

REPORT ON STEAM TURBINE MACHINERY. No. 105225

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No. in Survey held at North Shields Date, First Survey 18. 2. 48. Last Survey 12. 4. 1948. Reg. Book. (Number of Visits 15)

36863 on the Turbo-elect. ss. "THELICONUS" Tons Gross 10638. Net 6307

Built at Mobile By whom built Alabama D.D. & S.B. Corp. Yard No. 2048. When built 1945

Engines made at Schenectady N.Y. By whom made General Electric Co. Engine Nos. 570660 & 570661. When made 1945

Boilers made at New York By whom made Combustion Eng. Co. Inc. Boiler Nos. 94877 & 94878. When made 1945

Shaft Horse Power at Full Power kW. 525. Owners Anglo-Saxon Petroleum Co. Ltd. Port belonging to LONDON

Nom. Horse Power as per Rule 4 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

Trade for which Vessel is intended Carrying petroleum in bulk.

STEAM TURBINE ENGINES, &c. — Description of Engines Two, single reduction geared impulse turbines. (Aux.)

No. of Turbines Ahead one Direct coupled, single reduction geared to propelling shafts. No. of primary pinions to each set of reduction gearing

Astern direct coupled to Alternating Current Generator 3 phase 60 periods per second rated 400 Kilowatts 450 Volts at 1200 revolutions per minute; for supplying power for driving Propelling Motors, Type Direct Current Generator

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	1 1/2"	25 3/4"	1									
2ND	1 1/2"	26"	1									
3RD	1 1/2"	25 3/8"	1									
4TH	1 1/2"	26 1/2"	1									
5TH	1 1/2"	25 3/4"	1									
6TH	2 1/2"	26 1/8"	1									
7TH												
8TH												
9TH												
10TH												
11TH												
12TH												

Shaft Horse Power at each turbine { H.P. 750. I.P. 5645. L.P. 1st reduction wheel 1200. main shaft 1200.

Revolutions per minute, at full power, of each Turbine Shaft { H.P. 750. I.P. 5645. L.P. 1200.

Rotor Shaft diameter at journals { H.P. 2 1/2" I.P. 5.43" L.P. 1st reduction wheel 25.56" main wheel 25.56" Width of Face { 1st reduction wheel 8 1/2" main wheel 8 1/2"

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 6 5/8" 1st reduction wheel 6 5/8" 2nd pinion 6 5/8" main wheel 6 5/8"

Flexible Pinion Shafts, diameter { 1st 4" 2nd 4" Pinion Shafts, diameter at bearings External 4" Internal 4" Generator Shaft, diameter at bearings 4" Propelling Motor Shaft, diameter at bearings 4"

Wheel Shafts, diameter at bearings { 1st 4" main 4" diameter at wheel shroud, { 1st 4" Generator Shaft, diameter at bearings 4" Propelling Motor Shaft, diameter at bearings 4"

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

Tube Shaft, diameter as per rule as fitted Screw Shaft, diameter as per rule as fitted 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 as fitted 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 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. 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 stokehold plates Are the Overboard Discharges above or below the deep water line

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 an Auxiliary Boiler fitted? 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 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

The foregoing is a correct description,

Manufacturer

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 _____
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 _____
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.) *These machines have been constructed under the supervision of the U.S. Coast Guard & the American Bureau of Shipping. The workmanship is good and the materials considered sound. The machines have been examined under working conditions and found satisfactory.*

Certificate (if required) to be sent to...
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

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

W. L. Allen
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 28 MAY 1948**

Assigned *S. F. E. Maly, apt*