

REPORT ON MACHINERY.

No. 148

REC'D NEW YORK June 24 1918.

pt. 4a.

Date of writing Report 1918 When handed in at Local Office 1918 Port of CLEVELAND, OHIO.
 No. in Survey held at Willoughby N.Y. Date, First Survey Last Survey 1918
 Reg. Book. on the No. 6 Vessel "Western City" (Number of Visits)
 Master Built at Portland Ore. By whom built Columbia River S. S. Co. When built 1914
 Engines made at Willoughby N.Y. By whom made Ken. Turbine Co. (50003) 50006 when made 1918
 Boilers made at Portland Ore. By whom made Columbia River S. S. Co. when made 1918
 Registered Horse Power 417 Owners Port belonging to
 Shaft Horse Power at Full Power 2500 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

TURBINE ENGINES, &c.—Description of Engines Curtis Patent Double Reduction Turbine No. of Turbines One
 Diameter of Rotor Shaft Journals, H.P. 4.992 L.P. Diameter of Pinion Shaft High Speed 5.992 Low Speed 9.487
 Diameter of Journals H.S. 5.992 L.S. 9.487 Distance between Centres of Bearings H.S. 27 1/2 L.S. 62 Diameter of Pitch Circle H.S. 7.402 L.S. 9.989
 Diameter of Wheel Shaft 14 Distance between Centres of Bearings L.S. 65 1/2 Diameter of Pitch Circle of Wheel H.S. 55.57 L.S. 57.99
 Width of Face 16" Each 19" Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule as fitted
 No. of Screw Shafts One Diameter of same as per rule as fitted Diameter of Propeller Pitch of Propeller
 No. of Blades State whether Moveable Total Surface Diameter of Rotor Drum, H.P. 3 1/2 L.P. Astern 3 1/2
 Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine 3600 Propeller 90.

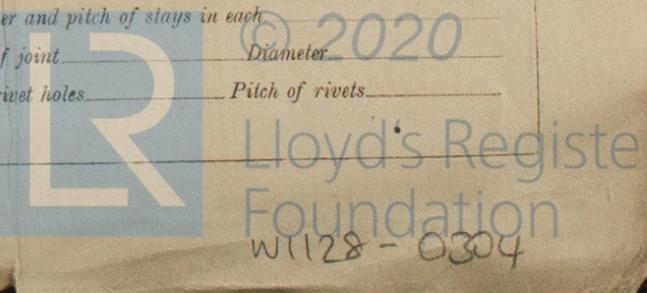
ARTICULARS OF BLADING.

	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.
ST EXPANSION	6" x 1"	33 1/2"	2				6" x 1"	33 1/2"	2
ND	6" x 1"	33 1/2"	2	✓	✓	✓	3"	35 5/8"	1
'18 RD	2"	35 5/8"	1						
'18 TH	3"	35 5/8"	1						
TH	4"	35 5/8"	1						
TH	5"	36 5/8"	1						
TH	6"	38 1/4"	1						
TH	6 7/8"	38 1/2"	1						

No. and size of Feed pumps
 No. and size of Bilge pumps
 No. and size of Bilge suction in Engine Room
 In Holds, &c.
 No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size
 Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible
 Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
 That pipes are carried through the bunkers How are they protected
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges
 Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

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

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
 Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler
 Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
 Smallest distance between boilers or uptakes and bunkers or woodwork 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
 Percentages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell plates
 Size of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings bottom
 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 nuts or riveted heads Working pressure by rules
 Material of stays Diameter 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
 Diameter 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 Diameter
 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 Diameter 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? _____ If so, is a report now forwarded? _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
 Kerr Turbine *Co* Wellsville N.Y. Manufacturer.
 H. J. Hauglik C. Engineer

Dates of Survey while building { During progress of work in shops -- 1918 Aug. 7, 26, 27, Feb. 19.
 { During erection on board vessel ---
 Total No. of visits _____

Is the approved plan of main boiler forwarded herewith _____

“ “ “ donkey “ “ “ _____

Dates of Examination of principal parts—Casings _____ Rotors _____ Blading _____ Gearing _____

Rotor shaft _____ Thrust shaft _____ Tunnel shafts _____ Screw shaft _____ Propeller _____

Stern tube _____ Steam pipes tested _____ Engine and boiler seatings _____ Engines holding down bolts _____

Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____

Main boiler safety valves adjusted _____ Thickness of adjusting washers _____

Material and tensile strength of Rotor shaft S 104000/106000 # Identification Mark on Do. *HS 4 207 C.J.H.*

Material and tensile strength of Pinion shaft S. *HS 107000/110000. LS 94000/101000 #* Identification Mark on Do. *HS 4 205 C.J.H.*

Material of Wheel shaft S Identification Mark on Do. *405 T.M.* Material of Thrust shaft Identification Mark on Do. *LS 4 233 C.J.H.*

Material of Tunnel shafts Identification Marks on Do. _____ Material of Screw shafts Identification Marks on Do. _____

Material of Steam Pipes _____ Test pressure _____

Is an installation fitted for burning oil fuel _____ 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 a duplicate of a previous case _____ If so, state name of vessel _____

General Remarks (State quality of workmanship, opinions as to class, &c. *The above machinery has been constructed under Special Survey. The materials and workmanship employed in its manufacture are sound and good. It has been forwarded to Portland Ore. to be fitted on board The Columbia River Shipbuilding Co. Ship No 6.*

Certificate (if required) to be sent to _____
 (The Surveyors are required not to write on or below the space for Committee's Minute.)

The amount of Entry Fee ... £	:	:	When applied for,
<i>1/3 Special</i>	<i>368 : 00</i>	19
Donkey Boiler Fee ... £	:	:	When received,
<i>344</i>	<i>37 : 60</i>	<i>31.7.1918</i>

W. Lane *J. W. Swedell*
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **New York JUN 24 1918**
 Assigned *Sec. P.O. Rpt 508.*



Rpt. 13.
 Port of _____
 No. in Reg. Book _____
 Owners _____
 Yard No. _____
 DESCRIP...
 Capacity of _____
 Where is _____
 Position of _____
 Positions of _____
 Quarte...
 Mash...
 If fuses are _____
 circuit _____
 If vessel is _____
 Are the fu...
 Are all fu...
 are pe...
 Are all sw...
 Total numb...
 A _____
 B _____
 C _____
 D _____
 E _____
 1 M _____
 2 _____
 80 _____
 If arc ligh...
 Where are...
 DESCRIP...
 Main cable _____
 Branch cab...
 Branch cab...
 Leads to la...
 Cargo light...
 DESCRIP...
 Crat...
 Joints in c...
 and _____
 Are all the...
 positi...
 Are there...
 How are t...