

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

19 AUG 1950

Date of writing Report 1st. JULY 1950 When handed in at Local Office 28 JUL 1950 Port of NEWCASTLE-ON-TYNE

No. in Survey held at WALSSEND-ON-TYNE Date, First Survey 20th. MAR. 1950 Last Survey 29th. JUNE 1950
Reg. Book. (No. of Visits 21)

36504 on the S.S. "Esso LNERPOOL" Ex. "JOHN D. ARCHIBOLD" Tons { Gross 14640.
Net 8684.

Built at NEWPORT NWS. By whom built NEWPORT NWS. S.B. & D.D. Co. Yard No. - When built 1921

Owners ANGLO AMERICAN OIL Co. LTD. Port belonging to LONDON.

Installation fitted by ALTERATIONS BY SUNDERLAND FORGE & ENGINEERING Co. LTD. When fitted 1950

Is vessel equipped for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES ~~YES~~ YES

Plans, have they been submitted and approved No System of Distribution TWO WIRE Voltage of Lighting 120.

Heating - Power 120 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 ONLY, are shunt field regulators provided YES Is the compound winding connected to the negative or positive pole

POSITIVE. 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 - and the results found as per Rule -

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 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 construction as per Rule, including locking of screws and nuts YES Description of Main Switchgear

for each generator and arrangement of equaliser switches GENS IN PARALLEL - SINGLE POLE CIRCUIT BREAKER WITH OVERLOAD

TRIP AND 3 POLE SWITCH WITH DOUBLE POLE FUSES. AND DOUBLE POLE SWITCH AND FUSES FOR 3rd. GENERATOR.

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 switchboards 3.

ammeters 2 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 - Earth Testing, state means provided -

EARTH INDICATOR VOLTMETER.

Switches, Circuit Breakers and Fuses, are they as per Rule AMERICAN PATTERN, are the fuses an Approved Type No

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

overload do they operate 120% F.L., and at what current do the reversed current protective devices operate -

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

MAIN. 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 -, 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 No or run in conduit YES

or of the "HR" type - State how the cables are supported or protected MAIN CABLES - LEAD COVERED ARMOURD

CLIPPED TO STEEL TRAY IN ENGINE ROOM AND IN PIPE ALONG FORE AND AFT GANGWAYS.

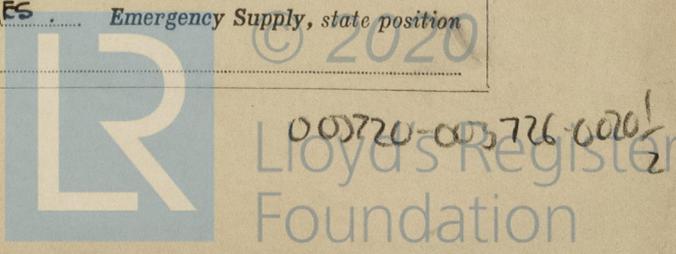
ACCOMMODATION, ENGINE ROOM AND BOILER ROOM LIGHTING WIRING V.I.R. IN CONDUIT.

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 - 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 -



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, weatherproof 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 "VICTOR" FLAMEPROOF FITTINGS.

and where are the controlling switches fitted OFFICERS' ACCOMMODATION ALLEYWAY. Are all fittings suitably ventilated YES.

Searchlight Lamps, No. of ONE, whether fixed or portable WIRING ONLY, are they of the carbon arc or of the filament type -.

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 -. 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 -.

Control Gear and Resistances, are they constructed and fitted as per Rule YES. Lighting 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 SEE GENERAL REMARKS. Are all fuses of an Approved Cartridge Type NO, make of fuse AMERICAN PATTERN. 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 FATHOMETER. Location of transmitter E.R. DOOBLE BOTTOM and receiver DITTO.

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.	
MAIN	2.	G.E.C.	20	125	160	400	STEAM
			IN PARALLEL.				
EMERGENCY ROTARY TRANSFORMER	1	MARINE ELECT. CO.	20	120	167	500	STEAM
							GAULT ENG. CO.

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.	AMERICAN PATTERN.			
MAIN GENERATOR	20	1	#000 BRS.	167	179	30	V.I.R.	L.C.
" " EQUALISER		1	#00 BRS.	84	153	15	V.I.R.	L.C.
			AMERICAN CABLE.					
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.	MAXIMUM CURRENT IN AMPERES. In the Circuit.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
MIDSHIP SWITCHBOARD.	1	37-083.	94	314	940	V.C. 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.	In the Circuit.	Rule.			
<u>MAIN SWITCHBOARD.</u>							
ENGINE AND BOILER ROOMS LIGHTING.	1	7-064.	24	46	12	V.I.R.	L.C.
GYRO COMPASS.	1	7-064.	12	80	940	V.C.	L.C.A.B.
SEARCHLIGHT.	1	#00 BRS.	60	153	1400	V.I.R.	L.C. MESH ARMOUR.
AFT ACCOMM. ENGINEERS LIGHTING.	1	7-064	26	46	52	V.I.R.	L.C.A.B.
WORKSHOP.	1	#3 BRS.	61	82	40	V.I.R.	IN CONDUIT - EXISTING.
AFT ACCOMM. CREW LIGHTING.	1	#10 BRS.	21	28	80	V.I.R.	IN CONDUIT - EXISTING.
GALLEY	1	19-064	83	143	120	V.C.	L.C.A.B.
<u>MIDSHIP SWITCHBOARD.</u>							
RADAR	1	#10 BRS.	12	28	140	V.I.R.	IN CONDUIT - EXISTING.
WIRELESS	1	#8 BRS.	18	38	140	V.I.R.	IN CONDUIT - EXISTING.
MIDSHIP ACCOMMODATION LIGHTING.	1	#8 BRS.	25	38	50	V.I.R.	IN CONDUIT - EXISTING.
MAIN DECK FWD. (CARGO LIG ETC).	1	#5 BRS.	20	60	40	V.I.R.	IN CONDUIT - EXISTING.
NAVIGATION LIGHTS.	1	7-036	3	24	140	V.I.R.	L.C.
ECHO SOUNDING.	1	#10 BRS.	5	28	140	V.I.R.	IN CONDUIT - EXISTING.
INSTRUMENT LIGHTS	1	7-036	10	24	140	V.I.R.	L.C.

