

# REPORT ON MACHINERY. No. 129

REC'D NEW YORK *June 12-1918*  
 Reporting Report *19* When handed in at Local Office *19*

Received at London Office *11 JUL 1918*  
 Port of *CLEVELAND, OHIO*

Survey held at *Willsville N.Y.* Date, First Survey *22 May 1917* Last Survey *19*  
 on the *for Ship to S. (Cr. 4 "Hait Indian")* (Number of Visits *1*)  
 Tons Gross Net  
 Built at *Willsville N.Y.* By whom built *Columbia River Ship Co* When built *1917*  
 made at *Willsville N.Y.* By whom made *Kerr Turbine Co (No. 50001-3)* when made *1917*  
 made at *Willsville N.Y.* By whom made *Kerr Turbine Co* when made *1917*  
 Horse Power *417* Owners *Willsville N.Y.* Port belonging to *Willsville N.Y.*  
 Horse Power at Full Power *2500* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *No*

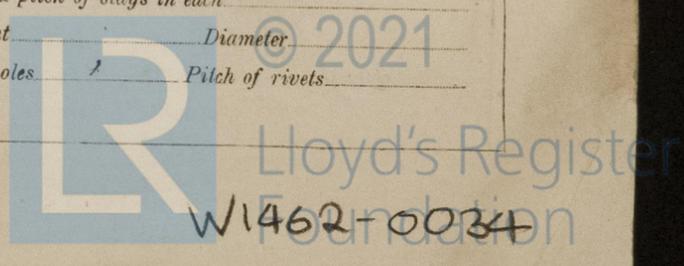
ENGINE ENGINES, &c.—Description of Engines *Curtis-Rotary Double Expansion Turbine* No. of Turbines *One*  
 Rotor Shaft Journals, H.P. *4.992* L.P. *—* Diameter of Pinion Shaft *High Speed 5.992 Low Speed 9.487*  
 Journals *45.5992 45.947* Distance between Centres of Bearings *45.37 45.62* Diameter of Pitch Circle *45.7402 45.9489*  
 Wheel Shaft *14" Minimum* Distance between Centres of Bearings *Low Speed 65 1/2* Diameter of Pitch Circle of Wheel *45.5554 45.5299*  
 One Wheel *45. This Wheel*  
 Diameter of Thrust Shaft under Collars *16" Each 19"* Diameter of Tunnel Shaft *as per rule*  
 Shafts *One* Diameter of same *as per rule* Diameter of Propeller *as fitted* Pitch of Propeller *—*  
 State whether Moveable *No* Total Surface *—* Diameter of Rotor *Disc Drum, H.P. 3 1/2 L.P. —* Astern *3 1/2*  
 Bottom of Groove, H.P. *—* L.P. *—* Astern *—* Revs. per Minute at Full Power, Turbine *3600* Propeller *90*

### DETAILS OF BLADING.

SECTION	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.
1	6' x 1"	33 1/2"	2	—	—	—	6' x 1"	33 1/2"	2
2	6' x 1"	33 1/2"	2	—	—	—	3'	35 7/8"	1
3	2"	35 7/8"	1	—	—	—	—	—	—
4	3"	35 7/8"	1	—	—	—	—	—	—
5	4"	35 7/8"	1	—	—	—	—	—	—
6	5"	36 7/8"	1	—	—	—	—	—	—
7	6"	38 1/4"	1	—	—	—	—	—	—
8	6 7/8"	38 1/2"	1	—	—	—	—	—	—

of Feed pumps *—*  
 of Bilge pumps *—*  
 Do. 3 of Bilge suction in Engine Room *—*  
 Do. 3 *—* In Holds, &c. *—*  
 Injections *—* sizes *—* Connected to condenser, or to circulating pump *—* Is a separate Donkey Suction fitted in Engine Room & size *—*  
 Suction pipes fitted with roses *—* Are the roses in Engine room always accessible *—*  
 Connections with the sea direct on the skin of the ship *—* Are they Valves or Cocks *—*  
 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 *—*  
 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 *—*  
 carried through the bunkers *—* How are they protected *—*  
 Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *—*  
 Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *—*  
 Shaft Tunnel watertight *—* Is it fitted with a watertight door *—* worked from *—*

