

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

25 OCT 1947

Received at London Office.....

Date of writing Report... 27/9/47 When handed in at Local Office... 27/9/47 Port of... GENOA

No. in Survey held at... GENOA Date, First Survey... 25/8/47 Last Survey... 24/9/1947
Reg. Book. SUP (Number of Visits... 3...)

85802 on the TWEEN SC. M/S. ARIETE (EX REAL II - 47) Tons { Gross... 1069 Net... 2744

Built at... GÖTEBORGS By whom built... M.V. ANTIEB GÖTEBORGS Yard No. ✓ When built... 1915

Owners... TRANSOCEANICA ITALIANA ESPORT. Port belonging to... ROMA

Electrical Installation fitted by... M.V. ANTIEB GÖTEBORGS Contract No. ✓ When fitted... 1915

Is vessel fitted for carrying Petroleum in bulk... YES Is vessel equipped with D.F. NO E.S.D. NO Gy.C. NO Sub.Sig. NO

Have plans been submitted and approved... YES. System of Distribution... 2 WIRE 2 CONDUCTOR. Voltage of supply for Lighting... 110

Heating... NONE Power... 110 Direct or Alternating Current, Lighting... DIRECT Power... DIRECT. If Alternating Current state periodicity... ✓ Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off... YES. Are turbine emergency governors fitted with a

trip switch as per Rule... ✓ Generators, are they compound wound... SEPT., are they level compounded under working conditions... ✓

if not compound wound state distance between generators... 15 MET. and from switchboard... 5. Where more than one generator is fitted are they

arranged to run in parallel... NO, are shunt field regulators provided... YES. Is the compound winding connected to the negative or positive pole

✓ Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing... ✓ Have certificates of

test for machines under 100 kw. been supplied... ✓ and the results found as per rule... ✓ Are the lubricating arrangements and the construction

of the generators as per rule... YES. Position of Generators... ONE EN. R. CENTRE FORWARD, ONE PORT CENTRE IN EN. R.

ONE PORT AFT. ONE IN TWEEN DECK. is the ventilation in way of generators satisfactory... YES. are they clear of inflammable material... YES. if situated

near unprotected combustible material state distance from same horizontally... and vertically... are the generators protected from mechanical

injury and damage from water, steam and oil... YES. are the bedplates and frames earthed... YES. and the prime movers and generators in metallic

contact... YES. Switchboards, where are main switchboards placed... IN ENGINE ROOM AFT AND

STARBOARD.

are they in accessible positions, free from inflammable gases and acid fumes... YES. are they protected from mechanical injury and damage from water, steam

and oil... YES. if situated near unprotected combustible material state distance from same horizontally... and vertically... what insulation

material is used for the panels... MARBLE, if of synthetic insulating material is it an Approved Type... if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule... YES. Is the frame effectually earthed... YES.

Is the construction as per Rule... YES. including accessibility of parts... YES. absence of fuses on the back of the board... YES. individual fuses

to pilot and earth lamps, voltmeters, etc... LAMPS locking of screws and nuts... YES. labelling of apparatus and fuses... YES. fuses on the "dead"

side of switches... NO Description of Main Switchgear for each generator and arrangement of equaliser switches... DOUBLE POLE

CIRCUIT BREAKER - WITH OIL GENERATOR COMMUTATION

AND DOUBLE POLE SWITCHES.

and for each outgoing circuit... DOUBLE POLE CIRCUIT BREAKER

OR SWITCH AND FUSES.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... ✓ Instruments on main switchboard... 4

ammeters... 4 voltmeters... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection... Earth Testing, state means provided... 2 LAMPS

Switches, Circuit Breakers and Fuses, are they as per Rule... YES. are the fuses an approved type... YES. are all fuses labelled as

per Rule... YES. If circuit breakers are provided for the generators, at what overload current did they open when tested... are the reversed current

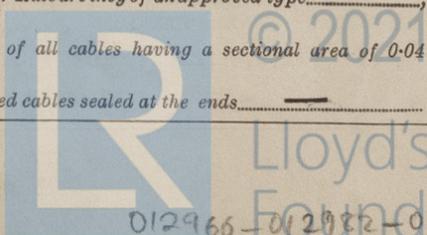
protection devices connected on the pole opposite to the equaliser connection... have they been tested under working conditions, and at what current

did they operate... Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule... YES

Cables, are they insulated and protected as per the appropriate Tables of the Rules... YES. if otherwise than as per Rule are they of an approved type...

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 0.04

square inch and above provided with soldering sockets... YES. Are paper insulated and varnished cambric insulated cables sealed at the ends...



with insulating compound _____ or waterproof insulating tape _____. 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 cables laid under machines or floorplates NO, if so, are they adequately protected. _____ Are cables in machinery spaces, galleys, laundries, etc., lead covered. YES & run in conduit. YES. State how the cables are supported and protected. BY METAL CLIPS OR IN STEEL PIPES IN ENG. ROOM & DECK.