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.	MAXIMUM CURRENT IN AMPERES. In the Circuit.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
ACCOMM. VENT FAN MOTOR AFT.	1	2.3	1	7-044	20.6	45	120	V.C. L.C.A.B.
115VOLTS - 580RPM. DIEHL MOTOR.								

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.

..... Electrical Contractors. Date.....

COMPASSES.

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

..... Builder's Signature. Date.....

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..... 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, whether insulation tests, etc., have been made, opinions as to class, etc.)

THE ELECTRICAL INSTALLATION TO THE STANDARDS OF THE AMERICAN BUREAU OF SHIPPING HAS BEEN IN OPERATION FOR APPROX. 29 YEARS. AN EXAMINATION OF THE ELECTRICAL INSTALLATION WAS CARRIED OUT AND THE FOLLOWING REPAIRS AND ALTERATIONS WERE MADE TO BRING THE ELECTRICAL INSTALLATION INTO CLOSER CONFORMITY WITH THE REQUIREMENTS OF THE RULES. THE MAIN SWITCHBOARD OVERHAULED AND PANEL RENEWED USING SINDANYO, EXISTING FITTINGS AND FUSES USED. THE EXISTING MAIN CABLES WERE ALONG THE TRUNKWAYS, BELOW TANK TOP LEVEL, MAINS RENEWED USING L.C.A.B. IN PIPE ALONG THE FORE AND AFT GANGWAYS. DISTRIBUTION FUSE BOX FITTED FOR ENGINE AND BOILER ROOMS LIGHTING. THE LIGHTING FITTINGS IN THE CENTRE CASTLE TWEEN DECK SPACE AND ALL FITTINGS FORWARD REMOVED AND REPLACED WITH "VICTOR" FLAMEPROOF FITTINGS - THE FORWARD PUMP ROOM IS PART OF THE FORWARD DRY CARGO HOLD AND THERE IS NO FORWARD COFFERDAM - SWITCHES FOR ALL FLAMEPROOF FITTINGS IN THE OFFICERS ALLEYWAY MIDSHIPS PUMP ROOM ENTRANCE PLUG AND SOCKET OUTLETS REMOVED. AMERICAN TYPE NAVIGATION INDICATOR REMOVED AND REPLACED WITH A "SIEMENS" TYPE. ALTERNATIVE SUPPLY FITTED TO NAVIGATION LIGHTS.

ALL ACCOMMODATION, ENGINE ROOM AND BOILER ROOM LIGHTING WIRING IS V.I.R. IN CONDUIT - SOME OF THE EXISTING V.I.R. HAS BEEN TAKEN OUT FOR EXAMINATION AND FOUND IN GOOD ORDER - ALL FUSES ARE OF AMERICAN PATTERN AND MAIN PUMP ROOM LIGHTING FITTINGS ARE AMERICAN FLAMEPROOF MOUNTED ON THE DECK AT EACH SIDE OF THE PUMPROOM ENTRANCE. THESE ITEMS DO NOT COMPLY WITH THE REQUIREMENTS OF THE RULES BUT ARE SUCH AS MIGHT BE ACCEPTED IN THIS INSTANCE SINCE THESE ARRANGEMENTS HAVE BEEN IN EXISTANCE FOR 29 YEARS AND ARE IN GOOD ORDER (SEE LETTER TO LONDON OFFICE DATED 28th JULY 1950 COPY ATTACHED).

THE MATERIALS AND WORKMANSHIP ARE GOOD.

ON COMPLETION OF REPAIRS AND ALTERATIONS ALL CIRCUITS TESTED FOR INSULATION RESISTANCE AND GENERATORS TESTED FOR GOVERNING AND COMPOUNDING. ALL FOUND SATISFACTORY.

28th JULY 1950 - THE ELECTRICAL INSTALLATION IS, IN MY OPINION, ELIGIBLE TO BE CLASSED WITH RECORD OF L.M.C. S.50 SUBJECT TO THE V.I.R. CABLES BEING CHANGED TO LEAD SHEATHED CABLES AS NOW ARRANGED.

Total Capacity of Generators..... 60. ✓ Kilowatts.

Notes end 29/9/50

CLASSING (LMC x 2)	£ 16 - 0 - 0	When applied for,
The amount of Fee	£ 16 - 0 - 0	
ALTERATIONS ELECT FEE	£ 16 - 0 - 0	
LATE FEE ELECT.	£ 3 - 3 - 0	19
Travelling Expenses (if any) £	:	When received,
	:	19

R.B. Store

Surveyor to Lloyd's Register of Shipping.

FRI 5 OCT 1950

Committee's Minute.....

Assigned.....

See minute on fe. H.

Im. 11. 45 - 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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