

Aux

REPORT ON STEAM TURBINE MACHINERY. No. 8128

pt. 4a.

Date of writing Report Sept 20 1941 When handed in at Local Office 20 Sept 1941 Port of Philadelphia Received at London Office 4 APR 1942
No. in Survey held at Trenton N.J. Date, First Survey 9 July Last Survey 6 Aug 1941
Reg. Book. on the hull 192
Built at Kearny NJ By whom built Federal SB Co Yard No. 192 When built
Engines made at Trenton NJ By whom made De Laval Steam Turbine Engine No. 231373 When made 1941
Boilers made at By whom made Boiler No. When made
Shaft Horse Power at Full Power Owners Inclair Refining Co 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 Steam Turbine

No. of Turbines 1 Ahead 1 Direct coupled single reduction geared to 1 generator No. of primary pinions to each set of reduction gearing 1
Direct coupled to Alternating Current Generator phase periods per second rated 250 Kilowatts 240 Volts at 1200 revolutions per minute;
for supplying power for driving Propelling Motors, Type
rated Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

Table with columns: TURBINE LADING, H.P., I.P., L.P., ASTERN. Rows: 1ST EXPANSION, 2ND, 3RD, 4TH, 5TH, 6TH, 7TH, 8TH, 9TH, 10TH, 11TH, 12TH. Columns include HEIGHT OF BLADES, DIAMETER AT TIP, NO. OF ROWS.

Shaft Horse Power at turbine H.P. 367 Revolutions per minute, at full power, of each Turbine Shaft H.P. 5600 1st reduction wheel main shaft 1200

Rotor Shaft diameter at journals H.P. 3" Pitch Circle Diameter 1st pinion 4.890" 1st reduction wheel 23.000 Width of Face 1st reduction wheel 6 1/2" main wheel

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st pinion 6 1/8" 1st reduction wheel 7" main wheel

Flexible Pinion Shafts, diameter 1st Pinion Shafts, diameter at bearings External 1st 2 1/2" 2nd diameter at bottom of pinion teeth 1st 4.658" 2nd

Wheel Shafts, diameter at bearings 1st 4 1/2" diameter at wheel shroud, 1st 6 1/2" Generator Shaft, diameter at bearings 3" Propelling Motor Shaft, diameter at bearings

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

Screw Shaft, diameter as per rule Is the tube screw shaft fitted with a continuous liner Bronze Liners, thickness in way of bushes as per rule 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

If 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 If 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 shaft 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. If 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

Are 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

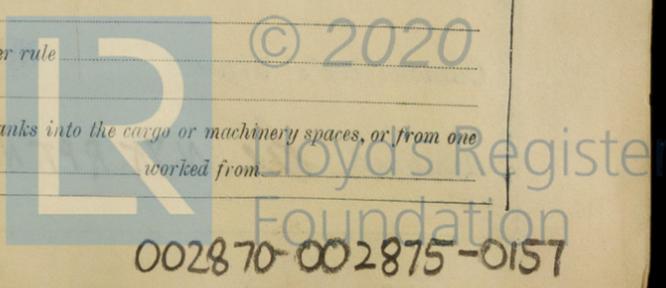
In Holds, &c. Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are 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

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold plates Are the Overboard Discharges 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 pass through the bunkers How are they protected

What pipes pass through the deep tanks Have they been tested as per rule Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Is 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 compartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from



002870-002875-0157

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:— 1 thermometer, 2 springs, 2 springs for governor, 2 sets Coupling bolts, 1 set oil pump gear, 1 set carbon rings, thrust rings, shoes, 1 set of hubline, pinion & gear bearings, 4 studs for turbine casing joint & gear case joints, 1 set special wrenches.

The foregoing is a correct description,

W. Lavel Steam Turbine Co
 Southwell, Manufacturer

Dates of Survey while building { During progress of work in shops -- } 9 July 6 Aug 1941
 { During erection on board vessel --- }
 Total No. of visits _____

Dates of Examination of principal parts—Casings 6 Aug Rotors 6 Aug Blading 6 Aug Gearing 6 Aug
 Wheel shaft 6 Aug 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 95000 lb Identification Mark 5937 JKH
 Flexible Pinion Shaft, Material and tensile strength _____ Identification Mark _____
 Pinion shaft, Material and tensile strength O H Steel 107500 lbs Identification Mark 5935 JKH
 1st Reduction Wheel Shaft, Material and tensile strength _____ Identification Mark _____
 Wheel shaft, Material O H Steel Identification Mark 5936 JKH 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.) This generating set has been constructed under special survey & in accordance with the approved plans, the workmanship & materials are good. It has been tested in the shop under full load, over load & over speed & all found satisfactory. The unit has been shipped to the Federal Ship Co. Ready for installation on board the vessel.

Certificate (if required) to be sent to _____

The amount of Entry Fee ... \$75 00 : When applied for, 22nd Sept. 1941
 Special ... :
 Donkey Boiler Fee ... \$7 10 :
 Travelling Expenses (if any) £ : : When received, 19__

W. W. Rumbold
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK FEB 25 1942

Assigned See N.Y.K. RPT. NO. 42143.

