

Rpt. 13.

No.

20175

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

3rd SEP 1954

Date of writing Report 24-7-54 19

When handed in at Local Office 26-7-54 19

Port of GENOA

No. in Survey held at GENOA

Date, First Survey 20-3-54 Last Survey 24-7-54 19

Reg. Book.

(No. of Visits 21)

361435 on the SINGLE SC. "GIUSEPPE GIULIETTI"

Tons { Gross 14519
Net 9804

Built at GENOA - SESTRI By whom built ANSALDO - CANTIERI NAVALI Yard No. 1486 When built 1954

Owners "GARIBOLDI" SOC. COOP. di NAV. A RESP. Port belonging to GENOA

Installation fitted by SA. ANSALDO - CANTIERI NAVALI When fitted 1954

Is vessel equipped for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES RADAR YES

Plans, have they been submitted and approved YES System of Distribution THREE PHASE - THREE WIRE PARALLEL SYSTEM Voltage of Lighting 127 VOLTAGE

Heating YES Power 440 D.C. or A.C., Lighting A.C. Power A.C. If A.C. state frequency 60

Prime Movers, has the governing been found as per Rule when full load is thrown on and off YES Are turbine emergency governors fitted with a trip switch YES Generators, are they compound wound YES, and level compounded under working conditions YES

if not compound wound state distance between generators YES and from switchboard YES Are the generators arranged to run in parallel YES, are shunt field regulators provided YES Is the compound winding connected to the negative or positive pole YES

Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing YES Have certificates of test for machines under 100 kw. been supplied YES and the results found as per Rule YES

Position of Generators TWO 500 KW GENERATORS FITTED ON FLAT, PORT SIDE OF MAIN ENGINE ROOM.

is the ventilation in way of generators satisfactory YES are they clear of inflammable material and protected from mechanical injury and

damage from water, steam and oil YES Switchboards, where are main switchboards placed ON FLAT, PORT SIDE OF MAIN ENGINE ROOM.

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil YES, what insulation is used for the metallic frames: MICANITE or MICA BUSHES AND WASHERS, if of synthetic insulating

material is it an Approved Type YES, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule YES Is the construction as per Rule, including locking of screws and nuts YES Description of Main Switchgear

for each generator and arrangement of equaliser switches A THREE POLE CIRCUIT BREAKER WITH OVERLOAD INSTANTANEOUS TRIP AND TIME DELAY RELAY FOR EACH PHASE - REVERSE POWER RELAY - REFERENCE TRIPPING RELAY.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit A THREE POLE CIRCUIT BREAKER WITH INSTANTANEOUS TRIP FOR EACH PHASE.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 19

ammeters, 7 voltmeters, 6 synchronising devices. For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection YES Earth Testing, state means provided EARTH-INDICATING LAMPS - TWO OHMMETERS.

Switches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an Approved Type YES

make of fuses CROCE-FARINELLI - MILANO, are all fuses labelled YES If circuit breakers are provided for the generators, at what overload do they operate 50% and at what current do the reversed power protective devices operate 5%

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule YES

Cables, are they insulated and protected as per Rule YES, if otherwise than as per Rule are they of an Approved Type YES

state maximum fall of pressure between bus bars and any point under maximum load 3% are the ends of all cables having a sectional area of 0.01 square inch and above provided with soldering sockets YES Are all cables insulated and varnished cambric insulated

cables sealed at the ends YES Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage YES, are any cables laid under machines or floorplates ONLY FOR A SHORT LENGTH, if so, are they

adequately protected YES Are cables in machinery spaces, galleys, laundries, etc., lead covered YES or run in conduit YES

or of the "HR" type YES State how the cables are supported or protected SUPPORTED BY GALVANIZED PERFORATED PLATING AND CLIPS. ALL CABLES LEAD COVERED, ARMoured OR STEEL BRAIDED. WHERE CABLES EXPOSED TO RISK OF MECHANICAL DAMAGE PROTECTED BY STEEL PLATING.

Are all lead sheaths, armouring and conduits effectually bonded and earthed YES Are all cables passing through decks and watertight

bulkheads provided with deck tubes or watertight glands YES, where unarmoured cables pass through beams, etc., are the holes

effectively bushed YES WITH LEAD. Refrigerated stores, are the cables and fittings as per Rule YES

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule YES Emergency Supply, state position



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Foundation

Navigation Lamps, are they separately wired YES controlled by separate double pole switches and fuses YES. Are the switches and fuses in a position accessible only to the officers on watch YES, is an automatic indicator fitted YES. Is an alternative supply provided YES.

