

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 19 When handed in at Local Office 19 Received at London Office 25 OCT 1954

No. in Survey held at *Harvinton Hill - on - Ties* Date, First Survey *6.1.54* Last Survey *21.9.1954*
Reg. Book. (No. of Visits *27*)

69764 on the *S.S. "Melika"*

Built at *Harvinton Hill - on - Ties* By whom built *Furness S.B. Co.* Yard No. *462* When built *1954*

Owners *Afran Transport Co.* Port belonging to *Monrovia*

Installation fitted by *Furness Shipbuilding Co. Ltd.* When fitted *1954*

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. *-* Radar *Yes*

Plans, have they been submitted and approved *Yes* System of Distribution *A.C. - 3 wire 2 wire insulated* Voltage of Lighting *115*

Heating *440* Power *440* D.C. or A.C., Lighting *A.C.* Power *A.C.* If A.C. state frequency *60*

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 *Yes* *Alternators* fitted with A.V.C. *Yes* Are turbine emergency governors fitted

Are the *Turbo-alternators* arranged to run in parallel *Yes* Is the compound winding connected to the negative or positive pole *-*

Have machines 100 kw. and over 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 *-* Position of Generators *on alternator flat, starboard*

side, arranged inboard and outboard fore and aft. Emergency Diesel in separate compartment.

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 alternator flat level*

arranged athwartships adjacent to Engine Room forward bulkhead and facing aft.

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 *'Dead front' cubicle type panels* 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 *-* 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 *Electrically operated Triple Pole Air Break Circuit Breaker*

with Overloads and Time delays, No-volt coil, Reverse Power relay, and breaker operating coil. Diesel alternator

Electrically operated Triple Pole Air Break Circuit Breaker with Overloads and Time delays, No-volt coil, and breaker

operating coil. Mechanical interlocking of Diesel alternator breaker prevents parallelism with main alternators.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. *Triple Pole Air Break Circuit Breaker with Overloads*

and Time delays, Double Pole Relay Type Quick Break Switch with Double Pole Fuses and Triple

Pole switches and fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule *Yes* Instruments on main switchboard *11*

ammeters *5* voltmeters *synchroscope and* 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 *Earth lamps*

coupled to 'E' thro switches & fuses. 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 *G.E. Co. & Wuxus.* are all fuses labelled *Yes* If circuit breakers are provided for the generators, at what

overload do they operate *tripped at 25%, set at 50%.* and at what current do the reverse current protective

devices operate *2%.* Cables, 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 *< 6% 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 *L.b. & B. and L.b. & B.* galleys *L.b. & B.*

and laundries *L.b. & B.* State how the cables are supported or protected *Generator mains clipped to solid*

steel tray plate, Engine Room cables clipped to perforated steel tray plate. Cables in accommodation

clipped to perforated steel tray plate and "Marinite" bulkheads. Forward pump room wiring clipped

to perforated steel tray plate. Forward mains clipped to solid steel tray plate along starboard side of gangway.

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 *-*

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule.....*Yes*..... Emergency Supply, state position
Newcastle System installed on alternator flat starboard. Emergency lighting circuits also supplied via Emergency Diesel Alternator.

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.....*Yes*....., state battery capacity in
ampère hours.....*45*..... 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 2, whether ^{1 Fixed}fixed or portable. Portable, 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. Yes Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. Yes

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

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 G.E.C. & Wacker. 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 Kelvin Hughes. location of transmitter and receiver Frames 56/57 Alt.

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 | 2 | General Electric Co. Nos. E.S.P. 235/19 235/2 | 500 | 450 | 804 | 1200 | Steam | Fraser & Chalmers. |
| | 1. | General Electric Co. No. S.T. 14689/1 | 100 | 450 | 160 | 900 | Turbine | National Gas & Oil Engine |
| EMERGENCY ROTARY TRANSFORMER | | Spare Rotor No. S.T. 15354/1A. | 100 | | | | | |

GENERATOR CABLES.

