

REPORT ON MACHINERY.

No. 1219
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Date of writing Report 8 July 1911 When handed in at Local Office 10 Port of Rotterdam
 No. in Survey held at Flushing Date, First Survey 30 August 1910 Last Survey 28 June 1911
 Reg. Book. " (Number of Visits 12)
 on the Steel Screw Steamer "Oranji Nassau" Tons { Gross 3721.10
 Net 2545.06
 Master G. De Keman Built at Flushing By whom built Kon. Maj. De Schelde When built 1911
 Engines made at Flushing By whom made Kon. Maj. De Schelde when made 1911
 Boilers made at do By whom made do when made 1911
 Registered Horse Power 501 Owners Kon. West. Indische Handelsmaatschappij Port belonging to Amsterdam
 Nom. Horse Power as per Section 28 501 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 15 x 41.5 x 68 Length of Stroke 51 Revs. per minute 80 Dia. of Screw shaft 15 Material of screw shaft Steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube no without liner 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 no 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 no If two liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 5' 1"
 Dia. of Tunnel shaft 18 1/2 Dia. of Crank shaft journals 13 3/4 Dia. of Crank pin 14 Size of Crank webs 9 x 5 1/2 Dia. of thrust shaft under collars 13 1/4 Dia. of screw 16 1/6 Pitch of Screw 18 No. of Blades 4 State whether moveable yes Total surface 80.8
 No. of Feed pumps 2 Diameter of ditto 3 1/4 Stroke 25 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 Stroke 25 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 10 x 10, 10.5 x 8.2 x 11, 6 x 6 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps 9 x 6 x 10, 4.5 x 4.5 x 4
 In Engine Room 1 each wing, 1 in stoke hold, 1 each main 3 1/2" centre 2.5" stem hole 2.5" also in Dry tank. In Holds, &c. one of 5" in each wing gutter of forehold, 1 in centre of 5" after hold, 1 in each gutter of 5" in after hold.
 No. of Bilge Injections 1 sizes 8" Connected to circulating pump Is a separate Donkey Suction fitted in Engine room & size yes 3.5"
 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 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 2 suction for hold, part water head pump How are they protected wooden boxes
 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. 28/3 of Stern Tube 28/3 Screw shaft and Propeller 28/3
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from upper platform

BOILERS, &c.—(Letter for record no) Manufacturers of Steel De Nederlandsche Maatschappij voor de Stoomvaart op de Noord-Indische Oorlog
 Total Heating Surface of Boilers 7827 Is Forced Draft fitted yes No. and Description of Boilers three Horizontal marine boilers
 Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 17.2.1911 No. of Certificate 301
 Can each boiler be worked separately yes Area of fire grate in each boiler 62 sq ft No. and Description of Safety Valves to each boiler two spring loaded Area of each valve 9.62 sq ft Pressure to which they are adjusted 180 lb Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork over 16" Mean dia. of boilers 15 1/2" Length 11' 5" Material of shell plates Steel
 Thickness 1 1/16" Range of tensile strength 29.5 - 30.5 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 2 x 2 x 2
 long. seams 5 x 2 x 2 Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 9 1/8" Lap of plates or width of butt straps 20 1/2"
 Per centages of strength of longitudinal joint rivets 91.8% Working pressure of shell by rules 196 lb Size of manhole in shell 18 x 16" plate 8.8%
 Size of compensating ring none No. and Description of Furnaces in each boiler three Monson Material Steel Outside diameter 4' 1"
 Length of plain part top 19 1/2" Thickness of plates crown 19 1/2" Description of longitudinal joint Welded No. of strengthening rings none bottom 21"
 Working pressure of furnace by the rules 192 lb Combustion chamber plates: Material Steel Thickness: Sides 2 3/32" Back 2 1/2" Top 2 1/2" Bottom 1"
 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" If stays are fitted with nuts or riveted heads yes, with nuts Working pressure by rules 218 lb
 Material of stays Steel Diameter at smallest part 1.478" Area supported by each stay 58" Working pressure by rules 203 lb End plates in steam space: Material Steel Thickness 1/8 + 1/8" Pitch of stays 16 1/2 x 15" How are stays secured riveted double Working pressure by rules 427 lb Material of stays Steel
 Diameter at smallest part 4.9" Area supported by each stay 147.5 sq in Working pressure by rules 205 lb Material of Front plates at bottom Steel
 Thickness 1" Material of Lower back plate Steel Thickness 1 1/16" Greatest pitch of stays 12 1/2" x 7 1/2" Working pressure of plate by rules 215 lb
 Diameter of tubes 1 1/4" Pitch of tubes 3 1/8" x 3 1/8" Material of tube plates Steel Thickness: Front 1" Back 7/8" Mean pitch of stays 7 1/2" x 11 1/4"
 Pitch across wide water spaces 13 1/4" x 7 1/2" Working pressures by rules 205 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/2" x 2 x 3/4" Length as per rule 2 1/4" Distance apart 8" Number and pitch of stays in each 5 of 8" pitch
 Working pressure by rules 195 lb Superheater or Steam chest; how connected to boiler no Can the superheater be shut off and the boiler worked separately no Diameter no Length no Thickness of shell plates no Material no Description of longitudinal joint no Diam. of rivet holes no Pitch of rivets no Working pressure of shell by rules no Diameter of flue no Material of flue plates no Thickness no
 If stiffened with rings no Distance between rings no Working pressure by rules no End plates: Thickness no How stayed no
 Working pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear no

