

REPORT ON STEAM TURBINE MACHINERY.

No. 3689

pt. 4a.

Date of writing Report Dec. 29, 1941 When handed in at Local Office 10 Port of Boston, Massachusetts

No. in Survey held at Lynn, Mass. Date, First Survey June 30, 1941 Last Survey Dec. 5, 1941

Reg. Book. on the Hull Nos. 1488-89-90-91 5/5 "Sinclair H.C." (Number of Visits 5)

Built at Quincy, Mass. By whom built Bethlehem Steel Co. Yard No. 1488-89 When built 1941

Engines made at Lynn, Mass. By whom made General Electric Co. Engine No. 48058 When made 1941

Boilers made at By whom made Boiler No. When made

Shaft Horse Power at Full Power Owners Port belonging to

Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes

Trade for which Vessel is intended

STEAM TURBINE ENGINES, &c.—Description of Engines One turbine connected to 200 KW generator thru single reduction gears

No. of Turbines One each set Generators No. of primary pinions to each set of reduction gearing One

Direct coupled to Direct Current Generator rated 200 Kilowatts 240 Volts at 1200 revolutions per minute;

Propelling Motors, Type Auxiliary Machinery and Electric lighting

Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

Table with columns for H.P., I.P., L.P., and ASTERN. Rows include HEIGHT OF BLADES, DIAMETER AT TIP, NO. OF ROWS, etc.

Shaft Horse Power at each turbine H.P. 5614 1st reduction wheel

I.P. 1200 main shaft

L.P. 3" Pitch Circle Diameter

1st pinion 4.6" 1st reduction wheel

2nd pinion main wheel 21.7" Width of Face

1st pinion 5-1/2" & 5-1/2" 1st reduction wheel

2nd pinion main wheel 5-1/2" & 5-1/2"

Pinion Shafts, diameter at bearings 1st 2-1" x 3-1" diameter at bottom of pinion teeth 1st 4.356"

2nd 2 Generator Shaft, diameter at bearings 3"

Wheel Shafts, diameter at bearings 1st 2.5" diameter outside of gear main Propelling Motor Shaft, diameter at bearings

Intermediate Shafts, diameter as per rule Thrust Shaft, diameter at collars as per rule

as fitted Screw Shaft, diameter as per rule Is the tube shaft fitted with a continuous liner

as fitted Thickness between bushes as per rule Is the after end of the liner made watertight in the

propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

as two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube

ft If so, state type Length of Bearing in Stern Bush next to and supporting propeller

propeller, diameter Pitch No. of Blades State whether Moveable Total Developed Surface square feet.

Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine Can the H.P. or I.P. Turbine exhaust direct to the

condenser. No. of Turbines fitted with astern wheels Feed Pumps No. and size

How driven

Pumps connected to the Main Bilge Line No. and size

How driven

Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

pumps, No. and size:—In Engine and Boiler Room In Pump Room

Holds, &c.

in Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room

ges, No. and size Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

ng. they sized sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Overboard Discharges above or below the deep water line

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

at pipes pass through the bunkers How are they protected

at pipes pass through the deep tanks Have they been tested as per rule

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one

partment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

11  
BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers

Is Forced Draft fitted No. and Description of Boilers Working Pressure

Is a Report on Main Boilers now forwarded?

Is { a Donkey } Boiler fitted? If so, is a report now forwarded?  
{ an Auxiliary }

Is the donkey boiler intended to be used for domestic purposes only

Plans. Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers  
(If not state date of approval)

Superheaters General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied.

State the principal additional spare gear supplied (2) L.S. Bearings (2) Pinion Bearings (2) Thrust Bearings  
(8) H.S. Coupling bolts (8) Drake Locknuts for H.S. Coupling bolts (5) 3/4" Bolts for Hor. Casing  
Joint (2) 3/4" bolts for Hor. Casing Joint.

PER SHIP

The foregoing is a correct description,

General Electric Co. J. T. Nolan Manufacturer.

Dates of Survey while building { During progress of work in shops -- June 30, August 20, Oct. 10, Nov. 25, Dec. 5, 1941  
During erection on board vessel ---  
Total No. of visits 5 visits

Dates of Examination of principal parts—Casings Dec. 5, 1941 Rotors Dec. 5, 1941 Blading Dec. 5, 1941 Gearing Dec. 5, 1941

Wheel shaft Dec. 5, 1941 Thrust shaft Intermediate shafts Tube shaft Screw shaft

Propeller Stern tube Engine and boiler seatings Engine holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers

Rotor shaft, Material and tensile strength O.H. Steel 138,500 lbs. per sq. in. Identification Mark 542 5-12-41

Flexible Pinion Shaft, Material and tensile strength Identification Mark

Pinion shaft, Material and tensile strength O.H. Steel 102,000 lbs. per sq. in. Identification Mark 542 5-12-41

1st Reduction Wheel Shaft, Material and tensile strength Identification Mark

Wheel shaft, Material O.H. Steel Identification Mark 542 5-12-41 Thrust shaft, Material Identification Mark

Intermediate shafts, Material Identification Marks Tube shaft, Material Identification Marks

Screw shaft, Material Identification Marks Steam Pipes, Material Test pressure

Date of test 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 the Rules for the use of oil as fuel been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with

If the notation for ice strengthening is desired, state whether the requirements in this respect have 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 geared turbine electric generator has been built under special survey, tested under steam at full load and the oil governors adjusted to trip at 1340 R.P.M. The quality of workmanship and materials is good. The units have been forwarded to Bethlehem Steel Company, Fore River Yard, Quincy, Mass.

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

The amount of Entry Fee	£	:	:	When applied for,
Special	£	\$ 75.00	:	29-12-1941
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	2.50	:	19

Phonics Barrie  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK JAN 28 1942

Assigned See N.Y.K. RPT. NO. 42056

