

Rpt. 13

No. 9228

# REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 12th Oct., 1961 When handed in at Local Office 19 Port of Lisbon

No. in Survey held at São Jacinto - AVEIRO Date, First Survey 25th April 61 Last Survey 3rd Oct. 1961  
Reg. Book (No. of Visits 7)

Gross 169

Net

41119 on the Motor Trawler "CONIMBRIGA"

Built at São Jacinto By whom built Estaleiros São Jacinto Yard No. 53 When built 1961

Owners Sociedade de Pesca de Arrasto de Aveiro Port belonging to LISBOA

Installation fitted by Estaleiro São Jacinto When fitted 1961

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

Plans, have they been submitted and approved Yes System of Distribution 4 Wire earthed A.C. Voltage of Lighting 110 &amp; 24 v.

Heating - Power 190 v. Line D.C. or A.C. Lighting D.C. Batt. A.C. Power A.C. If A.C. state frequency 50 ~

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 - and level compounded under working conditions -

Are the generators arranged to run in parallel No 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 None Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule Yes Position of Generators 1-15 KVA belt driven ford end

main engine. 1-15 KVA diesel driven A.P.E.R. flat.

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 S.S. E.R. 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, 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 AEG 3 pole circuit breakers with overload and short circuit protection.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit AEG 3 pole circuit breakers for power outlets,

ELFA 2 pole circuit breakers for lighting outlets, ~~BIA 2 pole circuit breakers for lighting outlets,~~

all with thermal overload and coil short circuit relays

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule E.R. Instruments on main switchboard 6

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 lamps

Preference Tripping, state if provided No, and tested -

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

make of fuses Sldlock, are all fuses labelled Yes If circuit breakers are provided for the generators, at what

overload do they operate 40 A load, and at what current do the reverse current protective

devices operate - 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 Hyd. pump 0.75 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends -

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 V.R.I. L.S., galleys V.R.I. L.S.

and laundries - State how the cables are supported or protected Clipped to painted expanded metal

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 None and test certificates supplied -

Are the motors accessible for maintenance at all times -

M.T.

014032 - 014042

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Lloyd's Register  
Foundation



24 v. Batteries in E.R.

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. 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. None, are the frames effectually earthed. -, are heaters in the accommodation of the convection type. -. Motors, are all motors constructed and installed as per Rule and placed in well-ventilated

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. **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.....

Lightning Conductors, where required are they fitted as per Rule..... Not required.

*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*

rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships..... Are all cables lead covered as per Rule.....

F.S.D. if fitted state maker Elac. location of transmitter and receiver E.R. ford.

*Snare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations.....*

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	Kva. <del>Kw.</del> per Generator	RATED AT			PRIME MOVER	
				Volts	Ampères	Revs. per Min.	TYPE	MAKER
MAIN ...	1	Garbe Lahmeyer	15	190/110	45,6	1500	Diesel M.E.	A/S Volund.
			15	190/110	45,6	1500	Aux. Diesel	MWM.
EMERGENCY ...								
ROTARY								
TRANSFORMER								

## GENERATOR CABLES

DESCRIPTION	No. of	KVA.	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (lead plus return feet)	INSULATION	PROTECTIVE COVERING
			No. in Parallel per <del>bus</del> P	Sectional Area or No. and Dia. of Strands Sq. ins. or sq. mm.	In the Circuit	Rule			
MAIN <del>Generator</del> Alternator M.E. ...	1	15	1	35	47 ✓	88	9	V.R.	L.S. taped, metal braid.
" " <del>Generator</del> Neutral ...	1		1	10					
Aux. Alternator	2	15	1	35	47 ✓	88	9	V.R.	L.S. taped, metal braid.
	1		1	10					

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.)

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

DESCRIPTION	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (lead plus return)	INSULATION	PROTECTIVE COVERING
	No. in Parallel per Phase	Sectional Area or $\frac{1}{4}$ inch sq. mm.	In the Circuit	Rule			
Bridge board	1	4	17,6/3	✓ 22	13	V.R.	L.S. taped, metal braid.
Refrig. board	1	6	21	✓ 29	2	V.R.	L.S. taped, metal braid.
Equip. board, purifiers & FO pump	1	2,5	8,1	✓ 17	7	V.R.	L.S. taped, metal braid.
vent, fire & circ. pumps	1	16	34,4	✓ 54	7	V.R.	L.S. taped, metal braid.
Battery charge board	1	1,5	2,6	✓ 16	8	V.R.	L.S. taped, metal braid.
Ford acc.	1	1,5	2,95	✓ 16	30	V.R.	L.S. taped, metal braid.
Aft acc.	2	1,5	12,5	✓ 32	12	V.R.	L.S. taped, metal braid.

On battery supply - E.R. light  
sany press systems, emerg. lights,  
radio nav. lights.

## MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED	No.	B.H.P.					
Windlass hyd. pump	1	8	1	10	24,4 ✓ 40	9	V.R. L.S. taped, metal braid.
OF transf. pump	1	0,45	1	1,5	1,8 ✓ 13	10	V.R. L.S. taped, metal braid.
Bilge wash deck & fire pump	1	6	1	4	18,3 ✓ 22	5	V.R. L.S. taped, metal braid.
FW & SW circ. pump	1	4	1	2,5	12,3 ✓ 17	6 1/2	V.R. L.S. taped, metal braid.
L.O. pump	1	4	1	2,5	13,5 ✓ 17	4	V.R. L.S. taped, metal braid.

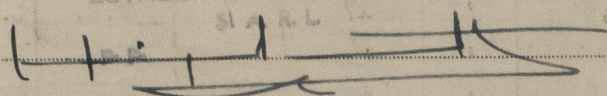
NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient



The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

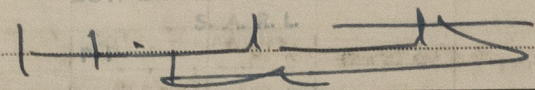
All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

ESTALEIROS SÃO JACINTO  
X  X Electrical Contractors. Date 47/11/361 X

#### COMPASSES

Have the compasses been adjusted under working conditions. YES.

ESTALEIROS SÃO JACINTO  
X  X Builder's Signature. Date 12/11/361 X

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. No

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

This installation has been effected under Special Survey in accordance with the Rules and Secretary's letters.

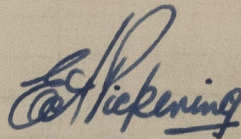
Workmanship and materials used are good.

In my opinion the installation is eligible to be classed +L.M.C. in conjunction with the machinery installation.

Total Capacity of Generators 31 KVA Kilowatts.

Esc:- 5,425.00  
The amount of Fee ... £ : When applied for, 21/11/61

Travelling Expenses (if any) £ : : When received, 19



E. A. Pickering

Surveyor to Lloyd's Register of Shipping

FRIDAY - 5 JAN 1962

Committee's Minute

Assigned Subpt 1