

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

11 MAY 1949

Date of writing Report 11th APRIL 1949. When handed in at Local Office 9/5/1949. Port of GLASGOW

No. in Survey held at PORT GLASGOW Date, First Survey 27th DECEMBER 1948 Last Survey 25th MARCH 1949
Reg. Book. (No. of Visits 6)

91446 on the COULGARVE Tons Gross Net

Built at PORT GLASGOW By whom built LITHGOWS LTD Yard No. 1049 When built 1949

Owners DORNOCH SHIPPING CO LTD Port belonging to GLASGOW

Installation fitted by MESSRS CAMPBELL & ISHERWOOD When fitted 1949

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

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

Heating 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 YES 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

NEGATIVE Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing YES Have certificates of

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

Position of Generators 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 ON PLATFORM ABOVE

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 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 300 AMP TRIPLE POLE CIRCUIT-BREAKERS FITTED WITH

OVERLOAD AND REVERSE CURRENT TRIPS

and the switch and fuse gear (or circuit breakers) for each outgoing circuit 100 AMP, 60 AMP AND 30 AMP D.P. KNIFE PATTERN

SWITCHES AND 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 are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection YES Earth Testing, state means provided

EARTH LAMPS

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

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

overload do they operate 50% FULL LOAD, and at what current do the reversed current protective devices operate 10% - 15%

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

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 6.6 VOLTS, 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 YES, if so, are they

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

or of the "HR" type YES State how the cables are supported or protected MAINS V.I.R. CABLES IN CONDUIT OR

L.C.A.B. CABLE CLIPPED TO STEELWORK MACHINERY SPACE L.C.A.B. CABLE CLIPPED TO 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



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 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. YES are they adequately ventilated. YES 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. YES and where are the controlling switches fitted. YES Are all fittings suitably ventilated. YES

Searchlight Lamps, No. of 2, 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

Control Gear and Resistances, are they constructed and fitted as per Rule. YES Lightning Conductors, where required are they fitted as per Rule. YES 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 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 the cables lead covered as per Rule. YES

E.S.D., if fitted state maker. HUGHES location of transmitter. FRAME SPACE 117-118 and receiver. FRAME SPACE 117-118

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 ...	2	CAMPBELL & ISHERWOOD	25	110	227	500	STEAM.	READER.
EMERGENCY ... 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 ...	25	2	19/083	227	236	40	RUBBER	L.C.A.B.
" " EQUALISER ...		1	19/083	-	118	20	RUBBER	L.C.A.B.
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR...								

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

DESCRIPTION.	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.
OFFICERS & ENGINEERS SECTION.	1	19/083	83	118	40	RUBBER	L.C.A.B.
AFT ACCOMMODATION SECTION.	1	7/052	30	37	380	V.I.R.	IN CONDUIT.
CARGO LIGHTING SECTION.	1	19/044	42	53	40	RUBBER	L.C.A.B.
SALOON LIGHTING SECTION.	1	19/044	43	53	260	V.I.R.	IN CONDUIT.

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.			
NAVIGATION.	1	7/036	5	24	320	V.I.R.	IN CONDUIT.
WIRELESS.	1	7/044	10	31	300	V.I.R.	IN CONDUIT.
ENGINEER ROOM LIGHTING D.B.	1	7/044	12	31	40	RUBBER	L.C.R.B.
SALOON ACCOM. LT ^g D.B.	1	7/044	26	31	8	RUBBER	L.C.
ENGINEER ACCOM. LT ^g D.B.	1	7/044	25	31	140	RUBBER	L.C.
AFT ACCOMMODATION LT ^g D.B.	1	7/036	14	24	8	RUBBER	L.C.
FORWARD CARGO LT ^g D.B.	1	7/044	23	31	142	V.I.R.	IN CONDUIT.
MIDSHIP CARGO LT ^g D.B.	1	7/029	5	15	54	V.I.R.	IN CONDUIT.
AFT CARGO LT ^g D.B.	1	7/036	15	24	290	V.I.R.	IN CONDUIT.

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.
DOMESTIC REFRIG.	1	2.5	1	7/044	22	31	250	V.I.R.	IN CONDUIT
ACCOM. VENT FANS	2	1.5	1	7/029	15	15	70	RUBBER	L.C.
ACCOM. VENT FAN.	1	1.75	1	7/036	17	24	75	RUBBER	L.C.

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.

[Signature] Electrical Contractors. Date 19. 4. 49
 Director

COMPASSES.

Have the compasses been adjusted under working conditions... YES
 LITHGOWS LIMITED.
[Signature] Secretary Builder's Signature. Date 21. 4. 49

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... 1st FEBRUARY 1949
 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 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.

Noted *[initials]* 19/5/49

Total Capacity of Generators... 50 Kilowatts.

The amount of Fee ...	£ 47 : 10 :	When applied for,	At GRK 19
Travelling Expenses (if any) £	1 : 1 :	When received,	19/040

[Signature]
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute... GLASGOW 10 MAY 1949 *[initials]*
 Assigned... See First Entry Machinery Report.

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.)