

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 16 MAR 1949  
NEWCASTLE-ON-TYNE

Date of writing Report 3RD MARCH 1949 When handed in at Local Office 9-MAR-1949 Port of

No. in Survey held at WALKER-ON-TYNE Date, First Survey 29TH OCT 1948 Last Survey 28TH FEBRUARY 1949  
Reg. Book. (Number of Visits 10)

on the S.S. "SHILLONG" Tons { Gross 8933.68  
Net 4816.33

Built at NEWCASTLE-ON-TYNE By whom built VICKERS ARMSTRONGS LTD Yard No. 104 When built 1948/49

Owners P. & O. STEAM NAV. CO Port belonging to LONDON

Electrical Installation fitted by VICKERS ARMSTRONGS LTD Contract No. - When fitted 1948/49

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

Have plans been submitted and approved YES System of Distribution TWO WIRE - INSULATED Voltage of supply for Lighting 220

Heating - Power 220 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 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 YES 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 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 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. 2000 AMPS - TRIPLE POLE. CIRCUIT BREAKER WITH TWO OVERLOADS, UNDERVOLTAGE, REVERSE CURRENT AND PREFERENCE TRIPS.

and for each outgoing circuit. DOUBLE POLE CIRCUIT BREAKER WITH OVERLOADS OR DOUBLE POLE QUICK BREAK 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 11

ammeters 3 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 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 120% FL, 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 YES 120 AMPS. 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 12 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.



S.S. "SHILLONG"

### MAIN DISTRIBUTION CABLES.

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	...	...	...	...	...	...	...	...
NAVIGATION LIGHTS	...	...	...	...	...	...	...	...
LIGHTING AND HEATING	...	...	...	...	...	...	...	...
No.1. HOLD CARGO CLUSTERS + FLOODLIGHTS. D.B. 26. D.1.	1	7-052	16✓	37	20	V.I.R.	L.C.+B.	
No.2. HOLD CARGO CLUSTERS + FLOODLIGHTS. D.B. 26. D.2.	1	7-052	16✓	37	20	V.I.R.	L.C.+B.	
FORWARD LIGHTING. D.B. 26 D.3.	1	7-052	20✓	37	20	V.I.R.	L.C.+B.	
CARGO CARE FANS D.B.s. (5 OFF).	1	7-036	20✓	24	200	V.I.R.	L.C.+B.	
CREWS ACCOMM. LIGHTING AFT. D.B. 27. D.3 + D.4.	1	10-044	21✓	87	240	V.C.	L.C.+B.	
No.4. HOLD CARGO CLUSTERS + FLOODLIGHTS. D.B. 27. D.1.	1	7-052	16✓	37	20	V.I.R.	L.C.+B.	
No.5. HOLD CARGO CLUSTERS + FLOODLIGHTS. D.B. 27. D.2.	1	7-052	16✓	37	20	V.I.R.	L.C.+B.	
AFT SHELTER DECK SHIPS VENTILATION. D.B. 27. D.5	1	7-064	20✓	46	20	V.I.R.	L.C.+B.	
No.3. HOLD CARGO CLUSTERS + FLOODLIGHTS. D.B. 25. D.1.	1	7-052	16✓	37	20	V.I.R.	L.C.+B.	
SHIPS VENTILATION MIDSHIPS. D.B. 25 D.2	1	7-064	40✓	46	20	V.I.R.	L.C.+B.	
SHIPS VENTILATION MIDSHIPS. D.B. 25 D.3	1	7-064	40✓	46	20	V.I.R.	L.C.+B.	

