

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

28 MAR 1951

Date of writing Report 5<sup>th</sup> MARCH 1951 When handed in at Local Office 13 MAR 1951 Port of NEWCASTLE-ON-TYNE  
 No. in Survey held at BLYTH Date, First Survey 30/3/50 Last Survey 2/3/51 19...  
 Reg. Book. 95494 on the M.V. "ROSA MAERSK" (No. of Visits 9)  
 Built at BLYTH By whom built BLYTH D.D. & S.B. CO. LTD. Yard No. 343 When built 1951  
 Owners A. P. MOLLER Port belonging to FREDERICIA  
 Installation fitted by BLYTH D.D. & S.B. CO. LTD When fitted 1951  
 Is vessel equipped for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES RADAR YES Sub Sig YES

Tons { Gross 8191.83  
 Net 4827.19

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 - 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 2-44KWS SETS., 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.

Position of Generators IN 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 NEAR 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 INTEROHM, 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 400 AMPERE TRIPLE POLE CIRCUIT BREAKER WITH TWO OVERLOAD AND A REVERSE CURRENT TRIPS

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

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 3 ammeters 3 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 SIEMENS "ZED", are all fuses labelled YES If circuit breakers are provided for the generators, at what overload do they operate TESTED AT FULL LOAD SET AT 150% FL., and at what current do the reversed current protective devices operate 15% FL.

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule YES  
 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 < 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 No, if so, are they adequately protected - Are cables in machinery spaces, galleys, laundries, etc., lead covered YES or run in conduit - or of the "HR" type - State how the cables are supported or protected MAIN CABLES - LEAD COVERED ARMOURED AND BRAIDED CLIPPED TO STEEL TRAY. ACCOMMODATION CABLES - LEAD COVERED CLIPPED TO WOOD GROUNDS.

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 AUX. GENERATOR 10KWS. SITUATED IN STEERING GEAR COMPARTMENT.

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. ---, are they adequately ventilated. --- 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, weather proof. YES Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. YES if so, how are they protected. "WIGAN" FLAMEPROOF FITTINGS. and where are the controlling switches fitted. OFFICERS ACCOMMODATION ALLEYWAY. Are all fittings suitably ventilated. YES.

Searchlight Lamps, No. of WIKING ONLY. 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. --- 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. 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 SIEMENS "LED" 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. H. HUGHES. location of transmitter. FRAMES 34/35 and receiver. FRAMES 34/35.

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			Revs. per Min.	TYPE.	PRIME MOVER.	MAKER.
			Kilowatts per Generator.	Volts.	Ampères.				
MAIN	2	THOMAS B. THRIE	44	110	400	625	DIESEL	BUKH.	
	1	LAURENCE SCOTT & Co.	15	110	136	500	STEAM	READER.	
	1	KOBENHAVNS ELEKTROMOTOR FABRIK.	10	110	91	1200	DIESEL.	BUKH.	
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	44	1	61-093.	400 ✓	492	70	V.C.	L.C.A.B.
" " EQUALISER	15	1	37-072.	200 ✓	260	35	V.C.	L.C.A.B.
		1	37-072.	136 ✓	152	96	V.I.R.	L.C.A.B.
	10	1	19-083	91 ✓	118	45	V.I.R.	L.C.A.B.
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

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

DESCRIPTION.								
SHORE CONNECTION BOX	1	37-103.	200 ✓	240	132	V.I.R.	L.C.A.B.	
SUEZ CANAL PROJECTOR.	1	19-083.	45 ✓	118	900	V.I.R.	L.C.A.B.	
EMERGENCY SWITCHBOARD.	1	37-103.	253.8 ✓	240	120	V.I.R.	L.C.A.B.	
MAINS BETWEEN AUX. AND EMERGENCY SWITCHBOARDS.	1	19-083.	91 ✓	118	180	V.I.R.	L.C.A.B.	
MIDSHIP SWITCHBOARD.	1	37-072.	97.8 ✓	152	400	V.I.R.	L.C.A.B.	
GALLEY SECTION BOX.	1	7-044.	21.5 ✓	31	138	V.I.R.	L.C.A.B.	
MIDSHIP ACCOMM. LIGHTING SECTION BOX.	1	19-064.	72.9 ✓	83	18	V.I.R.	L.C.A.B.	
VENTILATION SECTION BOX.	1	19-064.	69 ✓	83	120	V.I.R.	L.C.A.B.	
ENGINEERS WORKSHOP SECTION BOX.	1	19-064.	60.5 ✓	83	120	V.I.R.	L.C.A.B.	
REFRIG. CONTROL PANEL.	1	19-064.	71.9 ✓	83	150	V.I.R.	L.C.A.B.	

