

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

12 DEC 1951

Date of writing Report 29. 10. 51 When handed in at Local Office 2 NOV 1951 Port of LIVERPOOL

No. in Survey held at BIRKENHEAD Date, First Survey 6. 10. 51 Last Survey 9. 10. 1951
Reg. Book. (No. of Visits 3.)

00362 on the T.S.M.V. "AGAMEMNON" Tons Gross 7829 Net 4806

Built at BELFAST By whom built WORKMAN CLARK (1929) LTD Yard No. - When built 1929

Owners OCEAN S.S. CO. LTD Port belonging to LIVERPOOL

Installation fitted by BUILDERS. When fitted 1929

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

Plans, have they been submitted and approved Yes System of Distribution Two wire. Voltage of Lighting 220

Heating 220 Power 220 D.C. or A.C., Lighting AC. Power AC. If A.C. state frequency -

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes. Are turbine emergency governors fitted

with a trip switch - Generators, are they compound wound Yes, and level compounded under working conditions. Yes

if not compound wound state distance between generators - and from switchboard - Are the generators arranged to run

in parallel Yes, 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 No. Have certificates of

test for machines under 100 kw. been supplied No and the results found as per Rule -

Position of Generators In main engine room

is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and

damage from water, steam and oil Yes Switchboards, where are main switchboards placed In main engine room

on special platform.

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

steam and oil Yes, what insulation is used for the panels. Slate, 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 construction as per Rule, including locking of screws and nuts. Yes Description of Main Switchgear

for each generator and arrangement of equaliser switches. Single pole circuit breaker (one pole equaliser) with

overload and reverse current trips.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. Double pole circuit breaker w. Double-

pole switch & fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. Yes Instruments on main switchboard 5

ammeters 5 voltmeters - synchronising devices. For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection. Yes Earth Testing, state means provided

Earth Lamps

Switches, Circuit Breakers and Fuses, are they as per Rule. Yes, are the fuses an Approved Type. Yes

make of fuses 'Artic' w. 'Desco' are all fuses labelled Yes If circuit breakers are provided for the generators, at what

overload do they operate. Rated at 6.4 kV. 10% 4k.

and at what current do the reversed current protective devices operate. Yes

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule. Yes

Cables, are they insulated and protected as per Rule. 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. 76% are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets. Yes Are all paper insulated and varnished cambric insulated

cables sealed at the ends. Yes 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 any cables laid under machines or floorplates. Yes, if so, are they

adequately protected. Yes Are cables in machinery spaces, galleys, laundries, etc., lead covered. Yes or run in conduit. -

or of the "HR" type. - State how the cables are supported or protected. Leads - supported on steel plating

with steel covers. Machinery spaces, clipped to steel plating w. Daps w. direct to structure. Accumulation

etc. clipped to steel Daps, wood grounds w. direct to structure. All cables protected as

necessary.

Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes 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 Refrigerated chambers, are the cables and fittings as per Rule. Yes

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes Emergency Supply, state position
Emergency generator & switchboard in Emergency Generator Room on Boat Deck

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 to the officers on watch. Yes, is an automatic indicator fitted. Yes Is an alternative supply provided. Yes

Secondary Batteries, are they constructed and fitted as per Rule. Yes, are they adequately ventilated. Yes
state battery capacity in ampere hours. Low power battery in 60 a-h. 12 volt.

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

Searchlight Lamps, No. of One, whether fixed or portable. fixed, are they of the carbon arc or of the filament type. Carbon arc.

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. Yes. Motors, are all motors constructed and installed as per Rule and placed in well-ventilated
compartments in which inflammable gases cannot 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. -

Have certificates of test for motors under 100 BHP intended for essential sea 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. - 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 an Approved Cartridge Type. -, make of fuse. - 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. -

E.S.D., if fitted state maker Kelvin Hughes location of transmitter. Port side and receiver. Starboard side of Eng. Room

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.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	3	Lansdown Scott	170	220	772	300	Oil Engine	Summit Chain
	1	W. H. Allen.	220	220	1000	375	do	W. H. Allen.
EMERGENCY ...	1	Sundstrand Forge	30	220	136	650	do	Gardner.
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	170	2	60	772	768	480/600	V.I.R.	L.C.B.
" " EQUALISER ...	-	2	60	-	768	240/300	"	"
<i>main Generator</i>	220	2	50	1000	1144	360	V.C.	"
<i>" " Equaliser</i>	-	1	50	-	572	180	"	"
EMERGENCY GENERATOR	30	1	15	136	260	45	"	"
ROTARY TRANSFORMER: MOTOR. ...								
" " GENERATOR...								

