

## REPORT ON MACHINERY.

No. 85343.

WED. JUL 25 1923

Writing Report

19

When handed in at Local Office

23 JUL 1923 Port of

Received at London

LIVERPOOL

Survey held at Liverpool & Birkenhead  
on the S.S. 'Chloris', ex 'Eider'Date, First Survey 5<sup>th</sup> JulyLast Survey 18<sup>th</sup> July 1923(Number of Visits 8)Built at RendsburgBy whom built Werft. Holschlag & S. m. b. H.Gross 1197  
Net 150  
When built 1121made at Altona

By whom made

Offensener Mch. S. m. b. H.when made 1921made at 80

By whom made

80when made 1921ed Horse Power ✓Owners J & P. HutchinsonPort belonging to GlasgowHorse Power as per Section 28 143 ✓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 17 3/4, 28 9/16, 45 5/16 Length of Stroke 29 9/16Revs. per minute 100 ✓Dia. of Screw shaft as per rule 9 5/8 ✓as fitted 10 7/16 ✓Material of 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 ✓e fitted, is the shaft lapped or protected between the liners ✓Length of stern bush 3-11 3/4 ✓annel shaft as per rule 8 5/8 ✓as fitted 8 5/8 ✓Dia. of Crank shaft journals as per rule 9 1/16 ✓as fitted 9 1/16 ✓Dia. of Crank pin 9 1/4 ✓Size of Crank webs 5 1/2 x 15 ✓Dia. of thrust shaft under ✓1 1/16 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 29 1/16 ✓Stroke 15 ✓Can one be overhauled while the other is at work yes ✓lge pumps 2 ✓Diameter of ditto 29 1/16 ✓Stroke 15 ✓Can one be overhauled while the other is at work yes ✓onkey Engines 2 ✓SIZES OF PUMPS 9 1/4 x 10 1/2 x 8 5/8; 5 1/8 x 3 1/2 x 5 1/8 ✓No. and size of Suctions connected to both Bilge and Donkey pumps ✓e Room 2 @ 2 1/2, 1 @ 2 3/8 ✓In Holds, &c. 3 @ 2 1/2, bunkers 2 @ 2 1/2 ✓e Injections one ✓size 6" ✓Connected to condenser, or to circulating pump yes ✓Is a separate Donkey Suction fitted in Engine room & size yes, 3 1/2" ✓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 ✓zed 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 ✓no Shaft Tunnel watertight none ✓Is it fitted with a watertight door yes ✓S, &c.—(Letter for record S ✓)Manufacturers of Steel 2SB ✓ting Surface of Boilers 2476 ✓Is Forced Draft fitted no ✓Pressure 185 ✓Tested by hydraulic pressure to ✓oiler be worked separately yes ✓Area of fire grate in each boiler 390 ✓2. Spring loaded ✓Area of each valve 5.94 0" ✓Pressure to which they are adjusted 185 lbs ✓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 28 1/2-32 1/2 ✓Are the shell plates welded or flanged no ✓Tub. riv. butt. Diameter of rivet holes in long. seams 19/16 ✓Pitch of rivets 13 1/2 ✓Lap of plates or width of butt straps 19.7 ✓of strength of longitudinal joint 97 1/2 ✓Working pressure of shell by rules 185 ✓Size of manhole in shell 15 3/4 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 1/2 ✓Description of longitudinal joint weld ✓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 7 1/2 x 7 1/2 ✓Back 7 1/8 x 7 1/2 ✓Top 7 1/2 x 7 1/2 ✓If stays are fitted with nuts or riveted heads yes ✓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: ✓1. S. Thickness 1.04 + 7.12 ✓Pitch of stays as per plan ✓How are stays secured nuts and washers ✓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 3 1/2 ✓Pitch of tubes 4 7/8 x 4 9/16 ✓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 ✓rder at centre 6.7 x .59 ✓Length as per rule 23.6" ✓Distance apart 7 1/2 ✓Number and pitch of stays in each 2 @ 7 1/2" ✓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 ✓ATER. Type Schmidt ✓Date of Approval of Plan ✓Tested by Hydraulic Pressure to ✓safety Valve 1 1/4" ✓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 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 piston bolts nuts, iron etc.

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 8.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 5.7.23 Slides 6.7.23 Covers 5.7.23 Pistons 5.7.23 Rods 5.7.23  
Connecting rods 13.7.23 Crank shaft 6.7.23 Thrust shaft 5.7.23 Tunnel shafts ✓ Screw shaft 11.7.23 Propeller 11.7.23  
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 have been examined throughout and found in good order & safe working condition. The workmanship is good. The scantlings have been verified. The machinery is eligible to be classed with record of L.M.C. 7.23 & T.S. 7.23 (O.G.).

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

Committee's Minute

LIVERPOOL

24 JUN 1923

FRI. 12 OCT. 1923

FRI. MAR 21 1924

Assigned

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

Ref. to G. C. 202  
Lloyd's Register  
Foundation