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
WINDLASS MOTOR.	✓ 1	64	1	37-083.	239	376	200	V.C.	L.C.-A. 1/2 hr. rated.
CARGO WINCH MOTORS.	20	43	1	19-083.	162	225	200	V.C.	L.C.-B. 1/2 hr. rated.
CARGOCAIRE FAN MOTORS - SUPPLY	5	2.2	1	7-036	10	24	60	V.I.R.	L.C.-B.
CARGOCAIRE FAN MOTORS - EXHAUST.	5	2.2	1	7-036	10	24	250	V.I.R.	L.C.-B.
REFRIG. CARGO FAN MOTOR.	1	0.6	1	7-029.	3	15	400	V.I.R.	L.C.-A.-B.
REFRIG. CARGO FAN MOTORS.	4	1.6	1	7-029.	8	15	400	V.I.R.	L.C.-A.-B.
REFRIG CARGO FAN MOTORS.	3	5.25	1	7-044.	23	31	300	V.I.R.	L.C.A.-B.
BRINE PUMP MOTORS.	3	7.75	1	7-052.	31	37	90	V.I.R.	L.C.A.-B.
SEA WATER CIRC. PUMP MOTOR.	1	7.75	1	7-052.	31	37	200	V.I.R.	L.C.A.-B.
REFRIG. CO <sub>2</sub> COMPRESSOR MOTORS.	2	115	1	61-093	420	464	80	V.C.	L.C.A.-B.
BOAT WINCH MOTORS.	2	10	1	7-064	40	46	200	V.I.R.	L.C.-B.
BOAT WINCH MOTORS.	2	7.5	1	7-064.	30	46	120	V.I.R.	L.C.-B.
AIR COMPRESSORS FOR DIESEL GENERATORS.	✓ 1	13	1	7-052.	52	57	150	V.C.	L.C.A.-B.
SALT WATER CIRC. PUMP FOR GEN'S.	✓ 1	6.5	1	7-064	26	46	200	V.I.R.	L.C.A.-B.
FRESH WATER CIRC. PUMP FOR GENERATORS.	✓ 1	6.5	1	7-064	26	46	200	V.I.R.	L.C.A.-B.
COMBINED EVAPORATOR + FEED PUMP MOTOR	1	3.5	1	7-036	15	24	200	V.I.R.	L.C.A.-B.
WOOD OIL DISCHARGE PUMP MOTOR.	1	5.0	1	7-044.	21	31	200	V.I.R.	L.C.-B.
ACCOMM. VENT. FANS. (SUPPLY).	5	2.65	1	7-029	11.5	15	220	V.I.R.	L.C.-B.
ACCOMM. VENT. FANS. (EXHAUST).	2.	0.15	1	3-029	1.0	5	160	V.I.R.	L.C.-B.
ACCOMM. VENT. FANS. (EXHAUST).	2	1.4	1	3-036	7.0	10	180	V.I.R.	L.C.-B.
ACCOMM. VENT. FANS. (EXHAUST).	1	2.95	1	7-029	13.0	15	150	V.I.R.	L.C.-B.

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 OR LEAD COVERED AND BRAIDED CLIPPED TO STEEL TRAYS.

ACCOMMODATION CABLES - LEAD COVERED CLIPPED TO WOOD GROUNDS

Are all lead sheaths, armouring and conduits effectually bonded and earthed..... ☒ 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 gas

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.....

Installations, are all fittings on weather deck, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. Yes. Are fittings installed where readily combustible materials or inflammable vapors are present? No

...the above flammable 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 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 15 and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water,

steam and oil \_\_\_\_\_, if situated near unprotected combustible material state minimum distance from same horizontally \_\_\_\_\_ and vertically \_\_\_\_\_. Are  
motors coupled to oil \_\_\_\_\_.

Have motors of 100 BHP and over been inspected by the \_\_\_\_\_ YES

100 BHP intended for essential services been supplied and the results found as per Rule Yes Control Gear and P. i

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 \_\_\_\_\_, 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

Rule Yes are they suitably stored in dry place? Yes

and found satisfactory. YES. 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 ...	3	350	220	1590	350	DIESEL ENGINE.	OIL	Above 150°F.
EMERGENCY ...								
ROTARY TRANSFORMER								

## GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Pwr. Poles.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... ..	3	2	127-103	1590	1864	220	V.C.	L.C.A. + B.
" " EQUALISER ... ..		1	127-103	795	932	110	V.C.	L.C.A. + B.
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR ... ..								



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 Engineers. Date

#### 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 ..... Amperes ..... feet from standard compass ..... feet from steering compass.

A cable carrying ..... Amperes ..... feet from standard compass ..... 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

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 ..... 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 services and generators forwarded herewith

