

Port of Sunderland

Received at London Office **MON. 28 DEC 1908**

No. in Survey held at Sunderland Date, first Survey 20th July Last Survey 23rd Dec 1908  
Reg. Book. on the S. S. "Cataluna" (Number of Visits 58)

Master J. Ontung Built at Sunderland By whom built H. Thompson & Son Tons { Gross 1687.39  
Net 1035.23  
Engines made at Sunderland By whom made North Eastern Marine Eng<sup>g</sup> Co<sup>ys</sup> Ltd When built 1908  
Boilers made at Sunderland By whom made Ditto when made 1908

Registered Horse Power \_\_\_\_\_ Owners Compania Anonima de Vapores Port belonging to Sevilla  
Nom. Horse Power as per Section 28 153 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**ENGINES, &c.**—Description of Engines Inverted triple expansion No. of Cylinders 3 No. of Cranks 3  
Dia. of Cylinders 18 1/2" 30" 49" Length of Stroke 33 Revs. per minute 74 Dia. of Screw shaft 11 1/2" Material of screw shaft Iron  
Is the screw shaft fitted with a continuous liner the whole length of the stern tube no 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 3' 8 1/2"  
Dia. of Tunnel shaft 9 1/2" Dia. of Crank shaft journals 9 5/8" Dia. of Crank pin 9 5/8" Size of Crank webs 14 1/2 x 5 1/2" Dia. of thrust shaft under collars 9 5/8" Dia. of screw 13.6" Pitch of Screw 14.6" No. of Blades 4 State whether moveable no Total surface 57 1/2 sq ft  
No. of Feed pumps 2 Diameter of ditto 2 3/4" Stroke 16 1/2" Can one be overhauled while the other is at work Yes  
No. of Bilge pumps 2 Diameter of ditto 3" Stroke 16 1/2" Can one be overhauled while the other is at work Yes  
No. of Donkey Engines 2 Sizes of Pumps 6 x 7 x 9" & 5 1/2 x 3 1/2 x 5" No. and size of Suctions connected to both Bilge and Donkey pumps 2 of 3" in each & 1 of 2 1/2"  
In Engine Room 4 of 3" In Holds, &c. 2 of 3" in each & 1 of 2 1/2"  
in tunnel well

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 3"  
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 none How are they protected Yes  
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 12.11.08 of Stern Tube 12.11.08 Screw shaft and Propeller 12.11.08  
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top platform

**BOILERS, &c.**—(Letter for record 2(5)) Manufacturers of Steel J. Spencer & Sons  
Total Heating Surface of Boilers 2400 sq ft Is Forced Draft fitted no No. and Description of Boilers one S.E. Cyl<sup>dr</sup> - Mult<sup>ple</sup>  
Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 4.11.08 No. of Certificate 2730  
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 2 spring Area of each valve 7.07 sq in Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes  
Smallest distance between boilers or uptakes and bunkers or woodwork 8" to deck corner Mean dia. of boilers 15.9 3/16" Length 10.6 Material of shell plates steel  
Thickness 1 1/2" Range of tensile strength 28 3/4/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams d & lap long. seams L & d. b. s. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 9 7/8" Lap of plates or width of butt straps 20 5/8"  
Per centages of strength of longitudinal joint 87.7 Working pressure of shell by rules 180 lbs Size of manhole in shell 16 x 12"  
Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Brighton Material steel Outside diameter 50 1/2"  
Length of plain part top 1" bottom 1" Thickness of plates crown 19/32 bottom 19/32 Description of longitudinal joint weld No. of strengthening rings no  
Working pressure of furnace by the rules 186.9 lbs Combustion chamber plates: Material steel Thickness: Sides 25/32 Back 3/4" Top 25/32 Bottom 13/16"  
Pitch of stays to ditto: Sides 12 1/4 x 8 1/2" Back 10 1/4 x 10 1/4" Top 12 1/4 x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 189.6 lbs  
Material of stays steel Diameter at smallest part 2.1" Area supported by each stay 105 sq in Working pressure by rules 180 lbs End plates in steam space: Material steel Thickness 1 1/2" Pitch of stays 23 x 20" How are stays secured d & nut Working pressure by rules 180 lbs Material of stays steel  
Diameter at smallest part 8.48" Area supported by each stay 471.5 sq in Working pressure by rules 187 lbs Material of Front plates at bottom steel  
Thickness 13/16" Material of Lower back plates steel Thickness 29/32" Greatest pitch of stays 14 1/2 x 10 1/4" Working pressure of plate by rules 180 lbs  
Diameter of tubes 3 1/4" Pitch of tubes 4 3/4 x 4 1/2" Material of tube plates steel Thickness: Front 13/16" Back 13/16" Mean pitch of stays 11 1/4 x 9 1/2"  
Pitch across wide water spaces 14 1/2" Working pressures by rules 184.9 lbs Girders to Chamber, tops: Material steel Depth and thickness of girder at centre 8 1/2" x 2" Length as per rule 2.6 1/2" Distance apart 12 1/4" Number and pitch of stays in each 2 - 8 1/2"  
Working pressure by rules 187 lbs Superheater or Steam chest; how connected to boiler no Can the superheater be shut off and the boiler worked separately no  
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. \_\_\_\_\_ 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 boiler 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:— 2 Top end, 2 bottom end, 2 main bearings & 1 set of coupling bolts, 1 propeller, 1 set of feed & bilge pump valves, 1 piston spring, Bolts & nuts assorted & iron of sizes

