

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.

2352

Built 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 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 & 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.

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 PYROTEX. FOREWARD MAINS IN PLUMBERS PIPE ALONG DECK. LEAD COVERED CABLES IN ACCOMMODATION CLIPPED 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 - 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, 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 OFFICERS QUARTERS MIDSHIPS. Are all fittings suitably ventilated YES.

Searchlight Lamps, No. of 1, whether fixed or portable 1, are they of the carbon arc or of the filament type 1. Heating and Cooking, is the general construction as per Rule 1, are the frames effectually earthed 1, are heaters in the accommodation of the connection type 1. 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 1. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing 1.

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule 1. Control Gear and Resistances, are they constructed and fitted as per Rule YES. Lightning Conductors, where required are they fitted as per Rule 1.

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 1 location of transmitter 1 and receiver 1. 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 or 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. | | | | | | | | |
|---|---|--------|-----|-----|-----|------------|--------------------------------|--|
| MAIN SWITCHBOARD TO MIDSHIPS S.B.1. | 1 | 37/083 | 186 | 314 | 532 | V.C. | L.C.A. & B. IN PLUMBERS PIPES. | |
| 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 | PYROTEXAX. | | |
| MAIN SWITCHBOARD TO MONO PUMP. | 1 | 0.007 | 14 | 30 | 135 | PYROTEXAX. | | |
| 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 or 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 | PYROTEXAX. | |

MOTOR CABLES.

| ALL IMPORTANT MOTORS TO BE ENUMERATED. | No. | B.H.P. | | | | | | |
|--|-----|--------|---|-------|----|----|---------|--------------------------------|
| 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 PIPES. |
| ENGINE ROOM VENT FANS. | 2 | 4 | 1 | 0.007 | 30 | 30 | 162/180 | PYROTEXAX. |

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 3rd Jan

Electrical Contractors.

Date *9th Jan 1950*

COMPASSES.

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

YES.

FOR SMITH'S DOCK COMPANY LTD

C. C. Dumble

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 and 7/2/50

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

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

Travelling Expenses (if any) £ :

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

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

Assigned..... *In certificate of S. E. D. H.*