[illegible]

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

| DESCRIPTION. | | | | | | | | | |
|--|---|--------|---------|-----|-----|------|-------------|-----------|--|
| Shore Supply to Main switchboard. | 1 | 61/093 | 300 ✓ | 344 | 56 | V.6. | L.6. v B. | (3.corr.) | |
| Main switchboard to Refrig. Control Panel. | 1 | ✓/064 | 32.2 ✓ | 56 | 150 | V.6. | L.6.A. v B. | (3.corr.) | |
| Main switchboard to Engine Workshop S.B. 'BB' | 1 | ✓/036 | 16.3 ✓ | 21 | 150 | V.6. | L.6.A. v B. | (3.corr.) | |
| Main switchboard to Aft Accom Vent. S.B. 'CC' | 1 | ✓/052 | 33.6 ✓ | 42 | 90 | V.6. | L.6.A. v B. | (3.corr.) | |
| Main switchboard to Galley. S.B. 'AA' | 1 | 19/064 | 75 ✓ | 100 | 170 | V.6. | L.6.A. v B. | (3.corr.) | |
| Main switchboard to E.R. Aux Board Port. | 1 | 34/093 | 188.2 ✓ | 254 | 75 | V.6. | L.6. v B. | (3.corr.) | |
| Main switchboard to E.R. Aux Board Stbd. | 1 | 34/093 | 232.8 ✓ | 254 | 40 | V.6. | L.6. v B. | (3.corr.) | |
| Main switchboard to Emergency Switchboard. | 1 | 34/083 | 150 ✓ | 220 | 190 | V.6. | L.6. v B. | (3.corr.) | |
| Main switchboard to Midships Switchboard. | 1 | 34/083 | 150 ✓ | 220 | 390 | V.6. | L.6.A. v B. | (3.corr.) | |
| Main switchboard to Aft Accom Port. D.B. 'C' | 1 | ✓/064 | 36.5 ✓ | 56 | 110 | V.6. | L.6.A. v B. | (3.corr.) | |
| D.B. 'C' to Aft Accommodation Port. D.B. 'A' | 1 | ✓/064 | 14.5 ✓ | 56 | 15 | V.6. | L.6.A. v B. | (3.corr.) | |
| Main switchboard to Aft Accom. Stbd. D.B. 'D' | 1 | ✓/064 | 33.4 ✓ | 56 | 145 | V.6. | L.6.A. v B. | (3.corr.) | |
| D.B. 'D' to Aft Accommodation Stbd. D.B. 'B' | 1 | ✓/064 | 16 ✓ | 56 | 15 | V.6. | L.6.A. v B. | (3.corr.) | |
| Main switchboard to Engine Room Port. D.B. 'E' | 1 | ✓/052 | 25 ✓ | 42 | 40 | V.6. | L.6.A. v B. | (3.corr.) | |