Secondary Batteries, are they constructed and fitted as per Rule YES, are they adequately ventilated YES.

state battery capacity in ampere hours 120 Amp/hour @ 127 Volts.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof YES.

Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present YES.

if so, how are they protected IN TWEEN DECK SPACE, ABOVE CARGO TANKS, & IN CARGO PUMP ROOM: FRAME-ROOF LIGHTING FITTINGS

and where are the controlling switches fitted IN SAFE POSITION. Are all fittings suitably ventilated YES.

Searchlight Lamps, No. of ONE, whether fixed or portable FIXED, are they of the carbon arc or of the filament type FILAMENT.

Heating and Cooking, is the general construction as per Rule ✓, are the frames effectually earthed ✓, are heaters in the accommodation of the convection type ✓. Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil YES.

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment YES. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing YES.

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule YES.

Control Gear and Resistances, are they constructed and fitted as per Rule YES. Lightning Conductors, where required are they fitted as per Rule YES. Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with YES, are all fuses of an Approved Cartridge Type YES, make of fuse CROCE FARINELLI, MILANO Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships YES. Are the cables lead covered as per Rule YES.

E.S.D., if fitted state maker THE SUBMARINE SIGNAL CO. LONDON. location of transmitter FORN. PUMP ROOM and receiver - ditto - FRAMES: 210/211

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations YES.

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory YES.

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	<u>TWO</u>	<u>ANSALDO-SAN GIORGIO</u>	<u>500</u>	<u>450</u>	<u>857</u>	<u>900</u>	<u>STEAM TURBINE ENGINES, GEARED</u>	<u>ANSALDO-STABILIMENTO MECCANICO</u>
	<u>TWO</u>	<u>- ditto -</u>	<u>100</u>	<u>450</u>	<u>160</u>	<u>400</u>	<u>OIL-ENGINE</u>	<u>- ditto -</u>
EMERGENCY ...	<u>✓</u>							
ROTARY TRANSFORMER	<u>✓</u>							

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) in ft.	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq.-inches sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	<u>500</u>	<u>4</u>	<u>160</u>	<u>857</u>	<u>1008</u>	<u>10</u>	<u>V.C.</u>	<u>LEAD COVERED & ARMOURED.</u>
" " EQUALISER ...	<u>✓</u>							
" " ...	<u>100</u>	<u>1</u>	<u>100</u>	<u>160</u>	<u>185</u>	<u>30</u>	<u>V.C.</u>	<u>" "</u>
EMERGENCY GENERATOR ...	<u>✓</u>							
ROTARY TRANSFORMER: MOTOR ...	<u>✓</u>							
" " GENERATOR...	<u>✓</u>							

