

REPORT ON MACHINERY

No. 11502
THU. 10 MAR. 1921

Date of writing Report *7th March 1921*, When handed in at Local Office *9-3-1921* Port of *Antwerp*.
 No. in Survey held at *Hoboken*. Date, First Survey *19th Oct. 20*. Last Survey *2nd March 1921*.
 Reg. Book. *717*, on the *S/S "WINSUM."* *S/S No 74*. (Number of Visits *13*)
 Master *H. D. Teensma*. Built at *Hoboken, Belgium*. By whom built *Antwerp Ing. Co. Soc. Anon.* When built *1920*.
 Engines made at *Sunderland*. By whom made *N. E. Marine Ing. Co. Ltd. (No 2178)* when made *1920*.
 Boilers made at *do.* By whom made *do.* when made *1920*.
 Registered Horse Power _____ Owners *Stoomvaart Maatschappij Oostzee* Port belonging to *Amsterdam*.
 Nom. Horse Power as per Section 28 *320*. Is Refrigerating Machinery fitted for cargo purposes *No.* Is Electric Light fitted *Yes.*

ENGINES, &c.—Description of Engines

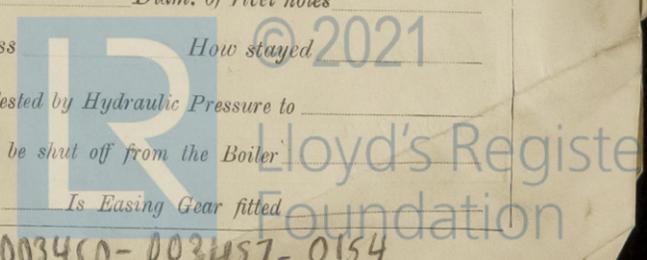
Dia. of Cylinders	Length of Stroke	Revs. per minute	No. of Cylinders	No. of Cranks
		<i>81</i>		

Material of screw shaft _____
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube _____
 Is the after end of the liner made water tight _____
 If the liner is in more than one length are the joints turned _____
 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 _____
 Dia. of Tunnel shaft _____
 Dia. of Crank pin _____
 Size of Crank webs _____
 Dia. of thrust shaft under _____
 No. of Feed pumps _____
 Diameter of ditto _____
 Stroke _____
 Can one be overhauled while the other is at work _____
 No. of Bilge pumps _____
 Diameter of ditto _____
 Stroke _____
 Can one be overhauled while the other is at work _____
 No. of Donkey Engines _____
 Sizes of Pumps _____
 No. and size of Suctions connected to both Bilge and Donkey pumps _____
 In Engine Room *4-3"*, Donkey *Suc. 3 1/2"*, and *1-3"* from oil well. In Holds, &c. *No 1 hold 2-3"*, *No 2 hold 2-3"*, *No 3 hold 2-3"*, *No 4 hold 2-3"*, and tunnel well *1-2 1/2"* suction.
 No. of Bilge Injections *1* sizes *7"* Connected to condenser, or to circulating pump _____
 Is a separate Donkey Suction fitted in Engine room & 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 *None*
 Are all connections with the sea direct on the skin of the ship *Yes.* Are they Valves or Cocks *Both valves & 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 & below*
 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 pipes* How are they protected *2 1/2" wood box & 3/8" steel box outside.*
 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 *Cylinder platform.*

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

Total Heating Surface of Boilers *4496 sq ft* Is Forced Draft fitted *Yes.* No. and Description of Boilers *Two single ended marine*
 Working Pressure *180 lbs.* Tested by hydraulic pressure to *360 lbs.* Date of test *21.5.20*. No. of Certificate *3690*
 Can each boiler be worked separately *Yes.* Area of fire grate in each boiler *53 sq ft* No. and Description of Safety Valves to each boiler *2 direct spring.* Area of each valve *9.62 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 *2'-0"* Mean dia. of boilers _____ Length _____ Material of shell plates _____
 Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____
 long. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____
 Per centages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____
 Size of compensating ring _____ No. and Description of Furnaces in each boiler *3 c.f.* Material _____ Outside diameter _____
 Length of plain part _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____
 Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____
 Pitch of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with _____ Working pressure by rules _____
 Material of stays _____ Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____
 Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____
 Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____
 Thickness _____ Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____
 Diameter of tubes _____ Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
 Pitch across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____
 Working pressure by rules _____ Steam dome: description of joint to shell _____ % 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 _____

SUPERHEATER. Type _____ 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 _____
 Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____



IS A DONKEY BOILER FITTED? *yes.*

If so, is a report now forwarded? *yes.*

SPARE GEAR. State the articles supplied:— *Two connecting rods top & bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set of coupling bolts & nuts, 1 set each of feed & bilge pump valves, 1 set of piston rings, a bag of assorted bolts & nuts, iron rods of various sizes, 1 propeller, 1 tail shaft, bottom end brasses, H.P. piston valve rings, & other detail spare parts.*

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

Donkey boiler safety valve washers:— F.V. = 1/2", A.V. = 2 3/32"
values adjusted to 100 lbs on 9.2.21.

Is the approved plan of main boiler forwarded herewith *yes.*

" " " donkey " " " *yes.*

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓ Pistons ✓ Rods ✓

Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft *19.10.20* Propeller *19.10.20*

Stern tube *19.10.20* Steam pipes tested *10.1.21.* Engine and boiler seatings *19.10.20* Engines holding down bolts *10.1.21.*

Completion of pumping arrangements *23.2.21.* Boilers fixed *26.1.21.* Engines tried under steam *2.3.21.*

Completion of fitting sea connections *25.10.20.* Stern tube *25.10.20.* Screw shaft and propeller *25.10.20.*

Main boiler safety valves adjusted *9.2.21.* Thickness of adjusting washers *P. Boiler F.V. = 1/4" A.V. = 5/16" S. Boiler F.V. = 3/8" A.V. = 1/2"*

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 *not iron.* ✓ Test pressure *540 lbs per sq. in.*

Is an installation fitted for burning oil fuel *yes.* Is the flash point of the oil to be used over 150° F. *yes.*

Have the requirements of Section 49 of the Rules been complied with *yes.*

Is this machinery duplicate of a previous case *not known* If so, state name of vessel ✓

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

The workmanship & materials are good.

The machinery & boilers have been fitted on board this vessel under Special Survey, tried under full working conditions, & found satisfactory.

The machinery of this vessel is eligible in my opinion to have the notation + L.M.C. 3.21. Also, fitted to burn oil fuel 3.21, F.P. above 150° F.

NOTE:— *A report on the Electric light will be forwarded in due course.*

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 3.21. F.D. CL.

Fitted for oil fuel 3.21. F.P. above 150° F.

J.W.D. 16/3/21

The amount of Entry Fee ... £ : :
1/5 Special ... £ 140.12.- : :
1/5 " in Frames ... £ 760.- : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for, 8-3-1921

When received, 14/3/21

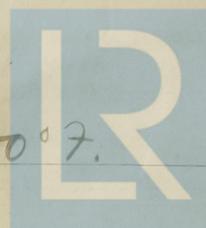
A.H. Pidditch

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. MAR. 18 1921

Assigned + L.M.C. 3.21 F.D. C.L.
Fitted for oil fuel F.P. above 150° F.

MACHINERY DEPT. WRITER.



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