

REPORT ON STEAM TURBINE MACHINERY.

No. 920
(Also C-2201)

pt. 4a.

Date of writing Report Nov. 19th 38 When handed in at Local Office 19 Port of Cleveland, Ohio.
No. in Survey held at Milwaukee, Wis. Date, First Survey Feb. 21st, Last Survey July 29th, 1938
Reg. Book. S/S "CONNECTICUT" (Number of Visits 6)
on the Tons Gross Net
Built at Sparrows Point, Md. By whom built Bethlehem S.B. Corp. Yard No. 4327 When built 1938
Engines made at By whom made Engine No. When made
Boilers made at By whom made Boiler No. When made
Shaft Horse Power at Full Power 5000 Owners The Texas Company Port belonging to New York
Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which Vessel is intended

TEAM TURBINE ENGINES, &c.—Description of Engines Two Pinion Double Reduction Gears

No. of Turbines Ahead Direct coupled, single reduction geared to propelling shafts. No. of primary pinions to each set of reduction gearing
Astern double reduction geared
direct coupled to Alternating Current Generator phase periods per second rated Kilowatts Volts at 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.

TURBINE LADING.	H.P.			I.P.			L.P.			ASTERN.		
	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.
1ST EXPANSION												
2ND												
3RD												
4TH												
5TH												
6TH												
7TH												
8TH												
9TH												
10TH												
11TH												
12TH												

Shaft Horse Power at each turbine H.P. = I.P. = L.P. =
Revolutions per minute, at full power, of each Turbine Shaft H.P. = I.P. = L.P. =
Rotor Shaft diameter at journals H.P. = I.P. = L.P. =
Pitch Circle Diameter 1st pinion 14.666 L.P. 1st reduction wheel 53.500 L.P. 1st reduction wheel 19"
2nd pinion 16.6 H.P. main wheel 139.0" Face main wheel 32"
10.6 L.P. 1st pinion 10.4 H.P. 1st reduction wheel 10 1/4" 13 1/4"
2nd pinion 17.4 H.P. 21 1/2" main wheel 17" 24"
Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st 8.418 H.P. 1st reduction wheel 14.250 L.P. 1st reduction wheel 16.1 H.P.
2nd 7.4 H.P. 2nd reduction wheel 16.1 H.P.
Flexible Pinion Shafts, diameter 1st 8x6 Bag 1st 53.084 L.P. 1st 58.250 H.P.
2nd 7x4 Bag 2nd 53.084 L.P. 2nd 58.250 H.P.
Wheel Shafts, diameter at bearings 1st 8x6 Bag 1st 53.084 L.P. 1st 58.250 H.P.
main 17x4 Bag 2nd 53.084 L.P. 2nd 58.250 H.P.
Intermediate Shafts, diameter as per rule as fitted as per rule as fitted as per rule as fitted
Tube Shaft, diameter as per rule as fitted as per rule as fitted as per rule as fitted
Screw Shaft, diameter as per rule as fitted as per rule as fitted as per rule as fitted
Bronze Liners, thickness in way of bushes as per rule as fitted as per rule as fitted as per rule as fitted
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 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.
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 Pump Room
In Holds, &c. Independent Power Pump Direct Suctions to the Engine Room
Main Water Circulating Pump Direct Bilge Suctions, No. and size
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 stokehold 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

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? -
{ an Auxiliary }

If so, is a report now forwarded? -

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

Plans. Are approved plans forwarded herewith for Shafting -
(If not state date of approval)

Main Boilers -

Auxiliary Boilers -

Donkey Boilers -

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 -

The foregoing is a correct description,

Manufactured

Dates of Survey while building { During progress of work in shops - - Feb. 21st; March 15th; May 10th; July 6th, 25th, 29th, 1938.
During erection on board vessel - - -
Total No. of visits 6

Dates of Examination of principal parts—Casings - Rotors - Blading - Gearing Feb. 21st to July 29, 1938

Wheel shaft - 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 fired - Engines tried under steam -

Main boiler safety valves adjusted - Thickness of adjusting washers -

Rotor shaft, Material and tensile strength - Identification Mark -

Flexible Pinion Shaft, Material and tensile strength *Chas. N. M. May 925.00 @ 26.5%* Identification Mark *5099 R 25-7-38*

Pinion shaft, Material and tensile strength *Chas. N. M. May 90.000 1/2" (min)* Identification Mark *5103 R 25-7-38*

1st Reduction Wheel Shaft, Material and tensile strength *Off 1/2" C. M. Steel 75.500.00* Identification Mark *5053 R 25-7-38*

Wheel shaft, Material *Off Steel* Identification Mark *R 5052 25-7-38* Thrust shaft, Material *Off Steel* Identification Mark *R 5052 25-7-38*

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.)

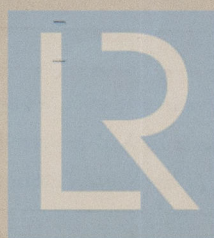
The Double Reduction Main Turbine Gears manufactured by the Falk Corporation, Milwaukee, Wis., for installation in this vessel, were examined during construction, also on shop tests, and these were found satisfactory, in accordance with the Society's Rules and approved plans. The workmanship and materials are good.

The amount of Entry Fee ... £ : :
Special ... £ 300.00 : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 119.00 : :
When applied for, 8/22/1938
When received, 9/14/1938

E. Drummond
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned See Bal. Rpt. 6673



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