

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 3. 1. 1950 When handed in at Local Office 19 Port of SunderlandNo. in Survey held at Sunderland Date, First Survey 20. 10. 49 Last Survey 12. 12. 1949
Reg. Book. (No. of Visits 11)on the M.V. "DARTMOOR"
Built at Sunderland By whom built Wm. Rosford & Sons Ltd Yard No. 771 When built 1949
Owners Mr & Mrs W. R. R. (W. R. R. Ltd) Port belonging to LondonInstallation fitted by Campbell & Johnson Ltd When fitted 1949Is 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 NoPlans, have they been submitted and approved Yes System of Distribution Star Voltage of Lighting 110Heating — Power 110 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 Yes Are turbine emergency governors fitted with a trip switch — Generators, are they compound wound Yes, and level compounded under working conditions Yesif 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 negativeHave machines over 100 kw. been inspected by the Surveyors during manufacture and testing — Have certificates of test for machines under 100 kw. been supplied Yes and the results found as per Rule YesPosition of Generators engine room floor level, Starboardis 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 at mid deck above generatorsare 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 "PIERITTE", 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 — 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 a triple pole (one pole for equaliser) air-break circuit-breaker with oil & R.V. current tripsand the switch and fuse gear (or circuit breakers) for each outgoing circuit a double pole R.V. switch and double pole fuseAre compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 2ammeters 2 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 E. lampsSwitches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yesmake of fuses "Arco" & "Blyth", are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate 5%, and at what current do the reversed current protective devices operate 15%Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule YesCables, 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 7.6 V., 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 No, if so, are they adequately protected — Are cables in machinery spaces, galleys, laundries, etc., lead covered P.V.C. or run in conduit —or of the "HR" type — State how the cables are supported or protected main feeders fore and aft along decks in iron pipes: accommodation, H.R.B. cables on the surface clapped to wooden grommets and protected where necessary by wood or metal guardsAre 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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Lloyd's Register
Foundation

Insulation Tests. has the insulation resistance of all circuits and apparatus been tested and found satisfactory. Yes

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	2	Campbell 9 Sik Wood.	30	110	27½	600	Steam	Reader
EMERGENCY ... ROTARY TRANSFORMER								

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	30	1	37/083	272 ✓	314	35	V.C.	L.C.B.
" " EQUALISER		1	37/064		210	17½	"	"
" " No. 2	30	1	37/083	272 ✓	314	30	"	"
" " Eq.		1	37/064		210	15	"	"
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR ...								
" " GENERATOR...								

[illegible]

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. of Sq. ins. or sq. mm.	In the Circuit.	Rule.			
W/T Supply	1	71-064	30 ✓	46	340	H.R.B.	
Navigation - Main Supply.	1	71-029	3 ✓	15	540	"	
" - " "	1	"	- ✓	15	20	"	
Wharfedale DB. 'A-1'	1	71-036	7 ✓	24	80	"	
Lower Bridge DB. 'A-2'	1	"	12 ✓	"	40	"	
Salmon House DB. 'A-3'	1	"	20 ✓	"	4	"	
Galley DB. 'B-1'	1	"	22 ✓	"	40	"	
Port accommodation DB 'B-2'	1	"	20 ✓	"	60	V.I.R.	in conduit
Truck " " 'B-3'	1	71-044	12 ✓	31	190	"	"
Start. " " 'B-4'	1	"	14 ✓	"	160	"	"
MC DB. 'B-5'	1	"	6-5 ✓	21	400	"	"
Foremast DB. 'C-1'	1	"	22 ✓	"	360	"	"
Mast DB. " 'C-2'	1	"	18 ✓	"	200	"	"
Engine Room DB 'D-1' Port	1	"	18 ✓	"	10	"	"
Starboard " " 'D-3'	1	"	18 ✓	"	24	"	"
Engine " " 'D-2' Starboard	1	"	15 ✓	"	80	"	"

ALL IMPORTANT MOTORS TO BE ENUMERATED.		No.	B.H.P.	MOTOR CABLES.							
Vent Fan - Boat Deck.	1	2.5	1	71-044	22	✓	31	100	V-I-R.	in Contact.	
Battery Exhaust Fan.	1	25	1	002	3-2	✓	5	20	8470	—	
Refrigerating Compressor.	1	5	1	71-064	42	✓	46	48	V-I-R.	in Contact	
" Motor Pump	1	1	1	71-036	9	✓	24	40	"	"	
Grains Motor	1	3	1	71-044	26	✓	31	96	"	"	
Workshop Motor	1	2	1	"	18	✓	"	160	"	"	
Oil Separator	2	3	1	"	26	✓	"	3/70	"	"	
Engine Rm. Vent Fans	2	1-35	1	71-036	13	✓	24	90/120	"	"	
Driving Pump	1	1.5	1	71-044	16	✓	31	100	"	"	
King Boiler Fan.	1	3.5	1	71-064	35	✓	46	110	"	"	
Oil Purging Fan.	1	4	1	"	35	✓	"	60	"	"	
Memo Pump.	1	1.5	1	71-044	13	✓	31	100	"	"	
Bridge Deck Vent Fan. P.	1	2.2	1	"	20	✓	"	60	"	"	
" " " " S.	1	3.4	1	"	30	✓	"	60	"	"	

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.

CAMPBELL & ISHERWOOD, LTD.

James Meade Electrical Contractors.

Date *3rd Jan 1950*

COMPASSES.

Have the compasses been adjusted under working conditions. *Yes.*

WILLIAM DOXFORD & SONS, LIMITED.

James Gellie Builder's Signature.

Date *6/1/50*

Have the foregoing descriptions and schedules been verified and found correct. *Yes.*

Is this installation a duplicate of a previous case. *Yes.* If so, state name of vessel. *M/V. "IRELYON"*

Plans. Are approved plans forwarded herewith. *No.* If not, state date of approval. *16.5.49.*

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

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

The electrical equipment of this vessel has been installed under special survey in accordance with the approved plans and the "Rules for Electrical Equipment." The materials and workmanship are good. Upon completion trials of the equipment were witnessed as satisfactory and the insulation resistance of all circuits was found good. This equipment is in my opinion suitable for a closed vessel.

Total Capacity of Generators. *(2x30) 60.* Kilowatts.

The amount of Fee ... *£48.0.0.* When applied for,

JAN 23 1950
When received,

Travelling Expenses (if any) £

L.S. Meade
Surveyor to Lloyd's Register of Shipping.

Committee's Minute. *FEB 17 FEB 1950*

Assigned *In unil ser J.E. Rft*