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

DESCRIPTION.							
Forward Ring Main. Post.	1	.50	390	572	500	P.I.	L.C.A.B
" " " Stars?	1	.50	390	572	500	"	"
Aft Ring Main Post.	1	.50	485	572	500	"	"
" " " Stars?	1	.50	485	572	500	"	"
Lead to Forward Ring Main Post Jack Box for Main Sea Board	1	1.0	540	595	75	V.I.R	L.C.B
" " " " Stars	1	1.0	540	595	60	"	"
" - aft - - Post " - "	1	1.0	585	595	200	"	"
" - " " " Stars? " - "	1	1.0	585	595	200	"	"
Main Emergency Skullboard Subicville	1	.75	136	260	400	V.C	"
Slope Connection	2	.50	600	664	480	V.I.R	"
Respirating Air Bleedway Skullboard	1	.60	513	660	225	V.C	L.C.B
Lighting Skullboard	1	.40	250	288	90	V.I.R	"
Galley Skullboard	1	.40	273	492	120	V.C.	"

LIGHTING, HEATING, ETC. CABLES (CONT'D)

DESCRIPTION	CONDUCTORS.		MAX. CURRENT.		APPROX. LENGTH L+R (FEET)	INSULATION.	PROTECTIVE COVERING.
	No./EA.	AREA Sq. in.	CIRCUIT.	WIRE			
Engine Room Gen. Lighting ^{Sub Box} LS	1	.06	24	83	50	V.I.R.	L.C.B.
" " " " " Dist Box LS.D1	1	.0225	5.3	46	150	"	"
" " " " " LS.D2	1	.0225	5.6	46	25	"	"
" " " " " LS.D3	1	.0225	6.2	46	250	"	"
" " " " " LS.D4	1	.0225	6.5	46	150	"	"
" " " " " H.C.P. Key Sub Box LL	1	.04	12	64	50	"	"
" " " " " Dist Box LL.D1	1	.0145	6.4	37	100	"	"
" " " " " LL.D2	1	.0145	5.7	37	25	"	"
Forecastle Lighting Dist Box A1.	1	.0145	5.6	37.	75	"	H.R.B.
Emergency Lighting Sub Box E1.	1	.007	6.36	30	30	V.C.	L.C.A.B.
" " " " " Dist Box E1.D1	1	.007	2.36	24	450	V.I.R.	"
" " " " " E1.D2	1	.01	22.5	31	14	"	"
" " " " " E1.D3	1	.007	1.45	24	350	"	"
Navigation Dist Box E2.D1	1	.01	7.	31.	600	V.C.	"
Boat Ltg. Post. " " E3.D1	1	.01	8.8	45	30	"	L.C.B.
" " " " " Stw. " " E4.D1	1	.01	8.8	45	24	"	"
Boat Wash Post Sub Box E5	1	.10	68	202	420	"	L.C.A.B.
" " " " " Stw. " " E6	1	.10	68	202.	340	"	"
Washer	1	.0225	20	46	250	V.I.R.	L.C.B.
Aft Radiators Sub Box G1.	1	.20	155	314	40	V.C.	"
" " " " " Dist. G1.D1	1	.06	50	143	30	"	"
" " " " " G1.D1A1	1	.007	13.5	24	20	V.I.R.	H.R.B.
" " " " " G1.D2	1	.03	39	92	78	V.C.	L.C.B.
" " " " " G1.D3	1	.03	46	92	60	"	"
" " " " " G1.D4	1	.06	20.5	143	60	"	"
Boiler Stopman Off. Sub Box G2.	1	.075	148	157	90	"	"
" " " " " G2.S1.	1	.0225	92	80	90	"	"
" " " " " G2.S2.	1	.0225	66	80	40	"	"
Native Gallery. Sub Box G3.	1	.03	81	92.	120	"	"
Aft Ventilators. " " G4.	1	.01	31	31	30	V.I.R.	L.C.A.B.
" " " " " Dist Box G4.D1	1	.01	16	31	30	"	"
" Lighting Sub Box G5	1	.04	16.5	110	90	V.C.	L.C.B.
" " " " " Dist Box G5.D1	1	.0145	78	37	50	V.I.R.	H.R.B.
" " " " " G5.D2	1	.0145	5.1	60	40	V.C.	L.C.B.
" " " " " G5.D3.	1	.06	3.6	45	110	"	"

