

Rpt. 13.

No. 40755.

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 14th AUG 1953

Date of writing Report 24th July 1953. When handed in at Local Office 12. 8. 19 53 Port of GLASGOW

No. in Survey held at DUMBARTON. Date, First Survey 17th APRIL Last Survey 23rd July 1953
Reg. Book. (No. of Visits 6)

91537 on the SS. GEORGE. Tons { Gross 9150 Net 5242

Built at DUMBARTON. By whom built W^m DENNY & BROS LTD Yard No. 1460 When built 1953

Owners A. G. PAPPADAKIS Port belonging to MONROVIA.

Installation fitted by W^m DENNY & BROS. LTD When fitted 1953

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. YES Radar YES

Plans, have they been submitted and approved YES System of Distribution TWO WIRE Voltage of Lighting 220

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

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 YES Generators, are they compound wound YES, and level compounded under working conditions YES

Are the generators arranged to run in parallel YES Is the compound winding connected to the negative or positive pole NEGATIVE

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing YES Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule

Position of Generators ON FLAT STARBOARD SIDE

OF 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 ADJACENT TO GENERATORS.

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 SINDANYO, if of synthetic insulating material is it an Approved Type YES, 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 TRIPLE POLE CIRCUIT BREAKER FITTED WITH OVERLOAD AND REVERSE CURRENT TRIPS.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit DOUBLE POLE KNIFE PATTERN SWITCH WITH FUSES.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard THREE ammeters THREE voltmeters synchronising devices For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection YES Earth Testing, state means provided

EARTH LAMPS. Preference Tripping, state if provided No, and tested YES

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

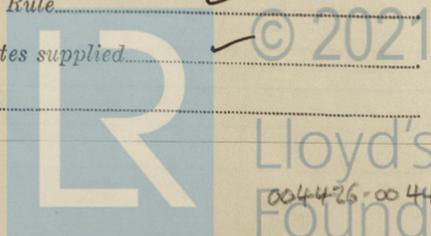
make of fuses GENERAL ELECTRIC CO, are all fuses labelled YES If circuit breakers are provided for the generators, at what overload do they operate 150% FULL LOAD CURRENT, and at what current do the reverse current protective devices operate 10% - 15% FULL LOAD CURRENT. Cables, are they insulated and protected as per Rule YES, if otherwise than as per Rule are they of an Approved Type YES, state maximum fall of pressure between bus bars and any point under maximum load 10 volts. 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 State type of cables (if in conduit this should also be stated) in machinery spaces L.C.A.B., galleys L.C. and laundries YES State how the cables are supported or protected MAINS: L.C. CABLES CLIPPED TO PLATE WITH COVER FITTED. MACHINERY SPACE L.C.A.B. CABLES CLIPPED TO PERFORATED TRAY. ACCOMMODATION L.C. CABLE CLIPPED TO WOODWORK.

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

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

Are the motors accessible for maintenance at all times 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 YES

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 YES 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 YES Where required to do so does it comply with 1948 International Convention YES

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

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 YES, whether fixed or portable YES, are they of the carbon arc or of the filament type 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 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 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 YES

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 YES Are the fittings for pump rooms, 'tween 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 MARCONI location of transmitter and receiver FRAME SPACE

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				TYPE.	PRIME MOVER.	MAKER.
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.			
MAIN	2	M/AWDSLEY	60	220	273	500	STEAM.	HOWDEN.	
	1	CAMPBELL & ISHERWOOD	50	220	227	550	STEAM.	HOWDEN.	
EMERGENCY ROTARY TRANSFORMER									

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	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	2	60	1	37/093	273	363	48	V.C.	LCAB.
" " EQUALISER	1	50	1	19/083	-	202	24	V.C.	LCB.
" " EQUALISER	1	50	1	37/083	227	314	72	V.C.	LCAB.
" " EQUALISER	1	50	1	19/083	-	202	36	V.C.	LCB.
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. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
NAVIGATIONAL AID ETC.	1		1	19/064	54	83	304	RUBBER	LC.
MID. ACCOMMODATION LT ⁹ SECT.	1		1	19/064	60	83	244	RUBBER	LC.
CREW AFT ACCOMMODATION LT ⁹ SECT.	1		1	7/052	25	37	420	RUBBER	LC.
CARGO LIGHTING SECTION.	1		1	7/064	23.5	31	44	RUBBER	LCAB.
MACHINERY SPACE SECTION.	1		1	7/064	33	46	54	RUBBER	LCAB.