| Rpt. 13 (cont). | | CONDUCTORS. | | MAXIMUM CURRENT IN AMPERES. | | APPROX. LENGTH (lead plus return feet). | INSULATION. | PROTECTIVE COVERING. |
|-------------------------------------|---------------------------|--|-----------------|-----------------------------|-----------|---|-------------|-----------------------|
| DESCRIPTION. | No. in Parallel per Pole. | Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm. | In the Circuit. | Rule. | | | | |
| Alarms Cond. Circ. Pump. | 1 | 55 | 1 | 19/052 | 64 ✓ 74 | 70 | V.B. | L.B.A. + B. (3 core). |
| Turbo Gen. Circ. Pump. No. 1. | 1 | 14 | 1 | 7/044 | 14.5 ✓ 32 | 60 | V.B. | L.B.A. + B. (3 core). |
| Turbo Gen. Circ. Pump. No. 2. | 1 | 14 | 1 | 7/044 | 14.5 ✓ 32 | 60 | V.B. | L.B.A. + B. (3 core). |
| Boiler Fuel Oil Service Pump No. 1. | 1 | 11 | 1 | 7/036 | 15.5 ✓ 21 | 100 | V.B. | L.B.A. + B. (3 core). |
| Boiler Fuel Oil Service Pump. No. 2 | 1 | 11 | 1 | 7/036 | 15.5 ✓ 21 | 100 | V.B. | L.B.A. + B. (3 core). |
| Aux. Cond. Extraction Pump. No. 1. | 1 | 7 | 1 | 7/029 | 9 ✓ 15 | 50 | V.B. | L.B.A. + B. (3 core). |
| Aux. Cond. Extraction Pump. No. 2 | 1 | 7 | 1 | 7/029 | 9 ✓ 15 | 50 | V.B. | L.B.A. + B. (3 core). |
| Combustion Control Compressor No. 1 | 1 | 7 | 1 | 7/029 | 9 ✓ 15 | 95 | V.B. | L.B.A. + B. (3 core). |
| Combustion Control Compressor No. 2 | 1 | 7 | 1 | 7/029 | 9 ✓ 15 | 95 | V.B. | L.B.A. + B. (3 core). |
| Forced Draught Lighting up Fan. | 1 | 3 | 1 | 7/029 | 4.6 ✓ 15 | 75 | V.B. | L.B.A. + B. (3 core). |
| Starting up Oil Fuel Pressure Pump. | 1 | 1.5 | 1 | 7/029 | 2.6 ✓ 15 | 75 | V.B. | L.B.A. + B. (3 core). |
| Engine Room Lift. | 1 | 11 | 1 | 7/036 | 15.5 ✓ 21 | 70 | V.B. | L.B.A. + B. (3 core). |
| Cargo Pump Room Exhaust Fan. | 1 | 4 | 1 | 7/029 | 6 ✓ 15 | 80 | V.B. | L.B.A. + B. (3 core). |
| Boiler Room Vent Fan Port. | 1 | 7.5 | 1 | 7/029 | 10.3 ✓ 15 | 190 | V.B. | L.B.A. + B. (3 core). |
| Boiler Room Vent Fan Std. | 1 | 7.5 | 1 | 7/029 | 10.3 ✓ 15 | 150 | V.B. | L.B.A. + B. (3 core). |
| Engine Room Vent Fan Port Std. | 1 | 4.5 | 1 | 7/029 | 6.4 ✓ 15 | 120 | V.B. | L.B.A. + B. (3 core). |
