

Rpt. 13.

No. 10113

REPORT ON ELECTRIC FITTINGS

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 15 DEC 1927

Date of writing Report 30. 11. 1927 When handed in at Local Office

Port of Genoa

No. in Survey held at Genoa

Date, First Survey 27. 8. 1926 Last Survey 10. 11. 1927

Reg. Book.

(Number of Visits 70)

on the Quad. Scr. motor vessel Augustus

Tons { Gross 32649.8
Net 19612.56

Built at Genoa Sestri

By whom built

Soc. Anon. Ansaldo

Yard No. 282

When built 1927

Owners

Navi. Generale Italiana

Port belonging to

Genoa

(1) Officine Albalimeto Nav. Genoa

Electric Light Installation fitted by

(2) Ansaldo, S.A.R. Genoa

Contract No.

When fitted 1927

System of Distribution Ring - Two wire separate

Pressure of supply for Lighting

110

volts, Heating

110

volts, Power

220

volts.

Direct or Alternating Current, Lighting

Direct

Power

Direct

If alternating current system, state frequency of periods per second

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off? Yes

Generators, do they comply with the requirements regarding rating

Yes

are they compound wound

Shunt with aux. poles

are they over compounded 5 per cent.

Yes

if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel

Yes

is an adjustable regulating resistance fitted in

series with each shunt field

Yes

Are all terminals accessible, clearly marked, and furnished with sockets

Yes

are they so spaced or shielded that they cannot be accidentally earthed,

short circuited, or touched

Yes

Are the lubricating arrangements of the generators as per Rule

Yes

Position of Generators

Auxiliary Engine Room On tank top

Emergency dynamo on C. deck

is the ventilation in way of the generators satisfactory

Yes

are they clear of all inflammable material

Yes

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators

no woodwork near

are the generators protected from mechanical injury and damage from water, steam or oil

Yes

are their axes of rotation fore and aft

Yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed

Yes

are the prime movers and

their respective generators in metallic contact

Yes

Main Switch Boards, where placed

In Auxiliary Engine Room

Aft Bulkhead

If the generators and main switchboard are not placed in the same compartment, is each generator provided with

a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard

Yes

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes

Yes

are they protected from mechanical injury and damage from water, steam or oil

Yes

if situated near unprotected

woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards

no woodwork

are they constructed wholly of durable, non-ignitable non-absorbent materials

Yes

is all insulation of high dielectric strength and of

permanently high insulation resistance

Yes

if semi-insulating material is used, are all conducting parts insulated from the slab

with mica or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

Yes

and is the frame effectively earthed

Yes

Are the fittings as per Rule regarding: — spacing or shielding of live parts

Yes

accessibility of all parts

Yes

absence of fuses on back of board

Yes

proportion of omnibus

bars, individual fuses to voltmeter, pilot or earth lamp

Yes

connections of switches

insulated

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

fuses and switches Automatic circuit breakers with overload and reversed current trips

Instruments on main switchboard

30

ammeters

11

voltmeters

synchronising device for paralleling purposes

Lamps on

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

Switch boards

Ohm meter for power circuits

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules

Yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule

Yes

W1042-0019 1/2



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Cables: Single, twin, concentric, or multicore are the cables insulated and protected as per Tables IV or V of the Rules.

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load. *0 for lighting, 2 for Power*

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets *yes*

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound *none*

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage *yes*

Support and Protection of Cables, state how the cables are supported and protected *Supported in galvanized clips & perforated plates. Cables armoured with steel braiding throughout*

If cables are run in wood casings, are the casings and caps secured by screws *yes*, are the cap screws of brass *yes*, are the cables run in separate grooves *yes*. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII *yes*

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements *yes*

Joints in Cables, state if any, and how made, insulated, and protected *Looping System*

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands *yes*

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *yes*, state the material of which the bushes are made *lead*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas *Switch board & Dynamo frames earthed by direct metallic contact. Indicating lamps on switchboards with 2 sq. in. earthing cable*, are their connections made as per Rule *yes*

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule *yes*

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven *Controls on main switch boards & Auxiliary switchboards. Generator driven by Diesel Motor & fitted on C. Deck*

Navigation Lamps, are these separately wired *yes*, controlled by separate switch and separate fuses *yes*, are the fuses double pole *yes*, are the switches and fuses grouped in a position accessible only to the officers on watch *yes*

has each navigation lamp an automatic indicator as per Rule *yes*

Secondary Batteries, are they constructed and fitted as per Rule *yes*

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight *yes*, are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected *cables in iron piping with junction boxes*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *yes*, how are the cables led *yes*

where are the controlling switches situated *yes*

Searchlight Lamps, No. of *Two*, whether fixed or portable *fixed*, are their fittings as per Rule *yes*

Are Lamps, other than searchlight lamps, No. of *yes*, are their live parts insulated from the frame or case *yes*, are their fittings as per Rule *yes*

Motors, are their working parts readily accessible *yes*, are the coils self-contained and readily removable for replacement *yes*, are the brushes, brush holders, terminals and lubricating arrangements as per Rule *yes*, are the motors, placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material *yes*

are they protected from mechanical injury and damage from water, steam or oil *yes*, are their axes of rotation fore and aft *See Secs later E 5.1.27*

if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type *yes*, if not of this type, state distance of the combustible material horizontally or vertically above the motors *yes* and *yes*

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule *yes*

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings *yes*

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *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	3	600 Each	220	2740	300	Diesel Motors	Diesel Oil	above 150° F.	
AUXILIARY	4	280	220	1270	200	"	"	"	
EMERGENCY	1	100	220	450	420	"	"	"	
ROTARY TRANSFORMER	3	93	115	800	750	Electric Motors			

