

4a.

REPORT ON MACHINERY

N.Y. No. 14118

REC'D NEW YORK

1917

When handed in at Local Office

Jan. 24, 1918

Received at London Office

SAT. 23 FEB. 1918

Survey held at Schenectady N.Y.Port of NEW YORK, N.Y.on the UNION IRON NO 143.Date, First Survey May 5th

Last Survey

19

(Number of Visits)

Tons GrossNet

When built

when made

when made

Port belonging to

Is Electric Light fitted

Description of Engines GEARED TURBINE (TURBINE 12407 GEAR 2542)No. of Turbines ONE

Diameter of Rotor Shaft Journals, H.P.

L.P.

Diameter of Pinion Shaft

Diameter of Journals H.S. PINION 4" H.S. GEAR 10"Distance between Centres of Bearings H.S. PINION 25" H.S. GEAR 38"Diameter of Pitch Circle H.S. PINION 4" 833 H.S. GEAR 54" 666Diameter of Wheel Shaft 14"Distance between Centres of Bearings H.S. PINION 54 1/2"Diameter of Pitch Circle of Wheel H.S. PINION 10" 75 H.S. WHEEL 54 1/2"

Diameter of Thrust Shaft under Collars

Diameter of Tunnel Shaft

Diameter of same

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 33 1/4Propeller 90

PARTICULARS OF BLADING.

	ACTIVE.				L. P.				ASTERN.		
	HEIGHT OF BLADES.	H. P. 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	75-125	2'-11 1/2"	2						8125-15	3'-3"	2
"	625	3'-9"	1						3375	3'-3"	1
"	125	3'-10 1/2"	1								
"	25	4'-0"	1								
"	6	4'-2"	1								

and size of Feed pumps

and size of Bilge pumps

and size of Bilge suction in Engine Room

In Holds, &c.

of Bilge Injections

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

What 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

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

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each Boiler

Material

Outside diameter

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

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

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

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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,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - May 5-10-15-23-31
During erection on board vessel - - -
Total No. of visits

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

STEEL 80,000 LBS. 1" MIN.

Identification Mark on Do.

T.G.D.

Material and tensile strength of Pinion shaft

" 100,000 " "

Identification Mark on Do.

T.G.D.

Material of Wheel shaft

STEEL

Identification Mark on Do.

T.G.D.

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.)

These engines have been constructed under special survey in accordance with the approved plans. The materials and workmanship are sound and good. The engines have been forwarded to San Francisco to be fitted on board.

The amount of Entry Fee ... £

1/3

When applied for,

Special

£

19

Donkey Boiler Fee ... £

£

When received,

Travelling Expenses (if any) ... £

£

24/1/18

N.Y. \$20.00

Included in S To Rpt. 2641.

Committee's Minute

New York JAN 29 1918

Assigned

See other report



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