

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

6 JUN 1947

Received at London Office.....

Date of writing Report... 2ND JUNE 1947... When handed in at Local Office... 5TH JUN 1947... Port of... NEWCASTLE-ON-TYNE

No. in Survey held at... HEBBURN-ON-TYNE... Date, First Survey... 22ND JANUARY 1947... Last Survey... 30TH MAY 1947... Reg. Book... (Number of Visits... TEN...)

84951 on the... M.V. 'LAMPANIA'... Tons {Gross... 6440.6437.59 Net... 3620.3625.14

Built at... HEBBURN-ON-TYNE... By whom built... R.W. HAWTHORN LESLIE & CO. LTD... Yard No... 690... When built... 1947.

Owners... ANGLO SAXON PETROLEUM CO. LTD... Port belonging to... LONDON.

Electrical Installation fitted by... R.W. HAWTHORN LESLIE & CO. LTD... Contract No... -... When fitted... 1947.

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

Have plans been submitted and approved... YES... System of Distribution... TWO WIRE-INSULATED... Voltage of supply for Lighting... 110

Heating... -... Power... 110... Direct or Alternating Current, Lighting... D.C... Power... D.C... 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... 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... 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... 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 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 SWITCH WITH A FUSE ON EACH INSULATED POLE.

and for each outgoing circuit... DOUBLE POLE CHANGEOVER SWITCH WITH A FUSE ON EACH INSULATED POLE

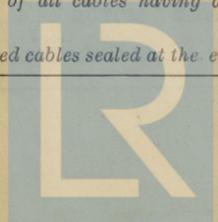
Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... YES... Instruments on main switchboard... 2... ammeters... 2... voltmeters... -... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the equaliser connection... -... Earth Testing, state means provided... EARTH LAMPS.

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... 3.6 VOLTS... 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

ENCLOSURE

Sum 25/6/47



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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. YES, 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. MAIN CABLES - LEAD COVERED ARMOURD 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. 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 effectually 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 ONE, whether fixed or portable. PORTABLE, are their fittings as per Rule. YES. 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.

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. 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 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.	Rev. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	1	30	110	273	675	STEAM ENGINE		
	1	30	110	273	675	DIESEL ENGINE	OIL ABOVE 150° F.	
EMERGENCY								
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	30	1	27-083	273	296	40	V.C.	L.C.A+B.
" EQUALISER								
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	1	19-064	83.4	135	240	V.C.	L.C.A+B.
ENGINE ROOM MOTORS. S.B. 4.							
ENGINE ROOM & BOILER ROOM LTG. S.B. No 3.	1	19-052	51.24	104	60	V.C.	L.C.A+B.
MIDSHIP SWITCHBOARD.	1	27-103	240.75	385	550	V.C.	L.C.A+B.
ACCOMMODATION LIGHTING. MIDSHIPS. S.B. 1	1	19-064	72.0	135	42	V.C.	L.C.
CREWS ACCOMM. LIGHTING. S.B. 2.	1	19-064	34.9	135	150	V.C.	L.C.A+B.
CREWS ACCOMM. LIGHTING. D.B. 9.	1	19-052	29	64	195	V.I.R.	L.C.A+B.
SHORE CONNECTION BOX	1	27-072	246	246	168	V.C.	L.C.A+B.
SUEZ CANAL PROJECTOR.	1	19-052	50	104	450	V.C.	L.C. AND L.C.A+B.