LIGHTING AND HEATING CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor, Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current, Amperes.	Approximate Length, (Lead and Return), Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	6	500	Copper	1/8 in.	2740	38	From 300 yds.	From 300 yds. up.
	EQUALISER CONNECTIONS	✓						up. Copper	Two ribbons of
	AUXILIARY GENERATOR	3	500	427	1.2	1270	100	Leadwood, Rubb.	galvanized iron
	EMERGENCY GENERATOR	2	500	427	1.2	450	12	Rubber, white & black	and impregnated
	ROTARY TRANSFORMER...	1	600	703	1.05	570	20	rubber tape	tapes.
	AUXILIARY SWITCHBOARDS	2	400	427	1.1	753	100	Two ribbons	From 1 to 150 yds.
	ENGINE ROOM	1	95	91	1.15	150	16	Tapes.	above lead
	BOILER ROOM	1	8	7	1.2	10	50	Two tapes	impregnated
	ACCOMMODATION	1	75	37	1.6	120	40	of Hessian cloth	paper, with steel braid
	In above list representative have been taken. The other connections are of smaller sizes & their loads do not exceed those allowed by Rules.								covered with protective varnish
								From 1 to 150 yds.	
								Copper. Leadwood.	
								Two tapes	
								White & black rubber	
	WIRELESS	1	20	19	1.2	23	240	Two tapes	
	SEARCHLIGHT	1	20	19	1.2	50	140	Two tapes	
	MASTHEAD LIGHT...	1	1.13	1	1.2	1	75	rubber tape	
	SIDE LIGHTS	1	1.13	1	1.2	1	24	Lead covered	
	COMPASS LIGHTS	1	1.13	1	1.2	1	10	all conductors	
	POOP LIGHTS	1	2	1	1.6	1	580		
	CARGO LIGHTS	1	2	1	1.6	1	20		
	ARC LAMPS	1	2x400	427	1.1	450	30		
	HEATERS	1	1x75	37	1.6	75	60		
		1	1x20	19	1.2	20	12		

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor, Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current, Amperes.	Approximate Length, (Lead and Return), Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	3	200	239	1.2	335	166-20	As above	As above
	MAIN BILGE LINE PUMPS	4							
	GENERAL SERVICE PUMP	1	120	127	1.1	74	60		
	EMERGENCY BILGE PUMP	2	45	37	1.6	132	34		
	SANITARY PUMP	2	610	703	1.05	545	440		
	CIRC. SEA WATER PUMPS	2	610	703	1.05	545	660		
	CIRC. FRESH WATER PUMPS	2	400	427	1.1	450	330		
	AIR COMPRESSOR	2	400	427	1.1	450	330		
	FRESH WATER PUMP	3	6.5	7	1.1	33	16-20		
	ENGINE TURNING GEAR	4	20	19	1.2	606	220		
	ENGINE REVERSING GEAR	6	135	37	2.15	2204	550		
	LUBRICATING OIL PUMPS	2	150	37	2.25	220	20		
	OIL FUEL TRANSFER PUMP	1	500	427	1.2	470	62		
	WINDLASS	12	200	189	1.15	182	60	For each two	
	WINCHES, FORWARD & AFT.	8	30	37	1.0	39	60	" " "	
	WINCHES, AFT BOATS								
	STEERING GEAR								
	(a) MOTOR GENERATOR	9	150	133	1.2	136	20	Note: The connections for the small motor, i.e. 14 1/2 H.P. tanks, fans, radiators etc. are in accordance with Rule Requirements.	
	(b) MAIN MOTOR	3	2.5	1	0.9	26.5	10		
	WAREHOUSE MOTOR	1	670x4	403	1.1	2400	48/190		
	VENTILATING FANS	2	6.5	7	1.1	32	8		
	OIL TRANSFER (E.R.)	3	2x2	1	1.6	18.3	28		
	OIL TRANSFER TO D.B.	3	2x2	1	1.6	18.3	28		
	FIRE DRAIN PUMPS	2	15	19	1	30	18		
	DONKEY BLR FEED	1	2x2	1	1.6	12.2	88		
	" OIL FUEL "	2	15	19	1	52.5	112		
	" FAN MOTOR	1	20	19	1.1	60	110		
	AUX. COAL FIRE PUMP	2	2	1	1.6	5.8	6		
	EVAPORATOR FEED	1	300	239	1.2	280	80		
	CAPSTANS, F.V.A.								

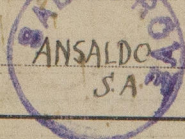
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All Conductors are of annealed copper conforming to British Standard Specification No. 7. *Yes*

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules. *Yes*

The foregoing is a correct description.



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3 DEC 1927

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass *10 metres*

Distance between electric generators or motors and steering compass *6 "*

The nearest cables to the compasses are as follows:—

A cable carrying *1* Ampères *10* metres feet from standard compass *6* metres feet from steering compass.

A cable carrying *3* Ampères *12* metres feet from standard compass *8* metres 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. *Yes*

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

OFFICINE D'INVESTIMENTO E RIPARAZIONI NAVI

R. Vellio

Builder's Signature.

Date

Is this installation a duplicate of a previous case *no* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The installation has been built under Special Survey, Tested Materials, and in accordance with Secretary's Letters, Approved plans, and Rule Requirements

The materials and workmanship are good and the installation when tried under full working conditions was found satisfactory
In our opinion the vessel is eligible for "Electric Light" (notation)

It is submitted that
this vessel is eligible for
THE RECORD. *Electric Light*

25/11/27

27/12/27

Total Capacity of Generators *3300* Kilowatts.

The amount of Fee ... *£11,400* = : When applied for, *1. 12. 1927.*

Travelling Expenses (if any) *£500* : : When received, *21/2/28*

J. R. Morrison & Co. Surveyors
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im 126. - Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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