

with insulating compound... or waterproof insulating tape. 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 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. -. State how the cables are supported and protected. All cables R.C.A. - on deck installed under gangway in conduit; in machinery spaces clipped to saddles, chafe, ways or davit to structure, in accommodation etc clipped to saddles or davit to structure.

Are all lead sheaths, armouring 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. all cables armoured but holes are bushed with non-ferrous material. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes. Emergency Supply, state position. Emergency generator and switchboard in compartment on poop, and method of control. Emergency switchboard connected with main switchboard. One fan starts automatically on failure of main supply. 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. Yes, are they adequately ventilated. Yes what is the battery capacity in ampere hours. approx 200 amp hours.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and where ever 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. Yes, if so, how are they protected. Flameproof fittings. and where are the controlling switches fitted. in accommodation outside of space., are all fittings suitably ventilated. Yes, are all fittings and accessories constructed and installed as per Rule. Yes. Searchlight Lamps, No. of 2, whether fixed or portable. portable, are their fittings as per Rule. Yes. 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. None. 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. Yes. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. No. Have certificates of test for motors under 100 BHP intended for essential 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. Yes, are all fuses of the cartridge type. Yes are they of an approved type. Cartridge type. Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships. Yes. Are the cables lead covered as per Rule. Yes. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule. Yes, are they 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	RATED AT			Revs. per Min.	DRIVEN BY	
		Kilowatts.	Volts.	Ampères.		Fuel Used.	Flash Point of Fuel.
MAIN	2	400(500KVA)	450	642	1200	Steam Turbine	
	2	75	110	682	"		
	2	55	120	458	"		
EMERGENCY	1	75(927KVA)	450	120.5	"	Oil Engine	Diesel Oil Above 150°F
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	400	1	1,000,000	642	725	40	V.C.	L.C.A.
" " EQUALISER	75	1	1,000,000	682	725	45		
	55	1	750,000	458	592	45		
EMERGENCY GENERATOR	75	1	1,060,000	120.5	150	30		
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

* Exchange Propulsion Units.

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (Lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
			In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
Main Ship Power Panel (440 V)	1	10400	9.3	25	120	V.C.	L.C.A.
Galley Power (440 V. Main & 15 KVA. Transformers)	1	66400		83	45	"	"
" (220 V. Main from Transformers)	1	300,000	18.5	234	150	"	"
Slow Connection	1	650,000		392	45	"	"
Main from 440 V. Em. Bus to 15 KVA. Tty. Transformers	1	66400		83	180	"	"
" Tty. Transformers & Em. Switchboard 120 V	1	450,000		308	15	"	"
Disconnectors A.C. Em. Bus to Mchly. Set Bus	1	16,500		34	80	"	"

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	33100	15	55	300	V.C.	L.C.A.
NAVIGATION LIGHTS	1	10,400	1.5	25	250	"	"
LIGHTING AND HEATING							
Middle and Forecastle Lighting	1	66400	30	83	400	"	"
Pop & Boat Deck Accommodation Tty	1	33100	20	55	70	"	"
Upper Deck	1	66400	25	83	100	"	"
Engine Room Lighting	1	66400	15	83	40	"	"
Boiler Room	1	26300	12	47	90	"	"
Cabin Heating	1	6530	3.4	18	75	"	"
Main Motor	1	6530	7.3	18	24	"	"
Generator	1	6530	13	18	30	"	"
Battery Blower Generator Room	1	4100	5	15	60	"	"
Generator in Tty from 120 V. A.C. Em. Bus	1	4100	4	15	120	"	"
Eng. Em. Bus. Tty from 115 V. D.C. Bus	1	10,400	15	25	100	"	"

MOTOR CABLES

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Eng. Room Vent Fans	4	2	1	6530	3.19	19	60	V.C.	L.C.A.
Air Compressor	1	5	1	6530	7.2	18	30	"	"
Turbine Tanning Gear	1	3	1	6530	4.5	18	20	"	"
Eng. Room Bilge Pumps	2	10	1	10,400	13.7	25	110	"	"
Main Condens. Bisc. Pumps	1	125	1	300,000	18.5	234	60	"	"
Main Shaft Tanning Gear	1	5	1	6530	8.5	18	100	"	"
Main Propulsion Motor Fan	1	15	1	16500	21	34	75	"	"
Lab Oil Service Pump	2	5	1	6530	7.1	18	60	"	"
Separator	1	2	1	6530	3.19	19	120	"	"
Fine & Butterworth Pumps	2	50	1	66400	63	83	60	"	"
Sieving Gear Motor	2	30	1	33,100	43.5	55	165	"	"
Main Condensate Pumps	2	25	1	26300	32	47	50	"	"
Am. Circulating	1	30	1	33100	39	55	90	"	"
Am. Condensate	1	15	1	16500	21	34	60	"	"
Cooler Circulating	1	10	1	10400	13.7	25	60	"	"
Fuel Oil	1	7.5	1	6530	10.5	18	45	"	"
Forward Blight Fans	3	50/20	1	66400	63/29	83	80	"	"
Evaporator Feed Pumps	2	1	1	6530	1.5	18	90	"	"
Accommodation Vent Fans	2	2	1	6530	3.1	18	50	"	"
Fuel Water Pumps	2	2	1	6530	3	18	90	"	"
Refrigerator	1	7.5	1	6530	10	18	125	"	"
Bisc. Pump	1	1	1	6530	1.55	18	150	"	"
Sanitary	1	7.5	1	6530	10.3	18	125	"	"
Drinking Water Pump	2	1	1	6530	1.5	18	200	"	"
Garage Pumps	3	200	1	450,000	243	308	60	"	"
Shipping	2	50	1	66400	63	83	45	"	"
Fuel Oil Transfer. Pump	2	20	1	16500	25	34	50	"	"
Salt Water Service	1	10.5	1	6530	10.3	18	180	"	"

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 Engineers. Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass 40 ft.

Minimum distance between electric generators or motors and steering compass 40 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 1.5 Ampères 10 feet from standard compass 7 feet from steering compass.

A cable carrying 0.2 Ampères but not feet from standard compass but not 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 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 Installation generally similar to class T2 Tankers. If so, state name of vessel U. Morris' 'Liberia' 'The ...'

Plans. Are approved plans forwarded herewith If not, state date of approval

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 of this vessel appears to be installed in accordance with American practice and with the typical plans of T2 Tankers. The details of this report were obtained from these plans & personal observation on board. It was noted that lighting sub-circuits are controlled by single pole switches and portable connections, switches and non-flameproof lighting fittings have been installed in cubic space below deck space. The wiring in this space has been altered to D.P. cable with switches outside of space & all portable connections removed. The generator, motor, control gear, transformer, switchboards, cables, etc. have been examined, listed, necessary repairs effected, insulation test carried out and found satisfactory.

The installation appears in good and efficient condition & is in my opinion eligible to be accepted for classification.

Total Capacity of Generators 985 Kilowatts. (The 2.75 kw. Exciter is not included in total)

The amount of Fee £ 30 : 0 : 0 When applied for 7 SEP 1948

Travelling Expenses (if any) £ 0 : 0 : 0 When received 10

LICENCE CASE Committee's Minute LIVERPOOL 14 SEP 1948

Assigned See Minute of Rpt. 9

MADE AND PRINTED IN ENGLAND. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

