

Rpt. 13.

No. 913

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 13th Octob 19 53 When handed in at Local Office 13th Oct. 19 53 Port of K I E L
 No. in Survey held at Kiel Date, First Survey 4th June Last Survey 30th Sept, 19 53
 Reg. Book. (No. of Visits 30)
04405 on the Twin Screw m.v. "BROWNS BAY" ex "BALTIC COAST" Tons { Gross. 1722
 Net. 781
 Built at Ardrossan By whom built Ardrossan Dock Yard Ltd. Yard No. 404 When built 1948
 Owners Leneghan, Belfast Port belonging to Belfast
 Installation fitted by Kieler Howaldtswerke A.G. 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. no Sub.Sig. no Radar yes

Plans, have they been submitted and approved yes System of Distribution DC - bipolar Voltage of Lighting 220
 Heating 220 Power 220 D.C. or A.C., Lighting - Power - 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,
 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 existing Have certificates of test for machines
 under 100 kw. been supplied and the results found as per Rule - Position of Generators 1 p.forwd., 1 port aft,
1 starbd. fwd., and 1 emergency generator starbd. aft 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 engine room aft upper
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 Pertinax, 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 Automatic circuit breakers with overload and reverse
current trips-

and the switch and fuse gear (or circuit breakers) for each outgoing circuit D.P. switches and fuses
 Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 4
 ammeters 4 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 -
2 earth lamps Preference Tripping, state if provided no, and tested -
 Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an Approved Type yes
 make of fuses Siemens, are all fuses labelled yes If circuit breakers are provided for the generators, at what
 overload do they operate 300 A, and at what current do the reverse current protective
 devices operate 45 A Cables, 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 less than 6% xxxxx 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 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.B., galleys L.C.B.
 and laundries L.C.B. State how the cables are supported or protected galvanised perforated plating
and clips

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

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. **yes** Emergency Supply, state position **no**

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, fitted and adequately ventilated as per Rule. **-**, state battery capacity in ampere hours **-**. Where required to do so does it comply with 1948 International Convention. **-**

Lighting, is fluorescent lighting fitted. **no** If so, state nominal lamp voltage. **-** and compartments where lamps are fitted. **-**

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 **-**, whether fixed or portable. **-**, are they of the carbon arc or of the filament type. **-**

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 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. **-**

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule. **Tested**

Lightning Conductors, where required are they fitted as per Rule. **-**

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. **-**, 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 all cables lead covered as per Rule. **yes**

E.S.D., if fitted state maker. **Marconi - Sea-graph** location of transmitter and receiver. **Cofferdam frame 61-62**

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.	
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN	3	Campell	64	220	290	800	Oil eng.	Gardner - Manchester
							G1 3	
EMERGENCY ROTARY TRANSFORMER	1	Hans Still - Hamburg	16	230	69.5	1000	F2M 417	Deutz - Köln

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 sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR 1, 2, 3, 4	1	64	2	120	290	350	60	rubber	lead covered and
" " Equaliser	1	64	2	120	290	350	50	"	" braided
" " Equaliser	1	64	2	120	290	350	60	"	"
EMERGENCY GENERATOR	1	16	1	35	72	78	50	"	"

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.	No. of	Kw.	No. in Parallel per Pole.	Sectional Area sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
Distribution for lighting aft	1	2.5	5	12.9	96		96	rubber	lead covered & Braided.
Distribution for lighting 3 and 3a	1	4.0	18	21.1	64		64	"	"
Distribution for lighting 1	1	4.0	12	21.1	80		80	"	"
Distribution for lighting 2	1	4.0	11	21.1	72		72	"	"
Distribution for lighting 4	1	4.0	18	21.1	68		68	"	"
Distribution for lighting forward	1	2.5	4	12.9	136		136	"	"
Distribution for lighting pantry	1	50	65	98	70		70	"	"
Winch panel aft	1	185	220	233	96		96	"	"
Winch panel boat deck	1	95	116	150	56		56	"	"
Winch panel starbd.	1	95	116	150	66		66	"	"
Winch panel port	1	95	116	150	74		74	"	"
Winch panel forward	1	185	225	233	136		136	"	"
Power distribution 1 engine room	1	150	138	204	98		98	"	"
Power distribution 2 engine room	1	150	196	204	98		98	"	"
Steering gear	1	16	41	48.1	86		86	"	"

