

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 22 Oct 1941

Date of writing Report.....19..... When handed in at Local Office.....14/10/1941 Port of Howland - m - Tyne

No. in Survey held at Howland - m - Tyne Date, First Survey 18 Aug Last Survey 26 Sept 1941
Reg. Book. Suppl. (Number of Volls.....)

36107 on the m/v DIPLONDON. Tons { gross 8149
net 4770

Built at Howland By whom built Howland-Reid & Co. Ltd Yard No. 632 When built 1941

Owners Anglo-Saxon Petroleum Co. Ltd Port belonging to London

Electrical Installation fitted by Howland-Reid & Co. Ltd Contract No. 632 When fitted 1941

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

Have plans been submitted and approved Yes System of Distribution Two main Voltage of supply for Lighting 110

Heating..... Power 110 Direct or Alternating Current, Lighting Direct Power Direct If Alternating Current state periodicity..... Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off Yes Are turbine emergency governors fitted with a

trip switch as per Rule..... Generators, are they compound wound Yes, are they level compounded under working conditions Yes,

if not compound wound state distance between generators..... and from switchboard..... Where more than one generator is fitted are they

arranged to run in parallel No, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive pole

negative 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 Yes and the results found as per rule Yes Are the lubricating arrangements and the construction

of the generators as per rule Yes Position of Generators Engine room starboard side

....., is the ventilation in way of generators satisfactory Yes are they clear of inflammable material Yes, if situated

near unprotected combustible material state distance from same horizontally..... and vertically....., are the generators protected from mechanical

injury and damage from water, steam and oil Yes, are the bedplates and frames earthed Yes and the prime movers and generators in metallic

contact Yes Switchboards, where are main switchboards placed Engine room starboard side

near generators

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

and oil Yes, if situated near unprotected combustible material state distance from same horizontally..... and vertically....., what insulation

material is used for the panels Common Sintered, 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 frame effectually earthed Yes

Is the construction as per Rule Yes, including accessibility of parts Yes, absence of fuses on the back of the board Yes, individual fuses

to pilot and earth lamps, voltmeters, etc., Yes locking of screws and nuts Yes, labelling of apparatus and fuses Yes, fuses on the "dead"

side of switches Yes Description of Main Switchgear for each generator and arrangement of equaliser switches.....

double pole quick break knife switches and double pole fuses

and for each outgoing circuit.....

double pole double throw quick break knife switches and double pole fuses

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

ammeters Two voltmeters..... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection..... Earth Testing, state means provided Earth lamps coupled to end via switch fuses

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an approved type Yes, are all fuses labelled as

per Rule Yes If circuit breakers are provided for the generators, at what overload current did they open when tested....., are the reversed current

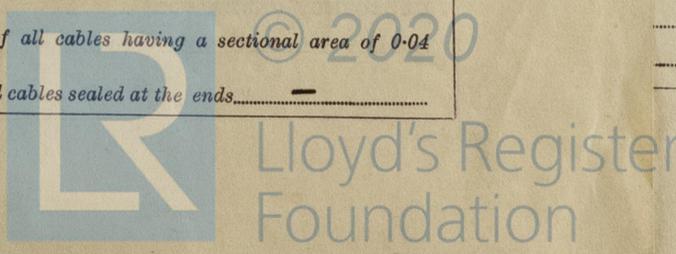
protection devices connected on the pole opposite to the equaliser connection....., have they been tested under working conditions, and at what current

did they operate..... Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule Yes

Cables, are they insulated and protected as per the appropriate Tables of the Rules 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 less than 40, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets Yes Are paper insulated and varnished cambric insulated cables sealed at the ends.....



with insulating compound or waterproof insulating tape. 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. Main cables, L.C.A. run in steel pipe fixed to fore and aft gangway. In accommodation, L.C. cables clipped to head grounds.

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. Yes and with what material. Lead. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes. Emergency Supply, state position and method of control.

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. Are they adequately ventilated. what is the 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 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

are all fittings and accessories constructed and installed as per Rule. Yes. Searchlight Lamps, No. of, whether fixed or portable. are their fittings as per Rule. Heating and Cooking, is the general construction as per Rule. are the frames effectually earthed. are heaters in the accommodation of the convection type. Motors, are all motors constructed and installed as per Rule. and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil, 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.

