

# Report on Steam Turbine Machinery. No. 23297

Reporting Report 19th May, 1958 When handed in at Local Office 26/5 1958 Port of GENOA Received at London Office 12 JUN 1958  
 Survey held at GENOA Date, First Survey 13/9/56 Last Survey 12/5/ 1958  
 (Number of Visits 105)

on the ~~Triple~~ ~~Quadruple~~ Screw Vessel "MIRADOR" Tons {Gross 21020  
 Net -  
 GENOA-SESTRI By whom built S.A. ANSALDO-CANTIERI NAVALI Yard No. 1522 When built 1958  
 made at GENOA-SAMPIERDARENA By whom made S.A. ANSALDO-STABILIMENTO Engine No. 1603 When made 1958  
 made at ditto By whom made ditto MECCANICO Boiler No. {6151  
 6152 When made 1957  
 Maximum Power 16000 @ 114 R.P.M. Owners "MIRADOR" Cia Nav. Panamena S.p.A. Port belonging to PANAMA R.P.  
 Service 14500 @ 110 R.P.M.  
 Rule 3200 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes  
 which Vessel is intended Carrying Petroleum in Bulk.

TURBINE ENGINES, &c.—Description of Engines Two steam turbines—double reduction geared to one propeller shaft.  
 Ahead Two ~~Direct Current~~ to One propelling shafts. No. of primary pinions to each set of reduction gearing Two  
 Astern One ~~Direct Current~~ double reduction geared  
 connected to Alternating Current Generator — phase — periods per second rated — Kilowatts — Volts at — revolutions per minute;  
 Direct Current Generator  
 driving power for driving — Propelling Motors, Type —  
 Kilowatts — Volts at — revolutions per minute. Direct coupled, single or double reduction geared to — propelling shafts.

	H. P.	I. P.	L. P.	ASTERN.
of rows	One impulse wheel with one row of blades	-	-	Two impulse wheels with two rows of blades each.
of stages	Three	-	Double flow	-
of rows in each stage	7 - 8 - 9	-	16 rows in each flow	-

Power at each turbine { H.P. 7760  
 I.P. -  
 L.P. 8240 } Revolutions per minute, at full power, of each Turbine Shaft { H.P. 5232  
 I.P. -  
 L.P. 3449 } 1st reduction wheel 953.2  
 main shaft 114  
 diameter at journals { H.P. 125 mm. Pitch Circle { 1st pinion HP 283,540 mm. 1st reduction wheel 1556,456 mm.  
 I.P. - Diameter { 2nd pinion 492,894 mm. main wheel 4120,922 mm. Face { 1st reduction wheel 2 x 290 mm.  
 L.P. 225 mm. { 1st pinion HP 465 mm. 1st reduction wheel HP & LP 510 mm.  
 2nd pinion 780 mm. main wheel 980 mm.

between centres of pinion and wheel faces and the centre of the adjacent bearings  
 HP 150 mm. in body  
 1st 230 mm. at coupling  
 LP 230 mm. in body  
 Pinion Shafts, diameter at bearings External { HP 170 mm. 370 mm. with  
 Internal { LP 200 mm. 241 mm. diameter at bottom of pinion teeth  
 1st 240 mm. Wheel rim diameter at wheel and shaft { 1st Welded Generator Shaft, diameter at bearings -  
 main 580 mm. { main Welded Propelling Motor Shaft, diameter at bearings -  
 as per rule as approved Thrust Shaft, diameter at collars as per rule as approved  
 as fitted 496 mm. as fitted 480 mm.

diameter as per rule as approved Screw Shaft, diameter as per rule as approved Is the { screw } shaft fitted with a continuous liner { yes  
 as fitted - as fitted 565 mm. { screw }  
 as per rule as approved Thickness between bushes as per rule as approved Is the after end of the liner made watertight in the  
 as fitted 27.5 mm. as fitted 21.5 mm.  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner yes  
 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 -  
 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  
 If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 2570 mm.  
 diameter 6300 mm. Pitch 5185 mm. No. of Blades Four State whether Moveable Solid Total Developed Surface 16.4 square feet  
 how, are arrangements made so that steam can be led direct to the L.P. Turbine yes Can the H.P. Turbines exhaust direct to the