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

#### MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT		APPROX. LENGTH (lead plus return feet).	INSULA- TION 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.			
ENGINE ROOM MOTORS. S.B. 42. S1	1	7-064.	40	75	180	V.C.	L.C.A. + B.
AUX. SWITCHBOARDS AND SECTION BOARDS	1	7-064.	50	75	200	V.C.	L.C.A. + B.
ENGINE ROOM LIGHTING. S.B. 41. S1	1	7-064.	50	75	200	V.C.	L.C.A. + B.
ENGINE ROOM MOTORS. S.B. 16. S1	1	19-083	110	191	120	V.C.	L.C.A. + B.
ENGINE ROOM VENT FAN MOTORS. S.B. 12. S1.	1	7-064	60	75	100	V.C.	L.C.A. + B.
MAIN GALLEY SUB. SWITCHBOARD	1	37-072	186.9	246	350	V.C.	L.C.A. + B.
TWEEN DECK LIGHTING. NOS. 1-5. HODS. S.B. 9. S1.	1	19-083	40.4	191	450	V.C.	L.C.A. + B.
ACCOMMODATION LIGHTING. MIDSHIPS. S.B. 8. S1.	1	19-083.	38	191	300	V.C.	L.C.A. + B.
FOR WINCHES. POWER. CARGO LGA. SUB. SWITCHBOARD	1	61-103	471	540	600	V.C.	L.C.A. + B.
REFRIGERATION MACHINERY SUB. SWITCHBOARD	2	61-103	1068	1080	500	V.C.	L.C.A. + B.
APT. WINCHES. LIGHTING + POWER SUB. SWITCHBOARD	1	91-103	627	738	600	V.C.	L.C.A. + B.
MIDSHIP WINCHES. CARGO LIGHTING SUB. SWITCHBOARD	1	61-093	345	464	350	V.C.	L.C.A. + B.
INDIAN CREW GALLEYS (2 OFF).	1	19-052.	68	104	200	V.C.	L.C.A. + B.
SUEZ CANAL SEARCHLIGHT.	1	19-064	60	135	240	V.C.	L.C. + B.
SHORE CONNECTION BOX.	1	37-103	300	385	350	V.C.	L.C.A. + B.

#### LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	7-064.	15	75	450	V.C.	L.C.A. + B.
NAVIGATION LIGHTS	1	7-064.	23	75	450	V.C.	L.C.A. + B.
LIGHTING AND HEATING. E.R. B.R. LGA. D.B. 41. S1. D1.	1	7-064	20	46	20	V.I.R.	L.C.A. + B.
ENGINE + BOILER ROOMS LIGHTING. D.B. 41. S1. D2.	1	7-064	20	46	20	V.I.R.	L.C.A. + B.
ENGINE + BOILER ROOMS LIGHTING. D.B. 41. S1. D3.	1	7-064	10	46	20	V.I.R.	L.C.A. + B.
HEATING COILS FOR OIL BURNING PLANT.	1	19-052.	82	104	300	V.C.	L.C.A. + B.
OIL BURNING EQUIPMENT AUX. BOILER.	1	7-064	34	75	200	V.C.	L.C.A. + B.
Nº1. HOLD TWEEN DECK LIGHTING. D.B. 9. S1. D1.	1	7-036	3.5	24	450	V.I.R.	L.C. + B.
Nº2. HOLD TWEEN DECK LIGHTING. D.B. 9. S1. D2.	1	7-044	9.5	31	450	V.I.R.	L.C. + B.
Nº3. HOLD TWEEN DECK LIGHTING. D.B. 9. S1. D3.	1	7-036	7.4	24	320	V.I.R.	L.C. + B.
Nº4. HOLD TWEEN DECK LIGHTING. D.B. 9. S1. D4.	1	7-052	12.5	37	630	V.I.R.	L.C. + B.
Nº5. HOLD TWEEN DECK LIGHTING. D.B. 9. S1. D5.	1	7-036	3.5	24	680	V.I.R.	L.C. + B.
ACCOMMODATION LIGHTING. MIDSHIPS. D.B. 8. S1. D1.	1	7-044.	25	31	20	V.I.R.	L.C. + B.
ACCOMMODATION LIGHTING. MIDSHIPS. D.B. 8. S1. D2.	1	7-044	15	31	160	V.I.R.	L.C. + B.
ACCOMMODATION LIGHTING. MIDSHIPS. D.B. 8. S1. D3.	1	7-044.	20	31	100	V.I.R.	L.C. + B.
ACCOMMODATION LIGHTING. MIDSHIPS. D.B. 8. S1. D4.	1	7-044	16	31	240	V.I.R.	L.C. + B.
ACCOMMODATION LIGHTING. MIDSHIPS. D.B. 8. S1. D5.	1	7-044.	12	31	240.	V.I.R.	L.C. + B.

#### MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
STEERING GEAR MOTORS.	2	30	1	37-072	114	246	600	V.C.
WORKSHOP MOTOR.	1	3	1	7-036	13	24	200	V.I.R.
MAIN CIRCULATING PUMP MOTORS.	2	25/95	1	37-103	350	385	240	V.C.
FORCED LUBRICATION PUMP MOTORS.	2	22/28	1	19-064	108	125	240	V.C.
EXTRACTION PUMP MOTORS.	2	18	1	7-064.	70	75	230	V.C.
OIL FUEL PRESSURE PUMP MOTORS.	2	65	1	7-064	26	46	320	V.I.R.
INDUCED DRAUGHT FAN MOTORS.	2	54	1	37-072.	210	246	240.	V.C.
FORCED DRAUGHT FAN MOTORS.	2	45	1	19-083.	170	191	260	V.C.
OIL FUEL TRANSFER PUMP MOTOR.	1	10	1	7-064	40	75	280	V.C.
SANITARY + FIRE PUMP MOTOR.	1	20/25	1	19-052	95	104	200	V.C.
BILGE + FIRE PUMP MOTOR.	1	20/25	1	19-052	95	104	180	V.C.
BALLAST + FIRE PUMP MOTOR.	1	30/35	1	19-064	132	135	180	V.C.
AIR COMPRESSOR MOTOR.	1	12	1	7-064.	48	75	180	V.C.
FRESH WATER PUMP MOTORS.	2	5/12	1	7-064.	30	46	200	V.I.R.
CARGO CARE UNITS.	2	6	1	7-052	24	37	50	V.I.R.
OILY BILGE PUMP MOTOR.	1	4	1	7-044.	16	31	180	V.I.R.
WOOD OIL PUMP MOTOR.	1	6	1	7-064.	25	46	200	V.I.R.
DIESEL OIL PURIFIER MOTORS	2	0.5	1	3-036.	2.8	10	180	V.I.R.
DISTILLED WATER PUMP MOTORS.	2	3.5	1	7-036	15	24	160	V.I.R.
DIESEL OIL TRANSFER PUMP MOTOR	1	2	1	7-029	9	15	220	V.I.R.
LUB. OIL PURIFIER MOTOR.	1	2.5	1	7-036.	11	24.	160	V.I.R.
FRESH WATER DISCHARGE PUMP.	1	12/16	1	7-064.	64	75	260	V.C.
TURNING GEAR MOTOR.	1	30	1	19-064.	114	135	180	V.C.
LUB. OIL PURIFIER FOR DIESEL GENERATORS.	1	0.5	1	3-036	2.8	10	180	V.I.R.
BOILER ROOM VENT. FAN MOTORS.	2	8	1	7-064	32	46	280	V.I.R.
ENGINE ROOM VENT FAN MOTORS.	4	3.5	1	7-036	15	24	280	V.I.R.
OVEN AND BOILER PLATES	2.	16KWS	1	7-064	73	75	80	V.C.
BREAD OVEN.	1	5KWS	1	7-052.	22.5	37	100	V.I.R.
TOASTER.	1	3KWS.	1	7-036.	12.5	24	100	V.I.R.

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.)

Total Capacity of Generators ..... Kilowatts.

The amount of Fee ... £ : : { When applied for, .....19.....  
Travelling Expenses (if any) £ : : { When received, .....19.....

Surveyor to Lloyd's Register of Shipping.

Committee's Minute ..... FRU 29 APR 1943

Assigned



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.

FOR VICKERS-ARMSTRONGS LIMITED,  
The foregoing is a correct description.

J. M. Dunsin.

DIRECTOR,

Electrical Engineers.

Date 7/3/49

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 50 FEET.

Minimum distance between electric generators or motors and steering compass 60 FEET.

The nearest cables to the compasses are as follows:—

A cable carrying 0.07 Ampères 6 feet from standard compass INSIDE feet from steering compass.

A cable carrying 0.07 Ampères INSIDE feet from standard compass 6 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.

J. M. Dunsin.

Builder's Signature.

Date 7/3/49

DIRECTOR.

Is this installation a duplicate of a previous case YES. If so, state name of vessel SS "SURAT."

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 SHIP HAS BEEN INSTALLED IN ACCORDANCE WITH THE SOCIETY'S RULES AND REGULATION 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 TEST WITH SATISFACTORY RESULTS.

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

Noted.  
J.S. 21/4/49.

Total Capacity of Generators 1050 Kilowatts.

NEW CASTLE ACCOUNT. £ 69-0-0 ✓ When applied for,  
The amount of Fee ... 17-5-0 ✓ 15 MAR 1949  
LONDON ACCOUNT.  
LONDON ACCOUNT. £ 15/5- ✓ When received.  
Travelling Expenses (if any) ... 19...

By J.C. Wright and self.  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 29 APR 1949

Assigned See F.E. Mchly. rpt