

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report.....21-8-42.....1942 When handed in at Local Office.....11/9/1942 Port of *West Hill Road*

No. in Survey held at Wat. Hethport Date, First Survey 1-4-42 Last Survey 20-8- 1942
 Reg. Book. 1 " 5 " (Number of Visits.....)

73132 on the S/S. "EMPIRE CLARION" (Gross 7031.21...

Built at West Hartlepool By whom built Wm. Gray & Co. Yard No. 1133 When built 1842

Owners *The Ministry of War Transport.* Port belonging to *West Liverpool*

Electrical Installation fitted by Wm Gray TG Contract No. 1133 When fitted 1942

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

positive Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing *have fitted*

test for machines under 100 kw. been supplied yes and the results found as per rule yes Are the lubricating arrangements satisfactory yes

of the generators as per rule *yes* Position of Generators *engine room starboard side 4 - 1st*

is the ventilation in way of generators satisfactory 1104

near unprotected combustible material state distance from _____

..... and certainly; are the generators protected from mechanical

conduct yes C. Hall, 1-1-1968, 2-7-1968, 1-10-1968, 1-11-1968, 1-12-1968, 2-1-1969, 2-2-1969, 2-3-1969, 2-4-1969, 2-5-1969, 2-6-1969, 2-7-1969, 2-8-1969, 2-9-1969, 2-10-1969, 2-11-1969, 2-12-1969, 3-1-1970, 3-2-1970, 3-3-1970, 3-4-1970, 3-5-1970, 3-6-1970, 3-7-1970, 3-8-1970, 3-9-1970, 3-10-1970, 3-11-1970, 3-12-1970, 4-1-1971, 4-2-1971, 4-3-1971, 4-4-1971, 4-5-1971, 4-6-1971, 4-7-1971, 4-8-1971, 4-9-1971, 4-10-1971, 4-11-1971, 4-12-1971, 5-1-1972, 5-2-1972, 5-3-1972, 5-4-1972, 5-5-1972, 5-6-1972, 5-7-1972, 5-8-1972, 5-9-1972, 5-10-1972, 5-11-1972, 5-12-1972, 6-1-1973, 6-2-1973, 6-3-1973, 6-4-1973, 6-5-1973, 6-6-1973, 6-7-1973, 6-8-1973, 6-9-1973, 6-10-1973, 6-11-1973, 6-12-1973, 7-1-1974, 7-2-1974, 7-3-1974, 7-4-1974, 7-5-1974, 7-6-1974, 7-7-1974, 7-8-1974, 7-9-1974, 7-10-1974, 7-11-1974, 7-12-1974, 8-1-1975, 8-2-1975, 8-3-1975, 8-4-1975, 8-5-1975, 8-6-1975, 8-7-1975, 8-8-1975, 8-9-1975, 8-10-1975, 8-11-1975, 8-12-1975, 9-1-1976, 9-2-1976, 9-3-1976, 9-4-1976, 9-5-1976, 9-6-1976, 9-7-1976, 9-8-1976, 9-9-1976, 9-10-1976, 9-11-1976, 9-12-1976, 10-1-1977, 10-2-1977, 10-3-1977, 10-4-1977, 10-5-1977, 10-6-1977, 10-7-1977, 10-8-1977, 10-9-1977, 10-10-1977, 10-11-1977, 10-12-1977, 11-1-1978, 11-2-1978, 11-3-1978, 11-4-1978, 11-5-1978, 11-6-1978, 11-7-1978, 11-8-1978, 11-9-1978, 11-10-1978, 11-11-1978, 11-12-1978, 12-1-1979, 12-2-1979, 12-3-1979, 12-4-1979, 12-5-1979, 12-6-1979, 12-7-1979, 12-8-1979, 12-9-1979, 12-10-1979, 12-11-1979, 12-12-1979, 1-1-1980, 1-2-1980, 1-3-1980, 1-4-1980, 1-5-1980, 1-6-1980, 1-7-1980, 1-8-1980, 1-9-1980, 1-10-1980, 1-11-1980, 1-12-1980, 2-1-1981, 2-2-1981, 2-3-1981, 2-4-1981, 2-5-1981, 2-6-1981, 2-7-1981, 2-8-1981, 2-9-1981, 2-10-1981, 2-11-1981, 2-12-1981, 3-1-1982, 