

## REPORT ON MACHINERY.

No. 13797

SAT. JAN. 10. 1914

Received at London Office

Date of writing Report 5<sup>th</sup> Jan 1914 When handed in at Local Office 19

Port of

Hamburg

No. in Survey held at

Feensburg Hamburg

Date, First Survey 19<sup>th</sup> May 13Last Survey 2<sup>nd</sup> Jan. 1914

Reg. Book.

Supp. 80 on the Steel &amp; S. Schneepels

(Number of Visits 26

Gross 5826

Net 3637

Master V. Freeden Built at Feensburg By whom built Feensburger Schiffbau Ges. When built 1913

Engines made at Feensburg By whom made Feensburger Schiffbau Ges. when made 1913.

Boilers made at Feensburg By whom made Feensburger Schiffbau Ges. when made 1913.

Registered Horse Power 530 Owners Deutsche Dampfschiff. Ges. 'Hansa' Port belonging to Bremen

Nom. Horse Power as per Section 28 530 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &amp;c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 18 3/4 18 3/4 18 3/4 Length of Stroke 54 Revs. per minute 65 Dia. of Screw shaft 16 3/4 Material of 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 6' 6"

Dia. of Tunnel shaft 14 3/4 Dia. of Crank shaft journals 15 1/4 Dia. of Crank pin 15 1/4 Size of Crank webs 24 1/2 Dia. of thrust shaft under

collars 15 1/4 Dia. of screw 19 1/4 Pitch of Screw 17 1/4 No. of Blades 4 State whether moveable yes Total surface 9229 sq. ft.

No. of Feed pumps 2 Diameter of ditto 4 Stroke 30 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 30 Can one be overhauled while the other is at work yes

No. of Donkey Engines 4 Sizes of Pumps See Specifications No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 off 3 1/2, 1 off 2 from recess, 1 off 3/2 from tunnel, 1 off 3/2 from Forepeak.

No. of Bilge Injections 1 sizes 9 1/2 Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room &amp; size 9 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 &amp; 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 Fore hold Sustains How are they protected wood 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 12.11.13 of Stern Tube 12.11.13 Screw shaft and Propeller 27.11.13.

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from deck platform

BOILERS, &amp;c.—(Letter for record S) Manufacturers of Steel Fried Krupp Altkien. Ges. Essen &amp; Ruhr.

Total Heating Surface of Boilers 6956 sq. ft. Is Forced Draft fitted yes No. and Description of Boilers 3—Single ended multitubular

Working Pressure 185 lbs. Tested by hydraulic pressure to 370 lbs. Date of test 24.11.13 + 26.11.13 No. of Certificate 230, 231 &amp; 232

Can each boiler be worked separately yes Area of fire grate in each boiler 48.2 sq. ft. No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 12.5 sq. in. 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 20 in. Mean dia. of boilers 18 1/2 Length 44 1/2 Material of shell plates Steel

Thickness 1 1/8 Range of tensile strength 24-32 tons Are the shell plates welded or flanged Descrip. of riveting: cir. seams lap, dbl. riv.

long. seams dbl. riv. Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets 19.06 Lap of plates or width of butt straps 24.75

Per centages of strength of longitudinal joint rivets 110.4% Working pressure of shell by rules 199 lbs. Size of manhole in shell 12.2 x 16.1

Size of compensating ring 11.6 x 1.18 No. and Description of Furnaces in each boiler 3 horizontal Material Steel Outside diameter 43.3

Length of plain part top 4 1/2 Thickness of plates crown 3/61 Description of longitudinal joint welded No. of strengthening rings none

Working pressure of furnace by the rules 232.6 lbs. Combustion chamber plates: Material Steel Thickness: Sides 66 Back 66 Top 66 Bottom 1 1/2

Pitch of stays to ditto: Sides 7.87 Back 7.87 Top 7.87 If stays are fitted with nuts or riveted heads nuts &amp; heads Working pressure by rules 225 lbs.

Material of stays Steel Diameter at smallest part 1.5 Area supported by each stay 60 sq. in. Working pressure by rules 225.6 lbs. End plates in steam space:

Material Steel Thickness 1.03 Pitch of stays 15 How are stays secured dbl. nut &amp; wash Working pressure by rules 225.5 lbs. Material of stays Steel

Diameter at smallest part 3 Area supported by each stay 225 sq. in. Working pressure by rules 226.1 lbs. Material of Front plates at bottom Steel

Thickness 1.06 Material of Lower back plate Steel Thickness 9 Greatest pitch of stays 16.5 Working pressure of plate by rules 207 lbs.

Diameter of tubes 3 Pitch of tubes 4.78 Material of tube plates Steel Thickness: Front 106 Back 9 Mean pitch of stays 8.4

Pitch across wide water spaces 14.18 Working pressures by rules 191.5 lbs. Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 1.24 x 9.84 Length as per rule 35 Distance apart 7.5 Number and pitch of stays in each 3—7.87

Working pressure by rules 198.5 lbs. 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

holes 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