&c.—(Letter for record *—*) *Manufacturers of Steel*  
 Surface of Boilers *Is Forced Draft fitted* No. and Description of Boilers *—*  
 Pressure *Tested by hydraulic pressure to* Date of test *—* No. of Certificate *—*  
 be worked separately *—* Area of fire grate in each boiler *—* No. and Description of Safety Valves to *—*  
 Area of each valve *—* Pressure to which they are adjusted *—* Are they fitted with casing gear *—*  
 between boilers or uptakes and bunkers or woodwork *—* Mean dia. of boilers *—* Length *—* Material of shell plates *—*  
 Range of tensile strength *—* Are the shell plates welded or flanged *—* Descrip. of riveting: *cir. seams*  
 Diameter of rivet holes in long. seams *—* Pitch of rivets *—* Lap of plates or width of butt straps *—*  
 rivets *—* Working pressure of shell by rules *—* Size of manhole in shell *—*  
 plates *—*  
 Ring *—* No. and Description of Furnaces in each Boiler *—* Material *—* Outside diameter *—*  
 top *—* crown *—*  
 part *—* Thickness of plates *—* Description of longitudinal joint *—* No. of strengthening rings *—*  
 bottom *—* bottom *—*  
 of furnace by the rules *—* Combustion chamber plates: Material *—* Thickness: Sides *—* Back *—* Top *—* Bottom *—*  
 ditto: Sides *—* Back *—* Top *—* If stays are fitted with nuts or riveted heads *—* Working pressure by rules *—*  
 Diameter at smallest part *—* Area supported by each stay *—* Working pressure by rules *—* End plates in steam space *—*  
 Thickness *—* Pitch of stays *—* How are stays secured *—* Working pressure by rules *—* Material of stays *—*  
 part *—* Area supported by each stay *—* Working pressure by rules *—* Material of Front plates at bottom *—*  
 Material of Lower back plate *—* Thickness *—* Greatest pitch of stays *—* Working pressure of plate by rules *—*  
 Pitch of tubes *—* Material of tube plates *—* Thickness: Front *—* Back *—* Mean pitch of stays *—*  
 water spaces *—* Working pressures by rules *—* Girders to Chamber tops: Material *—* Depth and *—*  
 at centre *—* Length as per rule *—* Distance apart *—* Number and pitch of stays in each *—*  
 by rules *—* Steam dome: description of joint to shell *—* % of strength of joint *—* Diameter *—*  
 plates *—* Material *—* Description of longitudinal joint *—* Diameter of rivet holes *—* Pitch of rivets *—*  
 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* of *Wellville N.Y.* Manufacturer.  
*H.J. Haystack Cons. E.*

Dates of Survey while building: During progress of work in shops --- 1917. May 22, June 8, July 6-26, Aug 22, Sep 21, Oct 11, Nov 8.  
 During erection on board vessel ---  
 Total No. of visits \_\_\_\_\_

Dates of Examination of principal parts—Casings May 22, Rotors May 22, Blading May 22, Gearing May 22  
 Rotor shaft 11.10.17, 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 OHS. 93000 lb. Identification Mark on Do. Length 790 EE  
 Material and tensile strength of Pinion shaft HS/OHS. 107000/110000. 15/OHS. 100,000. Identification Mark on Do. Length 205 C  
 Material of Wheel shaft OHS. Identification Mark on Do. Length 493.77 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 \_\_\_\_\_ 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? *Yes* If so, state name of vessel *Turbine SD, 001-2.*

General Remarks (State quality of workmanship, opinions as to class, etc.) *The above unit has been constructed special survey. The materials and workmanship employed in its manufacture are of good quality. It has been forwarded to Portland (Or) to be fitted on board Columbia River Supply Co. Ship No 3.*

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

The amount of Entry Fee	£	When applied for,
<i>1/3</i> Special	\$68 00.	19.
Donkey Boiler Fee	£	When received,
Travelling Expenses (if any)	\$35 50	June 11 1918 74

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

Committee's Minute New York JUN 18 1918

Assigned *See PR. Rpt 490.*

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