

REPORT ON MACHINERY.

No. 4832.

Received at London Office

TUE OCT. 12 1920

Date of writing Report Sep 30 1920 When handed in at Local Office Oct 5 1920 Port of Trieste
 No. in Survey held at Trieste Date, First Survey 30.5.1916 Last Survey 8.9.1920
 Reg. Book. on the S. S. Brenta Jant No 34 San Rocco (Number of Visits 37) Tons { Gross 5200
 Master P. Palese Built at Trieste By whom built Cantiere San Rocco When built { Net 3318
 Engines made at Trieste By whom made Stabilimento Termico Triestino when made 1919
 Boilers made at Hamburg & Trieste By whom made Reichert & Hal. Termico Tri. when made 1919
 Registered Horse Power Owners Navigazione Libera Triestina Port belonging to Trieste
 Nom. Horse Power as per Section 28 465 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansions (No. 1172) No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 27 x 42 x 68 Length of Stroke 48" Revs. per minute 76 Dia. of Screw shaft 14.48" Material of screw shaft Steel
 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 — 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 61"
 Dia. of Tunnel shaft 13.17" as per rule 13.82" Dia. of Crank shaft journals 13.38" as per rule 13.82" Dia. of Crank pin 14.17" Size of Crank webs 26 x 9 1/4 Dia. of thrust shaft under
 collars 14.17" Dia. of screw 17' 9" Pitch of Screw 16' 3" No. of Blades 4 State whether moveable no Total surface 99 sq
 No. of Feed pumps 2 Diameter of ditto 3 3/4" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 8.66 x 10.23 6.3 x 6.3 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Size of 3 1/2" In Holds, &c. 13 of 3 1/2"

No. of Bilge Injections 1 sizes 7.87" Connected to condenser or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 4 of 3 1/2"
 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 valves and cocks
 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 forward bilge suction How are they protected Banded in
 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 top platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Thyssen Co.

Total Heating Surface of Boilers 7023 sq Is Forced Draft fitted yes No. and Description of Boilers 3 single end
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 8-8-18 No. of Certificate 179-80-81
 Can each boiler be worked separately yes Area of fire grate in each boiler 52.7 sq No. and Description of Safety Valves to
 each boiler 2 joint spring Area of each valve 9.62 sq 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 4' 0" Mean dia. of boilers 180" Length 141" Material of shell plates Steel
 Thickness 3 1/32" Range of tensile strength 28-32 ton Are the shell plates welded or flanged — Descrip. of riveting: cir. seams lap 1.2
 long. seams S.P.S.P. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 3/4" Lap of plates or width of butt straps 18 1/2"
 Per centages of strength of longitudinal joint rivets 85.4 Working pressure of shell by rules 186 lbs Size of manhole in shell none
 plate 85.6 Size of compensating ring — No. and Description of Furnaces in each boiler 3 Morrison Material Steel Outside diameter 47 1/4"
 Length of plain part top bottom Thickness of plates crown 9/16" Description of longitudinal joint Weld No. of strengthening rings —
 Working pressure of furnace by the rules 188 Combustion chamber plates: Material Steel Thickness: Sides 19/32" Back 19/32" Top 19/32" Bottom 14/16"
 Pitch of stays to ditto: Sides 8 1/4 x 8 Back 8 1/4 x 7 1/2 Top 8 1/4 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 184 lbs
 Material of stays Steel Area at smallest part 1.45 sq Area supported by each stay 63.75 sq Working pressure by rules 182 lbs End plates in steam space:
 Material Steel Thickness 1 1/16" Pitch of stays 5 3/4 x 15 1/2 How are stays secured on Working pressure by rules 183 lbs Material of stays Steel
 Area at smallest part 4.3 sq Area supported by each stay 244 sq Working pressure by rules 183 Material of Front plates at bottom Steel
 Thickness 14/16" Material of Lower back plate Steel Thickness 13/16 Greatest pitch of stays 23" x 10" Working pressure of plate by rules 339 lbs
 Diameter of tubes 3" Pitch of tubes 4 1/4 x 4 1/4" Material of tube plates Steel Thickness: Front 1" 2 7/8" Back 3/4" Mean pitch of stays 8 1/2"
 Pitch across wide water spaces 14" Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 9 3/4 x 1 1/2 Length as per rule 36.2" Distance apart 8" Number and pitch of stays in each 3, 8 1/4"
 Working pressure by rules 187 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

