

## REPORT ON MACHINERY.

No. 6230<sup>a</sup>.

Date of writing Report 10 Sept 1914 When handed in at Local Office 10 Port of Amsterdam

No. in Survey held at Amsterdam Date, First Survey 15 Nov 1913 Last Survey 10 Sept 1914  
 Reg. Book. 202 on the motor machinery motor vessel Poseidon (Number of Vessels 43)

Master H. P. Kret Built at Middelburg By whom built Smith's Dock Co. Ltd. Tonnage { Gross 617  
 Net 484  
 When built 301

Engines made at Amsterdam By whom made Werkspoor when made 1914  
 Boilers made at Amsterdam By whom made Werkspoor when made 1914

Registered Horse Power 105 Owners Red India's Bank Steam Navigation Co. Ltd. Port belonging to Greenwich  
 Nom. Horse Power as per Section 25 65 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines 4 Cycle single acting Diesel No. of Cylinders 4 No. of Cranks 4  
 Dia. of Cylinders 400 Length of Stroke 700 Revs. per minute 175 Dia. of Screw shaft 210 Material of screw shaft 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  
 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 960  
 Dia. of Tunnel shaft 195 Dia. of Crank shaft journals 150 Dia. of Crank pin 250 Size of Crank webs 550 x 125 Dia. of thrust shaft under  
 bars 205 Dia. of screw 2450 Pitch of Screw 18 30 No. of Blades three State whether moveable Yes Total surface 1490  
 No. of Feed pumps two Diameter of ditto 80 Stroke 110 Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps two Diameter of ditto 80 Stroke 110 Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines two Sizes of Pumps 5 1/2 x 3 1/2 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room two 50 Bilge pumps 5 1/2 x 3 1/2 x 5 Holds, &c. two 50

No. of Bilge Injections one size 3/8 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 50  
 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 Valves & 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 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 Ballast pipes How are they protected No  
 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  
 Date of examination of completion of fitting of Sea Connections 31.3.14 of Stern Tube 2.4.14 Screw shaft and Propeller 13 July 1914

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door No worked from No

MAKERS, &c.—(Letter for record X) Manufacturers of Steel Rheinische Stahlwerke

Heating Surface of Boilers 3504 Is Forced Draft fitted No No. and Description of Boilers One Cyl. Single Ended  
 Working Pressure 120 lbs Tested by hydraulic pressure to 240 lbs Date of test 23 March 1914 No. of Certificate 1187  
 Can each boiler be worked separately No Area of fire grate in each boiler 14 1/2 No. and Description of Safety Valves to  
 boiler two direct spring Area of each valve 19.6 Pressure to which they are adjusted 120 lbs Are they fitted with easing gear Yes  
 Least distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 78 1/4" Length 8' 4" Material of shell plates Steel  
 Thickness 9/16" Range of tensile strength 44-50 kg Are the shell plates welded or flanged No Descrip. of riveting: cir. seams lap joints  
 seams double butt Diameter of rivet holes in long. seams 86" Pitch of rivets 3.4" Lap of plates or width of butt straps 5.7"  
 Centages of strength of longitudinal joint 74.4 Working pressure of shell by rules 135 lbs Size of manhole in shell 16" x 20" x 1"  
 of compensating ring 16 x 20 x 1 No. and Description of Furnaces in each boiler One plain Material Steel Outside diameter 28.6"  
 of plain part 67" Thickness of plates 9/16" Description of longitudinal joint welded No. of strengthening rings 2  
 Working pressure of furnace by the rules 167 lbs Combustion chamber plates: Material Steel, Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 9/16"  
 of stays to ditto: Sides 7/8" x 6.7" Back 7/8" x 8.3" Top 7/8" x 6.7" If stays are fitted with nuts or riveted heads Riveted heads Working pressure by rules 146 lbs  
 Material of stays Steel Diameter at smallest part 1.15" Area supported by each stay 61.8 Working pressure by rules 118 lbs End plates in steam space  
 Material Steel, Thickness 1 1/16" Pitch of stays 13.4" How are stays secured Nuts & washers Working pressure by rules 149 lbs Material of stays Steel  
 Diameter at smallest part 1 7/8" Area supported by each stay 179 Working pressure by rules 160 lbs Material of Front plates at bottom Steel  
 Thickness 1 1/16" Material of Lower back plate Steel, Thickness 1 1/16" Greatest pitch of stays 9 1/8" Working pressure of plate by rules 137 lbs  
 Diameter of tubes 2 1/4" Pitch of tubes 3.7" x 3.8" Material of tube plates Steel, Thickness: Front 1 1/16" Back 1 1/16" Mean pitch of stays 11.2"  
 across wide water spaces 4 1/16" Working pressures by rules 135 and 190 lbs Girders to Chamber tops: Material Steel, Depth and  
 thickness of girder at centre 5 1/2" x 1" Length as per rule 21.70" Distance apart 6 1/16" Number and pitch of stays in each two 7 1/8"  
 Working pressure by rules 160 lbs 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  
 Pitch of rivets No Working pressure of shell by rules No Diameter of flue No Material of flue plates No Thickness No  
 fitted 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

