

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 3rd June 1959 When handed in at Local Office 5th June 1959 Port of Spaswich  
 No. in Survey held at howestoft. Date, First Survey 11.2.59 Last Survey 3.6.59  
 Reg. Book. (No. of Visits 44)  
 on the MOTOR TUG "KANCHADEVA" Tons { Gross 12 Net 12  
 Built at howestoft By whom built Brooke Marine Ltd Yard No. 269 When built 1959  
 Owners Brown Agents for the colonies Port belonging to Belambo.  
 Installation fitted by howestoft Electrical 60 Ltd. When fitted 1959  
 Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. No E.S.D. No Gy.C. No Sub.Sig. No Rada. No  
 Plans, have they been submitted and approved Yes System of Distribution Two Wire Voltage of Lighting 110  
 Heating None 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  
 Are the generators arranged to run in parallel No Is the compound winding connected to the negative or positive pole Negative  
 Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing None Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule Yes Position of Generators 25 Kw Port side engine room, 10 Kw St'bd side engine room.  
 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 Starboard side of engine room.  
 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 Sheet steel dead front board 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 Doube pole rotary circuit breakers.  
 and the switch and fuse gear (or circuit breakers) for each outgoing circuit Doube pole combined rotary selector and isolating switches  
 Are compartments containing switchboards composed of fire-resisting material or lined as per Rule - Instruments on main switchboard 2  
 ammeters 2 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 Earth lamps  
 with metal filament not exceeding 30w - Earth Tripping, state if provided None and tested -  
 Switches, Circuit Breakers and Fuses, are they as per Rule Yes are the fuses an Approved Type Yes  
 make of fuses Dennis are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate No Overload trips and at what current do the reverse current protective devices operate None 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 less than 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 No if so, are they adequately protected - State type of cables (if in conduit this should also be stated) in machinery spaces VRI galleys -  
 and laundries - State how the cables are supported or protected On perforated metal trays secured with brass screws and clips.  
 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 -  
 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..... 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.....No., is an automatic indicator fitted.....No.. Is an alternative supply provided.....No.

Secondary Batteries are there mounted at fittings.....No.

Secondary batteries, are they constructed, fitted and adequately vented as per Rule....., state battery capacity in  
ampere hours..... Where required to do so does it comply with 1948 International Convention.....

Lighting, is fluorescent lighting fitted No..... 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 *See.*

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....., are the frames effectually earthed....., are heaters in the

accommodation of the convection type Full. 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 room?

compartment.....None. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing.....None

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

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....., are all fuses of an Approved Cartridge Type....., make of fuse..... Are the fittings for pump

SD, if fitted state maker

pare 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.	
			Kv. per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN	No. 1	David McKim Ltd	25	110	228	1250	Diesel	Ruston Hornsby Ltd.
	No. 2	" " " "	10	110	91	1250	"	" "
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. ins. approx. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	N <sup>o</sup> 1	1	25	1	34.072	224/260	86	VC1	Lead Alloy Sheathed
<del>MAIN GENERATOR</del>	N <sup>o</sup> 2	1	10	1	14.052	91/110	40	"	"

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.)

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

[illegible]

## MOTOR CABLES

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Belge Pump.	1	3	1	4/064	26	✓ 46	56	VR1	Lead Alloy Sheel
General Service Pump.	1	3	1	4/064	26	✓ 46	40	"	" " "
Lubricating Oil & By Pump.	1	2	1	4/044	18	✓ 31	84	"	" " "
Stand By P.W. Fire Pump.	1	1 1/2	1	1/036	14	✓ 24	60	"	" " "
Winchlass.	1	8	1	19/052	65	✓ 110	114	VCI.	" " "



*The foregoing is a correct description.*

LOWESTOFT

### *Electrical Contractors.*

Date 4. 6. 59.

## COMPASSES.

*Have the compasses been adjusted under working conditions.*

Yes

C. L. Fernaldson

*Builder's Signature.*

Date 4.6.59

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.

No

If so, state name of vessel.

Plans. Are approved plans forwarded herewith..... *Yes.* If not, state date of approval

Geo.

If not, state date of approval

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

Yes

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

This electrical installation has been carried out satisfactorily in accordance with the approved plans, the Secretary's letters and the Rule requirements. The materials used throughout are good and the workmanship satisfactory. In my opinion this installation is eligible for inclusion in the notation of S.M.C. with date to be assigned on arrival at Belambo to which port the ship is now proceeding as deck cargo.

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

35

## Kilowatts

The amount of Fee ... .. £ 35 : 0 0

When applied for,

15 JUN 1959

When received,

Travelling Expenses (if any) £ 2 : 11 0

19.....

G. Taelor

*Surveyor to Lloyd's Register of Shipping*

*Committee's Minute.*

*Assigned.*