| Engine Room Vent Fan Port Lift. | 1 | 4.5 | 1 | 7/029 | 6.4 ✓ 15 | 150 | V.B. | L.B.A. + B. (3 core). |
| Engine Room Vent Fan Std. Std. | 1 | 4.5 | 1 | 7/029 | 6.4 ✓ 15 | 100 | V.B. | L.B.A. + B. (3 core). |
| Engine Room Vent Fan Std. Lift. | 1 | 4.5 | 1 | 7/029 | 6.4 ✓ 15 | 130 | V.B. | L.B.A. + B. (3 core). |
| Engine Room Vent Fan Std. Lift. | 1 | 4.5 | 1 | 7/029 | 6.4 ✓ 15 | 200 | V.B. | L.B.A. + B. (3 core). |
| Workshop & Alarms Vents. | 1 | 5.0 | 1 | 7/029 | 7.2 ✓ 15 | 95 | V.B. | L.B. + B. (3 core). |
| Midships Accom Supply Fan. | 1 | 4.0 | 1 | 7/029 | 5.5 ✓ 15 | 95 | V.B. | L.B. + B. (3 core). |
| Midships Accom Exhaust Fan. | 1 | 4.0 | 1 | 7/029 | 5.5 ✓ 15 | 95 | V.B. | L.B. + B. (3 core). |
| Fresh Water Pump. | 1 | 4.5 | 1 | 7/029 | 6.1 ✓ 15 | 65 | V.B. | L.B. + B. (3 core). |
| Hot Water Circ. Pump. | 1 | 1.5 | 1 | 7/029 | 2.6 ✓ 15 | 65 | V.B. | L.B. + B. (3 core). |
| Shaping Machine. | 1 | 4.0 | 1 | 7/029 | 6 ✓ 15 | 40 | V.B. | L.B.A. + B. (3 core). |
| Lathe | 1 | 3.0 | 1 | 7/029 | 4.5 ✓ 15 | 40 | V.B. | L.B.A. + B. (3 core). |
| Grinder | 1 | 2.0 | 1 | 7/029 | 3.1 ✓ 15 | 40 | V.B. | L.B.A. + B. (3 core). |
| Drilling Machine. | 1 | 1.5 | 1 | 7/029 | 2.4 ✓ 15 | 40 | V.B. | L.B.A. + B. (3 core). |
| H3 Accom Vent Fan. | 1 | 4.0 | 1 | 7/029 | 6 ✓ 15 | 35 | V.B. | L.B.A. + B. (3 core). |
| H4 Accom Vent Fan. | 1 | 4.0 | 1 | 7/029 | 6 ✓ 15 | 35 | V.B. | L.B.A. + B. (3 core). |
| H5 Accom Vent Fan. | 1 | 4.0 | 1 | 7/029 | 6 ✓ 15 | 120 | V.B. | L.B.A. + B. (3 core). |
| H6 Accom Vent Fan. | 1 | 4.0 | 1 | 7/029 | 6 ✓ 15 | 120 | V.B. | L.B.A. + B. (3 core). |
| S1 Galley Supply Fan. | 1 | 4.0 | 1 | 7/029 | 6 ✓ 15 | 130 | V.B. | L.B.A. + B. (3 core). |
| E1 Galley Exhaust Fan. | 1 | 2.5 | 1 | 7/029 | 3.9 ✓ 15 | 130 | V.B. | L.B.A. + B. (3 core). |
| E2 Galley Range Exhaust. | 1 | 2.5 | 1 | 7/029 | 3.9 ✓ 15 | 130 | V.B. | L.B.A. + B. (3 core). |
| E3 Cordage Store Supply Fan. | 1 | 0.33 | 1 | 7/029 | 0.6 ✓ 15 | 130 | V.B. | L.B.A. + B. (3 core). |
| E4 Provision Store Supply Fan. | 1 | 0.33 | 1 | 7/029 | 0.6 ✓ 15 | 130 | V.B. | L.B.A. + B. (3 core). |
| E5 Cordage Store Exhaust Fan. | 1 | 0.55 | 1 | 7/029 | 0.86 ✓ 15 | 130 | V.B. | L.B.A. + B. (3 core). |

