

## REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

17 NOV 1926

Date of writing Report 24<sup>th</sup> Oct. 1926 When handed in at Local Office 16<sup>th</sup> Nov. 1926 Port of DunkirkNo. in Survey held at Dunkirk Date, First Survey 19<sup>th</sup> Jan. 1926 Last Survey 27<sup>th</sup> October 1926

on the M/V "THEOPHILE GAUTIER" (Number of Visits 16)

Built at Dunkirk By whom built "Chantiers de France" Yard No. 132 Tons { Gross 8705.7 Net 4688.43

Owners Messageries Maritimes Port belonging to Marseilles When built 1926

Electric Light Installation fitted by "Chantiers de France" Contract No. ✓ When fitted 1926

System of Distribution Two wire Continuous Current

Pressure of supply for Lighting 110 volts, Heating None volts, Power 110 volts.

Direct or Alternating Current, Lighting Direct Current 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 ✓

Generators, do they comply with the requirements regarding overload ✓, are they compound wound ✓

are they over compounded 5 per cent. ✓, if not compound wound state distance between each generator ✓

Where more than one generator is fitted are they arranged to run in parallel ✓, is an adjustable regulating resistance fitted in series with each shunt field ✓

Are all terminals accessible and clearly marked ✓, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited ✓

Are the lubricating arrangements of the generators as per Rule ✓

Position of Generators On lower Engine platform 2 port, 2 starboard.

is the ventilation in way of the generators satisfactory ✓, are they clear of all inflammable material ✓

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

No woodwork ✓, are the generators protected from mechanical injury and damage from water, steam or oil ✓

are their axis of rotation fore and aft ✓

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

their respective generators in metallic contact ✓

Main Switch Boards, where placed Engine Room Middle platform, forward End.

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 Same Compartment

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

are they protected from mechanical injury and damage from water, steam or oil ✓, if situated near unprotected

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

are they constructed wholly of durable, incombustible non-absorbent materials ✓ Marble, is all insulation of high dielectric strength and of

permanently high insulation resistance ✓, if semi-insulating material is used, are all conducting parts connected to one pole

insulated from the slab with mica or micanite and the slab similarly insulated from its framework ✓, and is the

frame effectively earthed ✓

Are the following fittings as per Rule, viz.:— spacing or shielding of live parts

✓, accessibility of all parts ✓, absence of fuses on back of board ✓, proportion of omnibus

bars 70x10% Double, individual fuses to voltmeter, pilot or earth lamp ✓, connections of switches ✓

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Two Sets of 3 bars

One for Lighting the other for power. Dynamos Connected to one or the other through

3 pole 2 way switches. Automatic Cut out for Each Dynamo.

Instruments on main switchboard 4 ammeters 4 voltmeters ✓ synchronising device for paralleling purposes.

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

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

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

Insulation of Cables, state type of cables, single or twin *Twin* are the cables insulated and protected as per Tables III or IV of the Rules *Yes*  
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *5 V.M.S*  
Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 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 paper covered*  
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 *In Cabins Cased in wood, in both rooms*  
*Stones etc lead covered, Elsewhere lead covered & armoured supported by brass clips 20 to 30 cm*  
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 VI *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 *To joints in cables. By connection boxes or at fittings*  
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 Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *all armoured* state the material of which the bushes are made *Lead*  
Earthing Connections, state what earthing connections are fitted and their respective sectional areas *Yes*  
Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule *Yes*, are their connections made as per Rule *Yes*  
*Yes in groups of 2 and 3, one of 4 lights*  
Emergency Supply, state position and method of control of the emergency supply and how the generator is driven *Boat deck, with special change over switch on Emergency Switchboard. Motor driven.*  
Navigation Lamps, are these separately wired *Yes and in duplicate*, 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*  
*adaptable for both*  
has each navigation lamp an automatic indicator as per Rule *Yes*, are separate screws provided for the use of oil and electric side lights *Yes*  
*are fitted with duplicate lamps separately wired and connected to main emergency generators with fire way switches.*  
are separate oil lanterns provided for the mast head lights and side lights *Yes*  
Fittings, are all fittings on weather decks, in ~~cabins~~ 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 *Cast iron watertight 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 *None*  
where are the controlling switches situated *Yes*  
Searchlight Lamps, No. of *None*, whether fixed or portable *Yes*, are their fittings as per Rule *Yes*  
Are Lamps, other than searchlight lamps, No. of *None*, 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 axis of rotation fore and aft *Not all*  
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 as per Rule *Yes*  
Lightning Conductors, where lightning conductors are required, are these fitted as per Rule *Yes* *40 x 4 = 100 sq in*  
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 *Flash point of oil stated to be 92° C.*  
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.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.	
MAIN ...	4	165	110	1500	300	Sulzer Motor	Crude Oil	92° C.	
AUXILIARY ...	1								
EMERGENCY ...	1	12	110	109	950	Bandwin Motor			
ROTARY TRANSFORMER									