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

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	20	46	82	RUBBER	LC.
NAVIGATION LT ⁹	1	3/036	1	10	20	RUBBER	LC.
MID. ACCOMMODATION LT ⁹ D.B. FROM DR. STED	1	7/029	11	15	66	RUBBER	LC.
MID. ACCOMMODATION LT ⁹ D.B. SHELTER DR. F.	1	7/029	14	15	44	RUBBER	LC.
CREW ACCOMMODATION AFT SHELTER DR. D.B.	1	7/029	11	15	44	RUBBER	LC.
CREW ACCOMMODATION AFT UPPER DR. D.B.	1	7/029	7	15	48	RUBBER	LC.
FORWARD CARGO LIGHTING D.B.	1	7/026	14.5	24	528	RUBBER	LC.
AFT CARGO LIGHTING D.B.	1	7/029	9	15	320	RUBBER	LC.
ENGINE ROOM LT ⁹ D.B. PORT	1	7/036	8	24	192	RUBBER	LCAB.
ENGINE ROOM LT ⁹ D.B. STED	1	7/036	4	24	40	RUBBER	LCAB.
BOILER ROOM LT ⁹ D.B.	1	7/029	15	15	180	RUBBER	LCAB.
TUNNEL LT ⁹ D.B.	1	7/029	2	15	116	RUBBER	LCAB.
PANTRY D.B.	1	19/052	47	64	136	RUBBER	LC.
SEARCHLIGHT	1	19/083	60	118	748	RUBBER	LC.
RADAR	1	7/064	18	46	30	RUBBER	LC.
GYRO COMPASS	1	7/064	10	46	86	RUBBER	LC.
ACCOM. VENT FAN D.B.	1	19/052	55	64	138	RUBBER	LC.
ENGINE ROOM AUX. MOTOR D.B.	1	19/052	50	64	216	RUBBER	LCAB.
ENGINE ROOM & BOILER ROOM VENT FAN D.B.	1	19/083	102	118	152	RUBBER	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. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
EXTRACTION PUMPS	2	10	1	7/064	43	46	268	RUBBER	LCAB.
AUX. BOILER F.D. FANS.	2	8	1	7/052	32	37	328	RUBBER	LCAB.
TURNING GEAR.	1	8	1	7/052	33	37	160	RUBBER	LCAB.
COMBUSTION CONTROL COMP.	1	5	1	7/064	21.2	46	226	RUBBER	LCAB.
ENGINE ROOM VENT. FANS.	4	4	1	7/036	17	24	300	RUBBER	LCAB.
BOILER ROOM VENT. FANS.	2	4	1	7/036	17	24	480	RUBBER	LCAB.
DOMESTIC REFRIGERATOR	1	4	1	7/036	17	24	88	RUBBER	LCAB.
R.W. & S.W. PUMPS.	3	2	1	7/029	8.5	15	40	RUBBER	LCAB.
PURIFIER	1	1/2	1	3/036	6.9	10	112	RUBBER	LCAB.
ACCOM. VENT. FANS.	3	3/4	1	7/036	16	24	260	RUBBER	LC.

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.

FOR WILLIAM DENNY & BROTHERS LIMITED.

Campbell Director and Secretary

Electrical Contractors.

Date

COMPASSES.

Have the compasses been adjusted under working conditions.

YES.

FOR WILLIAM DENNY & BROTHERS LIMITED.

Campbell Director and Secretary

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.

No

If not, state date of approval

25th NOVEMBER 1952.

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

YES

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

The electrical installation of this vessel has been fitted on board under Special Survey, tested under working conditions and found satisfactory. The quality of materials and workmanship is good.

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

Total Capacity of Generators 170 Kilowatts.

The amount of Fee ... £ 67 : 10 :

When applied for 18 AUG 1953

When received,

Travelling Expenses (if any) £ : ✓ :

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J. M. Gardiner
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 18 AUG 1953

Assigned

COMPANYING MACHINERY REPORT

SMM
11/8/53

BAW
24/8/53

