

Rpt. 13.

No. 2282

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

27 NOV 1954

Date of writing Report 20 - 10-19 54 When handed in at Local Office 19 Port of CADIZ

No. in Survey held at CADIZ Date, First Survey 18-12-53 Last Survey 23-12-54
Reg. Book. (No. of Visits 18)

on the S.S. "ALMIRANTE LOBO"

Tons Gross 4183.34
Net 2246.71

Built at CADIZ By whom built Astilleros de Cadiz, SA Yard No. 40 When built 1954

Owners Marina de Guerra Española Port belonging to --

Installation fitted by Astilleros de Cadiz, S.A. When fitted 1954

Is vessel equipped for carrying Petroleum in bulk No 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 2 wire circuit 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

Are the generators arranged to run in parallel Yes 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 - Have certificates of test for machines

under 100 kw. been supplied and the results found as per Rule Yes Position of Generators Starboard side of engine

room on main starting platform.

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 Aft of generators on

main starting platform.

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. Steel, enamel coated, 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. Double pole circuit breaker with overload and reverse

current trips and single pole equaliser.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit 2 pole switch and 2 pole fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 12

ammeters 3 voltmeters 1 synchronising devices. For compound machines in parallel are the ammeters and reverse current

protection devices connected on the pole opposite to the equaliser connection. Yes Earth Testing, state means provided Earth

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 Solid type

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

overload do they operate 50%, and at what current do the reverse current protective

devices operate 10% Cables, are they insulated and protected as per Rule Yes

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 5.37 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 Lead covered and Lead covered and

and laundries - armour braided, galleys armour braided

State how the cables are supported or protected On metal plates with hard wood

supports secured by closely spaced screwed 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 - Dom. 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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Lloyd's Register
Foundation

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes Emergency Supply, state position Yes
Batteries and fittings on bridge deck. Yes

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 ampere hours 24 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 8, 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. - 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. -

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. -, 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. -

E.S.D., if fitted state maker. Marconi location of transmitter and receiver. C/Dam. Fr. 43/44 Chart Room

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	C.N. de M.E., S.A.Reinosa	50	110	455	550	Steam	S.E.C.N. Sestao
	1	C.N. de M.E., S.A.Cordoba	20	110	182	800	Diesel	S.E.C.N. Sestao
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. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	2	50	1	500	455	461	10/12	Rubber	Lead covered
" " EQUALISER				240				"	Steel Armoured
Harbour " DIESEL	1	20	1	150	182	204	23	"	"
" " EQUALISER				70				"	"
EMERGENCY GENERATOR									
ROTARY TRANSFORMER: MOTOR									
" " GENERATOR									

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

DESCRIPTION.	No. of	Kw.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
Box D1 Engine Room	1	10	28.9	36	24	Rubber	Lead covered
D2 Boiler Room	1	10	13.6	36	80	"	Armour braided
S1 Main Deck	1	35	59.5	78	42	"	"
S2 " "	1	35	63.8	78	34	"	"
S3 " "	1	25	37.3	63	19	"	"
S4 " "	1	25	8.2	63	25	"	"
S5 Workshop	1	25	58.0	63	78	"	"
S6 After Hold Fans	1	25	44	63	35	"	"
S7 Forward Hold Fans	1	35	61	78	81	"	"

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. ins. or sq. mm.	In the Circuit.	Rule.			
Wireless	1	25.8	36	64	64	Rubber	Lead covered & armour braided
Radar	1	6.45	10	31	80	"	"
Navigation	1	2.5	3.6	13	90	"	"
Gyro Compass	1	2.9	10	15	66	"	"
Box S1 - D1	1	4	9.59	21	70	"	"
S1 - D2	1	4	15.09	21	32	"	"
S1 - D3	1	4	16.73	21	14	"	"
S1 - D4	1	16	18.09	21	129	"	"
S2 - D1	1	6	11.74	29	76	"	"
S2 - D2	1	4	14.66	21	32	"	"
S2 - D3	1	4	20.88	21	14	"	"
S2 - D4	1	16	16.56	48	102	"	"
S3 - D1	1	16	20.36	48	54	"	"
S3 - D2	1	6	16.95	29	35	"	"
S4 - D1	1	2.5	4.18	13	62	"	"
S4 - D2	1	2.5	4.04	13	28	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.		No.	B.H.P.						
Forced draught fans	2	15	1	70	117	124	62/87	Rubber	Lead covered and
Boiler circulating pump	2	7.5	1	35	61	78	58/81	"	armour braided
Hot water pump	1	1.1	1	2.5	10	13	40	"	"
Air compressor	1	2.0	1	9.35	13	37	32	"	"

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.

ASTILLEROS DE CADIZ, S. A.

Electrical Contractors.

Date

26 OCT. 1954

COMPASSES.

Have the compasses been adjusted under working conditions.

ASTILLEROS DE CADIZ, S. A.

Builder's Signature.

Date

26 OCT. 1954

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

Yes

Is this installation a duplicate of a previous case modified. If so, state name of vessel S.S. "ANCUD"

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 installation has been fitted under Special Survey in accordance with the approved and "as fitted" plans and the Secretary's Letters.

The materials and the workmanship are good.

On completion, the equipment was tried under full working conditions and tested in accordance with the Rule requirements and found satisfactory.

This installation in my opinion is suitable for a Classed Vessel.

Noted JS
1/12/54

Total Capacity of Generators 120 Kilowatts.

The amount of Fee ... Ptas. 12.100 : When applied for, Instalments.

Travelling Expenses (if any) £

When received,

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRIDAY 3 DEC 1954

Assigned

See Rpt 4.8