

# REPORT ON MACHINERY.

No. 4863  
TUE. NOV. 16 1920

4. of writing Report *Nov 8* 19*20* When handed in at Local Office *Nov 11* 19*20* Port of *Trieste*  
in Survey held at *Trieste* Date, First Survey *24. 12. 14* Last Survey *2. 10. 1920*  
Book on the *S.S. Monte Grappa (Jard No 565 San Marco)* (Number of Visits *36*)  
ter *R. de Reya* Built at *Trieste* By whom built *Stabilimento Tecnico Triestino* When built  
nes made at *Trieste* By whom made *Stabilimento Tecnico Triestino (1164)* when made  
rs made at *Hamburg & Trieste* By whom made *Blohm & Voss & Stab. Tecnico Tri.* when made *1916*  
stered Horse Power *680* Owners *Navigazione Libera Triestina* Port belonging to *Trieste*  
Horse Power as per Section 28 *✓* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*

INES, &c.—Description of Engines *Triple expansion* No. of Cylinders *3* No. of Cranks *3*  
of Cylinders *32" x 5 1/2" x 83* Length of Stroke *54* Revs. per minute *70* Dia. of Screw shaft *as per rule 14.69 17.8* Material of *Steel*  
e screw shaft fitted with a continuous liner the whole length of the stern tube *no liner* Is the after end of the liner made water tight  
e 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  
en the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive — If two  
s are fitted, is the shaft lapped or protected between the liners — Length of stern bush *6' 6"*  
of Tunnel shaft *as per rule 15.46 16"* Dia. of Crank shaft journals *as per rule 16.23 17"* Dia. of Crank pin *17"* Size of Crank webs *12"* Dia. of thrust shaft under  
rs *17"* Dia. of screw *20'-0"* Pitch of Screw *18'-9"* No. of Blades *4* State whether moveable *no* Total surface *128.3 sq*  
of Feed pumps *2* Diameter of ditto *4"* Stroke *30"* Can one be overhauled while the other is at work *yes*  
f Bilge pumps *2* Diameter of ditto *4 1/2"* Stroke *30"* Can one be overhauled while the other is at work *yes*  
of Donkey Engines *9* Sizes of Pumps *10 x 10 1/4 x 10, 7 x 7 x 8* No. and size of Suctions connected to both Bilge and Donkey pumps  
ngine Room *6 off 3 1/2", 2 off 2", Boiler Room 6 off 3 1/2"* In Holds, &c. *Forward 10 off 3 1/2" aft 7 off 3 1/2"*  
Bilge Injections *1* sizes *1 1/4"* Connected to *condenser, or to circulating pump* *yes* Is a separate Donkey Suction fitted in Engine room & size *2 off 3 1/2"*  
ll 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 —  
ll connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *valves*  
hey 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*  
ey 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*  
pipes are carried through the bunkers *none* How are they protected —  
ll Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *yes*  
e Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *yes*  
Screw Shaft Tunnel watertight *yes* Is it fitted with a watertight door *yes* worked from *top of cylinder*

ERS, &c.—(Letter for record *5*) Manufacturers of Steel *Tyssen & Co, Mülheim & Mannesmann'schen Werke*  
Heating Surface of Boilers *9851.2 sq* Is Forced Draft fitted *yes* No. and Description of Boilers *4 Cyl. Multitubular*  
ing Pressure *180 lbs* Tested by hydraulic pressure to *360* Date of test *24-3-19, 31-3-19* No. of Certificate *187, 188, 189, 190*  
ach boiler be worked separately *yes* Area of fire grate in each boiler *59.85 sq* No. and Description of Safety Valves to  
oiler *Improved spring loaded* Area of each valve *9.62 sq* Pressure to which they are adjusted *185* Are they fitted with easing gear *yes*  
at distance between boilers or uptakes and bunkers or woodwork *4'-0"* Mean dia. of boilers *15' 4"* Length *11' 11"* Material of shell plates *Steel*  
Forecastle *14 1/4"* Range of tensile strength *28-32 T.* Are the shell plates welded or flanged — Descrip. of riveting: cir. seams *L.D.R.*  
seams *DBS Trip. riv.* Diameter of rivet holes in long. seams *1.28* Pitch of rivets *8.81* Lap of plates or width of butt straps *18.75 x 1 1/4"*  
is to be given *85.62%* Working pressure of shell by rules *184.9 lbs* Size of manhole in shell *15.75 x 11.8*  
compensating ring *40.75 x 3 1/2" x 1.65* No. and Description of Furnaces in each boiler *3 Mariner* Material *Steel* Outside diameter *47.25"*  
of plain part *top 3 1/2"* Thickness of plates *crown 3 1/2"* Description of longitudinal joint *welded* No. of strengthening rings *none*  
ing pressure of furnace by the rules *199* Combustion chamber plates: Material *Steel* Thickness: Sides *0.67"* Back *0.63"* Top *0.67"* Bottom *0.67"*  
bellows *yes* of stays to ditto: Sides *8.81 x 8.5* Back *8.72 x 8.5* Top *8.8 x 8.0* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *187, 195, 224*  
Length. *22'-2"* Water Cal of stays *Steel* Area at smallest part *2.03* Area supported by each stay *74.8 sq* Working pressure by rules *202* End plates in steam space:  
Feet. *11'-0"* *62* Thickness *1.4"* Pitch of stays *21 x 23.5* How are stays secured *D.N.* Working pressure by rules *189 lbs* Material of stays *Steel*  
at smallest part *9.1, 8.48* Area supported by each stay *493.8462* Working pressure by rules *189* Material of Front plates at bottom *Steel*  
ess *1.02"* Material of Lower back plate *Steel* Thickness *0.945"* Greatest pitch of stays *18 x 10.98"* Working pressure of plate by rules *182*  
er of tubes *3"* Pitch of tubes *4.25 x 4.18* Material of tube plates *Steel* Thickness: Front *1.41, 1.02"* Back *0.83"* Mean pitch of stays *8.5 x 8.3"*  
across wide water spaces *14.25"* Working pressures by rules *187 lbs* Girders to Chamber tops: Material *Steel* Depth and  
ss of girder at centre *9.25 x 1.5"* Length as per rule *34.25"* Distance apart *8"* Number and pitch of stays in each *3-8.8"*  
ng pressure by rules *196* Steam dome: description of joint to shell % of strength of joint  
er Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
f rivets Working pressure of shell by rules Crown plates Thickness How stayed  
No. of Visits *5* RHEATER. Type *Schmidt* Date of Approval of Plan — Tested by Hydraulic Pressure to *50 atm.*  
Test *5-9-1917* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *yes*  
r of Safety Valve *2"* Pressure to which each is adjusted *185 lbs* Is Easing Gear fitted *yes*

