

# REPORT ON MACHINERY

No. 15729

Received at London Office

WED. MAR. 15 1922

Date of writing Report 19 When handed in at Local Office 14-3 1922 Port of Swausea

No. in Survey held at Swausea Date, First Survey 18<sup>th</sup> Feb Last Survey 9<sup>th</sup> March 1922

Reg. Book. 11997 on the S.S. Emil Georg von Stauss (Number of Visits )

Master Prichard Built at Emden By whom built Nordseewerke Tons } Gross }  
When built 1914 Net }

\* Engines made at Vegeack By whom made Bremer Vulkan when made 1914

Boilers made at -do- By whom made -do- when made 1914

Registered Horse Power Owners Steana de Romana Port belonging to Boustaiza

Nom. Horse Power as per Section 28 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

## ENGINES, &c.—Description of Engines Direct Acting Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 24 1/8, 39 3/4, 66 3/4 Length of Stroke 48 Revs. per minute 64 Dia. of Screw shaft as per rule 14 3/32 Material of screw shaft Steel

Is the screw shaft fitted with 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

Dia. of Tunnel shaft as per rule 12 1/2 Dia. of Crank shaft journals as per rule 13 3/8 Dia. of Crank pin 13 3/16 Size of Crank webs 9 x 3 1/2 Dia. of thrust shaft under collars 13 1/2 Dia. of screw 16-10 Pitch of Screw 17'-5" No. of Blades 4 State whether moveable yes Total surface 83 sq ft

No. of Feed pumps 2 Diameter of ditto 4 1/4 Stroke Can one be overhauled while the other is at work yes

No. of Bilge pumps 3 Diameter of ditto 3 3/8 Stroke Can one be overhauled while the other is at work yes

No. of Donkey Engines 4 Sizes of Pumps Wainford 8 1/2 x 6 3/8 x 17 3/8 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room ✓ In Holds, &c. ✓

No. of Bilge Injections 1 sizes 6" Connected to condenser or circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 5"

Are all the bilge suction pipes fitted with roses ✓ Are the roses in Engine room always accessible ✓ 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 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 below

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 ✓ 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 ✓

Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

## BOILERS, &c.—(Letter for record ) Manufacturers of Steel

Total Heating Surface of Boilers ✓ Is Forced Draft fitted yes No. and Description of Boilers 2 Cylindrical Multitubular

Working Pressure ✓ Tested by hydraulic pressure to ✓ Date of test ✓ No. of Certificate 3

Can each boiler be worked separately yes Area of fire grate in each boiler ✓ No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 11.793 sq in Pressure to which they are adjusted ✓ Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 3'-0" Mean dia. of boilers 15'-0" Length 12'-0" Material of shell plates Steel

Thickness 1 1/4" Range of tensile strength ✓ Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R. Lap

long. seams T.R. DBS Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 18" Lap of plates or width of butt straps 2'-6"

Per centages of strength of longitudinal joint rivets ✓ Working pressure of shell by rules ✓ Size of manhole in shell 11 3/4" x 15 3/4"

Size of compensating ring 38" x 41 3/4" 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" bottom 9/16" Description of longitudinal joint weld No. of strengthening rings ✓

Working pressure of furnace by the rules ✓ Combustion chamber plates: Material Steel Thickness: Sides 9/8" Back 9/8" Top 9/8" Bottom 7/8"

Pitch of stays to ditto: Sides 7 3/8" x 7 9/16" Back 6 3/4" x 7 3/8" Top 7 1/8" x 7 3/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules ✓

Material of stays Steel Area at smallest part 1.48 sq in Area supported by each stay ✓ Working pressure by rules ✓ End plates in steam space:

Material Steel Thickness 1 1/16" Pitch of stays 4 3/16" x 15 3/16" How are stays secured nuts & washers Working pressure by rules ✓ Material of stays ✓

Area at smallest part 5.93 sq in Area supported by each stay ✓ Working pressure by rules ✓ Material of Front plates at bottom Steel

Thickness 1 1/16" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 14 1/16" 7 3/8" Working pressure of plate by rules ✓

Diameter of tubes 3" OD Pitch of tubes 4 3/16" x 4 3/16" Material of tube plates Steel Thickness: Front ✓ Back 7/8" Mean pitch of stays 8 3/16" x 8 3/16"

Pitch across wide water spaces 13 3/8" Working pressures by rules ✓ Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9" x 3 1/4" 2 plates Length as per rule ✓ Distance apart 7 3/8" Number and pitch of stays in each three 7 1/8" x 7 3/8"

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 ✓

SUPERHEATER. Type ✓ Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓

Date of Test ✓ Is a Safety not fitted to each Section of the Superheater which can be shut off from the Boiler not opened up

Diameter of Safety Valve ✓ Pressure to which each is adjusted ✓ Is Easing Gear fitted ✓



IS A DONKEY BOILER FITTED?

yes

If so, is a report now forwarded? No Not opened up

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } { During erection on board vessel - - - } Total No. of visits

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders

Slides

Covers

Pistons

Rods

Connecting rods

Crank shaft

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Steam pipes tested

Engine and boiler seatings

Engines holding down bolts

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

Thickness of adjusting washers

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 following parts have been examined.

Cylinders, Pistons, Slide Valves, Crank, Thrust, Intermediate, & Propeller shafting and their bearings, pumps, Sea Cocks and Valves, Fan Engines, Port Weir feed pump, Main boilers, with their Manhole doors, Safety Valves & mountings, and were found to be in an efficient condition. The Workmanship as far as seen appears to be good.

The following parts have not been examined.

- Stard Weir feed pump. Ballast pump. General Service pump. Dynamo Engines. Aux Condenser with its air pump. Main Condenser. Main boiler Superheaters. Donkey boiler mountings.

Ridge Valves: NOTE. No examination has been made as far as Sect 49 of the Rules is concerned.

Table with columns for Fee Type (Entry Fee, Special, Donkey Boiler Fee, Travelling Expenses), Amount (£), and When Applied For (When received).

Amish McPatou, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. MAY. 21 1922... TUE. MAY. 21 1922... FRI. SEP. 15 1922... TUES. 20 MAY 1924

