

REPORT ON STEAM TURBINE MACHINERY. No. 5029

Date of writing Report 5th Oct., 1948 When handed in at Local Office 5th October, 1948 Port of Galveston, Texas
 No. in Survey held at Galveston, Texas Date, First Survey 14th August Last Survey 4th September, 1948
 Reg. Book 59561 on the S/S "FRANCINE CLORE" (Number of Visits Continuous)

Received at London Office 12 JAN 1949

Built at Portland, Oregon By whom built Kaiser Co., Inc. Yard No. 74 When built 1944
 Engines made at Lynn, Mass. By whom made General Electric Co. Engine No. - When made 1944
 Boilers made at St. Louis, Mo. By whom made Combustion Engineering Co. P. 9757 When made 1944
Hedges Walsh & Weidner Div. Boiler No. S. 9755
 Shaft Horse Power at Full Power 6000 Owners British Oil Shipping Co., Ltd. Port belonging to London
 Nom. Horse Power as per Rule 1425 MN = 1486 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended Petroleum in bulk

STEAM TURBINE ENGINES, &c. — Description of Engines One Curtis Impulse 10 Stage Turbine

No. of Turbines Ahead One ~~Direct coupled~~ single reduction geared 10 propelling shafts. No. of primary pinions to each set of reduction gearing -
 Astern - ~~double reduction geared
 direct coupled to { Alternating Current Generator 3 phase 60/62 periods per second } rated 4925/5400 Kilowatts 2300 Volts at 3600 revolutions per minute;
 { Direct Current Generator }
 for supplying power for driving One Propelling Motors, Type TSM-HL-80 One Synchronous Motor
 rated 4625 Kilowatts 2300 Volts at 90 revolutions per minute. Direct coupled, ~~single or double reduction geared~~ One propelling shafts.~~

TURBINE BLADING.

	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. 7240 I.P. - L.P. - }
 { H.P. 3600 I.P. - L.P. - }
 Revolutions per minute, at full power, of each Turbine Shaft { 1st reduction wheel - main shaft 90 }

Rotor Shaft diameter at journals { H.P. 5" & 10" I.P. - L.P. - }
 Pitch Circle Diameter { 1st pinion - 1st reduction wheel - 2nd pinion - main wheel - }
 Width of Face { 1st reduction wheel - main wheel - }

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion - 1st reduction wheel - 2nd pinion - main wheel - }

Flexible Pinion Shafts, diameter { 1st - 2nd - }
 Pinion Shafts, diameter at bearings External { 1st - 2nd - }
 Internal { 1st - 2nd - } diameter at bottom of pinion teeth { 1st - 2nd - }

Wheel Shafts, diameter at bearings { 1st - main - } diameter at wheel shroud, { 1st - main - }
 Generator Shaft, diameter at bearings 5 1/2"
 Propelling Motor Shaft, diameter at bearings 17.268"

Intermediate Shafts, diameter as per rule 16 1/2" as fitted 16 7/8" Thrust Shaft, diameter at collars as per rule 17.325" as fitted 18"
 Kingsbury No. 45 Tube Shaft, diameter as per rule - as fitted -

Screw Shaft, diameter as per rule 18 1/8" as fitted 18 5/8" Is the screw shaft fitted with a continuous liner? Yes
 Bronze Liners, thickness in way of bushes as per rule 1.85" as fitted 1 1/8"

Thickness between bushes as per rule .65" as fitted 31/32" 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? Yes

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 other appliance fitted at the after end of the tube shaft? No

Length of Bearing in Stern Bush next to and supporting propeller 7'-3"
 Propeller, diameter 19'-6" Pitch 17'-6" at 6'-6" No. of Blades 4 State whether Moveable Solid Total Developed Surface 138.30 square feet.

If Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine One Turbine
 Can the H.P. or I.P. Turbine exhaust direct to the Condenser? Yes No. of Turbines fitted with astern wheels - Feed Pumps { No. and size Two 200 GPM One 10"x7"x24. 130 GPM How driven Steam Turbo-Units. Steam Vert Simplex

Pumps connected to the Main Bilge Line { No. and size E.R. two 175 GPM & one 450 GPM. Ford PR one 300 GPM. Aft PR one 700 GPM How driven Electric Centrifugal Vert Duplex 10"x7"x10" (Vert Duplex 14"x14"x12" Steam

Ballast Pumps, No. and size Aft PR One 14"x14"x12" 700 GPM Lubricating Oil Pumps, including Spare Pump, No. and size Two 60 GPM Rotex Ele.
 Are two independent means arranged for circulating water through the Oil Cooler? Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Engine and Boiler Room E.R. Eleven 3" dia into 4" Main & One 2" dia; Two 3 1/2" dia into 4" Line;
 In Holds, &c. Fore & Aft Peaks One 4" each. Chain Locker 2" Ejector: Ford PR Two 2 1/2"; Aft PR One 4" & Aft CD Two 3" dia; Dry Store Ford Two 2 1/2" dia

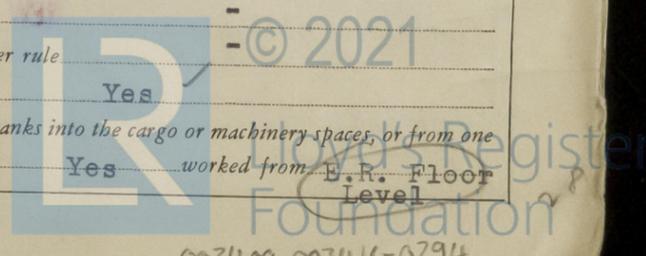
Main Water Circulating Pump Direct Bilge Suctions, No. and size One 18" dia. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two 4" dia. Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes? Yes

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? Boxes or Spools Are they fitted with Valves or Cocks? Valves

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? - 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? 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



BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 11352 sq. ft.

Is Forced Draft fitted Yes No. and Description of Boilers Two single pass straight tube sect. header with superheaters & air heaters Working Pressure 500 lbs.

Is a Report on Main Boilers now forwarded? Yes

Is { a Donkey } Boiler fitted? No If so, is a report now forwarded? -

Plans. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers - Donkey Boilers - (If not state date of approval) T2 Tanker Type

Superheaters Yes General Pumping Arrangements Yes Oil Fuel Burning Arrangements -

Spare Gear. State the articles supplied:— Supplied to Rule Requirements

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 - Motor

Wheel shaft 18th Aug. Thrust shaft 20th Aug. Intermediate shafts 20th Aug. Tube shaft - Screw shaft -

Propeller 14th Aug. Stern tube - Engine and boiler seatings 18th Aug. Engine holding down bolts 4th Sept.

Completion of pumping arrangements - Boilers fixed - Engines tried under steam 4th Sept.

Main boiler safety valves adjusted 31st Aug. 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 O.H. Steel Identification Mark -

Intermediate shafts, Material O.H. Steel Identification Marks - Tube shaft, Material - Identification Mark -

Screw shaft, Material O.H. Steel Identification Marks - Steam Pipes, Material Seamless Steel Test pressure 750 lbs.

Date of test 17th Aug. 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. Tanker If so, have the requirements of the Rules been complied with -

Is this machinery a duplicate of a previous case Yes If so, state name of vessel T2 Type Tankers

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery and boilers of this vessel were constructed under Special Survey of the American Bureau of Shipping & U.S.C.G.; the condition and standard of workmanship are considered to be good and satisfactory.

The main and auxiliary machinery as opened for Survey (See Rpt. 9) are in good condition; all were examined under working conditions and found satisfactory.

The machinery and boilers of this vessel are eligible, in my opinion, to be classed with this Society, with a record of LMC (MS) is recommended for the favourable consideration of the Committee

Note: Part machinery survey was done Jacksonville, Florida 20/9/47.

Table with 4 columns: Fee type (Entry, Special, Donkey Boiler, Travelling Expenses), Amount (£), and When applied/received.

James Tully Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK DEC 22 1948

Assigned LMC-9, 47.



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