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	19-064	30	135	120	V.C.	L.C.
NAVIGATION LIGHTS	1	7-036	4.8	24	120	V.I.R.	L.C.
LIGHTING AND HEATING ENGINE ROOM LTG. D.B. 10.	1	7-029	7.5	15	120	V.I.R.	L.C.A+B.
ENGINE ROOM LIGHTING. D.B. 11	1	7-036	10.54	24	180	V.I.R.	L.C.A+B.
ENGINE ROOM LIGHTING. D.B. 12	1	7-029	9.2	15	120	V.I.R.	L.C.A+B.
ENGINE ROOM LIGHTING. D.B. 13	1	7-036	10.9	24	180	V.I.R.	L.C.A+B.
ENGINE ROOM LIGHTING. D.B. 14	1	7-029	7.45	15	30	V.I.R.	L.C.A+B.
ENGINE ROOM LIGHTING. D.B. 15	1	7-036	5.45	24	180	V.I.R.	L.C.A+B.
FORECASTLE LIGHTING. D.B. 0.	1	19-052	5.4	104	450	V.C.	L.C.A+B.
CHAIRHOUSE LIGHTING. D.B. 1.	1	19-052	39.65	104	120	V.C.	L.C.
MIDSHIP ACCOMM. LIGHTING. D.B. 2	1	7-044	13.6	31	90	V.I.R.	L.C.
MIDSHIP ACCOMM. LIGHTING. D.B. 3	1	7-064	29.4	46	60	V.I.R.	L.C.
MIDSHIP ACCOMM. LIGHTING. D.B. 4	1	7-044	20.0	31	48	V.I.R.	L.C.
PORTABLE CONNECTIONS FWD. D.B. 5	1	7-044	13.1	31	90	V.I.R.	L.C.
CREWS ACCOMM. LIGHTING. D.B. 6	1	7-044	17.3	31	30	V.I.R.	L.C.
CREWS ACCOMM. LIGHTING. D.B. 7	1	7-064	17.6	46	144	V.I.R.	L.C.
PORTABLE CONNECTIONS AFT. D.B. 8	1	7-036	6.9	24	180	V.I.R.	L.C.A+B.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
FUEL OIL CLARIFIER.	1	7.5	1	19-052	62	104	180	V.C.	L.C.A+B.
FUEL OIL PURIFIER	1	7.5	1	19-052	62	104	180	V.C.	L.C.A+B.
LATHE MOTOR.	1	3.0	1	7-044	26	31	60	V.I.R.	L.C.A+B.
GRINDER MOTOR.	1	1.0	1	7-029	10	15	60	V.I.R.	L.C.A+B.
DRILLING MACHINE MOTOR.	1	2.0	1	7-036	18	24	60	V.I.R.	L.C.A+B.
LUB. OIL PURIFIER.	1	2.0	1	7-044	18	31	150	V.I.R.	L.C.A+B.
STANDBY OIL FUEL PUMP	1	1.0	1	7-029	10	15	150	V.I.R.	L.C.A+B.
TURNING GEAR MOTOR.	1	7.5	1	19-064	62	135	195	V.C.	L.C.A+B.
MIDSHIP ACCOMM. VENT FAN	1	4.5	1	7-064	35	46	150	V.I.R.	L.C.
AFT ACCOMM. VENT FAN	1	4.5	1	7-064	35	46	255	V.I.R.	L.C.A+B.

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.

C. Stephenson

Electrical Engineers.

Date *4/6/47*

COMPASSES.

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

Minimum distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying *0.14* Ampères *INSIDE* feet from standard compass — feet from steering compass.

A cable carrying — Ampères — 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 *EVERY* course in the case of the standard compass, and *NIL* degrees on *EVERY* course in the case of the steering compass.

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

C. Stephenson

Builder's Signature.

Date *4/6/47*

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

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

ON COMPLETION THE INSULATION RESISTANCE OF ALL CIRCUITS WAS ABOVE RULE REQUIREMENTS AND THE GENERATORS OPERATED ON LOAD AND GOVERNING TESTS WITH SATISFACTORY RESULTS.

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

Total Capacity of Generators *60* Kilowatts.

The amount of Fee ... £ *36 : 0* : —

When applied for, *5 JUN 1947*

Travelling Expenses (if any) £ : : —

When received,

R. Storer

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 27 JUN 1947

Assigned

See F.E. mch. opt.

5m.4.30.—Transfer. (MADE AND PASSED IN ENGLAND.)

(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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