

REPORT ON MACHINERY.

No. 549

REC'D NEW YORK Jan. 23, 1918

Received at London Office

10 When handed in at Local Office

10 Port of NEW YORK N.Y.

Built at SCHENECTADY N.Y.

Date, First Survey

Last Survey Feb 26 1918

Screw Steamer "WEST ARROW". Builders Ford No. 12

(Number of Visits)

Tons { Gross 5852
Net 4436

Built at Seattle

By whom built Skinner & Eddy Corporation

When built 1918

SCHENECTADY N.Y.

By whom made

GENERAL ELECTRIC CO.

when made 1918

Seattle

By whom made

Commercial Boiler Works

when made

Power

Owners U.S. Shipping Board Emergency Fleet Corp.

Port belonging to Seattle

at Full Power 2500

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted yes

GINES, &c.—Description of Engines

GEARED TURBINE (TURBINE 12486)

No. of Turbines ONE

H.P. 8

L.P. 4

Diameter of Pinion Shaft 4"

H.S. PINION 7"

Distance between Centres of Bearings

H.S. PINION 7.833"

Diameter of Pitch Circle

H.S. PINION 7.833"

GEAR 10"

Distance between Centres of Bearings

H.S. PINION 7.833"

Diameter of Pitch Circle of Wheel

H.S. PINION 7.833"

14"

Distance between Centres of Bearings

H.S. PINION 7.833"

Diameter of Pitch Circle of Wheel

H.S. PINION 7.833"

35"

Diameter of Thrust Shaft under Collars

Diameter of Tunnel Shaft as per rule

Diameter of same as per rule

Diameter of Propeller

Pitch of Propeller

State whether Moveable

Total Surface

Diameter of Rotor Drum, H.P.

L.P. Astern

Groove, H.P.

L.P.

Astern

Revs. per Minute at Full Power, Turbine 2344 6

Propeller 90

OF BLADING.

| H. P. | | | L. P. | | | ASTERN. | | |
|--------------------------|-------------------------|--------------|-------------------|-------------------------|--------------|--------------------------|-------------------------|--------------|
| ACTIVE HEIGHT OF BLADES. | PITCH. DIAMETER AT TIP. | NO. OF ROWS. | HEIGHT OF BLADES. | PITCH. DIAMETER AT TIP. | NO. OF ROWS. | ACTIVE HEIGHT OF BLADES. | PITCH. DIAMETER AT TIP. | NO. OF ROWS. |
| 5-125 | 2'-11 1/2" | 2 | | | | 8-125-1.5 | 3'-3" | 2 |
| 6-25 | 3'-9" | 1 | | | | 3-278 | 3'-3" | 1 |
| 1-25 | 3'-10 1/2" | 1 | | | | | | |
| 2-5 | 4'-0" | 1 | | | | | | |
| 6 | 4'-2" | 1 | | | | | | |

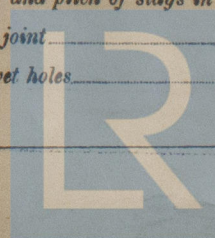
10 mps
mps
y drilled and no
ions in Engine Room

In Holds, &c.

ached, 40 sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size
and material req
ising Inspectors, sea direct on the skin of the ship Are the roses in Engine room always accessible
igh on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line
0 pound Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
ough the bunkers How are they protected
es, and Pumps in connection with the machinery and all boiler mountings accessible at all times
Arrow s, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges
watertight Is it fitted with a watertight door worked from

Letter for record) Manufacturers of Steel
e of Boilers Is Forced Draft fitted No. and Description of Boilers
Tested by hydraulic pressure to Date of test No. of Certificate
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
ilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
Age 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
ongitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
plates

No. and Description of Furnaces in each Boiler Material Outside diameter
crown
Thickness of plates Description of longitudinal joint No. of strengthening rings
bottom
e by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
s 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
ness Pitch of stays How are stays secured Working pressure by rules Material of stays
Jowle Area supported by each stay Working pressure by rules Material of Front plates at bottom
to Lloyd's Register 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
aces Working pressures by rules Girders to Chamber tops: Material Depth and
e Length as per rule Distance apart Number and pitch of stays in each
s Steam dome: description of joint to shell % of strength of joint Diameter
Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets
by rules Crown plates: Thickness How stayed

Lloyd's Register
Foundation

48-0216

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,

General Electric Co.
per S.A. Berg.

Manufacturer.

Dates of Survey while building
During progress of work in shops
During erection on board vessel
Total No. of visits

Nov. 7. 23. 27. DEC. 6. 18. 21. 31. JAN. 1918. 2. 4.

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

STEEL 80,000 LBS MINIMUM

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 Seattle (Wash.) to be fitted on board.

The amount of Entry Fee ... £

Special

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

19

When received,

19

Committee's Minute New York APR 16 1918

Assigned

See other report

13.

REPORT OF

of Seattle Wash

on the Steel Se

ENTRY Built at Seat

US Shipping Board Con

No. 12 Electric Lig

DESCRIPTION OF DYNAMO, ENG

15 KW-125 Volts.

Single cylinder

ity of Dynamo 125

is Dynamo fixed Engin

on of Main Switch Board

ons of auxiliary switch boards

age of forward deck

in Passage way of

safe way in fore part

es are fitted on main switch bo

circuits yes and at each

sel is wired on the double wire s

he fuses of non-oxidizable metal

ll fuses fitted in easily accessible

re permanent instructions fitted o

ll switches and fuses constructed o

number of lights provided for

37

lights ea

33

lights ea

65

lights ea

27

lights ea

19

lights ea

Must head light with 1 la

Side light with 1 la

8 Cargo lights of

lights, what protection is provided

are the switches controlling the m

PTION OF CABLES.

ble carrying 176 Amperes,

cables carrying 50 Amperes,

cables carrying 30 Amperes,

lamps carrying 2.56 Amperes,

ght cables carrying 4.11 Amperes,

PTION OF INSULATION, PRO

National & E

n cables, how made, insulated, and pr

inted with P & B

the joints of cables thoroughly solder

itions, none being made in bunkers,

re any joints in or branches from th

re the cables led through the ship, an



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