

Report on Steam Turbine Machinery.

No. 129751

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19 When handed in at Local Office 19 Port of
 Date, First Survey Last Survey
 in Survey held at *Birkenhead*
 Book *6/s Trochiscus ex "Fort Matanzas" T 2 TYPE.*
 on the *Portland Ore.*
 By whom built *Kaiser Co. Inc.* Yard No. *79* When built *8/1944*
 By whom made *G.E.C.* Engine No. *8/1944*
 By whom made *Combustion Engine Co.* Boiler No. *8/1944*
 Owners *Anglo Saxon Petroleum Co* Port belonging to *London*
 Shaft Horse Power at Full Power *6000/6600* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*
 Horse Power as per Rule *1425*
 Trade for which Vessel is intended

STEAM TURBINE ENGINES, &c.—Description of Engines *Steam turbine connected to electric motor & screw shaft*

Ahead *One* Direct coupled, single reduction geared to propelling shafts. No. of primary pinions to each set of reduction gearing
 of Turbines *One* Alternating Current Generator phase *60/62* periods per second rated *5400* Kilowatts *2370* Volts at *3715* revolutions per minute;
 Direct Current Generator
 supplying power for driving *One* Propelling Motor, Type *A.C. Synchronous*
 rated *6000/6600* SHP *2300/2370* Volts at *90/93* revolutions per minute. Direct coupled, single or double reduction geared to *one* propelling shafts.
1160 amps

TURBINE	H. P.	I. P.	L. P.	ASTERN.
LOADING.				
No. of rows				
No. of stages				
No. of rows in each stage				

Shaft Horse Power at each turbine
 H.P. *6000/6600* I.P. *3715/3600* L.P. *90/93*
 Revolutions per minute, at full power, of each Turbine Shaft

Motor Shaft diameter at journals
 H.P. *10"* I.P. *5"* L.P. *5"*
 Pitch Circle Diameter

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings
 1st pinion *✓* 1st reduction wheel *✓* 2nd pinion *✓* main wheel *✓*

Pinion Shafts, diameter at bearings
 External 1st *✓* 2nd *✓* Internal 1st *✓* 2nd *✓*
 diameter at bottom of pinion teeth

Generator Shaft, diameter at bearings *5.5"*
 Propelling Motor Shaft, diameter at bearings *17 1/4"*
 Thrust Shaft, diameter at collars *17 1/2"* (at collar)

Screw Shaft, diameter *18.185"* as per rule *18.625"* as fitted
 Is the tube screw shaft fitted with a continuous liner *Yes*

Thickness between bushes *0.858* as per rule *1.125* as fitted
 Is the after end of the liner made watertight in the

propeller boss *Yes* 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 *No*

propeller, diameter *19' 6"* Pitch *17' 6"* No. of Bades *4* State whether Moveable *No* Total Developed Surface *138' 3"* 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. Turbines exhaust direct to the

condenser *✓* No. of Turbines fitted with astern wheels *✓* Feed Pumps *2* No. and size *2 1 1/2 m. 6*
 How driven *45 Turbine 115 HP.*

Bilge Pumps, No. and size *2 300 B/m (Hand Pump)* Lubricating Oil Pumps, including Spare Pump, No. and size *2 1150 B/m*
 Are two independent means arranged for circulating water through the Oil Cooler *Yes* Suctions, connected both to Main Bilge Pumps and Auxiliary

Bilge Pumps, No. and size: In Engine and Boiler Room *3 1/2 m. 40 B/m, 3 1/2 m. 40 B/m, 3 1/2 m. 40 B/m* In Pump Room *2 1/2 m. 40 B/m*
 In Holds, &c. *particulars see drawing in Head Office records*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *1 @ 18"* Independent Power Pump Direct Suctions to the Engine Room
 Bilges, No. and size *2 @ 4" dia* Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *Yes*

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 *Yes*
 Are all Sea Connections fitted direct on the skin of the ship *steel distance pieces E.W. to skin* Are they fitted with Valves or Cocks *Values*

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *Yes* Are the Overboard Discharges above or below the deep water
 line *below* Are they each fitted with a Discharge Valve always accessible on the plating of the vessel *Yes* Are the Blow Off Cocks fitted with a spigot and brass

covering plate *Yes* What pipes pass through the bunkers *none* How are they protected *✓*
 What pipes pass through the deep tanks *✓* Have they been tested as per rule *Yes*

Are all Pipes, Cocks, Valves and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*
 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 *Yes* Is the Shaft Tunnel watertight *Yes* Is it fitted with a watertight door *Yes* worked from *below*
 MILERS, &c.—(Letter for record *✓*) Total Heating Surface of Boilers *11354 sq*
 Is Forced Draft fitted *Yes* No. and Description of Boilers *Two Water Tubes* Working Pressure *500 lbs*
 Is a Report on Main Boilers now forwarded? *See previous report*

002956-002969-0274

Lloyd's Register
 Foundation

Is { a Donkey Boiler fitted? no 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
Geared turbines situated aft. Have torsional vibration characteristics of system been approved Date of approval

SPARE GEAR.

Has the spare gear required by the Rules been supplied? Yes
State the principal additional spare gear supplied Spare Cast Iron Propeller Wheel 3728.

The foregoing is a correct description, Manufacture

Dates of Survey while building { During progress of work in shops - -
During erection on board vessel - -
Total No. of visits

Dates of Examination of principal parts—Casings Rotors Blading Gearing
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 fixed 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 Identification Mark
Pinion shaft, Material and tensile strength Identification Mark

; Chemical analysis.

If Pinion Shafts are made of special steel state date of approval of chemical analysis, physical properties and heat treatment

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

Wheel shaft, Material Identification Mark 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 Yes

Is the flash point of the oil to be used over 150°F Yes Have the requirements of the Rules for the use of oil as fuel been complied with Yes

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 Yes If so, state name of vessel T.2 Tankers

General Remarks. (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been constructed under the survey of the U.S. Coastguard and the American Bureau of Shipping. The scantlings and general arrangements have been checked and found in accordance with the plans on board. Machinery opened up and surveyed & subsequently seen under working conditions & found satisfactory. Eligible in my opinion to have record of Lmc 9/49.

The amount of Entry Fee	£	:	:	When applied for.
Special	£	:	:	19
Donkey Boiler Fee	£	:	:	When received.
Travelling Expenses (if any)	£	:	:	19

Committee's Minute
Assigned

James B. Murray
Engineer Surveyor to Lloyd's Register of Shipping.

