

REPORT ON MACHINERY.

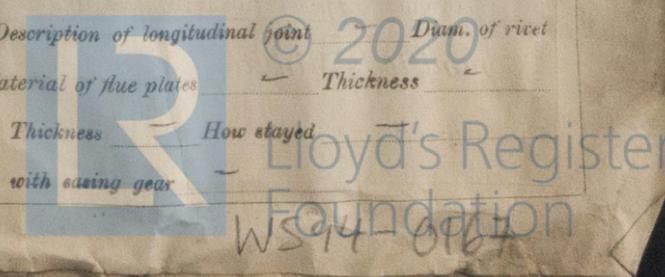
MON. AUG. 18. 1913

Received at London Office

Date of writing Report August 12th 1913 When handed in at Local Office Aug 14th 1913 Port of Genoa
 No. in Survey held at Sestri Ponente & Pace Date, First Survey July 3rd 1912 Last Survey August 11th 1913
 Reg. Book. on the Screw Steamer "Splendor" (Number of Visits 37)
 Master C. Vaccarezza-12-13 Built at Pace By whom built N. Piro fu Aless & Co Tons Gross 6507.40 Net 4028.52
 Engines made at Sestri Ponente By whom made N. Piro fu Aless & Co when made 1913
 Boilers made at FE By whom made FE when made 1913
 Registered Horse Power 393 Owners Societa' Stalo Americana Port belonging to Genoa
 Nom. Horse Power as per Section 28 393 ³⁹⁵ Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Quadruple Expansion No. of Cylinders 4 No. of Cranks 4
 Dia. of Cylinders 20 1/8, 29 5/8, 43 3/8, 61 1/4 Length of Stroke 45 3/8 Revs. per minute 75 Dia. of Screw shaft as per rule 13.70 Material of steel
 as fitted 13.74 screw shaft
 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
 in the propeller boss Yes If the liner is in more than one length are the joints burned Yes 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 Yes If two
 liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 64
 Dia. of Tunnel shaft as per rule 11.20 Dia. of Crank shaft journals as per rule 12.40 Dia. of Crank pin 13.38 Size of Crank webs 21 5/8 x 3 Dia. of thrust shaft under
 collars 12.99 Dia. of screw 14 1/4 Pitch of Screw 14-0 7/8 No. of Blades 4 State whether moveable Yes Total surface 86.15—Brongze
 No. of Feed pumps 2 Diameter of ditto 4 1/2 Stroke 22 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 22 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 3 Sizes of Pumps 8" x 8 1/2" x 12" No. and size of Suctions connected to both Bilge and Donkey pumps
 {In Engine Room 2 in Centre aft 3 1/2". One port side for 3 1/2" In Holds, &c. For 2" deep tank top 2-2". One peak top 2-2". Chan-
 one starboard side for 3 1/2", and one 2 1/2" to gutter way.} —Locker 2-2"
 No. of Bilge Injections 12 sizes 4 3/8 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 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 None
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks None
 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 19/4/13 of Stern Tube 19/4/13 Screw shaft and Propeller 19/4/13
 Is the Screw Shaft Tunnel watertight Yes, Part of the Is it fitted with a watertight door Yes worked from None

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Furnaces Messrs Piggott & Co. Plates John Spencer & Co
 Total Heating Surface of Boilers 5682 1/2 Is Forced Draft fitted Yes No. and Description of Boilers 3 Horizontal Multitubular
 Working Pressure 227 Tested by hydraulic pressure to 460 lbs Date of test 20/1/13 No. of Certificate 101
 Can each boiler be worked separately Yes Area of fire grate in each boiler 44.95 No. and Description of Safety Valves to
 each boiler 2 Spring Area of each valve 14.180 Pressure to which they are adjusted 230 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 15.48 Length 130" Material of shell plates Steel
 Thickness 1 1/2" Range of tensile strength 28-32 lbs Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double
 long. seams 4 nuts per pitch Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 14 1/16 Lap of plates or width of butt straps 2 1/8"
 Per centages of strength of longitudinal joint rivets 91.5 Working pressure of shell by rules 238 lbs Size of manhole in shell 15 3/4 x 11 1/16"
 Size of compensating ring 9 1/16 x 1 1/2" No. and Description of Furnaces in each boiler 3 Suspension Material Steel Outside diameter 39.54"
 Length of plain part top 11.25" Thickness of plates crown 1 1/16" Description of longitudinal joint Welded No. of strengthening rings —
 bottom 1 1/16" Working pressure of furnace by the rules 296 Combustion chamber plates: Material Steel Thickness: Sides 10.25" Back 10.25" Top 10.25" Bottom 7"
 Pitch of stays to ditto: Sides 6.69 x 6.69 Back 6.69 x 6.69 Top 6.69 x 4.47 If stays are fitted with nuts or riveted heads Welded heads Working pressure by rules 235
 Material of stays Steel Diameter at smallest part 1 1/16" Area supported by each stay 3 1/4" Working pressure by rules 259 End plates in steam space: 235
 Material Steel Thickness 15.25" Pitch of stays 15 1/8 x 14 1/4 How are stays secured 220 lbs Working pressure by rules 238 Material of stays Steel
 Diameter at smallest part 2 1/16" Area supported by each stay 2 1/5" Working pressure by rules 238 Material of front plates at bottom Steel
 Thickness 2 1/8" Material of Lower back plate Steel Thickness 1 1/16" Greatest pitch of stays 12.95" Working pressure of plate by rules 290
 Diameter of tubes 2 1/2" Pitch of tubes 3 3/8" Material of tube plates Steel Thickness: Front 15.25" Back 7" Mean pitch of stays 4.24"
 Pitch across wide water spaces 12.79 Working pressures by rules 228 Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 4.84 x 1.54 Length as per rule 23.62 Distance apart 4.64 Number and pitch of stays in each 2-16.69"
 Working pressure by rules 336.5 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked
 separately Yes Diameter — Length — Thickness of shell plates — Material — Description of longitudinal joint 2020 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 —