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 services been supplied and the results found as per Rule. Control Gear and Resistances, are they constructed and fitted as per Rule. 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. Yes. 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				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	1	25	110	227	400	Single cyl. vert.		
	1	25	110	227	400	Steam engine	About 150° F	
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load 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	25	1	37/103	227	240	48'	V.I.R	L.C.A
" EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load 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.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
Engine room meters S.B.	1	19/064	82	83	210'	V.I.R	L.C.A
" " lighting S.B.	1	19/052	49	64	75'	V.I.R	L.C.A
Bridge accommodation S.B.	1	37/064	77	120	600'	V.I.R	L.C.A
Wing fans S.B.	1	19/064	64.5	83	174'	V.I.R	L.C.A
Portable commutator S.B.	1	19/052	23	64	180'	V.I.R	L.C.A

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	No.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (load plus return feet).	INSULATED WITH.	HOW PROTECTED.
WIRELESS	1	19/064	27	83	600'	V.I.R	L.C.A
NAVIGATION LIGHTS	1	7/044	25	31	725'	V.I.R	L.C.A
LIGHTING AND HEATING							
Starboard S.B.	1	7/064	28	46	105'	V.I.R	L.C.
Upper deck port	1	7/064	13	46	96'	V.I.R	L.C.
Bridge deck port	1	7/064	20	46	13'	V.I.R	L.C.
" " starboard	1	7/064	15	46	84'	V.I.R	L.C.
Foremast	1	7/064	5	46	620'	V.I.R	L.C.
Gas accommodation aft	1	7/064	26	46	171'	V.I.R	L.C.A.
Wing deck lighting	1	7/064	12	46	200'	V.I.R	L.C.A.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (load plus return feet).	INSULATED WITH.	HOW PROTECTED.
Turning gear	1	7 1/2	19/064	60	83	300'	V.I.R	L.C.A
Dist. feed pump	1	2	7/026	6	20	120'	V.I.R	L.C.A
Hyd. oil pump	1	1 1/2	7/029	10	15	30'	V.I.R	L.C.A
Leds	1	1 1/2	7/029	12	15	54'	V.I.R	L.C.A
Wing	1	2	7/026	16	20	60'	V.I.R	L.C.A
San main - bridge	1	3 1/2	7/064	20	46	570'	V.I.R	L.C.A
" " engineering	1	4	7/064	34.5	46	463'	V.I.R	L.C.A

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 R. & W. HAWTHORN, LESLIE & CO. LIMITED

Ernest Smith
 Electrical Engineers.

Date 30/9/41

COMPASSES.

Minimum distance between electric generators ~~or motors~~ and standard compass 210'

Minimum distance between electric generators ~~or motors~~ and steering compass 200'

The nearest cables to the compasses are as follows:—

A cable carrying .14 Ampères main feet from standard compass main feet from steering compass.

A cable carrying .14 Ampères main feet from standard compass main 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 his degrees on main course in the case of the

standard compass, and his degrees on main course in the case of the steering compass.

FOR R. & W. HAWTHORN, LESLIE & CO. LIMITED

Ernest Smith
 Builder's Signature.

Date 30/9/41

Is this installation a duplicate of a previous case Yes If so, state name of vessel M/V ECHDDALE

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

Certificates. Are certificates of test for motors engaged on essential 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 was installed under special survey. The material used is of good quality & the workmanship is good. The test of the governing of the generator set & measurement of insulation resistance of all circuits & apparatus were carried out & found satisfactory. In my opinion the installation of this vessel is suitable for class.

Noted
W.H. Cornell
 10/11/41

Total Capacity of Generators 50 Kilowatts.

The amount of Fee £ 27 : 10 When Applied for 20 OCT 1941
 Travelling Expenses (if any) £ : : When received. _____

W.H. Cornell
 Surveyor to Lloyd's Register of Shipping.

TUE. 11 NOV 1941

Committee's Minute _____
 Assigned See Nwc. J.C. 99860

5m. 4.39.—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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