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— One tail shaft, One propeller, Two lap end bolts, Two bottom end bolts, Two main bearing bolts, One set of coupling bolts, One set of feed and bilge pump valve, One set of feed check valve, Six cylinder cover bolts, Six joint ring bolts, One dozen of boiler tubes, One dozen of condenser tubes, One set of boiler safety valves spring, One impeller and shaft for centrifugal circulating pump.

The foregoing is a correct description,

STABLEMAN & TRADING

M. Ant. King

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1914 Dec 24, 1915 Jan 18, Feb 17, Mar 27, July 16, 20, 25, Dec 13, 1918 Jan 21, Oct 14, Dec 21, 1919 Mar 24  
During erection on board vessel - - - July 14, 24, 26, Aug 7, 11, 20, Sep 3, Oct 14, Nov 12, 24, 1920 Feb 13, 22, Mar 30, Apr 12, May 20,  
Total No. of visits July 15, 21, Sep 13, 20, Oct 2, thirty six

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders 22-3-18 Slides 13-12-17 Covers 14-8-18 Pistons 13-9-17 Rods 13-9-17

Connecting rods 13-9-17 Crank shaft 14-8-18 Thrust shaft 20-4-19 Tunnel shafts 24-7-20 Screw shaft 15-5-19 Propeller 13-9-20

Stern tube 15-5-19 Steam pipes tested 15-7-20 Engine and boiler seatings 20-5-19 Engines holding down bolts 12-11-19

Completion of pumping arrangements 23-9-20 Boilers fixed 13-9-20 Engines tried under steam 2-10-20

Completion of fitting sea connections 12-4-20 Stern tube 12-4-19 Screw shaft and propeller 13-9-20

Main boiler safety valves adjusted 2-10-20 Thickness of adjusting washers 13 2 1/4 in, 14 2 8/16 in, 17 2 10/16 in, 17 1/2 2 18/16 in

Material of Crank shaft Steel Identification Mark on Do. 4212 M.K. Material of Thrust shaft Steel Identification Mark on Do. 4211 M.K.

Material of Tunnel shafts Steel Identification Marks on Do. 4256-61 M.K. Material of Screw shafts Steel Identification Marks on Do. 543 MB

Material of Steam Pipes Steel Test pressure 550 lbs.

Is an installation fitted for burning oil fuel no 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 no If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. This Machinery has been built under special survey, the material and workmanship are good, the engine was satisfactorily tested under steam and the case is worthy in my opinion for the notation of + LMC 10-20

It is submitted that this vessel is eligible for THE RECORD. + LMC. 10. 20. F.D.

Kell 19/10/20

G. P. R.

The amount of Entry Fee ... £ ... 252-4 When applied for.  
Special ... £ ... 454-0 2. 10. 20 19  
Donkey Boiler Fee ... £ ... : : When received.  
Travelling Expenses (if any) £ ... : : 21. 10. 20 19

R. H. Richardson  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI NOV. 26 1920

Assigned + L.M.C. 10.20

F. D.

CERTIFICATE WRITTEN



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