

B.C.

Rpt. 13.

No. 9338

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

25 OCT 1952

Date of writing Report 12/10/1952 When handed in at Local Office 12/10/52 Received at London Office Port of SINGAPORE

No. in Survey held at SINGAPORE Date, First Survey 21/12/51 Last Survey 20/9/52 (No. of Visits (During GS Cycle)

95010 on the Steel Twin Screw Motor Vessel "ORESTES" Tons Gross 7765 Net 4737

Built at BELFAST By whom built WORKMAN, CLARK & CO. LD. Yard No. - When built 1926

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

Installation fitted by - When fitted 1926

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

Plans, have they been submitted and approved - System of Distribution TWO-WIRE Voltage of Lighting 110

Heating 220 Power 220 D.C. or A.C., Lighting DC Power DC 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 - Have certificates of

test for machines under 100 kw. been supplied - and the results found as per Rule -

Position of Generators No.1 P.A.; No.2 P.F.; No.3 S.F.; No.4 S.A

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 Port Side of Engine

Room at Forward Eng about 20 feet above bottom E.R. 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 - 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 DP. CB's - Equalising Switches Integral

with circuit breaker

and the switch and fuse gear (or circuit breakers) for each outgoing circuit DP switches. Circuit breaker on

Refrigerating Main Circuit

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 6

ammeters 6 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

2-15w Lamps in Series Across Poles - Centre Point Earths

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

make of fuses - are all fuses labelled Yes If circuit breakers are provided for the generators, at what

overload do they operate 750 Amps. and at what current do the reversed current protective devices operate 50 Amps.

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

Tables, 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 0, 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 - 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 No, if so, are they

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

of the "HR" type - State how the cables are supported or protected Perforated trays and brass

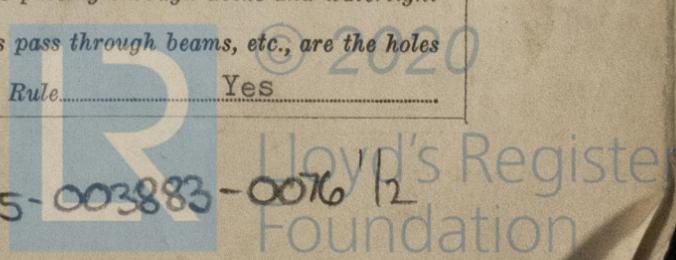
clips. Steel Boxes in exposed positions.

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

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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 Steel Motor House on Upper Deck

Navigation Lamps, are they separately wired Yes controlled by separate double pole switches and fuses. Single 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 and fitted as per Rule. -, are they adequately ventilated. - state battery capacity in ampere hours. -

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. 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. 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. - 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. - 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. - location of transmitter. - and receiver. -

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 ...	4		100	220	455	300	DIESEL ENGINE - B & W	
LIGHTING	2		20	110	180	675	31 BHP MOTOR	
EMERGENCY ...	1		16	110	146	800	3 CLY PARAFFIN - 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 ... No. 1	100	-	91/.103	455	-	300	P.I.	L.C.B.
" " " 2	100	-	91/.103	455	-	300	"	"
" " " 3	100	-	91/.103	455	-	480	"	"
" " " 4	100	-	91/.103	455	-	560	"	"
EMERGENCY GENERATOR ...	14	1	37/.072	146	-	72	P.I.	L.C.B.
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR...								

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

DESCRIPTION.	No.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
RING MAIN (FWD.PORT, FWD.STARBOARD)	2	0.35	1630	-	590	PI L.C.B.
" " (AFT.PORT, AFT.STARBOARD)	2	0.35	1100	-	720	PI "
WINCHES-MIDSHIP - FORD.	1	37/.093	260	-	210	" "
" MIDSHIP	1	37/.093	260	-	400	" "
" MIDSHIP AFT.	1	37/.093	260	-	500	" "
REFRIGERATING MACHINERY	2	1.0	1167	-	615	" "
OIL FUEL PURIFIERS ETC.	1	37/.103	250	-	80	" "
AUXILIARY MACHINERY	1	37/.072	150	-	420	" "
EMERGENCY INTER CONNECTOR	1	37/.093	140	-	440	" "

