

REPORT ON MACHINERY.

No. 85543

WED. JUL 25 1923

Received at **LIVERPOOL**

Writing Report 19 When handed in at Local Office **23 JUL 1923** Port of **Liverpool**

Survey held at **Liverpool & Birkenhead** Date, First Survey **5th July** Last Survey **18th July 1923**

on the **S.S. 'Chloris', ex 'Eider'** (Number of Visits **8**)

Built at **Rendsburg** By whom built **Werft. Holscher & Söhne, G.m.b.H.** Tons **Gross 1197**

made at **Altona** By whom made **Offensener Mch. G.m.b.H.** Net **150**

made at **do** By whom made **do** When built **1921**

ed Horse Power **✓** Owners **J & P. Hutchison** when made **1921**

orse Power as per Section 28 **143 ✓** Port belonging to **Glasgow** when made **1921**

Is Refrigerating Machinery fitted for cargo purposes **no ✓** Is Electric Light fitted **yes ✓**

ES, &c.—Description of Engines **Vertical Triple ✓** No. of Cylinders **3 ✓** No. of Cranks **3 ✓**

Cylinders **17³/₄, 28⁹/₁₆, 45⁵/₁₆** Length of Stroke **29⁹/₁₆** Revs. per minute **100 ✓** Dia. of Screw shaft as per rule **9⁵/₁₆** as fitted **10⁷/₁₆** Material of screw shaft **M. Steel**

screw shaft fitted with a continuous liner the whole length of the stern tube **no liners, bedwood** Is the after end of the liner made water tight

propeller boss **✓** If the liner is in more than one length are the joints burned **✓** If the liner does not fit tightly at the part

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive **✓** If two

is fitted, is the shaft lapped or protected between the liners **✓** Length of stern bush **3-11³/₄ ✓**

annel shaft as per rule **8⁵/₁₆** as fitted **8⁷/₁₆** Dia. of Crank shaft journals as per rule **9¹/₁₆** as fitted **9¹/₁₆** Dia. of Crank pin **9¹/₄ ✓** Size of Crank webs **5¹/₂ x 15** Dia. of thrust shaft under

1¹/₁₆ ✓ Dia. of screw **10-4** Pitch of Screw **10-2** No. of Blades **4 ✓** State whether moveable **no** Total surface **450' ✓**

eed pumps **2 ✓** Diameter of ditto **29¹/₁₆** Stroke **15 ✓** Can one be overhauled while the other is at work **yes ✓**

lge pumps **2 ✓** Diameter of ditto **29¹/₁₆** Stroke **15 ✓** Can one be overhauled while the other is at work **yes ✓**

onkey Engines **2 ✓** Sizes of Pumps **9¹/₄ + 10¹/₄ x 8⁵/₈; 5⁷/₈ + 3¹/₁₆ x 5⁷/₈** No. and size of Suctions connected to both Bilge and Donkey pumps

Room **2 @ 2¹/₂, 1 @ 2³/₈ ✓** In Holds, &c. **3 @ 2¹/_{2"}, Bunkers 2 @ 2¹/_{2"} ✓**

ne Injections **one** sizes **6" ✓** Connected to **condensers, or to circulating pump** **yes ✓** Is a separate Donkey Suction fitted in Engine room & size **yes, 3¹/_{2"} ✓**

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 ✓**

connections with the sea direct on the skin of the ship **yes ✓** Are they Valves & Cocks **yes ✓**

aced 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 **yes ✓**

ch 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 ✓**

s are carried through the bunkers **bilge only ✓** How are they protected **wood casing ✓**

pes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **yes ✓**

lge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges **yes ✓**

ow Shaft Tunnel watertight **none ✓** Is it fitted with a watertight door **yes ✓** worked from **yes ✓**

S, &c.—(Letter for record **S ✓**) Manufacturers of Steel

ting Surface of Boilers **2476** Is Forced Draft fitted **no ✓** No. and Description of Boilers **2 S.E. multitubular ✓**

Pressure **185** Tested by hydraulic pressure to **✓** Date of test **✓** No. of Certificate **S. 3755, 3756. P.**

oiler be worked separately **yes ✓** Area of fire grate in each boiler **390' ✓** No. and Description of Safety Valves to

2, Spring loaded ✓ Area of each valve **5.94 0"** Pressure to which they are adjusted **185 lbs ✓** Are they fitted with casing gear **yes ✓**

tance between boilers or uptakes and bunkers or woodwork **1'-0" ✓** Mean dia. of boilers **11-0** Length **10-0** Material of shell plates **M.S.**

7/8 Range of tensile strength **28¹/₂-32¹/₂ ✓** Are the shell plates welded or flanged **no ✓** Descrip. of riveting: cir. seams **D.R. lap ✓**

