

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office. 31 MAR 1950

Date of writing Report 19... When handed in at Local Office 21 3 1950. Port of *Middlesbrough*.  
 No. in Survey held at *Southbank - on - Ties*. Date, First Survey 8. 11. 49 Last Survey 8. 3. 1950.  
 Reg. Book. (No. of Visits 10) 5924

35995 on the *T. S. "GADINIA"* Tons { Gross 5924  
 Net 2935

Built at *Southbank - on - Ties*. By whom built *Smith's Dock Co. Ltd.* Yard No. 1187 When built 1950.

Owners *N. V. Surinamesche Scheepv. Maats.* Port belonging to *Willemstad*.

Installation fitted by *R. Pickensgill & Sons Ltd. Stockton - on - Ties*. When fitted 1950.

Is vessel equipped for carrying Petroleum in bulk *Yes*. Is vessel equipped with D.F. - E.S.D. - Gy.C. - Sub.Sig. - Radar *Yes*.

Plans, have they been submitted and approved *Yes*. System of Distribution *Two wire*. Voltage of Lighting 110.

Heating - 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 and 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 facing port side and 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 *Indamping 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 and 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*.

Cables, are they insulated and protected as per Rule *Yes*, if otherwise than as per Rule are they of an Approved Type *Yes*.

state maximum fall of pressure between bus bars and any point under maximum load *< 6.6 volts*, 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 -

or of the "HR" type - State how the cables are supported or protected *Engine Room Simulator mains*

*clipped to solid tray plate Engine Room subcircuits cables clipped to perforated tray plates*

*Forward mains in plumbers pipe along deck. Bentinck wiring on tray plate.*

*Lead covered cables in accommodation chatted to wood grounds.*

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 *Yes*. 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 Yes.....

Engine Room - Automatic on failure of 110 volt supply.

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..... NINE -

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..... "Wigan" Flameproof fittings

and where are the controlling switches fitted..... Officer's Quarters midships..... Are all fittings suitably ventilated Yes.....

Searchlight Lamps, No. of -....., whether fixed or portable -....., 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 Yes.....

Control Gear and Resistances, are they constructed and fitted as per Rule Yes..... Lightning Conductors, where required are they fitted as per Rule -..... 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..... -..... location of transmitter..... -..... and receiver..... -.....

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.

PARTICULARS OF ENGINE							PRIME MOVER.	
DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				TYPE.	MAKER.
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.		
MAIN ... ..	2	Sundstrand Forge & Engineering Co. Ltd.	25	110	227	675	Steam	Sundstrand Forge & Engineering Co. Ltd.
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 or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... ..	25	1	37/072	227✓	260	15	V6	L.C.A. + B.
" " EQUALISER ... ..	25	1	37/072	227✓	260	18	V6	L.C.A. + B.
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER : MOTOR ...								
" " GENERATOR... ..								

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

[illegible]

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.			
'52' to Wireless.	1	7/029	5 ✓	15	12	WR	L.b.
'51' to Navigation Indicator N2	1	7/064	3 ✓	46	100	WR	L.b.
'52' to Navigation Change-over Switch	1				12		
'51' to Navigation Bridge Light D.B. 'D1'	1	7/044	20.1 ✓	31	100	WR	L.b.
'51' to Midships Acom. Light Port D.B. 'D2'	1	7/044	22 ✓	31	8	WR	L.b.
'51' to Midships Acom. Light Starboard D.B. 'D3'	1	7/044	27 ✓	31	5	WR	L.b.
'53' to Bow Light Port. D.B. 'D4'	1	7/064	41 ✓	46	210	WR	L.b.
'53' to Bow Light Starboard D.B. 'D5'	1	7/064	46 ✓	46	90	WR	L.b.
'53' to Barge Light Aft. D.B. 'D6'	1	1/064	2.1 ✓	10	200	WR	L.b.
Main switchboard to Engine Room Light D.B. 'D7'	1	7/044	25 ✓	31	12	WR	L.b.
Main switchboard to Boiler Room Light D.B. 'D8'	1	7/044	25 ✓	31	12	WR	L.b.
'51' to Barge Light Forward. D.B. 'D9'	1	7/044	16.3 ✓	31	10	WR	L.b.
'51' to Pantry D.B. 'D10'	1	7/044		31	40	WR	L.b.
D.B. 'D9' to Forecastle Lighting	1	7/036	3.2 ✓	24	240	WR	L.b. A. & B.
'53' to Battery Charging Panel.	1	7/029	8.0 ✓	15	51	WR	L.b. A. & B.

## MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Engine Room Vent Fans.	2	4	1	7/052	33	✓	37	160	WR L.B.
Thermostatic Vent Fan aft.	1	3.25	1	7/044	27.5	✓	31	110	WR L.B.
Thermostatic Vent Fan midships	1	3.9	1	7/044	32.2	✓	31	90	WR L.B.
Galley Fan.	1	0.25	1	3/036	1.85	✓	10	30	WR L.B.
Galley Compressor.	2	0.25	1	3/036	1.85	✓	10	20	WR L.B.
Fresh Water Pump.	1	1.25	1	7/036	11.8	✓	24	100	WR L.B. & B.



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.

RICHARD PICKERSGILL & SONS, LTD.

Electrical Contractors.

Date 10/3/50.

#### COMPASSES.

Have the compasses been adjusted under working conditions. YES.

For SMITH'S DOCK CO. LTD,

*C. E. Dunt*

Builder's Signature.

Date 13.3.50.

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. "GLESSULA"

Plans. Are approved plans forwarded herewith. No. If not, state date of approval.

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.) This

equipment 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 with satisfactory results and the insulation resistances of all circuits measured and found good.

This installation, is in my opinion suitable for a classed vessel intended for the carriage of petroleum in bulk.

Noted and 22/4/50.

Total Capacity of Generators 50 Kilowatts.

The amount of Fee ... £ 49 : 10 :  
When applied for, 29 3. 19 50  
When received, 19

Travelling Expenses (if any) £ : :

Surveyor to Lloyd's Register of Shipping.

FRI. 28 APR 1950

Committee's Minute

Assigned

See F.E. mch. rpt.



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Foundation