

## REPORT ON MACHINERY.

No. 82456

6 - DEC 1919

Received at London Office

Writing Report *Dec. 6<sup>th</sup> 1919* When handed in at Local Office *1919* Port of *London*  
Survey held at *London* Date, First Survey *16th Feb, 1918* Last Survey *Dec. 4<sup>th</sup> 1919*  
Book. *Tartaric for Canadian Sloops. (British Westinghouse Inc. Co. Ltd)* (Number of Vents *22*)  
on the *fitted on board of WARR FIG* Tons { Gross  
Net  
Built at *Went Brayton* By whom built *The Power Plant Co.* When built *1919*  
Machinery made at *Went Brayton* By whom made *The Power Plant Co.* when made *1919*  
Horse Power *1250* Is Refrigerating Machinery fitted for cargo purposes *Is Electric Light fitted*

## TURBINE ENGINES, &amp;c.—Description of Engines

No. of Turbines

Number of Rotor Shaft Journals, H.P. *3 3/4 - 6 3/4* L.P. *11 1/2* Diameter of Pinion Shaft *3 3/4"*  
Number of Journals *3 3/4 - 6 3/4* Distance between Centres of Bearings *22" - 48"* Diameter of Pitch Circle *5.195" - 11.5"*  
Number of Wheel Shaft *11 1/2* Distance between Centres of Bearings *48"* Diameter of Pitch Circle of Wheel *5.145" - 66.5"*  
Diameter of Face *13"* Diameter of Thrust Shaft under Collars *11 1/2"* Diameter of Tunnel Shaft *as per rule*  
Screw Shafts *as fitted* Diameter of same *as fitted* Diameter of Propeller *as fitted* Pitch of Propeller *as fitted*  
Blades *State whether Moveable* Total Surface *as fitted* Diameter of Rotor Drum, H.P. *L.P.* astern  
Revs. per Minute at Full Power, Turbine *Propeller*

## PARTICULARS 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.
EXPANSION									
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Size of Feed pumps

Size of Bilge pumps

Size of Bilge suction in Engine Room

In Holds, &amp;c.

Bilge Injections *sizes* Connected to condenser, or to circulating pump *Is a separate Donkey Suction fitted in Engine Room & size*  
Bilge 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*  
Pipes sized 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*  
Pipes 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*  
Pipes are carried through the bunkers *How are they protected*  
Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times  
Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges  
Screw Shaft Tunnel watertight *Is it fitted with a watertight door* worked from

## BOILERS, &amp;c.—(Letter for record)

Manufacturers of Steel

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   
Each boiler be worked separately *Area of fire grate in each boiler* No. and Description of Safety Valves to   
Boiler *Area of each valve* Pressure to which they are adjusted *Are they fitted with easing gear*  
Least distance 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*  
Seams *Diameter of rivet holes in long. seams* Pitch of rivets *Lap of plates or width of butt straps*  
Strength of strength of longitudinal joint *Working pressure of shell by rules* Size of manhole in shell   
Compensating ring *No. and Description of Furnaces in each Boiler* Material *Outside diameter*  
Thickness of plates *Description of longitudinal joint* No. of strengthening rings   
Combustion chamber plates: *Material* Thickness: *Sides* Back *Top* Bottom   
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*  
Pitch of stays *How are stays secured* Working pressure by rules *Material of stays*  
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*  
Working pressures by rules *Girders to Chamber tops: Material* Depth and   
Length as per rule *Distance apart* Number and pitch of stays in each   
Steam dome: description of joint to shell *% of strength of joint* Diameter   
Description of longitudinal joint *Diameter of rivet holes* Pitch of rivets   
Crown plates: *Thickness* How stayed

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Tested by Hydraulic Pressure to  
Date of Approval of Plan  
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,  
Manufacturer.

1918: Feb 16 Mar 16 Apr 7 May 29 Jun 8 July 13 B. 27 Aug 24 Sep 10 Oct 2 12 Nov 15  
1919: Feb 12 Apr 5 May 7 July 16 Nov 6 Dec 4  
Dates of Survey while building  
During progress of work in shops --  
During erection on board vessel --  
Total No. of visits 22.  
Is the approved plan of main boiler forwarded herewith.

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 Identification Mark on Do.  
Material and tensile strength of Pinion shaft Nickel Steel 40 tons per sq in Identification Mark on Do. 2. 11. 16  
Material of Wheel shaft Identification Mark on Do. 1647 Material of Thrust shaft Identification Mark on Do. 164  
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.) No. 4 Case.  
The material of which the several parts has been manufactured has been tested according to the Rules and the dimensions are in accordance with the approved.  
The parts & case will be sent to the Workhouse Co. Manchester but it is not known for what purpose they are to be used.

The amount of Entry Fee ... £ : 10 3  
Special ... £ 9 : 10 3  
Donkey Boiler Fee ... £ :  
Travelling Expenses (if any) £ :  
When applied for, 3/11 1914  
When received, 12.1. 1915

J. P. Cornish  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned