

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 16 NOV 1955  
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Date of writing Report 18th May 55 When handed in at Local Office 16th Mar. 55 Port of Harbours  
No. in Survey held at La Ciotat and Marseilles Date, First Survey 19th Feb. Last Survey 7th April 1955  
Reg. Book. (No. of Visits) eighteen

on the single screw tanker "IPHIGENIA"  
Built at La Ciotat By whom built Chantiers Navals de la Ciotat Card No. 175 When built 1955  
Owners Societe Shell Indochine Port belonging to HAVRE  
Installation fitted by Chantiers Navals de la Ciotat When fitted 1955

Is vessel equipped for carrying Petroleum in bulk  Is vessel equipped with D.F.  E.S.D.  Gy.C.  Sub. Sig.  Radar

Plans, have they been submitted and approved  System of Distribution 440 AC 3 plate 2 wires Voltage of Lighting 115 V  
115 AC 1 plate 2 wires

Heating 115 V Cooling 440 V Power 440 & 115 D.C. or A.C., Lighting AC Power AC If A.C. state frequency 60 periods

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

Are the generators arranged to run in parallel.  Is the compound winding connected to the negative or positive pole.  Landed with auto regulator

Have machines 100 kw. and over 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.  Position of Generators Turbo alternator sets on port and starboard engine room upper flat and Diesel Alternator set at after end of engine room lower platform S.S.

is the ventilation in way of generators satisfactory.  are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil.  Switchboards, where are main switchboards placed. Main switchboards on port engine room upper flat; Auxiliary switchboards on port and starboard engine room lower flat

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil.  what insulation is used for the panels. Dead part type, fittings on insulated bars 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.  Is the construction as per Rule, including locking of screws and nuts.  Description of Main Switchgear and time lag, reverse current relay and time lag and no volt trip.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. AC triple pole circuit breaker, overload trip and time lag; triple pole breakers and fuses; AC double pole switch and fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule.  Instruments on main switchboard 3 ammeters 3 voltmeters 2 lamps synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection.  Earth Testing, state means provided. lamps leakage indicator Preference Tripping, state if provided.  and tested.

Switches, Circuit Breakers and Fuses, are they as per Rule.  are the fuses an Approved Type.  make of fuses. Pelle and Lehes are all fuses labelled.  If circuit breakers are provided for the generators, at what overload do they operate. Tested at 100% full load, set at 125% F.L., and at what current do the reverse current protective devices operate. Tested at 10% full load, set at 6% full load

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. less than 5% volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends.

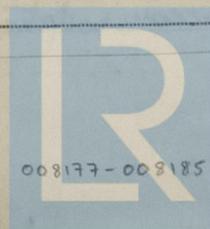
Are all the cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage.  are any cables laid under machines or floorplates.  if so, are they adequately protected.  State type of cables (if in conduit this should also be stated) in machinery spaces VC & VRI, LC & LC KB, galleys VC & VRI LC & LC KB and multiple insulated single core cables on fore and aft

and laundries. VC & VRI, LC & LC KB State how the cables are supported or protected. galley supported on wooden cleats in steel fabricated channels. Alternators, group starters and switchboards cables earthed (at both ends). All lead covered cables earthed (earthed at each end) and fixed to steel trays, metal or wood work and protected by plates where necessary.

Are all lead sheaths, armouring and conduits effectually bonded and earthed.  Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands.  where unarmoured cables pass through beams, etc., are the holes effectively bushed.  Refrigerated chambers, are the cables and fittings as per Rule.  yes (domestic chambers)

Have refrigeration fan motors been constructed under survey.  and test certificates supplied.

Are the motors accessible for maintenance at all times.



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule Yes Emergency Supply, state position Engine Room emergency lighting battery in Electr. House and E.R.

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, fitted and adequately ventilated as per Rule Yes, state battery capacity in ampere hours 80 Ah Where required to do so does it comply with 1948 International Convention ✓

Lighting, is fluorescent lighting fitted No If so, state nominal lamp voltage ✓ and compartments where lamps are fitted ✓

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

Searchlights, No. of one, whether fixed or portable portable, are they of the carbon arc or of the filament type filament

Heating and Cooking, is the general construction as per Rule Yes, are the frames effectually earthed Yes, are heaters in the accommodation of the convection type to be supplied Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases can't 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

Lightning Conductors, where required are they fitted as per Rule ✓

Ships carrying Oil having a Flash Point of 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 DELLE and CEVESS Are the fittings for pump rooms, 'ween deck spaces, etc., in accordance with the special requirements for such ships Yes Are all cables lead covered as per Rule Yes

E.S.D., if fitted state maker Belvux location of transmitter and receiver Engine Room double bottom

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.		TYPE.	MAKER.
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.			
MAIN Alternator	2	Société Générale de Construction Electriques et Mécaniques "ALSTHOM"	550	440	880	1800	Steam Turbo	ALSTHOM	
Exciter	2	at Belfast					Turbo	Belfort	
Emergency Generator	1	Cie Gen. Electrique at Nancy	250	440	257	450	4 SCVA Diesel engine coupled	Chautier Harle de la Ciotat (NORBERG)	