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.			
WIRELESS	1	7/.064	-	-	300		L.C.B.
NAVIGATION LIGHTS.	1	7/.044	8.7	-	650		"
BOAT-LIGHTING - PORT	1	7/.044	8.8	-	50		"
" " - STARBOARD	1	7/.044	8.8	-	50		"
PANTRY AND BOILERS (FWD)	1	19/.064	56	-	360	PIR	"
HEATERS FORD	1	37/.064	95	-	400	"	"
" MIDSHIP	1	19/.083	58	-	400	"	"
GALLEY	1	37/.093	275	-	550	"	"
BOILERS MIDSHIP	1	19/.072	64	-	550	VIR	"
220V SHORE CONNECTION.	2	61/.133	-	-	210	VIR	"
110V GENERATOR MAINS	1	37/.083	163	-	220	"	"
LIGHTING - OFFICERS	1	19/.064	46	-	360	"	"
" MIDSHIPS	1	19/.052	28	-	450	"	"
" ER GENERAL	1	19/.064	38	-	140	"	"
" POOP	1	19/.052	13.6	-	1300	"	"
" FORD.CARGO.	1	19/.064	34	-	360	"	"
" AFT.CARGO	1	19/.064	45	-	180	"	"
110V SHORE CONNECTION	1	37/.083	160	-	200	"	"
EMERGENCY LIGHTING	1	19/.052	8	-	70	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
MAIN REFRIGERATING MOTOR	2	120	91/103	450	200	PI	L.C.B.
BRINE PUMPS	3	15	19/.064	60	250	"	"
REFRIGERATING CIRC.PUMP.	1	5	19/.052	21	180	"	"
COOLING FANS	2	8	19/.064	33	350	"	"
LIGHTING M.G. (MOTOR)	2	31	19/.083	118	250	"	"
O.F. PURIFIER	2	4	7/.064	16.2	60	VIR	"
DOMESTIC REFRIGERATING	1	15	19/.064	59	150	"	"
ENG.TURNING GEAR	2	8	19/.052	35	90	"	"
DOM. P.W. PUMP	1	5	7/.064	21	90	"	"
BALLAST PUMP	1	45	37/.083	169	420	"	"
AUX.SW CIR.PUMP	1	5	7/.064	21	240	"	"
OIL FUEL TRANSFER PUMP	1	15	19/.083	78	120	"	"
LUBRICATING OIL PURIFIER	1	5	7/.064	8	180	"	"
VERTICAL FIRE/BILGE PUMP	1	30	37/.064	116	480	"	"
HORIZONTAL " "	1	30	37/.064	116	440	"	"
FORCED LUB.OIL PUMP	2	38	37/.064	140	150	"	"
MAIN COOLING PUMP	2	33	37/.064	121	100	"	"
EMERGENCY BILGE	1	12	19/.083	96	80	"	"
WATERTIGHT DOOR	1	3	3/.036	17	150	"	"
STEERING MOTORS	2	35	19/.083	134	850	"	"
WINDLASS	1	120	91/.093	450	600	"	"
WINCHES (8 TON)	2	58	37/.064	195	-	"	"
" (5 TON)	4	40	37/.064	130	-	"	"
" (4 TON)	2	40	37/.064	130	-	"	"
" (2 TON)	10	40	37/.072	130	-	"	"

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.

Is this installation a duplicate of a previous case. If so, state name of vessel.

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

Certificates. Are certificates of test for motors engaged on essential sea 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 appliances of this vessel have been examined in accordance with the requirements for Periodical Special Survey. The materials used and the workmanship throughout appears to be good.

Insulation tests have been carried out and the installation examined and tested under working conditions and found satisfactory.

The electrical installation of this vessel is eligible in my opinion to be classed with the Society, if or when all the Committee's requirements for classification have been completed.

Notes sent 14/11/52

Total Capacity of Generators 400 Kilowatts.

The amount of Fee ... £ Please see Sng. Report No. 9021 When applied for, 19. Travelling Expenses (if any) £ : : When received, 19.

M.P. Watson Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 18 NOV 1952

Assigned See Supp. 9334

2m.9.46.—Transfer. (MADE AND PRINTED IN ENGLAND.) (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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