

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

4 JAN 1950

Date of writing Report... 30-5-1949 When handed in at Local Office... 19... Port of... Liverpool

No. in Survey held at... Lanchester Date, First Survey... 15/2/49 Last Survey... 6/10/1949  
Reg. Book. (Number of Visits... 4...)

95678 on the... M.V. "MARBURY" Tons { Gross... Net...

Built at... Lanchester By whom built... J. Pimblett &amp; Son Ltd Yard No... 688 When built... 1949

Owners... Imperial Chemical Industries Ltd (General) Port belonging to... Liverpool

Electrical Installation fitted by... The Sunderland Forge &amp; Eng. Co. Ltd. Contract No... When fitted... 1949

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

Have plans been submitted and approved... Yes System of Distribution... Two wire Voltage of supply for Lighting... 230

Heating... Power... Direct or Alternating Current, Lighting... A.C. Power... If Alternating Current state periodicity... 50 ~ Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off... Are turbine emergency governors fitted with a

trip switch as per Rule... Generators, are they compound wound... are they level compounded under working conditions...

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... are shunt field regulators provided... Is the compound winding connected to the negative or positive pole

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... Are the lubricating arrangements and the construction

of the generators as per rule... Position of Generators... No generators fitted.

is the ventilation in way of generators satisfactory... are they clear of inflammable material... 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... are the bedplates and frames earthed... and the prime movers and generators in metallic

contact... Switchboards, where are main switchboards placed... In 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... Sindango, 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 change-over

switch and fuses for generator (when fitted) and shore supply.

and for each outgoing circuit... Double-pole fuses.

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

ammeter... one voltmeter... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection... Earth Testing, state means provided... Carol 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... 1 volt, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets... 0.04" Are paper insulated and varnished cambric insulated cables sealed at the ends...



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 effectively bushed. — and with what material. All armoured cables. 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. —

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 -

are the 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

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..... Control Gear and Resistances, are they constructed and

ships. Are the cables lead covered as per Rule. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule, are they suitably stored in dry situations. Insulation Tests, has the insulation resistance of all circuits and apparatus been tested

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 ...	...	No GENERATORS		FITTED				
EMERGENCY ...	...							
ROTARY TRANSFORMER								

## GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA- TED 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 ... ..								
" " EQUALISER ... ..								
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR ... ..								

### MAIN DISTRIBUTION CABLES.

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	...	...	...	...	...	...	...	...	...
NAVIGATION LIGHTS	...	...	...	...	...	...	...	...	...
LIGHTING AND HEATING	...	...	...	...	...	...	...	...	...
SHORE CONNECTIONS (2)	1	7/029	4	15	84 120	V.L.R.	L.C.A.B.		
ENGINE ROOM LIGHTING	1	3/029	1.5	5	50	"	"		
SALOON " GALLEY	1	3/029	2	5	80	"	"		
WASHPLACES ETC.	1	3/029	0.5	5	80	"	"		

## MOTOR CABLES

[illegible]



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.

Per Pro THE SUNDERLAND FORGE & ENGINE CO. Ltd

*Armstrong*

Electrical Engineers.

Date 31.5.49

#### COMPASSES.

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

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

The nearest cables to the compasses are as follows:—

A cable carrying ..... Ampères ..... 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 .....

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted .....

The maximum deviation due to electric currents was found to be ..... degrees on ..... course in the case of the standard compass, and ..... degrees on ..... course in the case of the steering compass.

Builder's Signature.

Date

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 .....

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 under special survey in accordance with the approved plans & Rules for Electrical Equipment. The installation has been tested and found satisfactory. The materials & workmanship are good.

Total Capacity of Generators..... Kilowatts.

The amount of Fee ... £ 5 : 0 : 0 When applied for, 22 DEC 1949

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

*L. Haffman*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL - 3 JAN 1950

Assigned See Minutes or Lis. Haffman Rpts



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