

REPORT ON STEAM TURBINE MACHINERY. No. 3688

Date of writing Report Dec. 29, 1941 When handed in at Local Office 19 Port of Boston, Massachusetts Received at London Office 25 APR 1942No. in Survey held at Lynn, Mass. Date, First Survey June 24, 1941 Last Survey Dec. 5, 1941
Reg. Book. on the Hull Nos. 1488-89-90-91 5/5" Sinclair H.C. (Number of Visits 4)Built at Quincy, Mass. By whom built Bethlehem Steel Co. Yard No. 1488-89-90-91 When built 1941
Engines made at Lynn, Mass. By whom made General Electric Engine No. 48057 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 _____TEAM TURBINE ENGINES, &c.—Description of Engines One turbine connected to 200 K.W. Generator thru
one each Generators single reduction gears.
No. of Turbines set single reduction geared to propelling shafts. No. of primary pinions to each set of reduction gearing OneDirect coupled to Direct Current Generator rated 200 Kilowatts. 240 Volts at 1200 revolutions per minute;
or supplying power for driving _____ Propelling Motors, Type Auxiliary Machinery and Electric lighting
rated _____ Kilowatts _____ Volts at _____ revolutions per minute. Direct coupled, single or double reduction geared to _____ propelling shafts.

Turbine _____ H.P. _____ I.P. _____ L.P. _____ ASTERN. _____

LOADING _____ 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. _____ HEIGHT OF BLADES. _____ DIAMETER AT TIP. _____ NO. OF ROWS. _____

ST Impulse 500" .960" 25.5" 25.96" 2
ND 504" 1.025" 25.56" 26.18" 2
RD 873" 1.045" 25.9" 26.6" 2
TH _____
TH _____
TH _____
TH _____
TH _____
TH _____
TH _____
TH _____Shaft Horse Power at each turbine { H.P. _____ I.P. _____ L.P. _____ }
Revolutions per minute, at full power, of each Turbine Shaft { H.P. 5614 1st reduction wheel _____ I.P. _____ L.P. 1200 main shaft _____ }Motor Shaft diameter at journals { H.P. 3" Pitch Circle { 1st pinion 4.6" 1st reduction wheel _____ I.P. _____ Diameter { 2nd pinion _____ main wheel 21.7" Width of Face { 1st reduction wheel _____ main wheel _____ } L.P. _____ }Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 5-1/2" & 5-1/2" 1st reduction wheel _____ 2nd pinion _____ main wheel 5-1/2" & 5-1/2" }Flexible Pinion Shafts, diameter { 1st _____ 2nd _____ } Pinion Shafts, diameter at bearings { 2-1" & 3-1/2" 1st _____ 2nd _____ } diameter at bottom of pinion teeth { 1st 4.356" 2nd _____ }Wheel Shafts, diameter at bearings { 1st 2.5" diameter outside of gear { 1st 21.88" Generator Shaft, diameter at bearings 3" } main _____ Propelling Motor Shaft, diameter at bearings _____ }

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

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

Bronze Liners, thickness in way of bushes as per rule _____ as fitted _____ Thickness between bushes as per rule _____ as fitted _____ Is the after end of the liner made watertight in the _____

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 _____

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 _____

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 _____

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 _____

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 _____

worked from _____

worked from _____

worked from _____

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
 Joint (2) 3/4" bolts for Hor. Casing Joint.

PER SHIP

The foregoing is a correct description,

General Electric Co. / J.T. Golan

Dates of Survey while building { During progress of work in shops - - June 24, Aug. 20, Oct. 10, and Dec. 5, 1941
 { During erection on board vessel - - -
 Total No. of visits 4 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 102,000 lbs. per sq. in. Identification Mark 541 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 541 5-12-41

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

Wheel shaft, Material O.H. Steel Identification Mark 541 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.

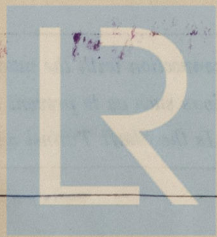
The amount of Entry Fee	£	:	:	When applied for,
Special	£	\$ 75.00	:	29-12-1941
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	2.50	:	19

Committee's Minute NEW YORK JAN 28 1942

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

Thomas Baril

Engineer Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register Foundation