

REPORT ON ELECTRICAL EQUIPMENT.

No. 1437

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

7 AUG 1951

Date of writing Report 18th July 1951

When handed in at Local Office 19

Port of H A M B U R G.

No. in Survey 1437 Reg. Book. H A M B U R G.

Date, First Survey 12th Oct. Last Survey 21st Dec. 1950

(No. of Visits 31)

90933 on the Motor Tanker " I R L A N D "

Built at H a m b u r g By whom built Deutsche Werft A.G. Tons { Gross 10000 Net 3000

Yard No 235 When built 1950

Owners. A/S Det Danske Franske Dampskibsselskab Port belonging to Copenhagen

Installation fitted by AEG Allgemeine Elektrizitäts-Ges.- Schiffbau

When fitted 1950

Is vessel equipped for carrying Petroleum in bulk. yes Is vessel equipped with D.F. yes E.S.D. yes Gy.C. yes Sub.Sig. no Radar.

Plans, have they been submitted and approved. yes System of Distribution 2 Wire Voltage of Lighting 110

Heating 110 Power 110 D.C. or A.C. Lighting DC Power DC 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

Are the generators arranged to run in parallel. no Is the compound winding connected to the negative or positive pole. negative pole

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing. - Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule. - Position of Generators engine room, p.s. forward.

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. engine room centre forward

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. marble, if of synthetic insulating

material is it an Approved Type. -, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule. yes 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. two pole circuit breaker with overload trips

and the switch and fuse gear (or circuit breakers) for each outgoing circuit d.p. linked switch and a fuse on each pole

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. yes Instruments on main switchboard 3

ammeters. 3 voltmeters - synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection. - Earth Testing, state means provided.

Preference Tripping, state if provided, and tested.

Switches, Circuit Breakers and Fuses, are they as per Rule. yes, are the fuses an Approved Type. yes

make of fuses. AEG, are all fuses labelled. yes If circuit breakers are provided for the generators, at what

overload do they operate. 740 amp, and at what current do the reverse current protective

devices operate. - Cables, are they insulated and protected as per Rule. -

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 Volt volts. 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 State

type of cables (if in conduit this should also be stated) in machinery spaces. yes, galleys. yes

and laundries. - State how the cables are supported or protected. Suitably clipped to cable trays

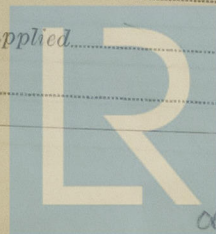
Are all lead sheaths, armouring and conduits effectually bonded and earthed. yes Are all cables passing through decks and watertight

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. yes

Have refrigeration fan motors been constructed under survey. and test certificates supplied.

Are the motors accessible for maintenance at all times.



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule yes Emergency Supply, state position

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, fitted and adequately ventilated as per Rule -, state battery capacity in ampère hours - Where required to do so does it comply with 1948 International Convention -

Lighting, is fluorescent lighting fitted - If so, state nominal lamp voltage - and compartments where lamps are fitted -

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof yes

Searchlights, No. of 1, whether fixed or portable fixed, are they of the carbon arc or of the filament type filament

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 -

Lightning Conductors, where required are they fitted as per Rule -

Ships carrying Oil having a Flash Point of 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 ABG Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships yes Are all cables lead covered as per Rule yes

E.S.D., if fitted state maker Atlas location of transmitter and receiver fr. 197

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. | |
|---------------------------|--------|--------|--------------------|--------|----------|----------------|--------------|-----------------------|
| | | | Kw. per Generator. | Volts. | Ampères. | Revs. per Min. | TYPE. | MAKER. |
| MAIN ... | 1 | ABG | 55 | 115 | 480 | 400 | Steam eng. | Ottensener Eisenwerke |
| | 1 | ABG | 55 | 115 | 480 | 400 | Diesel eng. | M.A.N. |
| EMERGENCY ... | | | | | | | | |
| ROTARY TRANSFORMER | | | | | | | | |

GENERATOR CABLES.

| DESCRIPTION. | No. of | Kw. | 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. mm. or sq. in. | In the Circuit. | Rule. | | | |
| MAIN GENERATOR ... I | 55 | 4 | 4 | 120 | 480 | 504 | 36 | rubber | L.C. & A. |
| " " EQUALISER ... | - | - | - | - | - | - | - | - | - |
| Main Generator II | 55 | 4 | 4 | 120 | 480 | 504 | 66 | " | L.C. & A. |
| EMERGENCY GENERATOR ... | - | - | - | - | - | - | - | - | - |
| ROTARY TRANSFORMER: MOTOR | - | - | - | - | - | - | - | - | - |
| " " GENERATOR... | - | - | - | - | - | - | - | - | - |

