

Port of Hamburg

Received at London Office 19

No. in Survey held at Breslau & Hamburg Date, first Survey 14<sup>th</sup> Aug. Last Survey 12<sup>th</sup> Decr. 1910  
 Reg. Book. on the Hel double La Ferryboat "No 12" (Number of Visits 10)

Master — Built at Breslau By whom built Caesar Wallheim Tons { Gross 3  
 Engines made at Breslau By whom made Caesar Wallheim when made 1910  
 Boilers made at Breslau By whom made Caesar Wallheim when made 1910  
 Registered Horse Power 19 Owners Societe de Navigation à vapeur Port belonging to Constantinople  
 Nom. Horse Power as per Section 28 19 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Compound No. of Cylinders 2 No. of Cranks 2  
 Dia. of Cylinders 8 1/2 x 15" Length of Stroke 9" Revs. per minute 85 Dia. of Screw shaft 3 7/16" Material of Steel  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liner fitted the after end of the liner made water tight  
 in the propeller boss — 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 13 7/8"  
 Dia. of Tunnel shaft 3 3/8" as per rule 3 1/2" Dia. of Crank shaft journals 3 3/8" as per rule 3 1/2" Dia. of Crank pin 3 3/8" Size of Crank webs 2 x 4 1/8" Dia. of thrust shaft under  
 collars 3 3/8" Dia. of screw 3 1/2" Pitch of Screw 4 1/2" No. of Blades 4 State whether moveable no Total surface 5.5 sq ft.  
 No. of Feed pumps 1 Diameter of ditto 1 3/4" Stroke 4 3/8" Can one be overhauled while the other is at work —  
 No. of Bilge pumps 1 Diameter of ditto 1 3/4" Stroke 4 3/8" Can one be overhauled while the other is at work —  
 No. of Donkey Engines 1 Sizes of Pumps Dupl. direct 1 3/4" dia. 3 1/2" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 3 off — 2" In Holds, &c. 2 off — 2"

No. of Bilge Injections 1 sizes 2" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size no  
 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 no  
 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 yes  
 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 18/10/10 of Stern Tube 18/10/10 Screw shaft and Propeller 18/10/10  
 Is the Screw Shaft Tunnel watertight — Is it fitted with a watertight door — worked from —

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Gewerkschaft Grillo, Funke & Co, Gelsenkirchen-Schalke

Total Heating Surface of Boilers 225.5 sq ft Is Forced Draft fitted no No. and Description of Boilers 1 single ended multitubular  
 Working Pressure 170 lbs Tested by hydraulic pressure to 340 lbs Date of test 1/11.10 No. of Certificate 134  
 Can each boiler be worked separately — Area of fire grate in each boiler 13.5 sq ft. No. and Description of Safety Valves to  
 each boiler 2 Spring loaded Area of each valve 4.5 sq in Pressure to which they are adjusted 170 lbs Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 6 1/4 x 7 1/2" Length 8 1/2" Material of shell plates Steel  
 Thickness 5/8" Range of tensile strength 28,320 lbs Are the shell plates welded or flanged — Descrip. of riveting: cir. seams lap, dbl. riv.  
 long. seams lap, dbl. riv. Diameter of rivet holes in long. seams 8 1/8" Pitch of rivets 11.18" Lap of plates or width of butt straps 19.12 x 8 1/2"  
 Per centages of strength of longitudinal joint 91.6% Working pressure of shell by rules 183.5 lbs Size of manhole in shell 15.75 x 11.75"  
 Size of compensating ring 6 1/4 x 1" No. and Description of Furnaces in each boiler 1 Harrison Material Steel Outside diameter 33.5"  
 Length of plain part 5" Thickness of plates 5" Description of longitudinal joint welded No. of strengthening rings none  
 Working pressure of furnace by the rules 225.5 lbs Combustion chamber plates: Material Steel Thickness: Sides 626" Back 626" Top 626" Bottom 626"  
 Pitch of stays to ditto: Sides 7.8" Back 6.3 x 7" Top 7.8" If stays are fitted with nuts or riveted heads not riveted Working pressure by rules 204.1 lbs  
 Material of stays Steel Diameter at smallest part 1.5" Area supported by each stay 49.29 sq in Working pressure by rules 289.0 lbs End plates in steam space:  
 Material Steel Thickness 8" Pitch of stays 14" How are stays secured dbl. nuts & washers Working pressure by rules 180 lbs Material of stays Steel  
 Diameter at smallest part 2.37" Area supported by each stay 196.29 sq in Working pressure by rules 233.4 lbs Material of Front plates at bottom Steel  
 Thickness 9" Material of lower back plate Steel Thickness 8" Greatest pitch of stays 9" Working pressure of plate by rules 490.9 lbs  
 Diameter of tubes 3.4" Pitch of tubes 4.12" Material of tube plates Steel Thickness: Front 9" Back 8" Mean pitch of stays 8.3"  
 Pitch across wide water spaces 8.3" Working pressures by rules 298.2 lbs Girders to Chamber tops: Material Steel Depth and  
 thickness of girder at centre 5.5 x 1.6" Length as per rule 18.5" Distance apart 7" Number and pitch of stays in each one  
 Working pressure by rules 192.6 lbs 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 —



