

REPORT ON/STEAM TURBINE MACHINERY. No. 3644

Received at London Office MAY 1942

Survey Report July 8, 1941 When handed in at Local Office ... Port of Boston, Massachusetts ... Survey held at Lynn, Mass. Date, First Survey Feb. 7, 1940 Last Survey Dec. 14, 1940 ... Hull Nos. 4353, 4354, 4355 and 4356 ... By whom built Bethlehem Steel Company ... By whom made General Electric Company ...

TURBINE ENGINES, &c.—Description of Engines One turbine connected to 300-K.W. Generator thru single reduction gears.

Direct coupled, single reduction geared } to Generators propelling shafts. No. of primary pinions to each set of reduction gearing One ... Alternating Current Generator ... phase ... periods per second } rated 300 Kilowatts 240 Volts at 1200 revolutions per minute; ... Propelling Motors, Type Auxiliary Machinery and Electric Lighting.

Table with columns: H.P., I.P., L.P., ASTERN. Sub-columns: HEIGHT OF BLADES, DIAMETER AT TIP, NO. OF ROWS. Includes data for H.P. and I.P. sections.

Revolutions per minute, at full power, of each Turbine Shaft } H.P. 5636 1st reduction wheel ... Pitch Circle Diameter } 1st pinion 5.4414 1st reduction wheel ... 2nd pinion main wheel 25.5585" ... Width of Face } 1st reduction wheel ... main wheel 7-1/2"

Pinion Shafts, diameter at bearings } External SOLID 1st } 4" 2nd } diameter at bottom of pinion teeth } 1st 5.0664" ... 2nd

Generator Shaft, diameter at bearings 3-1/2" ... Propelling Motor Shaft, diameter at bearings ... Thrust Shaft, diameter at collars ... Tube Shaft, diameter ...

Is the (tube } shaft fitted with a continuous liner } ... Bronze Liners, thickness in way of bushes ...

Length of Bearing in Stern Bush next to and supporting propeller ... Is an approved Oil Gland ...

Can the H.P. or L.P. Turbine exhaust direct to the ...

Feed Pumps } No. and size ... How driven ...

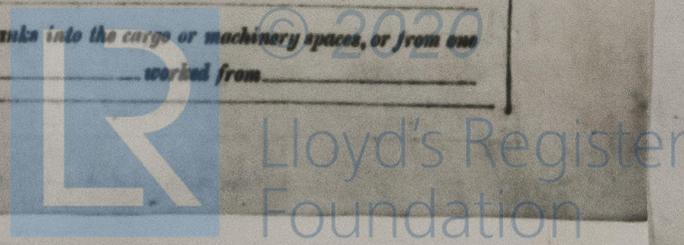
Lubricating Oil Pumps, including Spare Pump, No. and size ... Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge ...

Independent Power Pump Direct Suctions to the Engine Room ... Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes ...

Are they fitted with Valves or Cocks ... Are the Overboard Discharges above or below the deep water line ...

Are the Blow Off Cocks fitted with a spigot and brass covering plate ... How are they protected ...

Have they been tested as per rule ... Is the Shaft Tunnel watertight ... Is it fitted with a watertight door ...



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 }

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. State the articles supplied:— Two gear and two pinion bearings, one thrust bearing, fourteen coupling bolts, six turbine casing bolts, one turbine bearing.

FEB 11 1941

The foregoing is a correct description,

General Elec Co per J. T. Golau - Manufacturer

Dates of Survey while building { During progress of work in shops - - } Feb. 7, March 13, April 23, 29, June 13, August 5, Dec. 14, 1940
 { During erection on board vessel - - - }
 Total No. of visits Seven

Dates of Examination of principal parts—Casings Dec. 14, 1940 Rotor Dec. 14, 1940 Blading Dec. 14, 1940 Gearing Dec. 14, 1940

Wheel shaft Dec. 14, 1940 Thrust shaft _____ Intermediate shafts _____ Tube shaft _____ Screw shaft _____

Propeller _____ Stern tube _____ Engine and boiler seatings _____ Engine holding down bolts _____

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 105,000 lbs. per sq. in. Identification Mark 365 14-12-40 T.B.

Flexible Pinion Shaft, Material and tensile strength _____ Identification Mark _____

Pinion shaft, Material and tensile strength O.H. Steel 105,000 lbs. per sq. in. Identification Mark 368 14-12-40 T.B.

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

Wheel shaft, Material O.H. Steel Identification Mark 368 14-12-40 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 _____

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 RPM. The quality of workmanship and materials is good. The units have been forwarded to Bethlehem Steel Company, Sparrows Point, Md.

The amount of Entry Fee	When applied for
Special ... £ 75.00	8-7 19 41
Donkey Boiler Fee ... £	When received.
Travelling Expenses (if any) £ 2.50	19

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

Committee's Minute NEW YORK 30 1941

Assigned See BAL. RPT. 7585.



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