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.					
EMERGENCY SUPPLY TO WIRELESS.	1	7-052	30 ✓	37	78	V.I.R.	L.C.A.B.	
WHEELHOUSE LIGHTING.	D.B. "N.1."	1	7-052.	25.2 ✓	37	120	V.I.R.	L.C.
WHEELHOUSE LIGHTING.	D.B. "N.2."	1	7-029	6.8 ✓	15	120	V.I.R.	L.C.
FORECASTLE LIGHTING.	D.B. "C.3"	1	7-044.	7.8 ✓	31	390	V.I.R.	L.C.A.B.
BRIDGE DECK LIGHTING.	D.B. "C.1."	1	7-036	20.2 ✓	24	42	V.I.R.	L.C.
UPPER BRIDGE DECK LIGHTING.	D.B. "C.2"	1	7-036	14.6 ✓	24	48	V.I.R.	L.C.
WIRELESS SUPPLY	1	19-083	30 ✓	118	498	V.I.R.	L.C.	
MIDSHIP ACCOMM. LIGHTING.	D.B. "A.3"	1	7-036	18.2 ✓	24	84	V.I.R.	L.C.
MIDSHIP ACCOMM. LIGHTING.	D.B. "A.4"	1	7-044.	14.1 ✓	31	162	V.I.R.	L.C.
MIDSHIP ACCOMM. LIGHTING.	D.B. "A.1."	1	7-036.	19.9 ✓	24	60	V.I.R.	L.C.
MIDSHIP ACCOMM. LIGHTING.	D.B. "A.2."	1	7-044.	20.7 ✓	31	180	V.I.R.	L.C.
ENGINE & BOILER ROOMS LIGHTING.	D.B.	1	7-052.	31.6 ✓	37	84	V.I.R.	L.C.A.B.
NAVIGATION LIGHTING.	D.B.	1	3-036	1.8 ✓	10	630	V.I.R.	L.C.A.B.
GYRO COMPASS SUPPLY	1	19-052.	30 ✓	64	600	V.I.R.	L.C.A.B.	
KADAR.	1	19-052.	30 ✓	64	630	V.I.R.	L.C.A.B.	
GYRO PILOT.	1	7-052	30	37	270	V.I.R.	L.C.A.B.	

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
LUB. OIL PURIFIER MOTOR.	1	3 1/2	1	7-052	32 ✓	37	150	V.I.R.	L.C.A.B.
FUEL OIL PURIFIER MOTOR.	1	3 1/2	1	7-052	32 ✓	37	132	V.I.R.	L.C.A.B.
CIRC. PUMP MOTOR SPANNER BOILER.	1	4	1	7-052	35 ✓	37	180	V.I.R.	L.C.A.B.
TURNING GEAR MOTOR.	1	10	1	19-064	78 ✓	83	162	V.I.R.	L.C.A.B.
KNEADING & MINING MACHINE MOTOR.	1	2	1	7-036	19 ✓	24	30	V.I.R.	L.C.A.B.
CRANE MOTOR.	1	3 1/2	1	7-052	32 ✓	37	144	V.I.R.	L.C.A.B.
SHAPING MACHINE MOTOR.	1	2	1	7-036	19 ✓	24	30	V.I.R.	L.C.A.B.
DRILLING MACHINE MOTOR.	1	1 1/2	1	7-036	14.5 ✓	24	30	V.I.R.	L.C.A.B.
LATHE MOTOR.	1	3	1	7-044.	27 ✓	31	30	V.I.R.	L.C.A.B.
ACCOMM. VENT FAN MOTORS.	2	2 1/2	1	7-052	23 ✓	37	180	V.I.R.	L.C.A.B.
ACCOMM. VENT FAN MOTOR.	1	2 1/2	1	19-044	23 ✓	53	480	V.I.R.	L.C.A.B.
PANTRY HOTPLATE.	1	2KWS.	1	7-036.	18.2 ✓	24	42	V.I.R.	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.

FOR AND ON BEHALF OF  
MYTH BLY JONES & CO. LTD.

*[Signature]*

Electrical Contractors.

Date 7<sup>th</sup> March 1951

COMPASSES.

FOR AND ON BEHALF OF  
MYTH BLY JONES & CO. LTD.

Have the compasses been adjusted under working conditions.

*[Signature]*

Builder's Signature.

Date 7<sup>th</sup> March 1951

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 "NELLY MAERSK"

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. YES

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

THE ELECTRICAL EQUIPMENT OF THIS SHIP HAS BEEN INSTALLED IN ACCORDANCE WITH THE SOCIETY'S RULES AND REGULATIONS AND THE ARRANGEMENTS ARE IN ACCORDANCE WITH THOSE SHOWN ON THE APPROVED PLANS.

THE MATERIALS USED ARE OF GOOD QUALITY AND THE WORKMANSHIP IS SATISFACTORY.

THE 15KWS. "READER" STEAM ENGINE DRIVEN GENERATOR SET 110 VOLTS - 136 AMPS - 500 RPM - 1944 DRIPPROOF CONTINUOUSLY RATED. - COMPOUND WOUND - LAURENCE SCOTT & CO SERIAL NO. 91046 IS A RECONDITIONED SET EX. ADMIRALTY.

ON COMPLETION OF INSTALLATION THE INSULATION RESISTANCE OF ALL CIRCUITS WAS ABOVE RULE REQUIREMENTS. THE GENERATORS OPERATED ON LOAD AND GOVERNING TESTS, AND THE CIRCUIT BREAKER PROTECTIVE DEVICES TESTED. ALL WITH SATISFACTORY RESULTS.

THE EQUIPMENT, AS INSTALLED, IS, IN MY OPINION, SUITABLE FOR A CLASSED SHIP.

Notes sent 5/4/51

Total Capacity of Generators 113 Kilowatts.

The amount of Fee ... £ 58 : 19 : When applied for, 27 MAR 1951

Travelling Expenses (if any) £ : : When received, 19

*[Signature]*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute. FRI. 4 MAY 1951

Assigned. Sir F. E. Welch, rpt.

Im. No. - Transfer. (MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minutes.)



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