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

DESCRIPTION.								
POWER S.B. IN E. & B. ROOM.	<u>S.5</u>	<u>2</u>	<u>80</u>	<u>290</u>	<u>320</u>	<u>16</u>	<u>V.C.</u>	<u>LEAD COVERED, ARMOURED or STEEL BRAIDED.</u>
" " " " "	<u>S.6</u>	<u>1</u>	<u>160</u>	<u>217</u>	<u>252</u>	<u>26</u>	<u>V.C.</u>	<u>" "</u>
" " " " "	<u>S.7</u>	<u>1</u>	<u>63</u>	<u>131</u>	<u>138</u>	<u>30</u>	<u>V.C.</u>	<u>" "</u>
" " " " "	<u>S.8</u>	<u>1</u>	<u>63</u>	<u>115</u>	<u>138</u>	<u>10</u>	<u>V.C.</u>	<u>" "</u>
" " ON DECK	<u>S.9</u>	<u>1</u>	<u>50</u>	<u>100</u>	<u>118</u>	<u>35</u>	<u>V.C.</u>	<u>" "</u>
" " " " "	<u>Q.S. 10</u>	<u>2</u>	<u>40</u>	<u>86</u>	<u>102</u>	<u>125</u>	<u>V.R.</u>	<u>" "</u>
SHORE CONNECTION		<u>2</u>	<u>125</u>	<u>400</u>	<u>430</u>	<u>56</u>	<u>V.C.</u>	<u>" "</u>
RADIO STATION		<u>1</u>	<u>4</u>	<u>6</u>	<u>16</u>	<u>138</u>	<u>V.R.</u>	<u>" "</u>
TRANSFORMER 440/127		<u>1</u>	<u>32</u>	<u>80</u>	<u>88</u>	<u>6</u>	<u>V.C.</u>	<u>" "</u>
LIGHTING S.B. IN E.R.	<u>L.M.1</u>	<u>1</u>	<u>4</u>	<u>11</u>	<u>16</u>	<u>10</u>	<u>V.R.</u>	<u>" "</u>
" " " " "	<u>L.M.2</u>	<u>1</u>	<u>6.3</u>	<u>17</u>	<u>29</u>	<u>23</u>	<u>V.C.</u>	<u>" "</u>
" " " " "	<u>L.M.3</u>	<u>1</u>	<u>6.3</u>	<u>16</u>	<u>29</u>	<u>32</u>	<u>V.C.</u>	<u>" "</u>
" " " " "	<u>L.M.4</u>	<u>1</u>	<u>4</u>	<u>8</u>	<u>16</u>	<u>30</u>	<u>V.R.</u>	<u>" "</u>
" " IN B.R.	<u>L.C.1</u>	<u>1</u>	<u>4</u>	<u>12</u>	<u>16</u>	<u>38</u>	<u>V.R.</u>	<u>" "</u>

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq.-inches sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) in ft.	INSULATION.	PROTECTIVE COVERING.
			In the Circuit.	Rule.			
LIGHTING S.B. IN B.R.	<u>L.C.2</u>	<u>1</u>	<u>4</u>	<u>12</u>	<u>16</u>	<u>35</u>	<u>V.R.</u>
" " AFT	<u>L.I.1</u>	<u>1</u>	<u>6.3</u>	<u>17</u>	<u>29</u>	<u>40</u>	<u>V.C.</u>
" " " "	<u>L.E.1</u>	<u>1</u>	<u>6.3</u>	<u>22</u>	<u>29</u>	<u>45</u>	<u>V.C.</u>
" " " "	<u>L.I.2</u>	<u>1</u>	<u>6.3</u>	<u>25</u>	<u>29</u>	<u>28</u>	<u>V.C.</u>
" " " "	<u>L.I.3</u>	<u>1</u>	<u>6.3</u>	<u>16</u>	<u>29</u>	<u>55</u>	<u>V.C.</u>
NAVIGATION LIGHTS	<u>S.V.-F.N</u>	<u>1</u>	<u>4</u>	<u>10.5</u>	<u>16</u>	<u>140</u>	<u>V.R.</u>
S.B. IN GALLEY (127V)	<u>S.28</u>	<u>1</u>	<u>10</u>	<u>47</u>	<u>44</u>	<u>50</u>	<u>V.C.</u>
OVEN (127V)		<u>1</u>	<u>10</u>	<u>47</u>	<u>44</u>	<u>55</u>	<u>V.C.</u>
POWER S.D.B. IN E.R.	<u>S.7A</u>	<u>1</u>	<u>6.3</u>	<u>26</u>	<u>29</u>	<u>21</u>	<u>V.C.</u>
" " ON DECK (127V)	<u>Q.S.22A</u>	<u>1</u>	<u>6.3</u>	<u>25</u>	<u>29</u>	<u>60</u>	<u>V.C.</u>
" " " "	<u>S.28A</u>	<u>1</u>	<u>2.5</u>	<u>8</u>	<u>13</u>	<u>25</u>	<u>V.R.</u>
LIGHTING S.D.B.	<u>L.I.4</u>	<u>1</u>	<u>6.3</u>	<u>25</u>	<u>29</u>	<u>8</u>	<u>V.C.</u>
" " " "	<u>L.I.5</u>	<u>1</u>	<u>4</u>	<u>8</u>	<u>16</u>	<u>16</u>	<u>V.R.</u>
" " " "	<u>L.E.2</u>	<u>1</u>	<u>6.3</u>	<u>27</u>	<u>29</u>	<u>8</u>	<u>V.C.</u>
TRANSFORMER ON DECK 440/127		<u>1</u>	<u>16</u>	<u>37</u>	<u>58</u>	<u>3</u>	<u>V.C.</u>
SEARCHLIGHT		<u>1</u>	<u>32</u>	<u>50</u>	<u>73</u>	<u>196</u>	<u>V.R.</u>
RECTIFIER FOR CHARGING BATTERIES		<u>1</u>	<u>2.5</u>	<u>8.5</u>	<u>13</u>	<u>10</u>	<u>V.R.</u>
LIGHTING S.D.B. (d.c.)	<u>L.E.M.1</u>	<u>1</u>	<u>14.5</u>	<u>26</u>	<u>45</u>	<u>160</u>	<u>V.R.</u>
" " " "	<u>L.E.M.2</u>	<u>1</u>	<u>2.5</u>	<u>9</u>	<u>13</u>	<u>8</u>	<u>V.R.</u>
" " " "	<u>E.M.4</u>	<u>1</u>	<u>2.5</u>	<u>5</u>	<u>13</u>	<u>20</u>	<u>V.R.</u>
" " NAVIG. LIGHTS.		<u>1</u>	<u>2.5</u>	<u>2</u>	<u>13</u>	<u>20</u>	<u>V.R.</u>