3-2-1982, 3-3-1982, 3-4-1982, 3-5-1982, 3-6-1982, 3-7-1982, 3-8-1982, 3-9-1982, 3-10-1982, 3-11-1982, 3-12-1982, 4-1-1983, 4-2-1983, 4-3-1983, 4-4-1983, 4-5-1983, 4-6-1983, 4-7-1983, 4-8-1983, 4-9-1983, 4-10-1983, 4-11-1983, 4-12-1983, 5-1-1984, 5-2-1984, 5-3-1984, 5-4-1984, 5-5-1984, 5-6-1984, 5-7-1984, 5-8-1984, 5-9-1984, 5-10-1984, 5-11-1984, 5-12-1984, 6-1-1985, 6-2-1985, 6-3-1985, 6-4-1985, 6-5-1985, 6-6-1985, 6-7-1985, 6-8-1985, 6-9-1985, 6-10-1985, 6-11-1985, 6-12-1985, 7-1-1986, 7-2-1986, 7-3-1986, 7-4-1986, 7-5-1986, 7-6-1986, 7-7-1986, 7-8-1986, 7-9-1986, 7-10-1986, 7-11-1986, 7-12-1986, 8-1-1987, 8-2-1987, 8-3-1987, 8-4-1987, 8-5-1987, 8-6-1987, 8-7-1987, 8-8-1987, 8-9-1987, 8-10-1987, 8-11-1987, 8-12-1987, 9-1-1988, 9-2-1988, 9-3-1988, 9-4-1988, 9-5-1988, 9-6-1988, 9-7-1988, 9-8-1988, 9-9-1988, 9-10-1988, 9-11-1988, 9-12-1988, 10-1-1989, 10-2-1989, 10-3-1989, 10-4-1989, 10-5-1989, 10-6-1989, 10-7-1989, 10-8-1989, 10-9-1989, 10-10-1989, 10-11-1989, 10-12-1989, 11-1-1990, 11-2-1990, 11-3-1990, 11-4-1990, 11-5-1990, 11-6-1990, 11-7-1990, 11-8-1990, 11-9-1990, 11-10-1990, 11-11-1990, 11-12-1990, 12-1-1991, 12-2-1991, 12-3-1991, 12-4-1991, 12-5-1991, 12-6-1991, 12-7-1991, 12-8-1991, 12-9-1991, 12-10-1991, 12-11-1991, 12-12-1991, 1-1-1992, 1-2-1992, 1-3-1992, 1-4-1992, 1-5-1992, 1-6-1992, 1-7-1992, 1-8-1992, 1-9-1992, 1-10-1992, 1-11-1992, 1-12-1992, 2-1-1993, 2-2-1993, 2-3-1993, 2-4-1993, 2-5-1993, 2-6-1993, 2-7-1993, 2-8-1993, 2-9-1993, 2-10-1993, 2-11-1993, 2-12-1993, 3-1-1994, 3-2-1994, 3-3-1994, 3-4-1994, 3-5-1994, 3-6-1994, 3-7-1994, 3-8-1994, 3-9-1994, 3-10-1994, 3-11-1994, 3-12-1994, 4-1-1995, 4-2-1995, 4-3-1995, 4-4-1995, 4-5-1995, 4-6-1995, 4-7-1995, 4-8-1995, 4-9-1995, 4-10-1995, 4-11-1995, 4-12-1995, 5-1-1996, 5-2-1996, 5-3-1996, 5-4-1996, 5-5-1996, 5-6-1996, 5-7-1996, 5-8-1996, 5-9-1996, 5-10-1996, 5-11-1996, 5-12-1996, 6-1-1997, 6-2-1997, 6-3-1997, 6-4-1997, 6-5-1997, 6-6-1997, 6-7-1997, 6-8-1997, 6-9-1997, 6-10-1997, 6-11-1997, 6-12-1997, 7-1-1998, 7-2-1998, 7-3-1998, 7-4-1998, 7-5-1998, 7-6-1998, 7-7-1998, 7-8-1998, 7-9-1998, 7-10-1998, 7-11-1998, 7-12-1998, 8-1-1999, 8-2-1999, 8-3-1999, 8-4-1999, 8-5-1999, 8-6-1999, 8-7-1999, 8-8-1999, 8-9-1999, 8-10-1999, 8-11-1999, 8-12-1999, 9-1-2000, 9-2-2000, 9-3-2000, 9-4-2000, 9-5-2000, 9-6-2000, 9-7-2000, 9-8-2000, 9-9-2000, 9-10-2000, 9-11-2000, 9-12-2000, 10-1-2001, 10-2-2001

....., a woman with glasses

224-101

are they in accessible positions, free from inflammable gases and acid fumes..... ~~Yes~~....., are they protected from mechanical injury and damage from water, steam

....., if situated near unprotected combustible material state distance from same horizontally.....and vertically....., what insulation

material is used for the panels.....smearing....., 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 double - pole*.....

