

MON. 11 AUG. 1924

Rpt. 4.

## REPORT ON MACHINERY.

No. 3865  
W.F. MUMFORD 1924

Received at London Office

Date of writing Report 5<sup>th</sup> May 1924 When handed in at Local Office 5<sup>th</sup> May 1924 Port of Bordeaux  
 No. in Survey held at Bordeaux Date, First Survey 17<sup>th</sup> April Last Survey 30<sup>th</sup> April 1924  
 Reg. Book. 36473 on the Steel. Se "VILLE DE BELFORT" (Number of Visits 8)  
 Master ✓ Built at Flakodate By whom built Flakodate Dock Tons { Gross 992  
 Engines made at Flakodate By whom made Flakodate Dock when made 1917  
 Boilers made at Cowes By whom made White & Co when made 1920  
 Registered Horse Power ✓ Owners Martiniolich Carlo & Figlio. Port belonging to Trieste  
 Nom. Horse Power as per Section 28 107 NHP. Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 14 9/16", 24 3/8" & 40 3/16" Length of Stroke 30" Revs. per minute 70 Dia. of Screw shaft 2 1/2" Material of screw shaft ✓  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube ✓ 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 ✓ 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 880 mm  
 Dia. of Tunnel shaft as per rule 205 mm Dia. of Crank shaft journals as per rule 205 mm Dia. of Crank pin 203 mm Size of Crank webs 750 mm Dia. of thrust shaft under collars 205 mm Dia. of screw 3400 mm Pitch of Screw 3600 mm No. of Blades 4 State whether moveable ✓ Total surface 3 1/4 400  
 No. of Feed pumps 2 Diameter of ditto 110 mm Stroke 400 mm Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 2 Diameter of ditto 110 mm Stroke 400 mm Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 2 Sizes of Pumps 0.90 Stroke = 120 mm No. and size of Suctions connected to both Bilge and Donkey pumps 5 of 65 mm Diam.  
 In Engine Room 3 of 50 mm Diam.  
 No. of Bilge Injections One sizes 90 mm Connected to condenser or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes. D = 65 mm  
 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 Valves and Cocks  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates No 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 ✓  
 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  
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper platform in Engine Room

BOILERS, &c.—(Letter for record ✓) Manufacturers of Steel ✓  
 Total Heating Surface of Boilers 1780 sq. m. Is Forced Draft fitted No No. and Description of Boilers One Single Ended Multitubular  
 Working Pressure 180 lbs Tested by hydraulic pressure to 22 1/2 lbs Date of test 7-7-20 No. of Certificate ✓  
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 4 sq. m. No. and Description of Safety Valves to each boiler Two Spring loaded. Area of each valve 48 cm<sup>2</sup> Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 3 meters Mean dia. of boilers 4" 400 Length 3" 100 Material of shell plates ✓  
 Thickness 26 mm Range of tensile strength ✓ Are the shell plates welded or flanged ✓ Descrip. of riveting: cir. Double riveted  
 long. seams Double Strap Diameter of rivet holes in long. seams ✓ Pitch of rivets 110 mm Lap of plates ✓ width of butt straps 480 mm  
 Per centages of strength of longitudinal joint ✓ Working pressure of shell by rules ✓ Size of manhole in shell 400 x 300 mm  
 Size of compensating ring 830 x 750 x 28 mm and Description of Furnaces in each boiler Three Corrugated Material ✓ Outside diameter 1028 mm  
 Length of plain part top 2040 mm Thickness of plates bottom 14 mm Description of longitudinal joint Welded No. of strengthening rings ✓  
 Working pressure of furnace by the rules ✓ Combustion chamber plates: Material ✓ Thickness: Sides 18.7 Back 18.7 Top 18.7 Bottom 18.7  
 Pitch of stays to ditto: Sides 220 mm Back 220 mm Top 220 mm If stays are fitted with nuts or riveted heads Nuts Working pressure by rules ✓ End plates in steam space: ✓  
 Material of stays ✓ Area at smallest part 12 cm<sup>2</sup> Area supported by each stay 1440 mm<sup>2</sup> Working pressure by rules ✓ Material of stays ✓  
 Material ✓ Thickness 30 mm Pitch of stays 600 mm How are stays secured Double Nuts & Washers Working pressure by rules ✓ Material of Front plates at bottom ✓  
 Area at smallest part 62 cm<sup>2</sup> Area supported by each stay 3600 mm<sup>2</sup> Working pressure by rules ✓ Material of Front plates at bottom ✓  
 Thickness 26 mm Material of Lower back plate ✓ Thickness 24 mm Greatest pitch of stays 380 mm Working pressure of plate by rules ✓  
 Diameter of tubes 72/80 mm Pitch of tubes 105 mm Material of tube plates ✓ Thickness: Front 24 mm Back 20 mm Mean pitch of stays 215 mm  
 Pitch across wide water spaces 380 mm Working pressures by rules ✓ Girders to Chamber tops: Material ✓ Depth and thickness of girder at centre 230 (2 x 18 mm) length as per rule 840 mm Distance apart 225 mm Number and pitch of stays in each 4 Centre CC 2 Wings CC Pitch 220 mm  
 Working pressure by rules ✓ Steam dome: description of joint to shell ✓ % of strength of joint ✓  
 Diameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓  
 Pitch of rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed ✓  
 Tested by Hydraulic Pressure to ✓