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.					
			In the Circuit.	Rule.			
Forward Radiator Sect Box M1.	1	.12.	148✓	210	260	V.C.	L.C.B.
" " Dist " M1 D1.	1	.06	27✓	143	15	"	"
" " " " M1 D3	1	.06	41✓	143	60	"	"
" " " " M1 D4	1	.06	27✓	143	45	"	"
Midship Radiator Sect Box M2	1	.15	123✓	260	90	"	"
" " Dist " M2 D1	1	.04	34✓	110	50	"	"
" " " " M2 D2	1	.04	25✓	110	90	"	"
" " " " M2 D3	1	.04	36✓	110	120	"	"
Packing Gear Forward. Sect Box M3	1	.15	65✓	260	255	"	"
Belonges.	1	.01	27✓	31	60	V.I.R.	"
Midship Ventilation Sect Box M4	1	.0225	45✓	46	135	"	"
Engine Room Ventilation Dist " M4 D3	1	.007	25.5✓	30	15	V.C.	"
Galley Ranges	1	.15	95✓	260	50	"	"
" "	1	.04	19✓	110	20	"	"
" "	1	.15	94✓	260	20	"	"
Galley Gas Sect Box M5 S.	1	.06	45✓	143	75	"	"
Lub Oil Heater etc. Sect Box M19.	1	.0145	18✓	37	150	V.I.R.	"
Heating Motors L.O. Separator. Sect Box M24	1	.06	77✓	143	90	V.C.	"
Forward Lighting Sect Box L1.	1	.044	14✓	110	260	"	"
" " Dist " L1 D1.	1	.01	41✓	31	75	V.I.R.	H.R.B.
" " " " L1 D2	1	.01	51✓	31	120	"	"
" " " " L1 D3	1	.01	21✓	31	30	"	"
Midship " Sect Box L2.	1	.044	27✓	110	190	V.C.	L.C.A.
" " Dist " L2 D1.	1	.0145	9.5✓	37	100	"	"
" " " " L2 D2.	1	.0145	9.3✓	37.	90	V.I.R.	H.R.B.
Forward Cargo Lighting. Sect Box L3.	1	.06	22✓	93	295	"	L.C.A.B.
" " Dist " L3 S1 D1	1	.0225	13✓	46	240	"	"
" " " " L3 S1 D2	1	.0225	10✓	46	15	"	"
" " " " L3 D1.	1	.0225	9✓	46	24	"	"
Aft. Cargo Lighting Sect Box L4	1	.044	14✓	64	135	"	"
" " Dist Box L4 D1	1	.04	24✓	64	180	"	"
" " " " L4 D2	1	.0225	10✓	46	15	"	"
" " " " L4 D3	1	.0225	10✓	46	90	"	"

(CONTINUED ON CONTINUATION SHEET NO. 1.)

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.								
	No.	B.H.P.						
Refrig Compressors	2	55	1	.15	206	260	50	V.C.
Piston Pumps	3	5	1	.01	21	45	60	"
Refrig Fans	2	7	1	.01	28	45	180	"
Ballast Pump.	1	45	1	.20	169	184	160	V.I.R.
Belge "	1	9	1	.04	36.5	64	220	"
Aux Circ. "	1	7	1	.03	28.5	92	100	V.C.
Cooling Water "	2	45	1	.20	174	184	100/120	V.I.R.
Fine Belge "	2	30	1	.15	114	152	90/135	"
Lubricat Lub. "	2	40	1	.15	152	152	60/100	"
Feed Water "	1	7	1	.03	28.5	92	160	V.C.
Oil Purifiers	2	4	1	.0225	15.75	46	60	V.I.R.
Transfer Pump.	1	20	1	.10	80	202	180	V.C.
Domestic Refrig Compressor	1	15	1	.06	58	83	220	V.I.R.
Sanitary Pump.	1	9	1	.04	36.5	110	220	V.C.
Turning Motor	2	8	1	.04	34	64	110/140	V.I.R.
L.O. Purifier	1	2	1	.0225	9	46	240	"
Boat Winder	4	8	1	.03	34	92	120	V.C.
Emergency Belge Pump.	1	12	1	.06	47.5	143	210	"
Sterilizing Gear. Motor	1	40	1	.10	156	202	60	"
Winders.	1	120	1	.60	275	660	60	"
Coarse Winder.								



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0267 3/3

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 Contractors.

Date

COMPASSES.

Have the compasses been adjusted under working conditions

Yes

Builder's Signature.

Date

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

Yes

If not, state date of approval

—

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

Not sent of 220kva
Generators only.

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

This electrical equipment was installed in 1929 & certain modifications have been effected at various times subsequently. "As fitted" plans have been submitted by the owner & approved. The equipment has been surveyed and found to be in accordance with these plans & the requirements of the Society's Rules for Vessels not Built Under Survey.

The installation has been examined & tested under working conditions & an insulation resistance test made & found satisfactory.

The quality of materials and workmanship is good.

This electrical equipment appears to be in good & efficient condition and, in my opinion, it is eligible to be accepted for classification with the Society.

Noted 27.12.51

Total Capacity of Generators

760.

Kilowatts.

The amount of Fee ...

£ 30. 0. 0.

When applied for,

5 DEC 1951

When received,

19

Travelling Expenses (if any) £

Committee's Minute

LIVERPOOL

11 DEC 1951

Assigned

See Minute on Dpr. 9.

NTM



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