

Rpt. 4a.

REPORT ON STEAM TURBINE MACHINERY. No. 105384

Date of writing Report.....19..... When handed in at Local Office.....19 JUN 1948..... Part of NEWCASTLE-ON-TYNE

No. in Survey held at North Shields. Date, First Survey 23. 4. 48. Last Survey 11. 6. 1948.
Reg. Book.

24063 on the Turbo-electric "FORT FREDERICA" (Number of Visits 20) Gross 10672.
Tons } Net 6822

Built at Portland, Oregon By whom built Kaiser Co. Inc. Yard No. 2401. When built 1945
Engines made at Lynn, Mass. By whom made General Electric Co. Engine No. 19257 Year 1945

Boilers made at	New York	By whom made	Combustion Eng. Co. Inc.	Boiler Nos.	11989 11991	When made	1945.
-----------------	----------	--------------	--------------------------	-------------	----------------	-----------	-------

Shaft Horse Power at Full Power 6600 Owners British Tankers Co. Ltd. Port belonging to LONDON.
Nom. Horse Power as per Rule 485 Is Refrigerating Machinery fitted for Yes Is it of the following description No

Trade for which Vessel is intended *Mr. A. B. C. carrying petroleum products in bulk.*

TEAM TURBINE ENGINES, &c.—Description of Engines. *Turbo-electric.*

No. of Turbines _____ Ahead _____ Stern _____

_____ single reduction geared _____ to _____ propelling shafts. No. of primary pinions to each set of reduction gearing _____

_____ double reduction geared _____

Direct coupled to { Alternating Current Generator 3 phase 60 periods per second } rated 5,400 Kilowatts 2,370 Vols at 37 1/2 revolutions per minute;
or supplying power for driving { Direct Current Generator }

ated 5,400 Kilowatts 2,370 Volls at 93 revolutions per minute. Direct coupled, single or double induction, geared to one revolving shaft.

	H.P.	I.P.	L.P.	ASTERN.
TURBINE	Modes Standard HEIGHT OF DIAMETER NO. OF	HEIGHT OF DIAMETER NO. OF	HEIGHT OF DIAMETER NO. OF	
E.D.M.C.				

[illegible][illegible][illegible][illegible][illegible][illegible]

CH

.....

(HP 6.600

..... 3715

Shaft Horse Power at each turbine	H.P.	Revolutions per minute, at full power, of each Turbine Shaft	H.P.	1st reduction wheel
	I.P.		I.P.	

H.P. 72 \times 10
 Pitch Circle (1st pinion ✓ 1st reduction wheel ✓ Width of (1st reduction wheel ✓

1st shaft diameter at journals { I.P. _____ { L.P. _____ ✓	Diameter	{ 2nd pinion _____ ✓ main wheel _____ ✓ { _____ ✓ _____ ✓	Width of Face	{ _____ ✓ { 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

Pinion Shafts, diameter at bearings { 1st 2nd diameter at bottom of pinion teeth { 1st 2nd

Generator Shaft, diameter at bearings 10" ✓

Steel shafts, diameter at bearings { main diameter at wheel shroud, { main **Propelling Motor Shaft, diameter at bearings**

as per rule **16.56"** **17.30"** **17.30"**

Intermediate Shafts, diameter *as fitted* 17 1/2" *as per rule* 17 1/2"

Thrust Shaft, diameter at collars *as per rule* 17 1/2" *as fitted* 17 1/2" (18" at collars)

Is the ~~shaft~~ ^{screw} shaft fitted with a continuous liner { *Yes* ✓ }

onze Liners, thickness in way of bushes as fitted 1 1/2" Thickness between bushes as per rule 1 1/2" Is the after end of the liner made watertight in the
 as fitted 1 1/2" as fitted 1 1/2"

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 ✓

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
ft. no. If so, state type ☒ Length of Bearing in **Stern Bush** next to and supporting propeller 7' 3" ☒

propeller, diameter 19'-6" Pitch 17'-6" No. of Blades 4 State whether Moveable No. Total Developed Surface 138.3 square feet.

Can the **H.P. or I.P. Turbine** exhaust direct to the
 denser Yes No. of Turbines fitted with astern wheels ✓ Feed Pumps } No. and size Two, turbo, 200 gpm., one - 10" x 7" x 24"

No. and size One - Five x Butterworth 450 gpm.; One - Five x G.S. 450 gpm. Two - Bilge 175 gpm. each.

How driven electric motor

Blast Pumps, No. and size One, fire & service pump 450 gpm

Lubricating Oil Pumps including Spare Pump No. and size 2, 50 gpm, 60 gpm, 450 gpm

two independent means arranged for circulating water through the Oil Cooler — In Engine and Boiler Room

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps No. and size: — In Engine and Boiler Room

shaft alley :- Three 3" v, boiler room drain one 3" 14.000 ft. After dry well: one 3" diam. ✓

On Water Circulating Pump Direct Bilge Suctions, No. and size One - (18" dia) Independent Power Pump Direct Suctions to the Engine Room
es, No. and size Two - 4" dia ✓ Are all the Bilge Suction pipes ^{Equip - 7 mm} of Holds and Tunnel Well fitted with strum-boxes Yes, Macomb strainer ✓

all Sea Connections fitted direct on the skin of the ship & steel keel welded. Are they fitted with Valves or Cocks? Valves.

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 the Blow Off cocks fitted with a spigot and brass covering plate *Yes* ✓

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times. *Yes* ✓

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 ^{space} watertight* *Is it fitted with a watertight door*

13 is plain with a water tight door

003038-003095

BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 11,354 sq. ft.
Is Forced Draft fitted *Ja.* No. and Description of Boilers *Two 4 SM. type* Working Pressure *500 lbs./sq. in.*
Is a Report on Main Boilers now forwarded? *Ja.*

Is { a Donkey } Boiler fitted? *✓* 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

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Ja.*

State the principal additional spare gear supplied *Cast iron propeller & screw shaft (LLOYD'S No. 2081, 27.5.48, C.P.).*

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 *Ja.*
Is the flash point of the oil to be used over 150°F. *Ja.* Have the requirements of the Rules for the use of oil as fuel been complied with *Ja.*
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 *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. Coast guards and the American Bureau of Shipping. Materials and workmanship considered good. The scantling and general arrangements have been checked and found in accordance with the plans on board the vessel. Machinery examined under working conditions and found satisfactory and reliable in my opinion to have records of LMC 6,48, WTBS 500 lbs./sq. in., sp. 473 lbs./sq. in., F.D., fitted for oil fuel 1945, F.P. above 150°F.*

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

Committee's Minute

FRI. 23 JUL 1948

Assigned

See minute on p. 19

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



© 2020

Lloyd's Register
Foundation