For Furness Shipbuilding Co. Ltd..

Carloman Electrical Contractors

Date :- Oct. 1st 1954.

Am. Mills

Electrical Engineer Surveyor.

Date:- 19. 10. 54

| 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. | | | | |
| Emergency Board to Aft Accom. Stbd. D.B. 'R' | 1 | 4/029 | 14.5 | 15 | 95 | V.B. | L.B.A. & B. (3 core) |
| Emergency Board to Engine Room Port. D.B. 'S' | 1 | 4/036 | 11.3 | 21 | 220 | V.B. | L.B.A. & B. (2 core) |
| Emergency Board to Engine Room Stbd. D.B. 'T' | 1 | 4/036 | 11.3 | 21 | 220 | V.B. | L.B.A. & B. (2 core) |
| Emergency Board to Boiler Room D.B. 'U' | 1 | 4/036 | 11.3 | 21 | 160 | V.B. | L.B.A. & B. (2 core) |
| Emergency Board to New York Panel. | 1 | 4/029 | 9 | 15 | 180 | V.B. | L.B.A. & B. (2 core) |
| Emergency Board to Salinity Indicators | 1 | 4/029 | 5 | 15 | 200 | V.B. | L.B.A. & B. (2 core) |
| Emergency Board to Diesel Alt. Heater. | 1 | 4/029 | 3.5 | 15 | 20 | V.B. | L.B.A. & B. (2 core) |
| Emergency Board to Diesel Alt. Batt. Charger. | 1 | 4/029 | 5 | 15 | 20 | V.B. | L.B.A. & B. (2 core) |
| Emergency Board to E. R. Alarm Panels. | 1 | 4/029 | 5 | 15 | 200 | V.B. | L.B.A. & B. (2 core) |
| D.B. 'B' to Oilskin Locker Supply Fan. | 1 | 3/029 | 0.6 | 5 | 65 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'D' to Ice Water. | 1 | 3/036 | 2 | 10 | 80 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'H' to Officers Mess Domestic Frig. | 1 | 3/036 | 6 | 10 | 65 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'H' to Crews Mess Domestic Frig. | 1 | 3/036 | 6 | 10 | 65 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'H' to Upper Deck Fountain | 1 | 3/036 | 6 | 10 | 35 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'H' to Battery Socket Outlets (2) | 1 | 4/029 | 15 | 15 | 55/85 | V.B. | L.B. & B. (2 core) |
| D.B. 'H' to Crews Mess Socket Outlet | 1 | 3/036 | 5 | 10 | 70 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'H' to Officers Mess Socket Outlet. | 1 | 3/036 | 5 | 10 | 80 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'H' to P.O.'s Cooks Mess Socket Outlet. | 1 | 3/036 | 5 | 10 | 60 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'H' to Officers Painting Socket Outlet | 1 | 4/029 | 15 | 15 | 50 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'H' to Crews Painting Socket Outlet | 1 | 4/029 | 15 | 15 | 40 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'K' to Bridge Deck Fountain | 1 | 3/036 | 6 | 10 | 40 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'K' to Painting Socket Outlets (2) | 1 | 4/029 | 15 | 15 | 20/20 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'K' to Painting Domestic Refrig. | 1 | 3/036 | 6 | 10 | 20 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'W' to Navigation Indicator | 1 | 4/036 | 1.2 | 21 | 15 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'T' to Engine Room. D.B. 'Z' | 1 | 4/036 | 2 | 21 | 25 | V.B. | L.B.A. & B. (2 core) |
| Main switchboard to Battery. D.B. 'AA' | 1 | 19/064 | 7.5 | 100 | 170 | V.B. | L.B.A. & B. (3 core) |
| D.B. 'AA' to Battery Range switchboard. | 1 | 19/044 | 62.5 | 64 | 10 | V.B. | L.B.A. & B. (3 core) |
| D.B. 'AA' to Battery Rm. 10 KW. | 1 | 4/029 | 12.5 | 15 | 35 | V.B. | L.B.A. & B. (3 core) |
| Main switchboard to Engineers Workshop. S.B. 'BB' | 1 | 4/036 | 16.3 | 21 | 150 | V.B. | L.B.A. & B. (3 core) |
| Main switchboard to Aft Port Fan Room. S.B. 'CC' | 1 | 4/052 | 33.6 | 42 | 90 | V.B. | L.B.A. & B. (3 core) |
| Main switchboard to Emergency Gen. Room. S.B. 'DD' | 1 | 19/064 | 68 | 100 | 190 | V.B. | L.B.A. & B. (3 core) |
| D.B. 'DD' to Crews Rec. Room Socket Outlet | 1 | 4/029 | 15 | 15 | 25 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'DD' to Off. & Eng. Mess Socket Outlet | 1 | 4/029 | 15 | 15 | 35 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'DD' to Crews Mess Socket Outlet | 1 | 4/029 | 15 | 15 | 45 | V.I.R. | L.B. & B. (2 core) |
| D.B. 'DD' to Portable Pump Connections. | 1 | 4/029 | 13 | 15 | 50 | V.B. | L.B.A. & B. (2 core) |
| Midships Board to Chatroom D.B. 'EE' | 1 | 4/036 | 12 | 21 | 90 | V.I.R. | L.B. & B. (2 core) |

