

REPORT ON MACHINERY.

No. 85356

Received at London Office

15 MAR 1922

Date of writing Report 14th March 1922 When handed in at Local Office

15 MAR 1922

Port of London (Foreign)

No. in Survey held at Uwenhoe

Date, First Survey 29th AUGUST 1921 Last Survey 11th March 1922

Reg. Book. 10716 on the S.S. Land Scout ex "Betzdorf"

(Number of Visits 2) Tons Gross 2399 Net 1147

Master Built at Kiel By whom built Frd. Krupp. Akt. Ges

When built

Engines made at Essen By whom made Frd. Krupp. Akt. Ges

when made 1920

Boilers made at By whom made

when made 1920

Registered Horse Power Owners Bydiaz Shipping Co Ltd (Moller & Nyg) Port belonging to

Nom. Horse Power as per Section 28 245 Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 19 1/8 - 32 1/8 - 54 3/4 Length of Stroke 39 1/2 Revs. per minute 70 Dia. of Screw shaft as per rule 12.16 Material of screw shaft Steel
as fitted 12.2

Is the 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 in the propeller boss Yes If the liner is in more than one length are the joints burned Yes 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 Yes Length of stern bush 10.75

Dia. of Tunnel shaft as per rule 10.23 Dia. of Crank shaft journals as per rule 10.75 Dia. of Crank pin 10.91 Size of Crank web 10.63 x 7 Dia. of thrust shaft under collars 10.91 Dia. of screw 14.5 Pitch of Screw 10.94 No. of Blades 10.94 State whether moveable Yes Total surface 10.94

No. of Feed pumps 2 Diameter of ditto 3.15 Stroke 23.6 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 3.15 Stroke 23.6 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps General. 7 1/2 x 5 1/2 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps Ballast. 7 1/4 x 8 1/2 x 8

In Engine Room Four 3" dia. In Holds, &c. N°1 Hold two 3" N°2 Hold two 3" N°1. I.B. tank one 4 1/2" N°2 two 3" N°3.4. two 3" dia. N°5 two 4 1/2" N°6 one 4 1/2" A.P. tank one 4 1/2" Deep tanks 2-4 1/2"

No. of Bilge Injections one sizes 6 1/4 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3" dia

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices in 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 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 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 None How are they protected Yes

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 Main deck level

OILERS, &c.—(Letter for record S) Manufacturers of Steel Yes

Total Heating Surface of Boilers 34457 Is Forced Draft fitted Yes No. and Description of Boilers 2. Single ended

Working Pressure 185 lb Tested by hydraulic pressure to Built under G.L. Supervision No. of Certificate Yes

Can each boiler be worked separately Yes Area of fire grate in each boiler 437 No. and Description of Safety Valves to each boiler 2. Spring direct Area of each valve 7.7 sq Pressure to which they are adjusted 186 lb Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 28" Mean dia. of boilers 12-9 1/4 Length 11-10 Material of shell plates Steel

Thickness 1 1/8 Range of tensile strength — Are the shell plates welded or flanged No Descrip. of riveting: cir. seams I.P. lap

long. seams I.B.S. joints Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 11 1/8 Lap of plates or width of butt straps Yes

Per centages of strength of longitudinal joint rivets 83% Working pressure of shell by rules 185 lb Size of manhole in shell 16 x 12"

Size of compensating ring Yes No. and Description of Furnaces in each boiler 2. Main Material Steel Outside diameter 46 1/2"

Length of plain part top — bottom — Thickness of plates crown 3 5/8 bottom — Description of longitudinal joint Weld No. of strengthening rings Yes

Working pressure of furnace by the rules 185 lb Combustion chamber plates: Material Steel Thickness: Sides 4 3/8 Back 5" Top 4 3/8 Bottom 3 1/4

Pitch of stays to ditto: Sides 7.9 Back 7.9 Top 7.9 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 215 lb

Material of stays Steel Area at smallest part 1.76 sq Area supported by each stay 4.29 Working pressure by rules 250 lb End plates in steam space: Material Steel Thickness 1" Pitch of stays 15 3/4 How are stays secured Double nuts Working pressure by rules 217 lb Material of stays Steel

Area at smallest part 6.4 sq Area supported by each stay 15 3/4 Working pressure by rules 200 lb Material of Front plates at bottom Steel

Thickness 1" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 8/8 x 7 3/32 Working pressure of plate by rules 400 lb

Diameter of tubes 2 3/4 Pitch of tubes 3.9 Material of tube plates S. Thickness: Front 1" Back 1" Mean pitch of stays 7 3/32

Pitch across wide water spaces 14 1/4 Working pressures by rules 200 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/4 x 1 3/32 Length as per rule 29" Distance apart 7 3/32 Number and pitch of stays in each 3. 7 3/32

Working pressure by rules 186 lb Steam dome: description of joint to shell Nil. % of strength of joint

Diameter — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet holes —

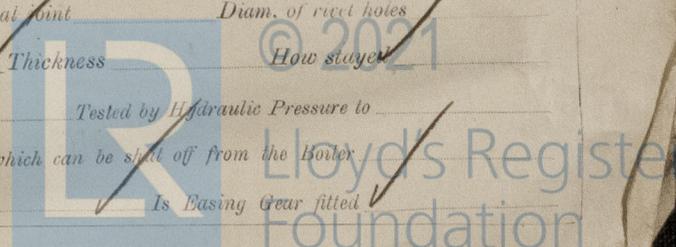
Pitch of rivets — Working pressure of shell by rules — Crown plates — Thickness — How stayed —

PERHEATER. Type Nil Date of Approval of Plan — Tested by Hydraulic Pressure to —

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 — Pressure to which each is adjusted — Is Easing Gear fitted Yes

013947-014005-0172



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—*as per Rule:- 2. Top end bolts nuts, 2 both end bolts nuts, 2 main bearing bolts nuts, 1 set coupling bolts, 1 set helge & feed pump valves, 1 set piston springs, a quantity of assorted bolts nuts, & iron of various sizes. Also:- 1 pair con rod brasses, 1 pair crosshead brasses, 1 set link brasses, 1 An. Jp rod, 1 H.P. valve spindle, 1 L.P. valve spindle, 1 set check valves, 3 cylinder cone bolts, 4 junk ring bolts, 12 condenser tubes, 1 set safety valve springs.*

The foregoing is a correct description,

Manufacturer.

(1921) *Aug 29. Sep 3 Oct 10 Nov 9 Dec 16. 17.* (1922) *JAN 24. MAR 11.*

Dates of Survey while building: During progress of work in shops --- } Total No. of visits *8*

Is the approved plan of main boiler forwarded herewith *8*

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 *11-3-21* Thickness of adjusting washers *P. hole. F. 1/8" A. 9/16" S. hole. 9/16" F. 17/32" A.*

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 *Steel* Test pressure *540 lb per sq. inch.*

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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. .)

The engines & boiler of this vessel was constructed under the inspection of surveyors to the Germanischer Lloyd. The material and workmanship are good and in my opinion eligible for the record of L.M.C. 3.22. For the information of the Committee.

Certificate (if required) to be sent to

The amount of Entry Fee ... £	:	:	When applied for.
Special ... £	:	:	19
Donkey Boiler Fee ... £	:	:	When received.
Travelling Expenses (if any) £	:	:	19

A. E. Farmer
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

See Spec 9
FRI. MAR. 17 1922
L.M.C. 3.22

CERTIFICATE WRITTEN



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