

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report. 22<sup>nd</sup> March, 1949 When handed in at Local Office. 22<sup>nd</sup> March, 1949 Port of LEITH

No. in Survey held at BURNTISLAND Date, First Survey 29-12-48 Last Survey 18-3-49  
 Reg. Book. SUPPLY. 91046 on the Steel Screw Motor Vessel "ADAMS BECK" (Number of Visits.....)

Tons { Gross 173  
 Net 1189

Built at BURNTISLAND By whom built BURNTISLAND S.B. CO LTD Yard No. 328 When built 1949

Owners THE GAS LIGHT & COKE CO LTD Port belonging to LONDON

Electrical Installation fitted by BURNTISLAND S.B. CO LTD Contract No. 328 When fitted 1949

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

Have plans been submitted and approved. YES System of Distribution DOUBLE WIRE Voltage of supply for Lighting 220

Heating 220 Power 220 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. 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. - 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. IN ENGINE ROOM

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. ON FLAT, STARBOARD SIDE OF ENGINE ROOM.

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. "SINDANYO." 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. A D.P. CIRCUIT

BREAKER FITTED WITH OVERLOAD & REVERSE CURRENT TRIPS & A SINGLE POLE

EQUALISER SWITCH FITTED IN CENTRE CLOSING BEFORE & OPENING AFTER MAIN CIRCUIT.

and for each outgoing circuit. DOUBLE POLE, SINGLE THROW SWITCHES & D.P. FUSES

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. YES Instruments on main switchboard. 3

ammeters. 2 voltmeters. - synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection. YES Earth Testing, state means provided. 2 @ 15 WATT METAL FILAMENT LAMPS

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. FULL LOAD, are the reversed current

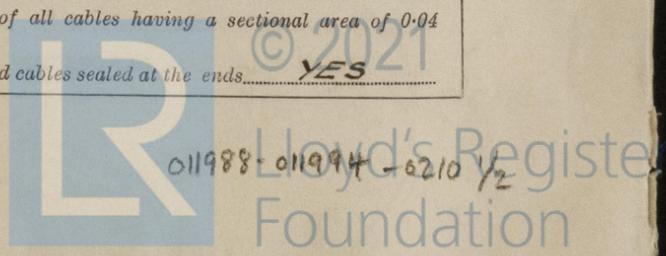
protection devices connected on the pole opposite to the equaliser connection. YES, have they been tested under working conditions, and at what current

did they operate. 10/15.2 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. YES/WE

state maximum fall of pressure between bus bars and any point under maximum load. 4.2, 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. YES



with insulating compound... or waterproof insulating tape... 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... NO, are 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... State how the cables are supported and protected... WHERE LEAD COVERED & ARMoured CABLE SUPPORTED BY GALVANISED CLIPS WHERE LEAD COVERED, SUPPORTED BY BRASS SADDLES & PROTECTED BY SHEET IRON PLATING WHERE LIABLE TO MECHANICAL DAMAGE.

Are all lead sheaths, armoring 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... YES and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil... YES, 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... 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 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... 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... are all fuses of the cartridge type... are they of an approved type... Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships... 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	2	35	220	159	900	RUSTON & HORNSBY DIESEL ENGINE		
EMERGENCY	1	18	220	82	1000	RUSTON & HORNSBY DIESEL ENGINE		
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead 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	35	1	19/083	159	202	90	V.C.	LC. & ARMoured
" " EQUALISER	-	1	19/064	-	143	45	V.C.	LC. & ARMoured
EMERGENCY GENERATOR	18	1	19/044	82	92	120	V.C.	LC. & ARMoured
" " EQUALISER	-	1	7/064	-	80	60	V.C.	LC. & ARMoured
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead 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							

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	7/044	10	31	360	V.I.R.	LC. & ARMoured
NAVIGATION LIGHTS	1	7/036	15	24	360	V.I.R.	LC. & ARMoured
LIGHTING AND HEATING							
MOTOR ROOM LIGHTING	1	7/036	10	24	50	V.I.R.	LC. & ARMoured
RET ACCOMMODATION LIGHTING	1	7/036	15	24	120	V.I.R.	LC. & ARMoured
MIDSHIP ACCOMMODATION LIGHTING	1	7/036	8	24	330	V.I.R.	LC. & ARMoured
FUEL OIL HEATER	1	7/064	36.5	46	120	V.I.R.	LC. & ARMoured
LUB OIL HEATER	1	7/064	36.5	46	120	V.I.R.	LC. & ARMoured

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
WINDLASS	1	23	1	19/064	88	143	500	V.C. LC. & ARMoured
HATCH LIFTING WINCH	1	15	1	7/064	59	80	240	V.C. LC. & "
WARDING WINCH	1	15	1	7/064	59	80	180	V.C. LC. & "
STEERING GEAR	1	10	1	7/064	40	46	180	V.I.R. LC. & "
AIR COMPRESSOR	1	14	1	7/064	56	80	90	V.C. LC. & "
BALLAST PUMP	1	34	1	19/064	128	143	100	V.C. LC. & "
GENERATOR SETS CIRCO PUMP	1	1.5	1	3/036	7	10	90	V.I.R. LC. & "
FUEL OIL TRANS PUMP	1	1.5	1	3/036	7	10	150	V.I.R. LC. & "
LUB OIL " "	1	7	1	7/044	28	31	90	V.I.R. LC. & "
BILGE PUMP	1	9	1	7/064	36	46	100	V.I.R. LC. & "
GENERAL SERVICE PUMP	1	9	1	7/064	36	46	120	V.I.R. LC. & "
OIL PURIFIERS	2	.5	1	3/036	5	10	120	V.I.R. LC. & "

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 THE BURNTISLAND SHIPBUILDING CO., LTD.

*M. J. Southwark*

Electrical Engineers.

Date 21-3-49

COMPASSES.

Minimum distance between electric generators or motors and standard compass..... 25 FEET

Minimum distance between electric generators or motors and steering compass..... 20 FEET

The nearest cables to the compasses are as follows:—

A cable carrying .18 Ampères ..... feet from standard compass 7" feet from steering compass.

A cable carrying .18 Ampères ..... 7" feet from standard compass ..... 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 NIL degrees on ANY course in the case of the standard compass, and NIL degrees ANY course in the case of the steering compass.

*M. J. Southwark*

Builder's Signature.

Date 21-3-49

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 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 above installation has been satisfactorily fitted on board in accordance with the Society's Rules and the approved Plans. The materials and workmanship being good. On completion the installation was found satisfactory under full load working conditions.*

*Notes sent 19/4/49.*

Total Capacity of Generators 88 ✓ Kilowatts.

The amount of Fee ... Gas A/c £26.12.0  
LTH A/c £26.12.0  
£53 : 4 : 0 When applied for, 25-3-19.49

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

*John C. South*  
 Surveyor to Lloyd's Register of Shipping.  
 for J.M. GARDINER & SELF.

Committee's Minute FRI. 22 APR 1949

Assigned Su F.E. mchly rpt

5m.4.30.—Transfer. (MADE AND PRINTED IN ENGLAND.)  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

