

Rpt. 13.

No. 14646

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

4 OCT 1957

Received at London Office

Date of writing Report 29th Aug. 19 57 When handed in at Local Office 19 Port of TRIESTE

No. in Survey held at Trieste Date, First Survey See Rpt. A a Survey 19

Reg. Book. 40014 on the Steam Turbine Tanker "ADRIANA AUGUSTA" (No. of Visits)

Tons Gross 30383 Net 18826

Built at Trieste By whom built C.R.D. Adriatico Yard No. 1823 When built 1957 - 8

Owners PRORA S;P.a. Palermo Port belonging to Palermo

Installation fitted by C.R.D. Adriatico When fitted 1957

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 two wire insulated Voltage of Lighting 110

Heating 220 Power 220 D.C. ~~xxxx~~, 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 yes 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 yes Have certificates of test for machines

under 100 kw. been supplied and the results found, as, per Rule yes Position of Generators main engine room

Starting platform level. 2 turbo generators Port & starbd.aft. 1. H.O. generator set portside.

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 main engine room.

Starting platform level starbd.side.

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 type, 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. three pole linked circuit breakers, with overload

and reverse current releases. Third pole used as equalizer.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. two pole linked circuit breakers with

overload current release on each pole

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. yes Instruments on main switchboard. 22

ammeters. 6 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. yes Earth Testing, state means provided. earth lamps

and Ohmmeter with selector switch. Reference 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. F.E.R. Milan. C.B.'s STOTZ, are all fuses labelled. yes If circuit breakers are provided for the generators, at what

overload do they operate. 15% delayed 50% instantaneous, and at what current do the reverse current protective-

devices operate. 5% reverse current 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. 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. lead covered, steel braided run in conduit

xxxxxxx as necessary. State how the cables are supported or protected. supported and protected to

Rule requirements. Run in conduit and waterproof channels as required.

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 domestic 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 battery
Emergency Supply, state position
24 volt lighting distributed in key positions throughout vessel.

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
emergency light 24 V. 62 A/hr.
ampere hours. alarms teleph. 24 V. 2x82 A/hr. 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. Yes

Searchlights, No. of 2 semi for Suez, 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. steam 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. 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. Yes, are all fuses of an Approved Cartridge Type. Yes, make of fuse. F.E.R. Milan 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. below boiler room. Frames 50 - 51

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.R.D. Adriatico	450	220	2045	800	St. Turbo	F. Tosi
Port use	1	-do-	100	220	455	500	Disel	C.R.D. Adriatico
EMERGENCY ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH IN METERS.	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	2	450	6	400	2045	2340	14	V.I.R.	Lead covered & steel braided
EQUALISER			3	400	1022	1170	14	do	do
Port use. D. Generator	1	100	2	200	455	490	13	do	do
Equalizer			1	200	228	245	13	do	do
EMERGENCY GENERATOR									
ROTARY TRANSFORMER: MOTOR	2	60 HP	1	200	220	245	13	do	do
GENERATOR	2	40 KW	2	160	364	430	13	do	do

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

DESCRIPTION.	No. of	Kw.	No. in Parallel per Pole.	Sectional Area sq. mm.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH IN METERS.	INSULATION.	PROTECTIVE COVERING.
FW1 E.R. & B.R. Power. Portside	2	200			362 / 490	35	V.I.R.	Lead covered & steel braided
FW2 E.R. & B.R. Power. centre	2	200			339 / 490	40	do	do
FM3 E.R. & B.R. Power. Starbd. side	1	250			190 / 280	25	do	do
FM4 Eng. room port. Power	1	250			270 / 280	20	do	do
FM5 Eng. room starbd. Power	1	250			285 / 280	10	do	do
FC1 Power upper deck centre	1	100			116 / 155	110	do	do
FC2 Power upper deck stbd. aft	1	25			44 / 63	16	do	do
FC3 Power upper deck port aft	1	25			45 / 63	9	do	do
SFC Power upper deck	1	160			205 / 430	15	do	do
STV Power to ventilation	1	315			298 / 320	40	do	do
TV1 Power ventilation centre	2	80			176 / 270	81	do	do
TV2 Power ventilation aft	1	16			41 / 49	36	do	do
FF Power to refrig.	1	400			366 / 390	21	do	do
FO Power to workshop	1	40			80 / 85	16	do	do
Shore connection	2	200			450 / 490	18	do	do