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IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded? See Other side

SPARE GEAR.

State the articles supplied: - One Crank & One screw shaft, One set of coupling, bearing and top & bottom end bolts, two pairs crank pin, crosshead and main bearing bolts, 3 propeller blades, eight inlet & outlet valves with springs complete, 4 starting air & 5 fuel valves, 4 needles, 2 pistons complete, 4 sets piston rings, 1 Air Compressor complete, 2 sets of valves for ditto, 2 sets bilge pumps, 1 set of wheel for ditto, 1 set of piston rings for air compressor, 4 sets of brasses with bolts for connecting rods of air compressor, 1 shoe for ditto, 1 length of Renolds chain for tower, 1 roller chain, 1 set of take, bolts and nuts assorted. Steel & iron etc. of different

The foregoing is a correct description,

J. C. Woods. Manufacturer.

Dates of Survey while building: During progress of work in shops - 15 Nov, 3 Dec 1913, 22, 26, 29 Jan, 2, 5, 14, 19, 20, 23 and 27 Feb; During erection on board vessel - 2, 3, 21 & 23 March, 7-20 April, 4, 11, 14, 18 & 20 May, Onboard 3 & 11 July; Total No. of visits 2, 3, 4, 9, 12, 14, 17, 20, 24 & 27 July; 4/3 visits 1 & 28 Aug, 7, 9, 11, 14, 15 & 18 Sept 1914. Is the approved plan of boiler forwarded herewith? Yes

Dates of Examination of principal parts: Cylinders 14, 23 Feb, Slides 14 Feb, Covers 14 Feb, Pistons 14 Feb, Rods 14 Feb, Connecting rods 14 Feb, Crank shaft 14 Feb, Thrust shaft 14 Feb, Tunnel shafts 14 Feb, Screw shaft 14 Feb, Propeller 14 Feb, Stern tube 14 Feb, Steam pipes tested 14 Aug, Engine and boiler seatings 3 June, Engines holding down bolts 15 Sept, Completion of pumping arrangements 15 Sept, Boilers fixed 2 July, Engines tried under steam 11, 14, 15 Sept, Donkey boiler safety valves adjusted 120 lbs, Thickness of adjusting washers 9.5 and 10.5, Material of Crank shaft 14 Feb, Identification Mark on Do. 14 Feb, Material of Thrust shaft 14 Feb, Identification Mark on Do. 14 Feb, Material of Tunnel shafts 14 Feb, Identification Marks on Do. 14 Feb, Material of Screw shafts 14 Feb, Identification Marks on Do. 14 Feb, Material of Steam Pipes 14 Feb, Test pressure 240 lbs.

Is an installation fitted for burning oil fuel? Yes. Is the flash point of the oil to be used over 150°F? Yes. Have the requirements of Section 49 of the Rules been complied with? Yes. Is this machinery duplicate of a previous case? No. If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c. See Supplementary Report) Which will be forwarded to London Office when next transmitted. Have been satisfactorily carried out.

The amount of Entry Fee ... £ : When applied for, Special ... £ : 19, Donkey Boiler Fee ... £ : When received, Travelling Expenses (if any) £ : 19.

Committee's Minute

Assigned

1914 OCT 6

26 10 14

oil engines

J. C. Woods. Engineer Surveyor to Lloyd's Register of British & Foreign Ships.

MACHINERY CERTIFICATE WRITTEN.



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