DISTRIBUTION CABLES (to Section-Boards and Distribution-Fuse-Boards, etc.). All cables are of MK type

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area sq. mm.	In the Circuit.	Rule.			
Power distrib. refrigerat. plant	1	6	12	29	52	rubber	lead cov. & Braid.
Wireless	1	10	18	38	80	"	"
Radar	1	6	14	29.4	80	"	"
Navigation switchboard	1	2.5	2	15.5	84	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No. in Parallel per Pole.	Sectional Area sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
Compressor 1	1	35	1	95	136	150	62	rubber	lead cov. & braided
Compressor 2	1	35	1	95	136	150	60	"	"
L.O. pump 1	1	18.2	1	50	73.5	98	20	"	"
L.O. pump 2	1	18.2	1	50	73.5	98	20	"	"
Salt water coolg. pump (main)	1	3.5	1	4	21	21.1	60	"	"
Bilge pump	1	7.5	1	6	29.5	29.4	60	"	"
Fresh water coolg. pump (aux)	1	3	1	2.5	12.5	12.9	65	"	"
Gen. service pump	1	9/12	1	16	36/47	48.1	60	"	"
Fresh water coolg. pump (Main)	1	3/5	1	4	12/20	21.1	60	"	"
Fresh water pump (domestic)	1	3	1	2.5	12.5	12.9	65	"	"
O.F. purifier	1	1	1	2.5	4.4	12.9	65	"	"
L.O. purifier	1	1.5	1	2.5	6.6	12.9	20	"	"
O.F. transfer pump	1	7.5	1	2.5	6.6	12.9	30	"	"
O.F. heater 1	1	12	1	35	54	77.5	60	"	"
O.F. heater 2	1	18	1	50	86	98	60	"	"
Fan port	1	1.5	1	2.5	6.5	12.9	50	"	"
Fan	1	0.5	1	1.5	3.0	6.6	50	"	"
Refrigerating compressor	1	1.5	1	2.5	6.5	12.9	30	"	"
Salt wat. coolg. pp. plant for refig.	1	1	1	1.5	4.4	6.6	25	"	"
Fans starbd.	1	1.5	1	2.5	6.5	12.9	50	"	"

NOTE.—Use Rpt. 43 Continuation Sheet if the above space is insufficient.

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.

KIELER HOWALDTSWERKE

Aktiengesellschaft

Electrical Contractors.

Date 17.11.1953

COMPASSES.

Have the compasses been adjusted under working conditions... yes

KIELER HOWALDTSWERKE

Aktiengesellschaft

Builder's Signature.

Date 17.11.1953

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... yes 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 and materials, opinions as to class, etc.) The installation of the three existing (64 KW) and one new (16 KW) generators and all existing motors, the new switchboard, fittings cables on the bipolar wire system has been satisfactorily carried out, in accordance with the Rules, approved plans and Secretary's letters, and the materials and workmanship used are good.

The vessel is eligible, in my opinion, to be re-classed with this Society with the notation * LMC 10.53.

NOTE : All existing generators and motors have been re-wound and re-insulated in the workshop of Messrs. Kieler Howaldtswerke A.G., Kiel, and were on completion of repairs, examined and megger tested prior to and on completion of the high potential tests, and found in good order.

Total Capacity of Generators... 208 Kilowatts.

The amount of Fee ... £ 91 : 10 : 0 When applied for,

alc 29/10/53
 When received,

Travelling Expenses (if any) £ : : 19

B. Chamber
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute.....

Assigned.....

2m. 5.50.—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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