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return leads) in m.	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR (Steam)	2	550	3	150x3=450	880 A	989 A	24m.	VC	LCB
EQUALISER	✓								
Auxiliary (Diesel) Generator	1	250	2	122x2=244	320 A	420 A	42m.	VC	LCAB
EMERGENCY GENERATOR	✓								
ROTARY TRANSFORMER: MOTOR	✓								
" GENERATOR	✓								

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.	No. of	Kw.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return leads) in m.	INSULATION.	PROTECTIVE COVERING.
Port (Group starters) Aux. Switchboard	3	145x3=585	3	145x3=585	815 A	1083 A	85m	VC	LCB
Starb (Group starters) Aux. Switchboard	3	145x3=585	3	145x3=585	767 A	1083	31m	VC	LCB
Power Engine Room Port	1	48	1	48	19 A	84	107	VC	LCAB
Power Engine Room Starboard	1	38	1	38	19 A	67	85	VC	LCAB
Auxiliary Loop 440V	1	145	1	145	127	253	25	VC	LCAB
Auxiliary Bridge 440V	1	94	1	94	117	164	95	VC	LCAB
Galley 440V	1	38	1	38	75	85	34	VC	LCAB
Auxiliary Loop 115V	1	94	1	94	118	164	15	VC	LCAB
Ventilation E.R. Room	1	38	1	38	61	85	21	VC	LCAB
Ventilation Accommodation	1	38	1	38	38	85	22	VC	LCAB

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return leads) in m.	INSULATION.	PROTECTIVE COVERING.
			In the Circuit.	Rule.			
Winers	1	7.92	15A	30A	85	VC	LCAB
Searchlight	1	14.1	26	53	80	VC	LCAB
Headhead lights	1	2	0.4	9.5	75	VR	LCAB
Side lights	1	2	0.5	9.5	25	VR	LCAB
Compass lights	1	2	0.4	9.5	20	VR	LCAB
Log lights	1	2	0.4	9.5	140	VR	LCAB

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. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return leads) in m.	INSULATION.	PROTECTIVE COVERING.
Main Bilge line pumps	1	35	1	21.5mm <sup>2</sup> 47A	60A	15m	VC	LCAB	
General service pump	1	38	1	21.5	49	60	17	VC	LCAB
Emergency Bilge pump (Aux)	1	5.5	1	3.5	8	12	25	VR	LCAB
Sewerage pumps	4	1.5	1	3.5	2.5	12	30	VR	LCAB
Circ. Sea Water pumps	3	65	1	48	85	107	22	VC	LCAB
Aux. Circ. Sea Water pumps	2	47	1	29.3	58.6	69	26	VC	LCAB
Circ. Fresh Water pump	1	10	1	7.4	13.5	20	32	VC	LCAB
Air compressors	3	12	1	7.9	16	20	32	VC	LCAB
Feed (Main Bilge) Water Pps	2	17.5	1	14.5	28.5	25.3	43	VC	LCAB
Engine Turning gear	1	50	1	29.3	65	69	19	VC	LCAB
Lubricating oil pumps	2	50	1	29.3	60	69	17	VC	LCAB
Oil fuel transfer pumps	1	12	1	7.4	16	20	15	VC	LCAB
Steering gear main motor	2	28	1	14.1	36	53	75	VC	LCAB
Ventilating fans Eng. Room	2	12	1	7.92	16	20	26	VC	LCAB
Vent. fans Boiler flat	2	12	1	7.92	14	20	46	VC	LCAB
Forced draught fans	2	48/12	1	29.3	63	69	89	VC	LCAB
Oil fuel mist pumps	2	10	1	7.92	13.4	30	45	VC	LCAB
Main Extractor pumps	2	35	1	14.1	32.5	53	20	VC	LCAB

NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient.

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.

*[Signature]*

Electrical Contractors. Date 9th Nov. 1955



COMPASSES.

Have the compasses been adjusted under working conditions. Yes

*[Signature]*

Builder's Signature. Date 9th Nov. 1955



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. 4-1-54; 14-1-54; 19-1-54; 7-5-54; 14-7-54; 21-10-54

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith. Yes, see list attached

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.)

The workmanship and the materials are of good quality.  
 The electrical equipment has been fitted on board in accordance with the approved plans, the Secretary's letters and the applicable requirements of the Rules.  
 The installation has been tested and examined under full working conditions and is, in my opinion, satisfactorily installed and suitable for a closed ship.

Total Capacity of Generators. 1350 KW Kilowatts.

The amount of Fee ... £s 201.200 When applied for, 16th May 1955

Travelling Expenses (if any) £s 18,000 When received, 11th July 1955

*[Signature]*  
 Pierre FONDREUR

Surveyor to Lloyd's Register of Shipping.

FRIDAY 25 NOV 1955

Committee's Minute.....

Assigned See Ref. 4 a.

*[Handwritten notes]*  
 29/11/55

Im. 751.-Transfer. (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write in or below the space for Committee Minute.)