

# REPORT ON MACHINERY.

No. 2614<sup>a</sup>

MON. 16 MAR 1908

Port of Haarlem.

Received at London Office 19

No. in Survey held at

Haarlem

Date, first Survey July 1907

Last Survey 7<sup>th</sup> March, 1908

g. Book.

"Sartre"

(Number of Visits 30.)

on the Hub Steam Steamer

Tons { Gross 2456.47  
Net 1529.82

Registered Horse Power 1350

Built at Haarlem.

By whom built Forges & Chantiers

When built 1908

Engines made at Haarlem

By whom made Forges & Chantiers.

when made 1908.

Boilers made at Haarlem

By whom made Forges & Chantiers.

when made 1908.

Registered Horse Power 1350

Owners C. d'Obigny & Fautin, Capell & Co Managers

Port belonging to La Rochelle.

Indicated Horse Power as per Section 28 190.

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Triple expansion Vertical No. of Cylinders three No. of Cranks three

Dia. of Cylinders 20. 7/8 - 25. 1/16 & 52 Length of Stroke 35. 7/16 Revs. per minute 85. Dia. of Screw shaft 11. 35/16 Material of screw shaft Steel.

the screw shaft fitted with a continuous liner the whole length of the stern tube two liners. 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 Composition paint. If two

liners are fitted, is the shaft lapped or protected between the liners Composition paint only. Length of stern bush 10. 1/4

Dia. of Tunnel shaft 9. 68 Dia. of Crank shaft journals 10. 15 Dia. of Crank pin 10. 1/32 Size of Crank webs 11. 7/8 - 7. 1/2 Dia. of thrust shaft under

rollers 10. 1/32 Dia. of screw 15. 1/16 Pitch of Screw 14 feet 6 inches No. of Blades 4. State whether moveable No. Total surface 73 square feet

No. of Feed pumps 2. Diameter of ditto 5. 1/2 Stroke 10. Can one be overhauled while the other is at work Yes.

No. of Bilge pumps 2. Diameter of ditto 5. 1/8 Stroke 17. 1/2 Can one be overhauled while the other is at work Yes.

No. of Donkey Engines (2) two Sizes of Pumps 8. 1/8 x 7. 1/2 x 6 - 8. 1/2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

in Engine Room (3) three of 2. 3/4 diam. & by turbine 6" diam. In Holds, &c. forehead 4 of 2. 3/4 diam. by Collector

and 4 of 2. 3/4 aft by Collector.

No. of Bilge Injections 1. sizes 6" Connected to condenser, or to circulating pump Yes. Is a separate Donkey Suction fitted in Engine room & size Yes. 2. 3/4

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

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 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.

Dates of examination of completion of fitting of Sea Connections December 1907 of Stern Tube December 1907 Screw shaft and Propeller December 1907.

Is the Screw Shaft Tunnel watertight Yes. Is it fitted with a watertight door Yes. worked from top platform engine

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel Demain Angia, Schultz-Knauss, (Göteborg)

Total Heating Surface of Boilers 5234. Is Forced Draft fitted No. No. and Description of Boilers 2 cylindrical horizontally.

Working Pressure 170. Tested by hydraulic pressure to 256. Date of test 24-26-12-07 No. of Certificates 63964

Can each boiler be worked separately Yes. Area of fire grate in each boiler 53.8 sq. feet No. and Description of Safety Valves to

each boiler (2) two with springs Area of each valve 3.16 Pressure to which they are adjusted 170. Are they fitted with easing gear Yes.

Smallest distance between boilers or uptakes and bunkers or woodwork 22. Mean dia. of boilers 13. 2. 3/4 Length 11.6 Material of shell plates Steel

Thickness 1. 9/16 Range of tensile strength 27 to 30 tons Are the shell plates welded or flanged flanged Descrip. of riveting: cir. seams double

long. seams double zig-zag Diameter of rivet holes in long. seams 1. 19/64 Pitch of rivets 4. 1/8 mean distance width of butt straps 18. 3/8

Per centages of strength of longitudinal joint rivets 75. Working pressure of shell by rules 195. Size of manhole in shell 11. 7/8 x 15. 3/4

Size of compensating ring 33 x 1. 1/2 thick No. and Description of Furnaces in each boiler 3 ribbed corr. Material Steel Outside diameter 39. 3/8

Length of furnace top 100. Thickness of plates crown 3. 3/16 Description of longitudinal joint Welded No. of strengthening rings No.

Working pressure of furnace by the rules 199. Combustion chamber plates: Material Steel Thickness: Sides 19/32 Back 19/32 Top 19/32 Bottom 19/32

Pitch of stays to ditto: Sides 9. 1/8 Back 8. 1/2 Top 7. 7/8 If stays are fitted with nuts or riveted heads all nutted Working pressure by rules 190.

Material of stays Steel Diameter at smallest part 1. 3/8 Area supported by each stay 62. Working pressure by rules 175. End plates in steam space:

Material Steel Thickness 7/8 Pitch of stays 15. How are stays secured double nuts Working pressure by rules 180. Material of stays Steel

Diameter at smallest part 2. 1/2 Area supported by each stay 96. Working pressure by rules 190. Material of Front plates at bottom Steel

Thickness 7/8 Material of Lower back plate Steel Thickness 7/8 Greatest pitch of stays 52. Working pressure of plate by rules 180.

Diameter of tubes 3. 1/2 Pitch of tubes 4. 3/8 Material of tube plates Steel Thickness: Front 7/8 Back 7/8 Mean pitch of stays 9. 1/2

Pitch across wide water spaces 1. 1/8 Working pressures by rules 175. Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 5. 1/2 x 1 Length as per rule 25. 3/4 Distance apart 7. 7/8 Number and pitch of stays in each 3 - 6. 3/4

Working pressure by rules No. 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.

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. \_\_\_\_\_ Description \_\_\_\_\_

Made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_

Working pressure tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of Safety Valves \_\_\_\_\_

No. of Safety Valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Date of adjustment \_\_\_\_\_

If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_ Dia. of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_

Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Descrip. of riveting long. seams \_\_\_\_\_

Dia. of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Plates \_\_\_\_\_

Working pressure of shell by rules \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of stays to do. \_\_\_\_\_ Dia. of stays \_\_\_\_\_

Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_ Thickness of furnace plates \_\_\_\_\_ Description of joint \_\_\_\_\_

Working pressure of furnace by rules \_\_\_\_\_ Thickness of furnace crown plates \_\_\_\_\_ Stayed by \_\_\_\_\_

Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_ Dates of survey \_\_\_\_\_

SPARE GEAR. State the articles supplied:— 1 propeller (cast-iron) & connecting rods, top end bolts, & bottom end with nuts, & main bearing bolts, one set of coupling bolts one set of feed & belg. pump valves, one set of piston rings, 3 cylinders, a quantity of various bolts & materials different.

The foregoing is a correct description,

Manufacturer



Dates of Survey while building	During progress of work in shops	1907. July 31. Aug. 9. 20. Sep. 7. 19. 21. 24. Oct. 3. 8. Nov. 12. 13. 22. 27. Dec. 10. 20. 24. 26. 1908. Jan.
	During erection on board vessel	1908. January. 7. 14. 22. February. 3. 4. 6. 13. 14. 21. 25. 26. March. 7.
	Total No. of visits	(30) thirty.

Is the approved plan of main boiler forwarded herewith Yes donkey " " " " " " Yes

Dates of Examination of principal parts—	Cylinders	Feb. 08	Slides	Feb. 08	Covers	Feb. 08	Pistons	Feb. 08	Rods	Feb. 08	
Connecting rods	Feb. 08	Crank shaft	Feb. 08	Thrust shaft	Feb. 08	Tunnel shafts	Feb. 08	Screw shaft	Dec. 1907	Propeller	Feb. 08
Stern tube	Dec. 07	Steam pipes tested	21-1-08	Engine and boiler seatings	Dec. 07	Engines holding down bolts	Decem. 07				
Completion of pumping arrangements	January 1908	Boilers fixed	Jan. 08	Engines tried under steam	Feb. 08						
Main boiler safety valves adjusted	Feb. 14-1908	Thickness of adjusting washers	Port side 1" 27/32" — Starboard 1 15/16" x 1 1/16"								
Material of Crank shaft	Steel	Identification Mark on Do.	AG. 202	Material of Thrust shaft	Steel	Identification Mark on Do.	AG. 203				
Material of Tunnel shafts	Steel	Identification Marks on Do.	AG. 204	Material of Screw shafts	Steel	Identification Marks on Do.	AG. 205				
Material of Steam Pipes	Copper	Test pressure	375 lbs per sq. inch								

General Remarks (State quality of workmanship, opinions as to class, &c. Secretary letters 10 & 20 November (E) 1906.)

The engine & boilers have been built under special survey, in accordance with the approved plans, the materials tested at works, as per rules requirements were in good and malleable quality. The cylinders, covers, casing-valves, condenser, steam-pipes were tested by hydraulic pressure, and the workmanship was satisfactory.

The materials used for the building of the boilers, were tested at the works, & verified with certificates in hand, all materials are in Siemens-Martin steel from Demain-Augere & Schuly-Knauff (E.M.).

The trials of engine effected on the road stean of Heavee during 4 hours at full speed has given satisfactory results. When trials finished, all organs principals in engine, have been re-examined, the working of engine, was found in good condition.

The Machinery of this vessel being in good and safe working condition; In my opinion she is eligible for to be classed with notation L.M.C. 3-08 inserted in the Register Book.

The amount of Entry Fee..	£ = 50.00	When applied for,	14 March 1908
Special .. .. .	£ = 712.50	When received,	17 3/10 1908
Donkey Boiler Fee .. .. .	£ .. .. .		
Traveling Expenses (if any)	£ = 151.25		



A. Cartier

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

It is submitted that this vessel is eligible for THE RECORD L.M.C. 3.08.

Committee's Minute

Assigned

MAR 17 1908

L.M.C. 3.08

MACHINERY CERTIFICATE WRITTEN.

16.3.08

Certificate (if required) to be sent to this Office.

The Surveyors are requested not to write on or below the space for Committee's Minute.

Dates of Survey while building

GENER

Chis

Steel

Ch

Safe

Surve

Trave

Comm

Assign