Are all lead sheaths, armouring and conduits effectually bonded and earthed. YES. Refrigerated chambers, are the cables and fittings as per Rule _____. 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 and with what material. LEAD. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. YES. Emergency Supply, state position _____ and method of control. _____

Navigation Lamps, are they separately wired. YES controlled by separate double pole switches. YES 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. Secondary Batteries, are they constructed and fitted as per Rule. NONE, are they adequately ventilated. _____ what is the battery capacity in ampere hours. _____

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. YES. Are 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 PUMP ROOM. GAS TIGHT LAMPS IN GAS TIGHT STEEL BOX and where are the controlling switches fitted. ON DECK, are all fittings suitably ventilated. YES, are all fittings and accessories constructed and installed as per Rule. YES. Searchlight Lamps, No. of. NONE, whether fixed or portable. _____ are their fittings as per Rule. _____ 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. YES and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil. YES, if situated near unprotected combustible material state minimum distance from same horizontally. _____ and vertically. _____ Are motors coupled to oil fuel transfer and unit 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. NO. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule. NO. 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 the cartridge type. YES are they of an approved type. YES. 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. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule. YES, are they 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	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	1	24	110	218	425	DIESEL ENGINE	HAVY OIL	150° F
	1	18	110	163	550	"	"	"
	1	18	110	163	550	STEAM ENGINE	"	"
	1	18	110	163	450	MAIN ENGINE INT. SHAFT	"	"
ROTARY TRANSFORMER	—	—	—	—	—	—	—	—

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	24	1	195	218	240	46	RUBBER	LEAD WITH STEEL WIRE BRAIDING.
"	18	1	120	163	190	24	"	"
"	18	1	120	163	190	16	"	"
"	18	1	130	163	190	60	"	"
EMERGENCY GENERATOR	—	—	—	—	—	—	—	—
ROTARY TRANSFORMER: MOTOR	—	—	—	—	—	—	—	—
" " GENERATOR	—	—	—	—	—	—	—	—

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS	1	133	21	40	135	RUBBER	LEAD & STEEL WIRE BRAIDED
" " GENERAL LIGHTING	1	56	13	27	4	"	"
" " ENGINE ROOM LIGHTING	1	56	13	27	4	"	"

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
WIRELESS	1	4	5	32	20	RUBBER	LEAD & STEEL WIRE BRAIDED
NAVIGATION LIGHTS	1	2	1.8	10	28	"	"
LIGHTING AND HEATING	—	—	—	—	—	—	—
" FORWARD (CABIN ETC)	1	3	6.9	15	80	"	"
" BOILER ROOM.	1	2	2	10	14	"	"
" ENGINE STORES	1	9	22.5	35	40	"	"
" AFT (CABIN ETC)	1	8.4	10.9	33	30	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
			No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
LUB. OIL SEPARATOR	1	3	1	9.38	24	37	44	"	"
" " "	1	2	1	9.38	16	37	30	"	"
ONE AUX. PUMP.	1	1.1	1	4.5	9	24	70	"	"
OIL FUEL SEPARATOR	1	2	1	7.91	16	35	60	"	"
LUB. OIL PUMP.	1	1.5	1	6.65	13	31	30	"	"
SMALL REFRIG. ENGINE	1	3	1	10.88	24	40	55	"	"
AUX. COMPRESSOR	1	1.6	1	6.65	14	31	35	"	"
ONE AIR EXTRACTOR	1	1.3	1	6.65	11	31	32	"	"
ONE UNIVERSAL LATHE	1	2	1	7.91	16	35	70	"	"

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.

 Electrical Engineers.

 Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass..... 28 Mt.

Minimum distance between electric generators or motors and steering compass..... 26 Mt.

The nearest cables to the compasses are as follows:—

A cable carrying 8 Ampères 40W. feet from standard compass 10' feet from steering compass.

A cable carrying ✓ Ampères ✓ feet from standard compass ✓ feet from steering compass.

A cable carrying ✓ Ampères ✓ feet from standard compass ✓ feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power YES.

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted No

The maximum deviation due to electric currents was found to be ✓ degrees on ✓ course in the case of the standard compass, and ✓ degrees on ✓ course in the case of the steering compass.

 Builder's Signature.

 Date

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

Plans. Are approved plans forwarded herewith HEWTH ENCLOSED. If not, state date of approval ✓

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

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

The Electric Equipment has been made in accordance with the Rules, and plan herewith enclosed for approval. All the electrical machines have been tested in full working conditions and all circuits, governor have been satisfactory tested and Megger test carried out satisfactory. Main switch board and the full installation repaired as necessary now good.

Notes see 9/12/47

Total Capacity of Generators 78. ✓ Kilowatts.

The amount of Fee ...	L12 40,000. =	When applied for,	<u>20/10/1947</u>
CAR EXPS. FUND "	800. =		
OFFICE Travelling Expenses (if any) "	1,200. =	When received,	
REVENUE TAX ... "	1,260. =	19.....

[Signature]
 Surveyor to Lloyd's Register of Shipping.

FRI. 27 FEB 1948

Committee's Minute _____

Assigned see minute on Rpt 809

5111.4.39.—Transfer. (MADE AND PRINTED IN ENGLAND.)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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