# VERTICAL DONKEY BOILER—

Manufacturers of Steel *No Donkey Boiler fitted*

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		
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:— *2 Propeller, 2 connecting rod top end bolts & nuts, 2 connecting rod bottom end bolts & nuts, 2 main bearing bolts & nuts, 2 set coupling bolts, 1 set feed pump valves, 1 set bilge pump valves, 1 set packing rings for each piston, 6 condenser tubes with 12 ferrules, 6 plain tubes for boiler, 1 set fire bars, various bolts, nuts, iron bars & plates assorted.*

The foregoing is a correct description,

Der Director: *Alberich* Manufacturer.

Dates of Survey while building	During progress of work in shops—	<i>14/11, 19/11, 20/11, 18/12, 1/1, 19/10</i>
	During erection on board vessel—	<i>17/11, 5/12, 6/12, 9/12, 12/12, 19/10</i>
	Total No. of visits	<i>10</i>

Is the approved plan of main boiler forwarded herewith *yes*

Dates of Examination of principal parts—Cylinders *20/9. 10* Slides *20/9. 10* Covers *20/9. 10* Pistons *18/10. 10* Rods *19/10. 10*  
 Connecting rods *20/9. 10* Crank shaft *20/9. 10* Thrust shaft *18/10. 10* Tunnel shafts *1/11. 10* Screw shaft *1/11. 10* Propeller *1/11. 9*  
 Stern tube *18/10. 10* Steam pipes tested *17/11. 10* Engine and boiler seatings *1/11. 10* Engines holding down bolts *17/11. 10*  
 Completion of pumping arrangements *17/11. 10* Boilers fixed *1/11. 10* Engines tried under steam *6/12. 10*  
 Main boiler safety valves adjusted *9/12. 10* Thickness of adjusting washers *2 1/2" 25/32" Port 78."*  
 Material of Crank shaft *Steel* Identification Mark on Do. *—* Material of Thrust shaft *Steel* Identification Mark on Do. *—*  
 Material of Tunnel shafts *Steel* Identification Marks on Do. *—* Material of Screw shafts *Steel* Identification Marks on Do. *—*  
 Material of Steam Pipes *Copper* Test pressure *340 lbs.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The material and workmanship of these Engines and Boiler are of very good description, the outfit is adequate for the service intended as a Ferry boat.*

*The material has been tested by the Surveyors to the Society as prescribed by the Rules and has been manufactured at Steelworks approved by the Committee.*

*I attended a satisfactory trial trip on the 6<sup>th</sup> December 1910.*

*The Machinery of this vessel having been constructed under Special Survey in accordance with Rules of the Society, I beg to recommend that she be classed and **L.M.C. 12.10** be entered against her name in the Register Book, also that a Certificate be issued.*

The amount of Entry Fee..	<i>£. 21.</i>	When applied for,	<i>15/12. 10</i>
Special ..	<i>£. 336.</i>	When received,	<i>20/12. 10</i>
Donkey Boiler Fee ..	£		
Travelling Expenses (if any) £			

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

Committee's Minute

TUE. 10 JAN 1911

FRI. AUG. 18. 1911

Assigned

*+ L.M.C. 12.10*

MACHINERY CERTIFICATE  
 WRITTEN



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 Foundation

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