

REPORT ON MACHINERY.

No. 2860

MON. 21 OCT. 1918

REC'D NEW YORK *Sept. 24-1918.*

Received at London Office

4a. *630*
 of writing Report *yes* When handed in at Local Office *yes* Port of *Philadelphia*
 in Survey held at *Trenton* Date, First Survey _____ Last Survey _____ 19____
 on the *Hull No 13 SS WESTERN MAID* (Number of Visits _____) Tons { Gross _____ Net _____
 Built at *Portland* By whom built *William H. I. S. Co Ltd* When built *1918*
 By whom made *De Laval Steam Turbine Co (No 27795)* when made *1918*
 Owners _____ Port belonging to _____
 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

TURBINE ENGINES, &c.—Description of Engines *De Laval Double Reduction Turbines* No. of Turbines *1*
 Diameter of Rotor Shaft Journals, H.P. *9* L.P. *6"* Diameter of Pinion Shaft *1st Red 7 7/8 : 2nd Red 9"*
 Diameter of Journals *1st 6 1/2 - 9"* Distance between Centres of Bearings *1st 32 1/2 : 2nd 37 1/2"* Diameter of Pitch Circle *1st Red 7.4 : 2nd 10.25"*
 Diameter of Wheel Shaft *1st 9 : 2nd 14 1/2"* Distance between Centres of Bearings *1st 35 : 2nd 77 1/2"* Diameter of Pitch Circle of Wheel *1st 55.6 : 2nd 52.75"*
 Diameter of Face *1st 18 : 2nd 45"* Diameter of Thrust Shaft under Collars _____ Diameter of Tunnel Shaft _____ as per rule _____ as fitted _____
 Diameter of Screw Shafts _____ Diameter of same _____ as per rule _____ as fitted _____ Diameter of Propeller _____ Pitch of Propeller _____
 State whether Moveable _____ Total Surface _____ Diameter of Rotor Drum, H.P. _____ L.P. _____ Astern _____
 Revs. per Minute at Full Power, Turbine *3596* Propeller *95*

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	<i>1.150</i>	<i>33.041</i>	<i>2</i>				<i>1.150</i>	<i>33.041</i>	<i>2</i>
"	<i>.787</i>	<i>39.256</i>	<i>1</i>				<i>.787</i>	<i>39.256</i>	<i>1</i>
"	<i>1.181</i>	<i>40.040</i>	<i>1</i>				<i>1.181</i>	<i>40.040</i>	<i>1</i>
"	<i>1.771</i>	<i>41.220</i>	<i>1</i>				<i>1.771</i>	<i>41.220</i>	<i>1</i>
"	<i>2.165</i>	<i>40.635</i>	<i>1</i>				<i>2.165</i>	<i>40.635</i>	<i>1</i>
"	<i>3.150</i>	<i>43.600</i>	<i>1</i>				<i>3.150</i>	<i>43.600</i>	<i>1</i>
"	<i>4.725</i>	<i>44.190</i>	<i>1</i>				<i>4.725</i>	<i>44.190</i>	<i>1</i>
"	<i>5.510</i>	<i>45.000</i>	<i>1</i>				<i>5.510</i>	<i>45.000</i>	<i>1</i>

and size of Feed pumps _____
 and size of Bilge pumps _____
 and size of Bilge suction in Engine Room _____
 In Holds, &c. _____
 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 _____
 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 _____
 Area of each valve _____ Pressure to which they are adjusted _____ Are they fitted with easing gear _____
 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 _____
 Working pressure of shell by rules _____ Size of manhole in shell _____
 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 _____
 How are stays secured _____ Working pressure by rules _____ Material of stays _____
 Material of Front plates at bottom _____
 Working pressure of plate by rules _____
 Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
 Girders to Chamber tops: Material _____ Depth and _____
 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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W296-0156

SUPERHEATER. Ty. e

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,

De Laival Steam Turbine Co. Manufacturer.

A. Peterson, Asst Chief Engineer.

1918

Dates of Survey while building: During progress of work in shops -- Feb 25, Mar 7, April 2, 11, 24, May 8, 16, 23; During erection on board vessel ---

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts: Casings 11.4.18, Rotor 3.4.18, Blading 24.4.18, Gearing 8.5.18

Rotor shaft 16.5.18, 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: O.H. Steel 96800 lbs, Identification Mark on Do. A.T.T.

Material and tensile strength of Pinion shaft: Chrome Nickel Steel 110,000 lbs, Identification Mark on Do. A.T.T.

Material of Wheel shaft: Steel, Identification Mark on Do. A.T.T., 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, If so, state name of vessel

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

The machinery has been built under Special Survey; the material and workmanship being good. It has been forwarded to Oakland for fitting aboard.

Certificates (if any) to be sent to Committee's Minute.

The amount of Entry Fee ... \$ 15 : 00 ; Due Oakland Special ... \$ 140 : 50 ; Due Philadelphia Donkey Boiler Fee ... \$ 70 : 00 ; Travelling Expenses (if any) ... \$ 6 : 00

When applied for, 1919; When received, 3/10/19

A. T. Thomas, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York OCT 1 - 1918

Assigned See P.O. Rpt. No. 528

Rpt. 13.

Port of

No. in Reg. Book

Owners U.S.

Yard No.

DESCRIPTION

Capacity of Dy

Where is Dyna

Position of Ma

Positions of au

After D

If fuses are fi

circuits

If vessel is wir

Are the fuses o

Are all fuses fi

are perman

Are all switches

Total number of

A

B

C

D

E

1 Mast h

2 St

80

If arc lights, wha

Where are the su

DESCRIPTION O

Main cable carryin

Branch cables car

Branch cables car

Leads to lamps car

Cargo light cables ca

DESCRIPTION O

Nation

Joints in cables, hon

Compos

Are all the joints of

positions, none

Are there any joints

How are the cables



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