Tub. riv. butt. Diameter of rivet holes in long. seams **19/16** Pitch of rivets **13¹/₂ ✓** Lap of plates or width of butt straps **19.7 ✓**

of strength of longitudinal joint rivets **97¹/₂** Working pressure of shell by rules **185** Size of manhole in shell **15³/₄ x 11-8 ✓**

ensating ring **5.7 x 7/8 ✓** No. and Description of Furnaces in each boiler **2 corrug ✓** Material **M.S.** Outside diameter **41.3**

ain part top **✓** Thickness of plates crown **3/2** Description of longitudinal joint **weld ✓** No. of strengthening rings **✓**

bottom **✓** bottom **3/2** No. of strengthening rings **✓**

ssure of furnace by the rules **approx. ✓** Combustion chamber plates: Material **M.S.** Thickness: Sides **.61** Back **.61** Top **.61** Bottom **.61**

s to ditto: Sides **7¹/₂ x 7¹/₂** Back **7¹/₈ x 7¹/₂** Top **7¹/₂ x 7¹/₂** If stays are fitted with nuts **on riveted heads ✓** Working pressure by rules **229**

stays **M.S.** Area at smallest part **1.46 0"** Area supported by each stay **59 0"** Working pressure by rules **200** End plates in steam space:

M.S. Thickness **1.04 + 7/16** Pitch of stays **as per plan** How are stays secured **nuts riveted ✓** Working pressure by rules **approx. ✓** Material of stays **M.S.**

allest part **7.07 0"** Area supported by each stay **262.5 0"** Working pressure by rules **280** Material of Front plates at bottom **M.S.**

14 Material of Lower back plate **M.S.** Thickness **1.04** Greatest pitch of stays **as per plan** Working pressure of plate by rules **approx. ✓**

tubes **3¹/₂ ✓** Pitch of tubes **4⁷/₈ x 4⁹/₁₆** Material of tube plates **M.S.** Thickness: Front **1.04** Back **27/32** Mean pitch of stays **13.7 x 9.3**

s wide water spaces **15" ✓** Working pressures by rules **182, approx. ✓** Girders to Chamber tops: Material **M.S.** Depth and

order at centre **6.7 x .59** Length as per rule **23.6" ✓** Distance apart **7¹/₂ ✓** Number and pitch of stays in each **2 @ 7¹/_{2"} ✓**

ssure by rules **198** Steam dome: description of joint to shell **dbl. riv. ✓** % of strength of joint **71.5**

7.6" Thickness of shell plates **.59** Material **M.S.** Description of longitudinal joint **weld ✓** Diam. of rivet holes **✓**

Working pressure of shell by rules **✓** Crown plates **M.S.** Thickness **7/8** How stayed **2021**

ATER. Type **Schmidt ✓** Date of Approval of Plan **✓** Tested by Hydraulic Pressure to **✓**

Safety Valve **1¹/_{4"} ✓** Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler **yes ✓**

Pressure to which each is adjusted **185** Is Easing Gear fitted **yes ✓**

IS A DONKEY BOILER FITTED? *no* If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *propeller, screw shaft & nut, 1 pair bottom end brasses, 1 pair top end brasses & bolts, 2 main bearing bolts & 1 set coupling bolts; 1 set feed & bilge valves; 1 feed & 1 bilge pump ram; 1 of each size pump link; 3 sets of piston rings; 1 set of bolts nuts, iron etc.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops -- *July 5. 6. 7. 10. 11. 13. 14. 18.*
During erection on board vessel --
Total No. of visits *8.*

Is the approved plan of main boiler forwarded herewith
" " " donkey " " "

Dates of Examination of principal parts—Cylinders *6.7.23* Slides *6.7.23* Covers *6.7.23* Pistons *6.7.23* Rods *6.7.23*
Connecting rods *13.7.23* Crank shaft *6.7.23* Thrust shaft *6.7.23* Tunnel shafts Screw shaft *11.7.23* Propeller *13.7.23*
Stern tube *11.7.23* Steam pipes tested Engine and boiler seatings *13.7.23* Engines holding down bolts *13.7.23*
Completion of pumping arrangements Boilers fixed Engines tried under steam *18.7.23*
Completion of fitting sea connections Stern tube Screw shaft and propeller
Main boiler safety valves adjusted *14.7.23* Thickness of adjusting washers *P 11/16, S 5/8, P.M.B.; S.M.B. P*
Material of Crank shaft *M.S.* Identification Mark on Do. *912* Material of Thrust shaft *M.S.* Identification Mark on Do.
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *M.S.* Identification Marks on Do.
Material of Steam Pipes *Steel* Test pressure

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 & boilers of this vessel been examined throughout and found in good order & safe working condition. The work ship is good. The scantlings have been verified. The machinery is eligible to be class with record of L.M.C. 7.23 & T.S. 7.23 (O.G).*

The amount of Entry Fee ... £ : : When applied for.

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

S. Townend + Co. Reed
Engineer Surveyor to Lloyd's Register of

Committee's Minute LIVERPOOL
Assigned

24 JUN 1923

FRI. 12 OCT. 1923

FRI. MAR 21 1924

FRI. 14 MAR. 1974