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

| DESCRIPTION. | No. of | Kw. | CONDUCTORS. | MAXIMUM CURRENT IN AMPERES. | APPROX. LENGTH (lead plus return feet). | INSULATION. | PROTECTIVE COVERING. |
|---------------------------|--------|-----|-------------|-----------------------------|---|-------------|----------------------|
| distribution board I & VI | 2 | 50 | 160 | 196 | 520 | rubber | L.C. & A. |
| " " II | 1 | 70 | 125 | 125 | 324 | " | " |
| " " III | 2 | 35 | 132 | 154 | 252 | " | " |
| " " IV & VII | 1 | 50 | 90 | 98 | 240 | " | " |
| " " V & VIII | 1 | 50 | 95 | 98 | 210 | " | " |
| " " IX | 2 | 70 | 160 | 178 | 520 | " | " |
| " " X | 1 | 70 | 100 | 123 | 72 | " | " |
| " " XI | 2 | 95 | 200 | 218 | 216 | " | " |

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

| 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. mm. or sq. in. | In the Circuit. | Rule. | | | |
| Navigation lights board | 1 | 25 | 2 | 9 | 576 | rubber | L.C. & A. |
| wireless | 1 | 16 | 15 | 50 | 540 | " | " |

MOTOR CABLES.

| ALL IMPORTANT MOTORS TO BE ENUMERATED. | No. | B.H.P. | | | | | | | |
|---|-----|--------|---|-----|------|-----|-----|--------|-----------|
| LAMONT Boiler Circ. Pumps | 2 | 3 | 1 | 16 | 26✓ | 35 | 210 | rubber | L.C. & A. |
| lub. oil separator | 1 | 4 | 1 | 16 | 35✓ | 35 | 132 | " | " |
| turning gear | 2 | 8 | 1 | 35 | 65✓ | 78 | 180 | " | " |
| fuel oil separator | 1 | 4 | 1 | 16 | 35✓ | 35 | 132 | " | " |
| Steering gear | 1 | 19.5 | 1 | 120 | 150✓ | 193 | 330 | " | " |
| ventilator Z 1 | 1 | 1.2 | 1 | 4 | 13✓ | 15 | 20 | " | " |
| " Z 6 | 1 | 1.2 | 1 | 4 | 13✓ | 15 | 20 | " | " |
| " A 7 | 1 | 1.2 | 1 | 4 | 13✓ | 15 | 20 | " | " |
| " Z 3 | 1 | 3 | 1 | 10 | 26✓ | 28 | 20 | " | " |
| " A 5 | 1 | 3 | 1 | 10 | 26✓ | 28 | 20 | " | " |
| " Z 4 | 1 | 3 | 1 | 10 | 26✓ | 28 | 20 | " | " |
| engine room vent. | 2 | 1.3 | 1 | 4 | 14✓ | 15 | 150 | " | " |
| cooling water pump | 1 | 2 | 1 | 6 | 18✓ | 21 | 72 | " | " |
| sanitary pump | 1 | 2 | 1 | 6 | 18✓ | 21 | 36 | " | " |
| cooling compressor | 2 | 7 | 1 | 50 | 58✓ | 72 | 108 | " | " |
| wash water pump | 1 | 2 | 1 | 6 | 18✓ | 21 | 90 | " | " |
| lathe | 1 | 2 | 1 | 6 | 18✓ | 21 | 36 | " | " |
| drilling machine | 1 | 2 | 1 | 6 | 18✓ | 21 | 48 | " | " |
| shaping machine | 1 | 1.5 | 1 | 4 | 15✓ | 15 | 18 | " | " |
| crane | 2 | 5.5 | 1 | 25 | 46✓ | 64 | 84 | " | " |
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NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient.

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.

ALLGEMEINE ELEKTRICITÄTS-GESELLSCHAFT
SCHIFFRAU

Electrical Contractors.

Date 2nd August, 1951

COMPASSES.

Have the compasses been adjusted under working conditions yes

ALLGEMEINE ELEKTRICITÄTS-GESELLSCHAFT
SCHIFFRAU

Builder's Signature.

Date 2nd August, 1951

Have the foregoing descriptions and schedules been verified and found correct

Is this installation a duplicate of a previous case yes If so, state name of vessel M.V. "GALLIA"

Plans. Are approved plans forwarded herewith yes If not, state date of approval -

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith -

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.)

The electrical equipment in this vessel has been installed in conformity with the Society's Rules and the Secretary's letters.

The material and workmanship are good. The installation has been tested on completion and found good.

Noted Sec 13/8/51

Total Capacity of Generators 110 ✓ Kilowatts.

The amount of Fee ... £ 94 : 0 : When applied for,

When received,

Travelling Expenses (if any) £ 3 : 10 :

Blunden & F.F. Borden
Surveyors to Lloyd's Register of Shipping.

TUES. 14 AUG 1951

Committee's Minute

Assigned

Sa F.F. mahy rph.

2m. 8.50.—Transfer. (MADE AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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