

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.

21 JAN 1950

Date of writing Report 3. 1. 1950 When handed in at Local Office 17th Jan 1950 Port of SUNDERLAND.No. in Survey held at SOUTHBANK - ON - TEES. Date, First Survey 8. 11. 49 Last Survey 19. 12. 1949.  
Reg. Book. (No. of Visits 6)35413 on the S. S. "GLESSULA" Tons { Gross 5017  
Net 2352Built at SOUTHBANK - ON - TEES. By whom built SMITH'S DOCK CO., LTD. Yard No. 1186. When built 1949.Owners N. Y. CURACAOSCHE SCHEEPY. MAATS. Port belonging to WILLEMSTAD.Installation fitted by CAMPBELL & ISHERWOOD. When fitted 1949.Is vessel equipped for carrying Petroleum in bulk YES Is vessel equipped with D.F. NO E.S.D. NO Gy.C. NO Sub.Sig. NO Radar NO.Plans, have they been submitted and approved YES System of Distribution TWO WIRE Voltage of Lighting 110Heating - Power 110 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 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.Position of Generators STARBOARD SIDE, INBOARD & OUTBOARD, FORWARD ON STARTING PLATFORM LEVEL. 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 ON RAISED FLAT STARBOARD SIDE, LYING FORE & AFT, FACING PORT SIDE 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 EBONY FINISH. 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 DOUBLE POLE DOUBLE THROW QUICK BREAK KNIFE SWITCH AND DOUBLE POLE FUSES.and the switch and fuse gear (or circuit breakers) for each outgoing circuit DOUBLE POLE DOUBLE THROW QUICK BREAK KNIFE SWITCH & DOUBLE POLE FUSES.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 are the ammeters and reversed current protection devices connected on the pole opposite to the equaliser connection - Earth Testing, state means provided EARTH LAMPS COUPLED TO EARTH THROUGH SWITCHES AND FUSES.Switches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an Approved Type YES, make of fuses SIEMENS 'Z', are all fuses labelled YES. If circuit breakers are provided for the generators, at what overload do they operate - 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.Tables, 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 46.6V., 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 YES, if so, are they adequately protected YES Are cables in machinery spaces, galleys, laundries, etc., lead covered YES or run in conduit - of the "HR" type - State how the cables are supported or protected ENGINE ROOM GENERATOR MAINS CLIPPED TO SOLID STEEL PLATE, ENGINE ROOM SUB-CIRCUITS IN PYROTENAX, FORWARD MAINS IN PLUMBERS PIPE ALONG DECK, LEAD COVERED CABLES IN ACCOMMODATION CLIPPED TO WOOD GROUNDS.Are all lead sheaths, armoring 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 YES - LEAD Refrigerated chambers, are the cables and fittings as per Rule YES.

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule YES. Emergency Supply, state position ENGINEERS STORES - ON FAILURE OF 110 VOLT SYSTEM. (HAND OPERATED.)

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 YES, are they adequately ventilated YES. state battery capacity in ampere hours N/A 90.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weather proof 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 WIGAN FLAMEPROOF FITTINGS.

and where are the controlling switches fitted OFFICERS QUARTERS MIDSHIPS. Are all fittings suitably ventilated YES.

Searchlight Lamps, No. of 2, whether fixed or portable 2, are they of the carbon arc or of the filament type 2.

Heating and Cooking, is the general construction as per Rule 2, are the frames effectually earthed 2, are heaters in the accommodation of the convection type 2. 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 2. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing 2.

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule 2.

Control Gear and Resistances, are they constructed and fitted as per Rule YES. Lightning Conductors, where required are they fitted as per Rule 2. 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 an Approved Cartridge Type YES, make of fuse SIEMENS 'Z'. 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 2 location of transmitter 2 and receiver 2.

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.	TYPE.	MAKER.
MAIN	2	SUNDERLAND FORGE	25	110	227	675	STEAM	SUNDERLAND FORGE
EMERGENCY ROTARY TRANSFORMER								

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 of No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	25	1	37/083	227	314	54	V.C.	L.C. & B.
" " EQUALISER	25	1	37/083	227	314	42	V.C.	L.C. & B.
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
MAIN SWITCHBOARD TO MIDSHIPS S.B.1.	1	37/083	196	314	532	V.C.	L.C.A. & B IN PLUMBERS PIPS.
S.B.1 TO WHEELHOUSE S.B.2.	1	19/064	83	143	118	V.C.	L.C. & B.
MAIN SWITCHBOARD TO AFT S.B.3.	1	19/064	101	143	90	V.C.	L.C. & B.
MAIN SWITCHBOARD TO ENGINE ROOM S.B.4	1	19/064	70	143	18	V.C.	L.C. & B.
MAIN SWITCHBOARD TO ENGINE ROOM D.B.4 (S)	1	7/044	25	31	15	V.I.R.	L.C. & B.
MAIN SWITCHBOARD TO ENGINE ROOM D.B.4 (P)	1	0.007	25	30	96		PYROTENAX.
MAIN SWITCHBOARD TO MONO PUMP.	1	0.007	14	30	135		PYROTENAX.
SHORE MAINS TO MAIN SWITCHBOARD.	1	37/083	"	314	288	V.C.	L.C.A. & B.