S. W. Splendor

No 5416

VERTICAL DONKEY BOILER—		Manufacturers of Steel			
No.	Description <i>See separate Report</i>				
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 casing 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	Radius of do.	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, and 2 bottom and bolts & nuts. 2 Main bearing bolts & nuts. one set of coupling bolts, a set of feed & helge pump washes, a complete set of piston springs, a quantity of assorted bolts & nuts, and iron of various sizes. One 1/4 length crankshaft, 1 Propeller shaft, 2 Propeller blades, studs & nuts for same. Pump link, air pump rod, air pump rod, valve spindle &c.*

The foregoing is a correct description,
per **N. ODERO & C.**
Atanki Manufacturer.

Dates of Survey while building	During progress of work in shops --	1912. July 3-4. Aug 23. Sept 5-13. Oct 1-14. 26-28. Nov 4-18. 24. Dec 5-10-19-1913. Jan 7-14-20-27-30
	During erection on board vessel ---	1913. Feb 14-28. March 14-18-21-29.
	Total No. of visits	39

Is the approved plan of main boiler forwarded herewith		Yes
" " " donkey " " "		Yes
Dates of Examination of principal parts—	Cylinders	28/10/12 - 28/11/12
	Slides	27/11/12
	Covers	27/11/12
	Pistons	27/11/12
	Rods	6/11/12
Connecting rods	27/11/12	
Crank shaft	31/4/12	
Thrust shaft	31/4/12	
Tunnel shafts	31/4/12	
Screw shaft	31/4/12	
Propeller	27/11/12	
Stern tube	27/11/12	
Steam pipes tested	18/6/13	
Engine and boiler seatings	29/3/13	
Engines holding down bolts	6/6/13.	
Completion of pumping arrangements	2-8-13	
Boilers fixed	2-8-13	
Engines tried under steam	2-8-13	
Main boiler safety valves adjusted	8-8-13	
Thickness of adjusting washers	stnboard A 1 7/8 - 1 7/8 F Centre A 1 7/8 - 1 7/8 F Port 4 A 1 7/8 - 1 7/8 F	
Material of Crank shaft	steel	Identification Mark on Do. <i>MC 31/4/12</i>
Material of Thrust shaft	steel	Identification Mark on Do. <i>MC</i>
Material of Tunnel shafts	steel	Identification Marks on Do. <i>MC</i>
Material of Screw shafts	steel	Identification Marks on Do. <i>MC</i>
Material of Steam Pipes	steel	Test pressure 460 lbs

General Remarks (State quality of workmanship, opinions as to class, &c. *This vessel's machinery has been examined during construction, and the materials and workmanship are good & in accordance with the rules requirements & the approved plans & correspondence. The principal castings have been tested by hydraulic pressure, the boilers have been tested by water pressure as per rule, and the engines & boilers submitted to a steam trial with satisfactory results. The vessel is therefore eligible in my opinion to be classed + LMC 8.13. as regards the machinery, in the R. Book. The plans of boilers, pumping arrangements, shafting & steel test certificates are enclosed.*

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 8.13
F.D.
T.S.P.
18.8.13.

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

The amount of Entry Fee	£ 48.00	When applied for, when hull report is sent
Special	£ 1024.00	When received, 19-13
Donkey Boiler Fee	£ 54.00	
Travelling Expenses (if any)	£ 35.00	

Committee's Minute TUE. SEP. 2 - 1913 TUE. JAN. 13. 1914

Assigned

+ LMC 8.13

MACHINERY CERTIFICATE WRITTEN



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.

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