

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

13 NOV 1947

Date of writing Report... 8/11/47... 1947 When handed in at Local Office... 8/11/47... 1947 Port of... Genoa

Survey held at... Genoa Date, First Survey... 19 July 1947 Last Survey... 20/10/1947

Reg. Book... 6731 on the... M.V. "ANTEO" Tons {Gross 6665 Net 3940}

Built at... PALERMO By whom built... CANTIERI NAVALI RIUNITI Yard No... When built... 1934 11 mo.

Owners... SOCIETA LIGURE DI ARMAMENTO Port belonging to... GENOA

Electrical Installation fitted by... Cantieri del Tirano Contract No... When fitted... 1947-10 mo.

Vessel fitted for carrying Petroleum in bulk... Yes Is vessel equipped with D.F... Yes E.S.D... No Gy.C... No Sub.Sig... No

Have plans been submitted and approved... Yes System of Distribution... 2-pole Voltage of supply for Lighting... 110V

Power... 110V Direct or Alternating Current, Lighting... Power... If Alternating Current state periodicity... Prime Movers,

Are 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... Yes, are they level compounded under working conditions... ✓

not compound wound state distance between generators... ✓ and from switchboard... ✓ 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

Positive 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... ✓ Position of Generators... In Engine Room

is the ventilation in way of generators satisfactory... ✓ are they clear of inflammable material... ✓, 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... ✓, are the bedplates and frames earthed... ✓ and the prime movers and generators in metallic

contact... ✓ Switchboards, where are main switchboards placed... In Engine Room

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

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

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

ends of switches... Yes Description of Main Switchgear for each generator and arrangement of equaliser switches... Automatic Switches

provided for each outgoing circuit... Lever Switches

are compartments containing switchboards composed of fire-resisting material or lined as per Rule... Yes Instruments on main switchboard... 3

voltmeters... 3 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... Pilot lights

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

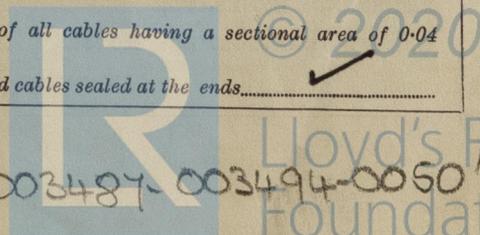
protection devices connected on the pole opposite to the equaliser connection... ✓, have they been tested under working conditions, and at what current

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

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... ✓

the maximum fall of pressure between bus bars and any point under maximum load... 3 volts, 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 or run in conduit. State how the cables are supported and protected. with metallic supports.

Are all lead sheaths, armoring 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 Lead and with what material. Lead Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. 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. 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. no, if so, how are they protected.

and where are the controlling switches fitted. are all fittings suitably ventilated.

are all fittings and accessories constructed and installed as per Rule. Yes Searchlight Lamps, No. of , 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.

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule. Control Gear and Resistances, are they constructed and fitted as per Rule.

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. are all fuses of the cartridge type.

are they of an approved type. Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships. Are the cables lead covered as per Rule. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule. are they suitably stored in dry situations. 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.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	Nº1	14	110	127		Diesel		
	Nº2	13	110	118		Steam		
	Nº3	15	110	136		Intermediate Shaft.		
EMERGENCY								
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	Nº1	14.	1	1500	127	150	40	Rubber Lead covered and armoured.
" " EQUALISER	Nº2	13.	1	1500	118	150	132	" "
	Nº3	15.	1	1500	136	150	165	" "
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 ...							
Midship Sackin Box.	1	.0400	37	65	396	Rubber	Lead covered and armoured.
ast	1	.0225	35	48	66	"	"
Workshop.	1	.0225	30	48	132	"	"
Galley	1	.0400	42	65	165	"	"
Refrigerator.	1	.0100	23	30	231	"	"
Oil Purifier.	1	.0750	80	95	99	"	"
Turning motor.	1	.0600	42	82	82	"	"

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
WIRELESS	1	.0225	16	48	400	Rubber	Lead covered and armoured.
NAVIGATION LIGHTS	1	.00299	2	7	410	"	"
LIGHTING AND HEATING							
D.B. Nº2. Engine Room	1	.0090	13	23	80	"	"
D.B. Nº3	1	.0090	13	23	49	"	"
" Nº4 Accomodatin Apt.	1	.0070	15	23	30	"	"
" Nº5	1	.0030	6	10	104	"	"
" Nº6	1	.0030	7	10	12	"	"
" Nº7	1	.0030	7	10	33	"	"
" Nº8	1	.0030	3	10	165	"	"
" Nº9	1	.0070	19	23	6	"	"
" Nº10	1	.0070	15	23	12	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
D.B. Nº1 Fuel Oil Purifier	4	1	.0145	30.9	38	31	Rubber	Lead covered and armoured.	
(Subst. ")	3	1	.0100	23.3	29	34	"	"	

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.

Comteu del C. nuevo - Juan de Rey Electrical Engineers.

Date *25/10/47*

COMPASSES.

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

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

The nearest cables to the compasses are as follows:—

A cable carrying Ampères feet from standard compass 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

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted

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..... If so, state name of vessel.....

Plans. Are approved plans forwarded herewith..... If not, state date of approval..... *12 August 1947.*

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 Electrical Equipment has been made in accordance with the rules and approved plans - the workmanship is good, and the installation has been examined under working conditions and found satisfactory. The insulation has been megger tested with satisfactory results.

Total Capacity of Generators *42.* Kilowatts.

The amount of Fee ...	<i>£4,350.00</i>	When applied for,	<i>8/11/47</i>
<i>CAR EXPS. FUND</i>	<i>870</i>	When received,	
<i>TRAVELLING EXPENSES (if any)</i>	<i>£305.</i>		
<i>REVENUE TAX</i>	<i>4 1.370</i>		

E. Wilson for Self & M. Bonivento.
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *See Rpt 9*

