

Port of Rotterdam

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No. in Survey held at Flushing Date, first Survey 28 Feb 06 Last Survey 22 Jan 1907
 Reg. Book. on the Steel S.S. "Tjikini" (Number of Visits 15)
 Master H. Koops Built at Flushing By whom built Koninklyke - Maatschappij - de Schelde. Gross 4737 Tons Net 3014
 Engines made at Flushing By whom made Maatschappij - de Schelde. when made 1906-07
 Boilers made at Flushing By whom made Maatschappij - de Schelde. when made 1906-07
 Registered Horse Power ✓ Owners Java - China - Japan - Lym Port belonging to Batavia
 Nom. Horse Power as per Section 28 406 391 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Inverted triple expansion No. of Cylinders three No. of Cranks three
 Dia. of Cylinders 24 1/4", 40" & 67" Length of Stroke 45" Revs. per minute 70 Dia. of Screw shaft as per rule 14 7/16" Material of 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 ✓ 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 58 1/2"
 Dia. of Tunnel shaft as per rule 13" Dia. of Crank shaft journals as per rule 13 1/2" Dia. of Crank pin 13 1/2" Size of Crank webs 9 1/4" x 5 1/2" Dia. of thrust shaft under collars 15 1/2" Dia. of screw 16 1/2" Pitch of Screw 18 1/2" 17 1/2" No. of Blades 4 State whether moveable yes Total surface 86 sq. ft.
 No. of Feed pumps 2 Diameter of ditto 3 1/2" Stroke 25" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 25" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 1 Sizes of Pumps W. I. 9 1/2" x 18" B. 7 1/2" x 10 1/2" x 12" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room four 3 1/2" wings one 2 1/4" tunnel well In Holds, &c. W. I. two 3 1/2" wings, W. II. two 3 1/2" wing
 Spare bunker two 3 1/2" wings; W. III. two 3 1/2" wing, W. IV. two 3 1/2" wing.
 No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump ✓ Is a 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 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 ✓
 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 Sept 06. of Stern Tube 17 Nov 06 Screw shaft and Propeller 17 Nov 06
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from main deck height.

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Hoelder & Verrein. Leeds Forge.
 Total Heating Surface of Boilers 5535 Is Forced Draft fitted yes No. and Description of Boilers 3 Single ended marine
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 17 Oct 06 No. of Certificate 235
 Can each boiler be worked separately yes Area of fire grate in each boiler 45.3 sq ft No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 5.94 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 feet Mean dia. of boilers 12-9 1/16" Length 12' Material of shell plates steel
 Thickness 1 1/32" Range of tensile strength 27-30 T Are the shell plates welded or flanged no Descrip. of riveting: cir. seams lap 2 x riv
 long. seams all butt 5 x 2 Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 1/16" Lap of plates or width of butt straps 18 1/4"
 Per centages of strength of longitudinal joint rivets 92 plate 85 Working pressure of shell by rules 191 lbs Size of manhole in shell none
 Size of compensating ring ✓ No. and Description of Furnaces in each boiler 2 Deighton's Material steel Outside diameter 47 3/4"
 Length of plain part top 1' bottom 1' Thickness of plates top 1 1/32" bottom 1 1/32" Description of longitudinal joint welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 186 Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 1"
 Pitch of stays to ditto: Sides 7' x 8" Back 7 1/4' x 7 1/4' Top 7' x 8 1/2" If stays are fitted with nuts or riveted heads riveted Working pressure by rules 214 lbs
 Material of stays iron Diameter at smallest part 2.07 Area supported by each stay 56.31 Working pressure by rules 275 End plates in steam space: Area
 Material steel Thickness 1" Pitch of stays 14' x 16 1/2" How are stays secured 3 nuts Working pressure by rules 200 lbs Material of stays steel
 Diameter at smallest part 6.49 Area supported by each stay 280.6 Working pressure by rules 231 Material of Front plates at bottom steel
 Thickness 15/16" Material of Lower back plate steel Thickness 7/8" Greatest pitch of stays 12" Working pressure of plate by rules 183
 Diameter of tubes 2 3/4" Pitch of tubes 37/8" 3 3/4" Material of tube plates steel Thickness: Front 15/16" Back 7/8" Mean pitch of stays 11 7/8" x 7 1/2"
 Pitch across wide water spaces 14 3/4" Working pressures by rules 285 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 9 1/4" x 2" Length as per rule 34" Distance apart 8 1/2" Number and pitch of stays in each 4-7"
 Working pressure by rules 199 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 ✓

