

## REPORT ON MACHINERY.

No. 26955

Received at London Office MON. 16 APR. 1917

of writing Report 10<sup>th</sup> April 1917 When handed in at Local Office 11<sup>th</sup> April 1917 Port of *London*  
 in Survey held at *London* Date First Survey *2nd Mar. 1917* East Survey *3rd April 1917*  
 Book. (Number of Visits *88*) Tons { Gross *5311*  
 Net *3005*

on the Machinery of the S.S. *Dockleaf* Built at *London* By whom built *Bartram & Sons Ltd.* When built *1914*  
 ster *Gibson* By whom made *J. Dickinson & Sons Ltd.* when made *1914*

ines made at *London* By whom made *J. Dickinson & Sons Ltd.* when made *1914*  
 lers made at *"* By whom made *"* when made *1914*

istered Horse Power *476* Owners *Lane & Macandrew Ltd.* Port belonging to *London*

n. Horse Power as per Section 28 *476* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *Yes*

GINES, &c.—Description of Engines *Triple* No. of Cylinders *3* No. of Cranks *3*

. of Cylinders *27 1/2" x 45" x 75"* Length of Stroke *48"* Revs. per minute *70* Dia. of Screw shaft *as per rule 14 9/16"* Material of *iron*  
 as fitted *15 1/8"* screw shaft

he 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

he 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

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

rs are fitted, is the shaft lapped or protected between the liners Length of stern bush *5'-3"*

. of Tunnel shaft *as per rule 13.5"* Dia. of Crank shaft journals *as per rule 14 1/8"* Dia. of Crank pin *14 1/2"* Size of Crank webs *26" x 9 1/4"* Dia. of thrust shaft under

ars *14 1/2"* Dia. of screw *17'-9"* Pitch of Screw *16'-9"* No. of Blades *4* State whether moveable *no* Total surface *99 1/2"*

of Feed pumps *2* Dia. of ditto *7"* Stroke *24"* Can one be overhauled while the other is at work *Yes*

of Bilge pumps *2* Dia. of ditto *5"* Stroke *24"* Can one be overhauled while the other is at work *Yes*

of Donkey Engines *3* Sizes of Pumps *9" x 11" x 10" & 2 of 7 1/2" x 5" x 6"* and size of Suctions connected to both Bilge and Donkey pumps

Engine Room *3 of 3 1/2" & 1 of 3" in E.R. 2 of 3 1/2" in stokehold* Holds, &c. *Oil cargo pumps & 2 of 2 1/2"*

in fore hold. *Yes* of Bilge Injections *1* sizes *7"* Connected to condenser, or to circulating pump *Yes* Is a separate Donkey Suction fitted in Engine room & size *Yes 4"*

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 *no*

all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *both*

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*

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*

at pipes are carried through the bunkers *none* How are they protected *Yes*

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *Yes*

es of examination of completion of fitting of Sea Connections *9/11/16* of Stern Tube *30/11/16* Screw shaft and Propeller *30/4/16*

he Screw Shaft Tunnel watertight *Yes* Is it fitted with a watertight door *Yes* worked from *Yes*

ILERS, &c.—(Letter for record *S*) Manufacturers of Steel *J. Spencer & Sons*

al Heating Surface of Boilers *8055* Is Forced Draft fitted *no* No. and Description of Boilers *3 single ended*

orking Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *10/11/16* No. of Certificate *3365*

each boiler be worked separately *Yes* Area of fire grate in each boiler *Oil fuel* No. and Description of Safety Valves to

h boiler *2 direct spring* Area of each valve *9.6* Pressure to which they are adjusted *185 lbs* Are they fitted with easing gear *Yes*

allest distance between boilers or uptakes and bunkers or woodwork *24"* Mean dia. of boilers *15'-10 1/8"* Length *11'-10 1/2"* Material of shell plates *Steel*

ickness *1 5/16"* Range of tensile strength *28 1/2-32 tons* Are the shell plates welded or flanged *no* Descrip. of riveting: cir. seams *d.t.c.*

g. seams *z.r.d.c.* Diameter of rivet holes in long. seams *1 3/8"* Pitch of rivets *9 1/2"* Lap of plates or width of butt straps *20 1/8"*

centages of strength of longitudinal joint rivets *88.5* Working pressure of shell by rules *190 lbs* Size of manhole in shell *16" x 12"*

plate *85.5* e of compensating ring *8 3/4" x 1 5/16"* No. and Description of Furnaces in each boiler *3 Dighton* Material *Steel* Outside diameter *50"*

ngth of plain part *top* Thickness of plates *bottom* *1 1/32"* Description of longitudinal joint *welded* No. of strengthening rings *Yes*

orking pressure of furnace by the rules *189 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *2 1/32"* Back *2 1/32"* Top *2 1/32"* Bottom *7/8"*

ch of stays to ditto: Sides *8 1/2" x 8"* Back *8 1/2" x 8"* Top *8" x 8"* If stays are fitted with nuts or riveted heads *no* Working pressure by rules *219 lbs*

terial of stays *Steel* Diameter at smallest part *1 1/3"* Area supported by each stay *68* Working pressure by rules *204 lbs* End plates in steam space:

terial *Steel* Thickness *1 1/4"* Pitch of stays *20 1/2" x 17"* How are stays secured *d.n.w.* Working pressure by rules *209 lbs* Material of stays *Steel*