Angle - Now quick-break knife twisted and double-poste just. Changeover

on the left, for supplying the load from D.G. Generator

and for each outgoing circuit, a double pole single-throw knife switch and double-pole

Index.

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

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

qualiser connection..... Earth Testing, state means provided *E lamps connected to E Wound and others*

Switches, ~~Circuit Breakers~~ and Fuses, are they as per Rule 404 are the fuses an approved type 404

per Rule yes If circuit breakers are provided for the generators, at what amperage current did they operate?

protection devices connected on the pole opposite to the equalizing connection.

Did they operate — Joint Boxes, Section Boards, and Distill. H. —

Tables are then insulated and protected as per Rule 200

late maximum full of pressure but otherwise in hands per Rule are they of an approved type.....
2.4.14

....., are the ends of all cables having a sectional area of 0.04

Are paper insulated and varnished cambric insulated cables sealed at the ends..... Yes

062497-003005

0019¹/₂ Lloyd's Register
Foundation

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 ... <i>No. 1</i> ...	<i>15</i>	<i>2.</i>	<i>19/064</i>	<i>132.3</i>	<i>166</i>	<i>36</i>	<i>V.I.A.</i>	<i>P. S. Screened Under</i>
" " EQUALIZER ...								
" " <i>No. 2</i>	<i>15</i>	<i>2.</i>	<i>19/064</i>	<i>132.3</i>	<i>166</i>	<i>34</i>	"	" " "
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

[illegible]

WIRELESS	...	...	...	...	...	...	...	...	...
NAVIGATION LIGHTS	...	...	...	...	...	...	...	...	...
LIGHTING AND HEATING	...	...	...	...	...	...	...	...	...
Engineered Accommodation D.B.	1	7/064	13	46	384	718	A.S. Second Conduit		
Low space R.F.D.B.	1	7/064	10	46	447	"	"	"	"
Machinery Spaces D.B.	1	7/064	15	31	60	"	"	"	"
Emergency W/T. Fused.	1	7/064	-	31	96	"	"	"	"
Temporary Alarm R.F. (Off Engine Room)	1	7/064	8	46	40	"	"	"	"

[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.

J. S. Simpson
GENERAL MANAGER.

Electrical Engineers.

Date *24th August*
1942

COMPASSES.

Minimum distance between electric generators or motors and standard compass *146'*

Minimum distance between electric generators or motors and steering compass *139'*

The nearest cables to the compasses are as follows:—

A cable carrying *14* Amperes *7* feet from standard compass *on the* feet from steering compass.

A cable carrying *14* Amperes *on the* feet from standard compass *7* feet from steering compass.

A cable carrying Amperes 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 *steering* course in the case of the

standard compass, and *nil* degrees on *steering* course in the case of the steering compass.

Builder's Signature.

Date *24th August*
1942

J. S. Simpson

Is this installation a duplicate of a previous case *yes*.

If so, state name of vessel

3/5 "Empire Builder"

Plans. Are approved plans forwarded herewith *no*.

If not, state date of approval

6-11-41

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 under special survey in accordance with the approved plans and the Ministry of Shipping Specification and amendments thereto. The materials used are of good quality and design and the workmanship is good. Upon completion the equipment was operated on load with satisfactory results, and the insulation resistance of each circuit was measured and found good. This equipment is in my opinion suitable for a classed vessel.

Noted.

J. S.

17/9/42

Total Capacity of Generators *(2x15) 30* Kilowatts.

The amount of Fee ... *£22-10-0*
Specification *5-12-6*

When applied for,

11/9/1942

When received.

19

Travelling Expenses (if any) £ : :

S. D. Ward
Surveyor to Lloyd's Register of Shipping.

FRL 18 SEP 1942

Committee's Minute

Assigned

See Hpl. JE 18330