The foregoing is a correct description,  
NORTH EASTERN MARINE ENGINEERING CO. LTD. Manufacturer.

1908:-  
Dates of Survey { During progress of work in shops - July 24, 28, 30, Aug 10, 12, 13, 14, 15, 19, 20, 26, 31, Sept 3, 4, 8, 11, 15, 17, 21, 23, 25, 28, 29, Oct 1, 3, 4, 8, 10, 12, 13, 14, 15, 16 }  
{ During erection on board vessel - 20, 21, 22, 26, 27, 28, 30, Nov 3, 4, 5, 9, 10, 12, 13, 16, 19, 20, 21, 23, 24, 25, 27, Dec 3, 4, 23 }  
building { Total No. of visits 58 }  
Is the approved plan of main boiler forwarded herewith See Sld. Rpt. 2

“ “ “ donkey “ “ “  
Dates of Examination of principal parts—Cylinders 13.11.08 Slides 13.11.08 Covers 13.11.08 Pistons 13.11.08 Rods 13.11.08  
Connecting rods 13.11.08 Crank shaft 13.11.08 Thrust shaft 30.10.08 Tunnel shafts 13.11.08 Screw shaft 26.10.08 Propeller 7.10.08  
Stern tube 22.10.08 Steam pipes tested 24.11.08 Engine and boiler seatings 12.11.08 Engines holding down bolts 24.11.08  
Completion of pumping arrangements 27.11.08 Boilers fixed 24.11.08 Engines tried under steam 27.11.08  
Main boiler safety valves adjusted 27.11.08 Thickness of adjusting washers F.V. 7/16" A.V. 3/8"  
Material of Crank shaft Steel Identification Mark on Do. 573B Material of Thrust shaft Steel Identification Mark on Do. 3927K  
Material of Tunnel shafts Iron Identification Marks on Do. 572B Material of Screw shafts Iron Identification Marks on Do. 504B  
Material of Steam Pipes Copper Test pressure 400 lbs

General Remarks (State quality of workmanship, opinions as to class, &c. The Machinery of this vessel has been constructed under special survey the workmanship and materials used are both of good quality, The engines have been tried under steam and worked satisfactorily

I beg to recommend that this vessel is eligible in my opinion to have the record 12.08 in the Register Book

It is submitted that this vessel is eligible for THE RECORD + LMC 12.08. JWD 28/12/08

The amount of Entry Fee. £ 2 : 0 : 0 When applied for, 24.12.08  
Special . . . . £ 22 : 19 : 0  
Donkey Boiler Fee . . . . £ : : :  
Travelling Expenses (if any) £ : : :  
When received, 31.12.08

K. W. Coomber. -  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

TUES 29 DEC 1908

+ L.M.C. 12.08  
Elec. light.

MACHINERY CERTIFICATE WRITTEN

© 2020

Lloyd's Register Foundation