

REPORT ON STEAM TURBINE MACHINERY. No. 5658.

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Received at London Office. **9 NOV 1943**
 Date of writing Report **Sept. 27, 1943** When handed in at Local Office **Sept. 27, 1943** Port of **Newport News, Va.**
 Date, First Survey **Feb. 23** Last Survey **July 12, 1943**
 Survey held at **S.S. "LEONARDO Da VINCI"**
 Reg. Book. **on the** (Number of Visits **60**)

Boilers built at **Spezia** By whom built **Ansaldo San Giorgio** Yard No. **192** When built **1925**
 Engines made at **Sampierdarena** By whom made **Gro. Ansaldo & Co.** Engine No. **When made**
 Boilers made at **By whom made** Boiler No. **When made**
 Shaft Horse Power at Full Power **5000** Owners. **Port belonging to** **Mombasa**
 Nom. Horse Power as per Rule **1116** Is Refrigerating Machinery fitted for cargo purposes **No.** Is Electric Light fitted **yes.**
 Trade for which Vessel is intended **Passenger**

STEAM TURBINE ENGINES, &c.—Description of Engines **2 sets of triple reaction**

No. of Turbines **Ahead 6** **Direct coupled, single reduction geared** to **2** propelling shafts. No. of primary pinions to each set of reduction gearing **3.**
Astern 4 **double reduction geared**

Not coupled to **Alternating Current Generator** phase **periods per second** **rated** **Kilowatts** **Volts at** **revolutions per minute**
Direct Current Generator **supplying power for driving** **Propelling Motors, Type**

Kilowatts **Volts at** **revolutions per minute.** **Direct coupled, single or double reduction geared to** **propelling shafts.**

TURBINE LOADING.	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.
Expansion	.91"	11.27"	10	1.69	16.39	10	2.48	27.01		H.P. 1.17	25.89	1
"	.99"	13.00	8	1.81	18.20	8	3.11	28.27		1.57	26.38	1
"	1.10	13.65	7	2.13	19.62	7	3.89	29.83		1.96	26.76	1
"	1.22	14.65	6	2.44	21.40	6	2.94	37.38		H.P. IN I.P. H.M. Loading		
"							3.73	38.90		L.P. 1.02	35.67	1
"							4.67	40.84		1.79	36.44	1
"							5.06	41.61		2.40	37.05	1
"							6.23	43.97		1.45	28.73	2
"							7.01	46.71		2.07	26.97	2
"							7.61	46.71		2.91	28.66	2
"							7.61	46.71		2.91	28.66	2
"										2.91	28.66	2

ft Horse Power at each turbine **H.P. 4504** **Revolutions per minute, at full power, of each Turbine Shaft** **I.P. 3342** **1st reduction wheel 452**
L.P. 2302 **main shaft 75.5**
 or Shaft diameter at journals **H.P. 3.52"** **Pitch Circle** **1st pinion 10.962** **1st reduction wheel 55.782** **Width of** **1st reduction wheel L.P. 14.567**
I.P. 3.52" **Diameter** **2nd pinion 17.17"** **main wheel 73.12X** **Face** **main wheel 27.559"**
L.P. 5.889" **HF+MP 8.285** **1st reduction wheel 29.016**
 Distance between centres of pinion and wheel faces and the centre of the adjacent bearings **1st pinion 11.335** **main wheel 34.173**
2nd pinion **main wheel**

Pinion Shafts, diameter at bearings **External** **1st** **2nd** **diameter at bottom of pinion teeth** **1st** **2nd**
Internal **1st** **2nd**
 Shaft, diameter at bearings **1st** **2nd** **Generator Shaft, diameter at bearings**
main **main** **Propelling Motor Shaft, diameter at bearings**
 Intermediate Shafts, diameter **as per rule** **Thrust Shaft, diameter at collars** **as per rule** **Tube Shaft, diameter** **as per rule**
as fitted **as fitted** **as fitted** **as fitted**
 Shaft, diameter **as per rule** **Is the** **tube** **screw** **shaft fitted with a continuous liner** **Bronze Liners, thickness in way of bushes** **as per rule**
as fitted **as fitted** **as fitted** **as fitted**
 Thickness between bushes **as per rule** **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**
as fitted **as fitted** **as fitted** **as fitted**
 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**
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**
er appliance fitted at the after end of the tube shaft **Length of Bearing in Stern Bush next to and supporting propeller**

eller, diameter **Pitch** **No. of Blades** **State whether Moveable** **Total Developed Surface** **square feet.**
ngle Screw, are arrangements made so that steam can be led direct to the L.P. Turbine **Can the H.P. or L.P. Turbine exhaust direct to the**

er **No. of Turbines fitted with astern wheels** **Feed Pumps** **No. and size** **How driven**
s connected to the Main Bilge Line **No. and size** **How driven**

st Pumps, No. and size **Lubricating Oil Pumps, including Spare Pump, No. and size**
o independent means arranged for circulating water through the Oil Cooler **Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge**
, No. and size:—In Engine and Boiler Room

ts, &c. **Water Circulating Pump Direct Bilge Suctions, No. and size** **Independent Power Pump Direct Suctions to the Engine Room**
No. and size **Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes**
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

Sea Connections fitted direct on the skin of the ship **Are they fitted with Valves or Cocks**
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**
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**
oes pass through the bunkers **How are they protected**
oes pass through the deep tanks **Have they been tested as per rule**

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 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
 ent to another **Is the Shaft Tunnel watertight** **Is it fitted with a watertight door** **worked from**

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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? ✓

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. State the articles supplied:— ✓

The foregoing is a correct description.

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 sealings ✓

Engine holding down bolts ✓

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 ✓

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. ✓

Certificate (if required) to be sent to Committee's Minute.

The amount of Entry Fee ... £ :

Special ... £ 250.00

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

When applied for,

27. 9. 19. 43

When received,

19.

Committee's Minute

NEW YORK OCT 20 1943

Assigned See Bal. 7904

John M. M.
 Engineer Surveyor to Lloyd's Register of Shipping.



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