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
MAIN CIRCULATING PUMPS	<u>2</u>	<u>72</u>	<u>1</u>	<u>40</u>	<u>97</u>	<u>102</u>	<u>32</u>	<u>V.C.</u>
EXTRACTION PUMPS	<u>2</u>	<u>32</u>	<u>1</u>	<u>10</u>	<u>38.5</u>	<u>44</u>	<u>34</u>	<u>V.C.</u>
LUBRICATING OIL CIRC. PUMPS	<u>2</u>	<u>29</u>	<u>1</u>	<u>16</u>	<u>48</u>	<u>58</u>	<u>22</u>	<u>V.C.</u>
TURNING GEAR	<u>1</u>	<u>10</u>	<u>1</u>	<u>4</u>	<u>14</u>	<u>16</u>	<u>18</u>	<u>V.R.</u>
F.O. PRESSURE PUMPS	<u>2</u>	<u>12.5</u>	<u>1</u>	<u>4</u>	<u>16</u>	<u>16</u>	<u>20</u>	<u>V.R.</u>
FORCED DRAUGH FANS	<u>3</u>	<u>135/65</u>	<u>1/1</u>	<u>100/32</u>	<u>165/81</u>	<u>185/88</u>	<u>38</u>	<u>V.C.</u>
EXTRACTION PUMPS FOR TURBOGENER.	<u>2</u>	<u>8.5</u>	<u>1</u>	<u>4</u>	<u>11.5</u>	<u>16</u>	<u>34</u>	<u>V.R.</u>
CIRCULATING " " "	<u>2</u>	<u>20</u>	<u>1</u>	<u>6.3</u>	<u>28</u>	<u>29</u>	<u>34</u>	<u>V.C.</u>
PURIFIERS	<u>2</u>	<u>4.5</u>	<u>1</u>	<u>1.6</u>	<u>7</u>	<u>7</u>	<u>26</u>	<u>V.R.</u>
BILGE PUMP	<u>1</u>	<u>10</u>	<u>1</u>	<u>4</u>	<u>14</u>	<u>16</u>	<u>14</u>	<u>V.R.</u>
DISTILLED WATER TRANSFER PUMP	<u>2</u>	<u>9</u>	<u>1</u>	<u>4</u>	<u>12</u>	<u>16</u>	<u>26</u>	<u>V.R.</u>
AUX. COND. CIRCUL. PUMP	<u>1</u>	<u>30</u>	<u>1</u>	<u>10</u>	<u>40</u>	<u>44</u>	<u>14</u>	<u>V.C.</u>
AIR COMPRESSOR	<u>1</u>	<u>60</u>	<u>1</u>	<u>32</u>	<u>85</u>	<u>88</u>	<u>22</u>	<u>V.C.</u>
VENT. FANS FOR E.R. & B.R.	<u>6</u>	<u>10</u>	<u>1</u>	<u>4</u>	<u>14</u>	<u>16</u>	<u>36</u>	<u>V.R.</u>
F.O. PRESSURE PUMP STARTING SET	<u>1</u>	<u>4.5</u>	<u>1</u>	<u>1.6</u>	<u>7</u>	<u>7</u>	<u>8</u>	<u>V.R.</u>
AIR COMP. FOR AUT. CONA. CONTROL	<u>2</u>	<u>6</u>	<u>1</u>	<u>2.5</u>	<u>9</u>	<u>13</u>	<u>34</u>	<u>V.R.</u>
PUMPS FOR EVAPORATOR SETS	<u>4</u>	<u>2</u>	<u>1</u>	<u>1.6</u>	<u>3.2</u>	<u>7</u>	<u>24</u>	<u>V.R.</u>
" " " " "	<u>1</u>	<u>10</u>	<u>1</u>	<u>4</u>	<u>14</u>	<u>16</u>	<u>25</u>	<u>V.R.</u>
F.W. & S.W. SERVICE PUMPS	<u>5</u>	<u>2.2</u>	<u>1</u>	<u>1.6</u>	<u>3.6</u>	<u>7</u>	<u>27</u>	<u>V.R.</u>
COMPRESSOR FOR AIR COND. SET	<u>3</u>	<u>16</u>	<u>1</u>	<u>6.3</u>	<u>21</u>	<u>29</u>	<u>10</u>	<u>V.C.</u>
CIRC. PUMP FOR ditto	<u>1</u>	<u>15</u>	<u>1</u>	<u>6.3</u>	<u>20</u>	<u>29</u>	<u>32</u>	<u>V.C.</u>
AIR CONDIT. SETS	<u>6</u>	<u>3</u>	<u>1</u>	<u>1.6</u>	<u>4.5</u>	<u>7</u>	<u>17</u>	<u>V.R.</u>
REFRIGERATORS	<u>2</u>	<u>8</u>	<u>1</u>	<u>4</u>	<u>11.4</u>	<u>16</u>	<u>10</u>	<u>V.R.</u>
COOLING PUMPS FOR ditto	<u>2</u>	<u>1.25</u>	<u>1</u>	<u>1.6</u>	<u>1.8</u>	<u>7</u>	<u>42</u>	<u>V.R.</u>
LIFE BOAT WINCHES	<u>4</u>	<u>8</u>	<u>1</u>	<u>4</u>	<u>11.4</u>	<u>16</u>	<u>48</u>	<u>V.R.</u>
STEERING GEAR	<u>2</u>	<u>45</u>	<u>1</u>	<u>25</u>	<u>59</u>	<u>75</u>	<u>65</u>	<u>V.C.</u>