| DISTRIBUTION CABLES (to Section-Boards and Distribution-Fuse-Boards, etc.). | | | | | | | |
|---|---------------------------|---|-----------------------------|-------|---|-------------|----------------------|
| DESCRIPTION. | CONDUCTORS. | | MAXIMUM CURRENT IN AMPERES. | | APPROX. LENGTH (feet 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 switchboard to Eng. Room Stbd. D.B. 'F' | 1 | 4/052 | 25 ✓ | 42 | 46 | V.B. | 1.6.9. + B. (3con) |
| Main switchboard to Boiler Room D.B. 'G' | 1 | 4/052 | 25 ✓ | 42 | 90 | V.B. | 1.6.9. + B. (3con) |
| Main switchboard to Aft Accom. D.B. 'H' | 1 | 4/064 | 32.4 ✓ | 56 | 120 | V.B. | 1.6.9. + B. (3con) |
| Main switchboard to Turbo Alternator Heater Ind. | 1 | 4/029 | 10.4 ✓ | 15 | 105 | V.B. | 1.6.9. + B. (2con) |
| Main switchboard to Turbo Alternator Heater Off. | 1 | 4/029 | 10.4 ✓ | 15 | 100 | V.B. | 1.6.9. + B. (2con) |
| Main switchboard to Comms for Port Boiler Bldg. Comp. | 1 | 4/029 | 4 ✓ | 15 | 150 | V.B. | 1.6.9. + B. (2con) |
| Main switchboard to Eng. Plan. Room D.B. 'DD' | 1 | 19/064 | 68 ✓ | 100 | 190 | V.B. | 1.6.9. + B. (3con) |
| Emergency Board to Midships Switchboard. | 1 | 34/042 | 100 ✓ | 182 | 450 | V.B. | 1.6.9. + B. (3con) |
| Midships Board to Midships Water Heater. | 1 | 4/036 | 15.4 ✓ | 21 | 54 | V.B. | 1.6. + B. (3con) |
| Midships Board to Gyro Compass. | 1 | 4/029 | 3 ✓ | 15 | 90 | V.B. | 1.6. + B. (3con) |
| Midships Board to Wireless | 1 | 4/029 | 5.45 ✓ | 15 | 45 | V.B. | 1.6. + B. (3con) |
| Midships Board to Boat Hoist Comms. | 1 | 4/029 | 4.5 ✓ | 15 | 125 | V.B. | 1.6. + B. (3con) |
| Midships Board to Emergency Light's D.B. 'V' | 1 | 4/052 | 13.3 ✓ | 42 | 30 | V.B. | 1.6. + B. (3con) |
| Midships Board to Wheelhouse. D.B. 'W' | 1 | 4/044 | 14.4 ✓ | 32 | 90 | V.I.R. | 1.6. + B. (2con) |
| Midships Board to Wheelhouse. D.B. 'W' | 1 | 4/044 | 14.4 ✓ | 32 | 90 | V.I.R. | 1.6. + B. (2con) |
| Midships Board to Searchlight D.B. 'Y' | 1 | 4/044 | 14.4 ✓ | 32 | 90 | V.B. | 1.6. + B. (2con) |
| Midships Board to Searchlight Projector | 1 | 19/052 | 25.3 ✓ | 110 | 245 | V.B. | 1.6.9. + B. (2con) |
| Midships Board to Chartroom D.B. 'EE' | 1 | 4/036 | 12 ✓ | 21 | 90 | V.I.R. | 1.6. + B. (2con) |
| Midships Board to Radar | 1 | 4/036 | 11 ✓ | 21 | 90 | V.I.R. | 1.6. + B. (2con) |
| Midships Board to Saloon Socket. | 1 | 4/036 | 20 ✓ | 21 | 40 | V.I.R. | 1.6. + B. (2con) |
| Midships Board to Hospital Socket. | 1 | 4/036 | 20 ✓ | 21 | 40 | V.I.R. | 1.6. + B. (2con) |
| Midships Board to Accom. D.B. 'J' | 1 | 4/052 | 35.8 ✓ | 42 | 30 | V.B. | 1.6. + B. (3con) |
| Midships Board to Accom. Power. D.B. 'K' | 1 | 4/064 | 32.3 ✓ | 56 | 30 | V.B. | 1.6. + B. (3con) |
| Midships Board to Forecastle D.B. 'L' | 1 | 4/036 | 4.5 ✓ | 21 | 230 | V.I.R. | 1.6.9. + B. (3con) |
| Emergency Board to Aft Boat Hoist Comms. | 1 | 4/029 | 4.5 ✓ | 15 | 120 | V.B. | 1.6.9. + B. (3con) |
| Emergency Board to Gyro Pilot Power Unit. | 1 | 4/029 | 2 ✓ | 15 | 115 | V.B. | 1.6.9. + B. (3con) |
| Emergency Board to Aft Accom. Port D.B. 'P' | 1 | 4/029 | 13.3 ✓ | 15 | 130 | V.B. | 1.6.9. + B. (3con) |