220 V.
110 V.

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

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH IN METERS.	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area sq. mm.	In the Circuit.	Rule.			
SL1 Lighting circuits	3	100	170	465	110	V.I.R.	Lead covered & steel braided
L1 Lighting forwd. accommodation	1	40	11	80	73	do	do
L2 Lighting centre upper deck	1	18	33	52	1	do	do
L3 Lighting centre upper deck	1	16	36	49	3	do	do
LE1 Lighting centre & aft	3	20	65	165	1	do	do
FN Navigation lights	2	4	2	89	122	do	do
SN110 Navigation instruments	1	20	13	55	122	do	do
SL2 Lighting deck aft	1	160	180	215	15	do	do
LE2 Lighting deck aft	1	32	41	75	25	do	do
L4 Lighting deck aft portside	1	16	42	49	30	do	do
L5 Lighting deck aft starbd.	1	16	34	49	6	do	do
L6 Lighting deck aft port	1	10	23	38	34	do	do
L7 Lighting deck aft starbd.	1	10	21	38	14	do	do
L8 Lighting gangway ladder	1	6.3	10	30	28	do	do
SLM1 Lighting eng. & boiler rooms	1	32	75	75	20	do	do
SLM2 Lighting eng. & boiler rooms	1	40	76	80	18	do	do
LM1 Lighting eng. & boiler rooms	1	10	34	38	15	do	do
LM2 Lighting eng. & boiler rooms	1	10	38	38	5	do	do
LM3 Lighting eng. & boiler rooms	1	16	35	49	15	do	do
LM4 Lighting eng. & boiler rooms	1	16	41	49	5	do	do
Suez searchlight	1	20	14	55	200	do	do

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No. in Parallel per Pole.	Sectional Area sq. mm.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH IN METERS.	INSULATION.	PROTECTIVE COVERING.
Steering gear	2	40	1	160	150 / 215	60	V.I.R.	Lead covered & steel braided
Main cond. circ. water pump	2	80	1	250	292 / 280	15	do	do
Turbine gears lub. oil pump	2	36	1	80	135 / 135	14	do	do
Main cond. extraction pump	2	28	1	63	106 / 115	25	do	do
Turbo gen. cond. circ. pump	2	22	1	40	86 / 80	8	do	do
Boiler cleaning compressor	1	27	1	63	104 / 115	7	do	do
Bilge & fire pump	1	55	1	160	200 / 215	29	do	do
Boiler O.F. transfer pump	1	26	1	50	100 / 99	14	do	do
O.F. burning pumps	2	10	1	16	40 / 49	8	do	do
Feed water to evaporators	2	20	1	40	80 / 80	15	do	do
Bilge & ballast pump	1	20	1	40	78 / 80	15	do	do
Cargo pump cond. circ. pump	1	20	1	40	80 / 80	20	do	do
Hot well extraction pump	2	10	1	16	40 / 49	24	do	do
Boiler forced draft fans	2	105	2	160	384 / 430	38	do	do
E.R. ventilation fans	2	10	1	16	40 / 49	25	do	do
E.R. extraction fans	2	5.5	1	6.3	23 / 30	23	do	do
B.R. ventilation fans	2	10	1	16	40 / 49	25	do	do
Turbo gen. lub. oil pumps	2	5	2	6.3	21 / 60	18	do	do
Comb. control compressor	2	7.5	1	10	39 / 38	28	do	do
Turbo gen. cond. extraction	2	8.5	1	10	34 / 38	22	do	do

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.

CANTIERI RIUNITI DELL'ADRIATICO

Electrical Contractors.

Date 6th Sept 1957

COMPASSES.

Have the compasses been adjusted under working conditions. yes

CANTIERI RIUNITI DELL'ADRIATICO

Builder's Signature.

Date 6th Sept 1957.

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. 20th September, 1956

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.) This electrical installation has been installed under special survey in accordance with the Secretary's letters, approved plans and Rule requirements. (Including special requirements of Section 15)

The materials and workmanship are good.

On completion the installation was tested under full load and working conditions to Rule requirements and found in order.

The insulation resistance was tested and found in accordance with the requirements of the Rules.

The electrical equipment and installation, in my opinion, is suitable for a classed ship having the notation "Carrying Petroleum in Bulk."

Total Capacity of Generators 1000 Kilowatts.

The amount of Fee Lit 456,000 @ 15% = Lit 387,600 When applied for, 17.9 1957

Exps (see Rpt 4a) Travelling Expenses (if any) £ : : When received, 19

J.J. Wilson. Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRIDAY 25 OCT 1957

Assigned Su Rpt. 1.



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5m.65c.—Transfer. (MADE AND PRINTED IN ENGLAND) (The Surveyors are requested not to write over the space for Committee Minutes.)