Yes No. of Turbines fitted with astern wheels One Feed Pumps { No. and size 3 @ 85 tons/hr.  
 How driven steam turbine driven  
 connected to the Main Bilge Line { No. and size 2 @ 100 tons/hr = 1 @ 40 tons/hr. = In fwd pump room : 1 @ 100 tons/hr.  
 How driven E.D. Steam driven Steam driven.  
 pumps, No. and size { 1 @ 100 tons/hr. in ER (ED) Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 126 tons/hr. = ED  
 1 @ 100 tons/hr. in Fwd pump room.  
 independent means arranged for circulating water through the Oil Cooler yes. Branch Bilge Suctions, No. and size:—In Engine  
 In Pump Room Fwd = 1 @ 175 mm. - 2 @ 80 mm.  
 diam. 2 @ 150 mm. - 4 @ 100 mm. - 2 @ 80 mm. diam.  
 Cargo pump room = 1 @ 100 mm. and 2 @ 80 mm. diam.

Circulating Pump Direct Bilge Suctions, No. and size 1 @ 500 mm. Direct Bilge Suctions to the Engine and Boiler Room  
 and size 2 @ 150 mm. Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes  
 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  
 Connections fitted direct on the skin of the ship on stools welded to shell plating Are they fitted with Valves or Cocks valves and cocks.  
 and 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  
 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  
 te. yes What pipes pass through the bunkers - How are they protected -  
 pass through the deep tanks. Have they been tested as per rule. -  
 Cocks, Valves and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 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  
 one compartment to another yes Is the Shaft Tunnel watertight - Is it fitted with a watertight door No worked from -

etc.—Total Heating Surface of Boilers. (as per Rules) 2418 sq.m<sup>2</sup> 26027.4 842°F 16740  
 draught fitted yes No. and Description of Boilers Two-two drum Foster Wheeler Working Pressure 47 Kg/cm<sup>2</sup>  
 on Main Boilers now forwarded? yes.



ANSALDO YARD No. 1522

S/S "MIRADOR"

Fire extinguishing arrangements.

in engine room :

5 S.W. hydrants with 65 mm. hoses.

7 @ 9 liters froth extinguishers.

2 @ 4 Kgs CO<sub>2</sub> extinguishers.

1 @ 136 liters froth extinguishers.

Fixed full flooding CO<sub>2</sub> system installation and steam smothering installation both operated from outside the E.R.-

One box of sand and scoop.

In the boiler room :

2 S.W. hydrants with 65 mm. hoses.

1 @ 45 liters froth extinguishers.

1 @ 136 " " "

1 @ 9 " " "

Fixed full flooding CO<sub>2</sub> system installation and steam smothering installation both operated from outside.

Two boxes of sand and scoops.

Forward pump room :

1 S.W. hydrant with 65 mm. hose.

2 @ 90 liters froth extinguishers.

Fixed steam smothering installation operated from deck.

Aft cargo pump room :

2 @ 9 liters froth extinguishers (entrances)

1 @ 9 " " " ( lower ).

1 @ 45 " " "

Fixed steam smothering installation operated from outside.

Thickness of adjusting washers of safety valves of main boilers.

Port Boiler = Saturated steam 8.6 mm. Superh<sub>td</sub> steam : 8.1 mm.

Starboard Boiler = " " 9.4 mm. " " : 7.4 mm.

of L.P. Steam Generator

Combustible steam : 25 Kg/cm<sup>2</sup>

Reduced steam : 9.5 " " Fwd 18 mm. Aft. 20 mm.

*[Handwritten signature]*