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			In the Circuit.	Rule.			
S.B.1 TO WHEELHOUSE S.1'D1'	1	7/044	20	31	108	V.I.R.	L.C.
S.B.1 TO LOCKER BRIDGE DECK. S1'D2'	1	7/044	23	31	15	V.I.R.	L.C.
S.B.1 TO LOCKER BRIDGE DECK. S1'D3'	1	7/044	22	31	18	V.I.R.	L.C.
S.B.1 TO LOCKER BRIDGE DECK. S1'D4'	1	7/044	20	31	18	V.I.R.	L.C.
S.B.1 TO LOCKER BRIDGE DECK. S1'D5'	1	7/044	10	31	21	V.I.R.	L.C.
S.B.1 TO FLOODLIGHTS. S1'D6'	1	7/044	3	31	111	V.I.R.	L.C.
ALT. SUPPLY TO NAVIGATION FROM S1'D1'	1	7/044	3	31	"	V.I.R.	L.C.
S.B.2 TO NAVIGATION INDICATOR	1	7/036	3	24	12	V.I.R.	L.C.
S.B.2 TO BATTERY CHARGE PANEL (BELLS)	1	7/036	5	24	108	V.I.R.	L.C.
S.B.2 TO WIRELESS (TEMPORARY).	1	7/044	25	31	18	V.I.R.	L.C.
S.B.3 TO POOP DECK STARBOARD. S3'D1'	1	7/044	3	31	75	V.I.R.	L.C.
S.B.3 TO POOP DECK PORT. S3'D2'	1	7/064	35	46	180	V.I.R.	L.C.
S3'D2' TO POOP DECK PORT S3'D3'	1	7/064	17	46	6	V.I.R.	L.C.
S.B.3 TO POOP DECK STARBOARD. S3'D4'	1	7/064	38	46	72	V.I.R.	L.C.
S3'D4' TO POOP DECK STARBOARD S3'D5'	1	7/064	18	46	6	V.I.R.	L.C.
S.B.3 TO EMERGENCY CHARGING PANEL.	1	0.007	5	30	48		PYROTENAX.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
VENT FAN NAVIGATING BRIDGE.	1	3	1	7/044	26	31	90	V.I.R.	L.C.A. & B.
VENT FAN BOAT DECK.	1	3	1	7/044	26	31	108	V.I.R.	L.C. IN PLUMBERS PIPS.
ENGINE ROOM VENT FANS.	2	4	1	0.007	30	30	162/180		PYROTENAX.

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.

CAMPBELL & ISHERWOOD, LTD.

*Thomas Head 310 Jan*

Electrical Contractors.

Date *3rd Jan 1950*

COMPASSES.

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

*YES.*

FOR SMITH'S DOCK COMPANY LTD

*O. C. Dunder*

Builder's Signature.

Date *9-1-50.*

Shipyard Manager

Have the foregoing descriptions and schedules been verified and found correct..... *YES.*

Is this installation a duplicate of a previous case..... *YES.* If so, state name of vessel..... *S. S. "GEOMITRA." 1158*

Plans. Are approved plans forwarded herewith..... *NO.* If not, state date of approval..... *4. 10. 1949.*

Certificates. Are certificates of test for motors engaged on essential sea 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 FOR THIS VESSEL HAS BEEN INSTALLED UNDER SPECIAL SURVEY AND THE ARRANGEMENTS ARE IN ACCORDANCE WITH OR EQUIVALENT TO THOSE SHOWN ON THE APPROVED PLANS AND THE RULES FOR ELECTRICAL EQUIPMENT.*

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

*ON COMPLETION THE EQUIPMENT WAS OPERATED UNDER WORKING CONDITIONS AND THE INSULATION RESISTANCE OF ALL CIRCUITS MEASURED AND FOUND GOOD.*

*THIS INSTALLATION, IN MY OPINION, IS SUITABLE FOR A VESSEL CLASSED FOR THE CARRIAGE OF PETROLEUM IN BULK.*

*Noted ~~ent~~ 7/2/50*

Total Capacity of Generators..... *50* ✓ Kilowatts.

The amount of Fee ... .. £ *47 : 10* : When applied for, *20 1 19 50*

Travelling Expenses (if any) £ : : When received, *10*

*P. H. Williams*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute..... *FRI. 17 FEB 1950*

Assigned..... *In committee see S. E. Dept.*