| ALL IMPORTANT MOTORS TO BE ENUMERATED. | | | No. | B.H.P. | MOTOR CABLES. | | | | | | | | | |
|---|---|-------|-----|--------|---------------|---|-----|-----|------|------------|---------|--|--|--|
| Main Circulating Pump No.1. | 1 | 134 | 1 | 34/083 | 180 | ✓ | 220 | 150 | V.6. | 1.6.1.B. | (3.cou) | | | |
| Main Circulating Pump No.2. | 1 | 134 | 1 | 34/083 | 180 | ✓ | 220 | 150 | V.6. | 1.6.1.B. | (3.cou) | | | |
| Forced Draught Fan No.1. | 1 | 42/98 | 1 | 19/044 | 55 | ✓ | 64 | 160 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| | | | 7 | 19/083 | 120 | ✓ | 141 | 160 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Forced Draught Fan No.2. | 1 | 42/98 | 1 | 19/044 | 55 | ✓ | 64 | 160 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| | | | | 19/083 | 120 | ✓ | 141 | 160 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Forced Draught Fan No.3. | 1 | 42/98 | 1 | 19/044 | 55 | ✓ | 64 | 160 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| | | | | 19/083 | 120 | ✓ | 141 | 160 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| S.W. General Service Pump No.1. | 1 | 35/45 | 1 | 4/064 | 46 | ✓ | 61 | 115 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| | | | 1 | 19/064 | 85 | ✓ | 115 | 115 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| S.W. General Service Pump No.2. | 1 | 35/45 | 1 | 4/064 | 46 | ✓ | 61 | 115 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| | | | 1 | 19/064 | 85 | ✓ | 115 | 115 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Main Condensate Ext. Pump No.1 | 1 | 32 | 1 | 4/064 | 38.5 | ✓ | 61 | 65 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Main Condensate Ext. Pump No.2. | 1 | 32 | 1 | 4/064 | 38.5 | ✓ | 61 | 65 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Condensate & Drain Transfer Pump 1. | 1 | 11 | 1 | 4/029 | 13.9 | ✓ | 15 | 85 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Condensate & Drain Transfer Pump 2 | 1 | 11 | 1 | 4/029 | 13.9 | ✓ | 15 | 85 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Stirring Gear Motor. | 1 | 8 | 1 | 4/044 | 16.8 | ✓ | 32 | 120 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Stirring Gear Motor Pot. | 1 | 50 | 1 | 19/044 | 61.6 | ✓ | 64 | 240 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Stirring Gear Motor Starboard. | 1 | 50 | 1 | 19/044 | 61.6 | ✓ | 64 | 205 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Forced Lub. Oil Pump No.1. | 1 | 32 | 1 | 4/052 | 34 | ✓ | 42 | 95 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Forced Lub. Oil Pump No.2 | 1 | 32 | 1 | 4/052 | 34 | ✓ | 42 | 95 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| General Service Air Compressor. | 1 | 24.5 | 1 | 4/052 | 33 | ✓ | 42 | 100 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Fresh Water Pump No.1 | 1 | 8 | 1 | 4/029 | 10.3 | ✓ | 15 | 95 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Fresh Water Pump No.2. | 1 | 8 | 1 | 4/029 | 10.3 | ✓ | 15 | 95 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Sanitary Pump No.1. | 1 | 8 | 1 | 4/029 | 10.3 | ✓ | 15 | 95 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Sanitary Pump No.2. | 1 | 8 | 1 | 4/029 | 10.3 | ✓ | 15 | 95 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Culinary Water Pump. | 1 | 5.45 | 1 | 4/029 | 4.6 | ✓ | 15 | 95 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Evaporator Condensate Pump No.1 | 1 | 5 | 1 | 4/029 | 4 | ✓ | 15 | 45 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Evaporator Condensate Pump No.2 | 1 | 5 | 1 | 4/029 | 4 | ✓ | 15 | 45 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Lub. Oil Purifier No.1. | 1 | 2.5 | 1 | 4/029 | 3.8 | ✓ | 15 | 95 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Lub. Oil Purifier No.2. | 1 | 2.5 | 1 | 4/029 | 3.8 | ✓ | 15 | 95 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| L.P. Evaporator Brine Pump No.1. | 1 | 2 | 1 | 4/029 | 3 | ✓ | 15 | 60 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| L.P. Evaporator Brine Pump No.2 | 1 | 2 | 1 | 4/029 | 3 | ✓ | 15 | 60 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Hot Water Circulating Pump. | 1 | 1.5 | 1 | 4/029 | 2.6 | ✓ | 15 | 105 | V.6. | 1.6.A.1.B. | (3.cou) | | | |
| Transom Space Pump. | 1 | 1.5 | 1 | 4/029 | 2.6 | ✓ | 15 | 140 | V.6. | 1.6.A.1.B. | (3.cou) | | | |

NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient.

The foregoing is a correct description.

COMPASSES.

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

Have the foregoing descriptions and schedules been verified and found correct..... Yes

Is this installation a duplicate of a previous case. No. If so, state name of vessel.

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. Yes

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

The equipment, on completion, was seen operating under working conditions, the various protective devices were adjusted and operated; and the insulation resistance 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.

Special Notation :- D.F., E.S.D., Gyro C. and Radar.

Total Capacity of Generators..... 1100 ✓ Kilowatts.

| | | |
|------------------------------|--------------|--------------------|
| The amount of Fee (Total) | £ 154 : - : | When applied for, |
| Sunduland a/c. | £ 125 : 12 : | <u>22 10 19 54</u> |
| Birmingham a/c | £ 31 : 8 : | |
| Radio telegraph cert. | £ 6 : 6 : | When received, |
| Travelling Expenses (if any) | £ - : - : | <u>19</u> |

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUESDAY 7 - DEC 1954

Assigned Sgt. Kpl. H. a.