LIGHTING AND HEATING CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current Amperes.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	4	376	61	3/16	1500	35	Lead covered	Steelband Armour
	AUXILIARY GENERATOR	1							
	EMERGENCY GENERATOR	1	74.3	37	1/16	109	3	Do.	Steel Armour.
	ROTARY TRANSFORMER...	1							
	AUXILIARY SWITCHBOARDS	1							
	ENGINE ROOM	10	Various	Various	Various	101	5 TO 40	Do.	Steel Armour.
	BOILER ROOM	1							
	WIRELESS	1	9.45	7	1/16	37	25	Lead covered	Steel Armour
	SEARCHLIGHT	2	3.5	7	8/16	18	90	Rubber	Immy metal tube
	MASTHEAD LIGHT...	2	3.5	7	8/16	18	12	Do.	Do.
	SIDE LIGHTS	1	1.13	7	1/16	7	10	Do.	Do.
	COMPASS LIGHTS	1	3.5	7	8/16	18	120	Lead covered	Armoured
	POOP LIGHTS								
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

Please see 5 sheets attached as now fitted.

See this re insulation of cables.

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current Amperes.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	1	84	37	1/16	144	50	Lead covered	Steel Armour.
	MAIN BILGE LINE PUMPS	2	65	37	1/16	120	50	Do.	Do.
	GENERAL SERVICE PUMPS	2	84	37	1/16	144	50	Do.	Do.
	EMERGENCY BILGE PUMP	1							
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS	2	244	37	29/16	340	22	Do.	Do.
	CIRC. FRESH WATER PUMPS	2	3.5	7	8/16	13	35	Do.	Do.
	AIR COMPRESSOR	2	756	2x61	28/16	620	48	Do.	Do.
	FRESH WATER PUMP	2	5.50	7	1/16	14	22	Do.	Do.
	ENGINE TURNING GEAR	1							
	ENGINE REVERSING GEAR	1							
	LUBRICATING OIL PUMPS	2	25.6	19	13/16	56	22	Do.	Do.
	OIL FUEL TRANSFER PUMP	2	25.6	19	13/16	56	50	Do.	Do.
	WINDLASS	1	299	61	25/16	390	120	Do.	Do.
	WINCHES, FORWARD	6	182	37	25/16	240	90 TO 100	Do.	Do.
	WINCHES, AFT	6	182	37	25/16	240	90 TO 100	Do.	Do.
	STEERING GEAR	1	38.7	19	16/16	70	82	Do.	Do.
	WORKSHOP MOTOR	1	9.45	7	13/16	20	50	Do.	Do.
	VENTILATING FANS	13							
	CRANES	4	299	61	25/16	390	120	Do.	Do.
	BOAT WINCHES	2	105	37	19/16	170	40	Do.	Do.
	PASSENGER LIFT	2	128	37	21/16	180	28	Do.	Do.
	FORE PUMP	1	48.2	19	18/16	72	24	Do.	Do.
	OIL SEPARATORS	1	25.2	19	17/16	45	56	Do.	Do.
	PISTON COOLING	2	5.5	7	19/16	19	35	Do.	Do.
	REFRIG. MACH.	2	84	37	17/16	160	22	Do.	Do.
	TURBO BLOWERS	2	128	37	21/16	200	22	Do.	Do.
	FIRE PUMPS	2	1350	3x41	25/16	1200	32	Do.	Do.
		2	84	37	17/16	160	22	Do.	Do.

All Conductors are of annealed copper conforming to British Standard Specification No. 7.  
The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.  
The foregoing is a correct description.

SOCIÉTÉ DES  
& CHANTIERS DE FRANCE

DUNKERQUE

Electrical Engineers.

Date 16 November 1926

#### COMPASSES.

Distance between electric generators or motors and standard compass 28 metres

Distance between electric generators or motors and steering compass 26 m 60 cm

The nearest cables to the compasses are as follows:—

A cable carrying 7.33 Ampères fitted in feet from standard compass feet from steering compass.

A cable carrying 7.33 Ampères fitted in feet from standard compass fitted in feet from steering compass.

A cable carrying 7.33 Ampères fitted in feet from standard compass fitted in feet from steering compass. aft

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 Ace course in the case of the standard compass, and Nil degrees on Ace course in the case of the steering compass.

SOCIÉTÉ DES ATELIERS  
& CHANTIERS DE FRANCE

DUNKERQUE

Builder's Signature.

Date 16 November 1926

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.)

This installation has been fitted on board in accordance with the requirements of the Rules for Electric fittings, the Secretary's and Paris office letters. The materials employed have been manufactured by Messrs Geoffroy and Delore à Clichy (Seine) and tested by the Society's Paris office Surveyors, the workmanship is good. Although there is a slight deviation from the approved plans the installation is eligible in my opinion to receive the favourable consideration of the Committee.

4. Plans and 6. List of Cables (as now fitted) duplicates to the ones placed on board the vessel and received from the builders on the 5th November 1926 are forwarded under separate cover.

The Emergency motor has been fitted in a steel house built on the boat deck, no wood used in the construction, double pole linked switches fitted. Flash point of oil to be used has not been given.

Total Capacity of Generators 660 Kilowatts

The amount of Fee ... £ 75.7615.- 19.10.26

Travelling Expenses (if any) £ : : 26.19.27

Committee's Minute

Assigned

Surveyor to Lloyd's Register of Shipping.



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Foundation