

## REPORT ON MACHINERY.

No. 1650

Date of writing Report 9<sup>th</sup> Jan. 1911 When handed in at Local Office

Received at London Office

WED. 11 JAN 1911

No. in Survey held at Geestemünde

Port of Bremerhaven

Date, First Survey 18<sup>th</sup> June 1910 Last Survey 9<sup>th</sup> Jan. 1911

Reg. Book on the steel S. S. Anstetturm

(Number of Visits 30)

Master H. Eggert

Built at Geestemünde

By whom built Joh. C. Tackenberg A. G.

Gross 5034.20

Net 3152.83

When built 1910-11

Engines made at Geestemünde

By whom made Joh. C. Tackenberg A. G.

when made 1910

Boilers made at Geestemünde

By whom made Joh. C. Tackenberg A. G.

when made 1910

Registered Horse Power 476

Owners J. J. Ges. Hansa

Port belonging to Bremen

Nom. Horse Power as per Section 28 476

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

## ENGINES, &amp;c.—Description of Engines

Two quad. comp. surf. condensing

No. of Cylinders 4

No. of Cranks 4

Dia. of Cylinders 22 3/4 x 31 1/2 x 42 x 70 1/2

Length of Stroke 51 3/8

Revs. per minute 75

Dia. of Screw shaft

as per rule 7 3/8

Material of screw shaft

as fitted 15 3/8

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 Yes

If two

liners are fitted, is the shaft lapped or protected between the liners —

Length of stern bush 10' 1 1/4"

Dia. of Tunnel shaft

as per rule 12 3/8 x 12 1/2

Dia. of Crank shaft journals

as per rule 12 3/8 x 13 1/2

as fitted 14

Dia. of Crank pin 14 3/8

Size of Crank webs 9 1/2

Dia. of thrust shaft under

collars 14 3/8

Dia. of screw 22 3/4

Pitch of Screw 23 1/2

No. of Blades 4

State whether moveable Yes

Total surface 77 3/4

No. of Feed pumps 2

Diameter of ditto 3 3/4

Stroke 26 3/8

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 4 1/2

Stroke 26 3/8

Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3

Sizes of Pumps 1 3/4 x 1 1/2 x 1 1/2 x 1 1/2

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 x 3 1/2 diam

In Holds, &amp;c. 2 x 2 1/2 in tunnel 1 x 3 1/2 x 1 x 2 1/2

No. of Bilge Injections 1

sizes 8"

Connected to condenser, or to circulating pump Yes

Is a separate Donkey Suction fitted in Engine room &amp; size Yes 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 Yes

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 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 Bilge suction

How are they protected Wooden boxes

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 8.12.10

of Stern Tube 8.12.10

Screw shaft and Propeller 13.12.10

Is the Screw Shaft Tunnel watertight Yes

Is it fitted with a watertight door Yes

worked from where engine room grating

BOILERS, &amp;c.—(Letter for record Yes)

Manufacturers of Steel Krupp for plates, Borsig for corrugated furnace

Total Heating Surface of Boilers 6324

Is Forced Draft fitted Yes

Working Pressure 213 lb

Tested by hydraulic pressure to 285 lb

Date of test 24.11.29.11.10

No. of Certificate 128/130/131

Can each boiler be worked separately Yes

Area of fire grate in each boiler 50.5

No. and Description of Safety Valves to

each boiler 1 with spring valve

Area of each valve 12.18

Pressure to which they are adjusted 213 lb

Smallest distance between boilers or uptakes and bunkers or woodwork 12"

Mean dia. of boilers 19 9/16

Length 12 8/16

Material of shell plates S.M. steel

Thickness 1 3/8

Range of tensile strength 27.9-33 ton

Are the shell plates welded or flanged flanged

Descrip. of riveting: cir. seams double

long. seams triple

Diameter of rivet holes in long. seams 1 1/2"

Pitch of rivets 9 1/2

Lap of plates or width of butt strap 2 1/4"

Per centages of strength of longitudinal joint rivets 87%

plate 84.1%

Working pressure of shell by rules 222 lb

Size of manhole in shell 11 1/2 x 15 1/2

Size of compensating ring 9 1/2 x 13 1/2

No. and Description of Furnaces in each boiler 3 Morrison

Material S.M. steel

Outside diameter 38 3/4

Length of plain part top 10 1/2

bottom 7 1/2

Thickness of plates crown 4 1/2

bottom 4 1/2

Description of longitudinal joint welded

No. of strengthening rings corrugated

Working pressure of furnace by the rules 260 lb

Combustion chamber plates: Material S.M. steel

Thickness: Sides 7/16

Back 1/2

Pitch of stays to ditto: Sides 6 1/2

Back 7 1/2

Top 7 1/2

If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 287 lb

Material of stays iron

Diameter at smallest part 7 1/2

Area supported by each stay 51.6

Working pressure by rules 322 lb

End plates in steam space: Material S.M. steel

Thickness 1 3/8

Pitch of stays 14 x 15 1/2

How are stays secured nuts

Working pressure by rules 254 lb

Material of Front plates at bottom S.M. steel

Diameter at smallest part 2 1/2

Area supported by each stay 237

Working pressure by rules 259 lb

Material of Lower back plate S.M. steel

Thickness 6 3/4

Greatest pitch of stays 7 1/4 x 13 1/2

Working pressure of plate by rules 247 lb

Diameter of tubes 2 1/2

Pitch of tubes 3 3/4 x 3 3/4

Material of tube plates steel

Thickness: Front 7/16

Back 5/16

Mean pitch of stays 7 1/2

Pitch across wide water spaces 13 3/8

Working pressures by rules 232 lb

Girders to Chamber tops: Material S.M. steel

Depth and thickness of girder at centre 10 1/2 x 1 1/2

Length as per rule 35 1/2

Distance apart 7 1/2

Number and pitch of stays in each 3 x 7 1/2

Working pressure by rules 254 lb

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

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

Lloyd's Register

Foundation

WS20-0041