SUPERHEATER. Type

Date of Approval of Plan

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

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IS A DONKEY BOILER FITTED?

Yes. ✓

If so, is a report now forwarded? Donkey Boiler not examined.

SPARE GEAR. State the articles supplied:—

3 Piston Rods 3 Valve Rods  
4 main Bearing Bolts. 1 Set of rings for each Piston  
2 Connecting rod top end brasses 1 Connecting rod bottom end brasses  
2 Connecting rod top end bolts 2 Bottom end bolts 12 plain Boiler turn

The foregoing is a correct description,

Manufacturer.

1924  
Dates of Survey while building { During progress of work in shops - - }  
april 17<sup>th</sup> 18<sup>th</sup> 19<sup>th</sup> 20<sup>th</sup> 23<sup>rd</sup> 30<sup>th</sup>  
{ During erection on board vessel - - - }  
Total No. of visits  
Is the approved plan of main boiler forwarded herewith ✓  
" " " donkey " " " ✓  
Dates of Examination of principal parts—Cylinders April 19<sup>th</sup> Slides April 19<sup>th</sup> Covers April 19<sup>th</sup> Pistons April 19<sup>th</sup> Rods April 19<sup>th</sup>  
Connecting rods April 19<sup>th</sup> Crank shaft 23<sup>rd</sup> April Thrust shaft April 18<sup>th</sup> Tunnel shafts April 18<sup>th</sup> Screw shaft April 20<sup>th</sup> Propeller April 2<sup>nd</sup>  
Stern tube April 20<sup>th</sup> Steam pipes tested ✓ Engine and boiler seatings April 17<sup>th</sup> Engines holding down bolts April 17<sup>th</sup>  
Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓  
Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓  
Main boiler safety valves adjusted April 30<sup>th</sup> Thickness of adjusting washers F = 15<sup>th</sup> A = 15<sup>th</sup>  
Material of Crank shaft ✓ Identification Mark on Do. ✓ Material of Thrust shaft ✓ Identification Mark on Do. ✓  
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts ✓ Identification Marks on Do. ✓  
Material of Steam Pipes ✓ Test pressure ✓  
Is an installation fitted for burning oil fuel ✓ Is the flash point of the oil to be used over 150°F. ✓  
Have the requirements of Section 49 of the Rules been complied with ✓  
Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Main Engines, Auxiliaries, Connections, pumping arrangements, Boiler Mountings and Connections have been examined, the scantlings determined directly from the different parts, no plans having been supplied.

The Materials and Workmanship appear to be good. The Machinery being in an efficient Condition is worthy in my opinion of the favourable consideration of the Committee to be classed in the Register Book and to have the notation of L. M. C. (without the distinguishing mark ✕) 4-24.

The Main Boiler of this Vessel is stated to have been built by Mr. White & Co. Corres. and tested to 22 Kilogs. p. sq. and is stamped 7-7-20 Bureau Veritas, on front of Boiler.

The amount of Entry Fee ... £ : : When applied for,  
Special ... £ : : 10  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ : : 10

Committee's Minute

FRI. 1 MAY 1925

Assigned

FRI. 25 SEP 1925

FRI. 16 OCT 1925

Engineer Surveyor to Lloyd's Register of Shipping.



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