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.
All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.
The foregoing is a correct description.

ANSALDO S. A.
CANTIERI NAVALI

Electrical Contractors.

Date 24-7-54

Y. Lami

COMPASSES.

Have the compasses been adjusted under working conditions.

ANSALDO S. A.
CANTIERI NAVALI

Builder's Signature.

Date 24-7-54

Y. Lami

Have the foregoing descriptions and schedules been verified and found correct. YES

Is this installation a duplicate of a previous case. NO If so, state name of vessel. ✓

Plans. Are approved plans forwarded herewith. NO If not, state date of approval. 10-5-54

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith. YES

General Remarks. (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

THE ELECTRICAL EQUIPMENT OF THIS VESSEL HAS BEEN CONSTRUCTED AND FITTED UNDER SPECIAL SURVEY AND IS IN ACCORDANCE WITH THE APPROVED PLANS, SECRETARY'S LETTERS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE GOOD.

UPON COMPLETION THE PLANT WAS TRIED UNDER FULL WORKING CONDITION, THE INSULATION RESISTANCE TESTED AND ALL FOUND SATISFACTORY.

THIS INSTALLATION IS ELIGIBLE FOR FULL CLASSIFICATION.

*Noted 98
21/9/54*

Total Capacity of Generators 1200 Kilowatts.

FIRST ENTRY FEE £1 485.000 = 485/-

The amount of Fee ...	£1 413.100 =	When applied for,
CAR FUND	17. 8.262 =	17/8/ 1954
Travelling Expenses (if any)	£1 33.138 =	When received,
REV. TAX. ...	17. 13.635 =	19

Committee's Minute. FRIDAY 1 OCT 1954

Assigned.

See Rpt. 4.

Amalfi

Surveyor to Lloyd's Register of Shipping.