

4a.

REPORT ON MACHINERY

No. 2221

REC'D 12 DEC. 1917

Received at London Office

Writing Report *22nd Nov 1917* When handed in at Local Office *22nd Nov 1917* Port of *Baltimore Md*
in Survey held at *Baltimore Md.* Date, First Survey *Dec 29/1917* Last Survey *Nov 12th 1917*
g. Book. *2* on the *Steamer "William Loom"* (Number of Visits *31*) Tons } Gross *3321*
Net *2032*
ster Built at *Baltimore Md* By whom built *Baltimore D. D. & S. B. Co* When built *1917*
gines made at *Hoboken* By whom made *W. & A. Fletcher Co* when made *1917*
ilers made at *"* By whom made *"* when made *1917*
gistered Horse Power *United States Shipping Board* Owners *Emergency Fleet Corporation* Port belonging to *New York*
aft Horse Power at Full Power *1300* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*

TURBINE ENGINES, &c.—Description of Engines

Please see New York

No. of Turbines

meter of Rotor Shaft Journals, H.P. *L.P.* Diameter of Pinion Shaft *Report no 14353 Attached*
meter of Journals Distance between Centres of Bearings Diameter of Pitch Circle *hereto*
meter of Wheel Shaft Distance between Centres of Bearings Diameter of Pitch Circle of Wheel
th of Face Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule
of Screw Shafts *One* Diameter of same as per rule *10.96 11.35* Diameter of Propeller *14'-2"* Pitch of Propeller *13'-6"*
of Blades *4* State whether Moveable *No* Total Surface *66.2 sq* Diameter of Rotor Drum, H.P. *L.P.* astern
ckness at Bottom of Groove, H.P. *L.P.* Astern Revs. per Minute at Full Power, Turbine Propeller

PARTICULARS OF BLADING.

Please see New York Report No 14353

H. P.

L. P.

ASTERN.

	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
EXPANSION									
"									
"									
"									
"									
"									
"									

and size of Feed pumps *2 - 6" x 12" ✓*
and size of Bilge pumps *3 - 2-6" x 10" 1- 8 1/2" x 12" ✓*
and size of Bilge suction in Engine Room *3 - 3 1/2" ✓*
Wing cargo spaces each 1-3 1/2" In Holds, &c. *Forehold 2- 3 1/2" Pump Room 2-3 1/2"*
Wing cargo spaces each 1-3 1/2"
of Bilge Injections sizes *8"* Connected to condenser, or to circulating pump *Pump Is a separate Donkey Suction fitted in Engine Room & size 1-3 1/2" ✓*
e all the bilge suction pipes fitted with roses *Yes ✓* Are the roses in Engine room always accessible *Yes ✓*
e all connections with the sea direct on the skin of the ship *Yes ✓* Are they Valves or Cocks *Both ✓*
e 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 *Both ✓*
e 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 Oil fuel ✓* How are they protected *Yes ✓*
e all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes ✓*
e the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *Yes ✓*
the Screw Shaft Tunnel watertight *None ✓* Is it fitted with a watertight door *Engines aft - worked from ✓*

BOILERS, &c.—(Letter for record)

Manufacturers of Steel *Please see N. Yk Report no 14353*

al Heating Surface of Boilers Is Forced Draft fitted *No. and Description of Boilers*
orking Pressure Tested by hydraulic pressure to *Date of test* No. of Certificate
n each boiler be worked separately *Yes ✓* Area of fire grate in each boiler *No. and Description of Safety Valves to*
h boiler *2 B.S. ✓* Area of each valve *9.621 sq* Pressure to which they are adjusted *155 lbs ✓* Are they fitted with easing gear *Yes ✓*
allest distance between boilers or uptakes and bunkers or woodwork *None ✓* Mean dia. of boilers Length Material of shell plates
ickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
g. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
r centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
plates
ate of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter
ngth of plain part top crown Description of longitudinal joint No. of strengthening rings
bottom thickness of plates bottom
orking pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
itch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
aterial of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space
aterial Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
iameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
ickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
iameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
itch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
ickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
orking pressure by rules Steam dome: description of joint to shell % of strength of joint Diameter
ickness of shell plates Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets
orking 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? *No* If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— 2 Bolts & nuts each size of rotor bearing; 2 bolts & nuts gear wheel bearing; 2 bolts & nuts pinion bearing; 1 set of coupling bolts each size; total number bolts & nuts each gear case joint; $\frac{1}{2}$ total number each Turbine case joint; 2 thermometers for oil circulating system; 1 set bushes for:— gear wheel shaft; & pinion shafts; $\frac{1}{2}$ set segments each gland rotor shafts & half number of springs; 5 bush thrust pads, Turbine thrust & adjusting bushes; set of liners for adjusting block valves each feed pump; 1 set bilge pump valves; 1 set valves lubricating pump & 1 pump complete escape valves each size Assorted bolts & nuts. Bars & plates assorted, 1 propeller, 1 propeller shaft
The foregoing is a correct description,

Manufacturer. _____

Dates of Survey while building { During progress of work in shops -- Dec 29. 1916. May 7. 21. June 1. 4. 6. 7
During erection on board vessel -- June 1. 4. 6. 7. 9. 13. 14. 22. July 12. 16. 28. 30. Aug 4. 11. Sept. 12. 19. 27. Oct. 5. 17. 24. 2
Total No. of visits 31

Is the approved plan of main boiler forwarded herewith _____

Dates of Examination of principal parts—Casings *Please see N.Y.K. Report No 14353* Rotors *donkey* Blading _____ Gearing _____

Rotor shaft _____ Thrust shaft _____ Tunnel shafts _____ Screw shaft *21/5/17* Propeller *29/11*

Stern tube *1/6/17* Steam pipes tested *29/10/17* Engine and boiler seatings *16/7/17* Engines holding down bolts *29/11*

Completion of pumping arrangements *3/11/17* Boilers fixed *4/8/17* Engines tried under steam *3/11/17*

Main boiler safety valves adjusted *3/11/17* Thickness of adjusting washers *P. P. & S $\frac{1}{8}$ S P. $\frac{1}{8}$ S $\frac{3}{16}$*

Material and tensile strength of Rotor shaft _____ Identification Mark on Do. _____

Material and tensile strength of Pinion shaft _____ Identification Mark on Do. _____

Material of Wheel 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 *Steel* Identification Marks on Do. *Working spare*

Material of Steam Pipes *Copper* Test pressure *400 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 a duplicate of a previous case *Yes* If so, state name of vessel *"Albert Watts" "Joseph C"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The Turbines and boiler*

have now been efficiently installed in this vessel and tried under steam and found satisfactory rendering the machinery of this vessel eligible, in my opinion, to notation + L.M.C. 11.17 Fitted for oil fuel 11.17 flash point at 150°F. Electric light

It is submitted that this vessel is eligible for THE RECORD. + LMC 11.17.

Fitted for oil fuel 5.17. F.P. above 150°F. 2 Steam Turbines geared to 1 Screw Shaft.

The amount of Entry Fee ... £ *15.00* When applied for, *6/11/1917*
Donkey Boiler Fee ... £ *156.00* When received, *22/11/1917*
Travelling Expenses (if any) *Baltimore 52.00*

Committee's Minute *New York NOV 27 1917*

Assigned *+ Lmb 11.17 Fitted for oil fuel 11.17 F.P. above 150°F. Elec. Light*

Stewart
Engineer Surveyor to Lloyd's Register of Shipping

MACHINERY CERTIFICATE
WRITTEN 12-12-17

TUE APR 27 1920

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Foundation