SUPERHEATER. Type Schmidt 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 yes
 Diameter of Safety Valve 2" Pressure to which each is adjusted 188 lbs Is Easing Gear fitted no

Tested by Hydraulic Pressure to 710 lbs

Lloyd's Register
 Founded 1823

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Propeller, screw shaft, 2 bottom end bearings, ~~and~~ bolts, 2 main bearing bolts, one set of coupling bolts all with nuts, feed & bilge pump valves, 20 condenser tubes with 200 feet, 6 joint ring bolts, 6 cylinder cover bolts, 6 valve chest bolts, 1 spring for each pattern of escape valve, 1 spring for safety valves of Boilers, 20 Boiler tubes, assorted quantity of bolts, nuts, iron of various size

The foregoing is a correct description,

Stabilimento Tecnico Triestino

Manufacturer.

Manany
Dates of Survey while building { During progress of work in shops - 1916 May 30 July 13, 17, Aug 7, 31, Sep 5, 7, 25, Dec 4, 1917 June 8, Sep 13, 13, Oct 26, Dec 31, 1918 Mar 7, 22, April 16, July 12, 18, Aug 8, 16, 24, Sep 14, 1918 Sep 30, 30, Nov 13, 1919 Sep 3, 1920 Apr 2, July 2, 9, 21, Aug 6, 10, 24, 24, 28, Sep 3.
Total No. of visits *thirty seven*

Is the approved plan of main boiler forwarded herewith *no (in London office)*

Dates of Examination of principal parts—Cylinders 17-7-16 Slides 7-8-16 Covers 25-9-16 Pistons 25-9-16 Rods 5-9-16
Connecting rods 4-9-16 Crank shaft 31-8-16 Thrust shaft 7-8-16 Tunnel shafts 7-8-16 Screw shaft 7-8-16 Propeller 6-8-20
Stern tube 5-5-17 Steam pipes tested *various dates* Engine and boiler seatings 30-9-18 Engines holding down bolts 30-9-18
Completion of pumping arrangements *July 20-1920* Boilers fixed 2-4-20 Engines tried under steam 24 & 28 Aug. 1920
Completion of fitting sea connections *July 1920* Stern tube *April 1917* Screw shaft and propeller 6-8-20
Main boiler safety valves adjusted 28-8-20 Thickness of adjusting washers $\frac{1}{2}$ $\frac{7}{16}$ $\frac{7}{16}$ $\frac{15}{32}$ $\frac{1}{2}$ $\frac{9}{16}$
Material of Crank shaft *Steel* Identification Mark on Do. { 256 4-16 Material of Thrust shaft *Steel* Identification Mark on Do. { 257 4-16
Material of Tunnel shafts *Steel* Identification Marks on Do. { 258-62 4-16 Material of Screw shafts *Steel* Identification Marks on Do. { 4301 4-17
Material of Steam Pipes *Steel* 5-16 Test pressure 540 lbs.

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 *yes* If so, state name of vessel *S.S. Cherca and Marina*

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 and the case is eligible in my opinion for the notation of + LMC 8-20*
The Boilers were partly built by the Reikensstige Hohlwerke and were completed by the Stabilimento Tecnico Triestino.

The amount of Entry Fee ... £ *it* 234.- When applied for, 12.11.17
Special ... £ 3374.- 17.8.19
Donkey Boiler Fee ... £ 721.- When received, 17.12.17
Travelling Expenses (if any) £ 18.9.20

Committee's Minute

TUE. OCT. 26 1920

Assigned

+ L.M.C. 9.20

J.D.

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



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CERTIFICATE WRITTEN