meter at smallest part *7.85* Area supported by each stay *348.5* Working pressure by rules *234 lbs* Material of Front plates at bottom *Steel*

ickness *2 9/32"* Material of Lower back plate *Steel* Thickness *2 9/32"* Greatest pitch of stays *15 1/2" x 8"* Working pressure of plate by rules *187 lbs*

meter of tubes *3 1/4"* Pitch of tubes *4 1/2" x 4 1/2"* Material of tube plates *Steel* Thickness: Front *2 9/32"* Back *7/8"* Mean pitch of stays *9" x 9"*

ch across wide water spaces *14 1/4"* Working pressures by rules *261 lbs* Girders to Chamber tops: Material *Steel* Depth and

ickness of girder at centre *8" x 2"* Length as per rule *34 15/16"* Distance apart *8"* Number and pitch of stays in each *3 of 8"*

orking pressure by rules *182 lbs* Superheater or Steam chest; how connected to boiler *none* Can the superheater be shut off and the boiler worked

trately *Yes* Diameter *Yes* Length *Yes* Thickness of shell plates *Yes* Material *Yes* Description of longitudinal joint *2* Diam. of rivet

s *Yes* Pitch of rivets *Yes* Working pressure of shell by rules *Yes* Diameter of flue *Yes* Material of flue plates *Yes* Thickness *Yes*

stiffened with rings *Yes* Distance between rings *Yes* Working pressure by rules *Yes* End plates: Thickness *Yes* How stayed *Yes*

orking pressure of end plates *Yes* Area of safety valves to superheater *Yes* Are they fitted with easing gear *Yes*

Lloyd's Register  
Foundation

0250-0170



Yes ✓

yes ✓

SPARE GEAR. State the articles supplied:—

Two top end & 2 bottom end bolts 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed & bilge pump valves, a quantity of assorted bolts nuts & iron, for propeller shaft & minor parts.

*The foregoing is a correct description,*

John L. Dickinson & Co., Limited.  
J. L. Dickinson

*Manufacturer.*

Dates of Survey while building	During progress of work in shops - -	1915. Mar. 2, 16, 19, 23, 30, Apr. 1, 7, 12, 20, 29, 30, Jan. 20, 22, Feb. 4, 14, 29, Mar. 2, 9, 14, 16, 21, 23, 27, 28, 30, Apr. 4, 6, 11, 14, May 10, 12, 27	Cer.
	During erection on board vessel - - -	31 Jun. 2, 13, 20, 28, 30, Jul. 6, 11, 14, 15, 26, 28, 31, Aug. 2, 8, 14, 18, 25, Sep. 7, 18, 28, Oct. 3, 9, 11, Nov. 9, 12, 19, 28, 30, Dec. 4, 5, 22, 29, 30, Jan. 3, 6, 19, 26, 29, Feb. 7, 14	valve
	Total No. of visits	(88)	Is the approved plan of main boiler forwarded herewith

*Is the approved plan of main boiler forwarded herewith*

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Cylinders 18/8/16 Slides 26/7/16 Covers 3/8/16 Pistons 13/6/16 Rods 3/8/16

Connecting rods 18/9/16 Crank shaft 11/7/16 Thrust shaft 31/7/16 Tunnel shafts ✓ Screw shaft 11/10/16 Propeller 9/10/16

Stern tube 28/11/16 Steam pipes tested 29 & 30/12/16 Engine and boiler seatings 30/11/16 Engines holding down bolts 19/12/16

Completion of pumping arrangements 2/4/17 Boilers fixed 19/12/16 Engines tried under steam 20/3/17

Main boiler safety valves adjusted 20/3/17 Thickness of adjusting washers P.  $A\frac{1}{2} F\frac{1}{2}$  S.  $A\frac{1}{32} F\frac{25}{64}$  And.  $A\frac{1}{32} F\frac{1}{8}$

Material of Crank shaft Steel Identification Mark on Do. 794 9290 Material of Thrust shaft Steel Identification Mark on Do. 2/8/11

Material of Tunnel shafts ☒ Identification Marks on Do. ☒ Material of Screw shafts iron Identification Marks on Do. g/11

Material of Steam Pipes *Solid drawn copper* ✓ Test pressure *360 lbs.* ✓

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. No If so, state name of vessel ✓

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

The machinery of this vessel has been built under special survey, the materials used are good, and the workmanship is satisfactory, it has been properly fitted on board and secured, and the engines have been tried under full power at sea. In my opinion this vessel is eligible for the record of  $\text{I.L.M.C. 4, 17}$ ; fitted for oil fuel over  $150^{\circ}\text{F}$ .

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 4.17

Fitted for oil fuel 4.17. F.P. above  $150^{\circ}\text{F}$ .

The amount of Entry Fee ...	£	3 :	:	When applied for,
Special ...	£	43 : 16 :	:	11. 4. 1917
Donkey Boiler Fee ...	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	24. 4. 1917

*Engineer Surveyor to Lloyd's Register of British & Foreign Shipping* Sur

## Committee's Minute

*Assigned*

Added + LMC 4:17  
Added for Oil Incl 4:17 I.P. above 150'

MACHINERY CERTIFICATE  
WRITTEN-

FRI. 5-JUL. 1918

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