

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.

3-AUG 1954

Date of writing Report 23rd June 1954 When handed in at Local Office 26.7.1954 Port of TRIESTE

No. in Survey held at Menfalcone Date, First Survey Please see Last Survey Rpt. 16 1954  
(No. of Visits)Reg. Book. 25153 on the M. "FIFCCOLTA" Tons { Gross 12,460  
Net 7,487

Built at Menfalcone By whom built Cantiere Riunite dell' Adriatico Yard No. 1787 When built 1954

Owners CITMAR Ca. Ital. Trasporti Marittimi Port belonging to VENICE

Installation fitted by Cantiere Riunite dell' Adriatico 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. Yes Radar Yes

Plans, have they been submitted and approved Yes System of Distribution TWO WIRE Voltage of Lighting 110

Heating ✓ Power 220 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, if not compound wound state distance between generators ✓ and from switchboard ✓ Are the generators arranged to run in parallel Yes, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive pole negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Yes Have certificates of test for machines under 100 kw. been supplied Yes and the results found as per Rule Yes

Position of Generators 1 mch. space stbd. - 2 mch. space port

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 port side - mch. space higher 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 (dead front type) porcelain, 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 trip on each pole, reverse current trip and interlocked equalizer switch for the 230 kw generators -

Double pole circuit breaker commutator with overload trip on each pole for the 30 kw generator - and the switch and fuse gear (or circuit breakers) for each outgoing circuit double pole circuit breaker with overload trip on each pole or double pole switch with fuse on each pole -

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 22 ammeters 8 voltmeters ✓ synchronising devices. For compound machines in parallel are the ammeters and reversed current protection devices connected on the pole opposite to the equaliser connection Yes Earth Testing, state means provided 1 voltmeter with 2 indicating lamps

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes make of fuses F.E.R. (M.Pau), are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate 100%, and at what current do the reversed current protective devices operate 100%

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes

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 6.2 Volts, are the ends of all cables having a sectional area of 0.01 square inch and above provided with soldering sockets Yes 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 run in conduit Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit ✓ or of the "HR" type ✓ State how the cables are supported or protected clipped and supported as per Rules - steel braided armoured cables

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 none Refrigerated chambers, are the cables and fittings as per Rule Yes

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule.  <sup>Aux.</sup> Emergency Supply, state position  
 1 - 30 kW 220 Volts. steam engined generator. Main engine room highest platform portside  
 Navigation Lamps, are they separately wired.  controlled by separate double pole switches and fuses.  Are the switches and fuses in a position accessible only to the officers on watch.  Is an automatic indicator fitted.  Is an alternative supply provided.   
 Secondary Batteries, are they constructed and fitted as per Rule.  are they adequately ventilated.   
 state battery capacity in ampere hours. 24 Volts. - 80 Hours.  
 Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof.   
 Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present.   
 if so, how are they protected. Flameproof type of approved design in the bridge tween deck space  
 and where are the controlling switches fitted. bridge. Are all fittings suitably ventilated.   
 Searchlight Lamps, No. of 1, whether fixed or portable.  are they of the carbon arc or of the filament type.  Flame  
 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.   
 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.  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.   
 Control Gear and Resistances, are they constructed and fitted as per Rule.  Lightning Conductors, where required are they fitted as per Rule.  Ships carrying Oil having a Flash Point 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.  Stots C/B. Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships.  Are the cables lead covered as per Rule.   
 E.S.D., if fitted state maker. Sub. Eng. Co. Lou. location of transmitter  H1/H2 and receiver  H1/H2  
 Spare 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.

#### PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				TYPE.	MAKER.
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.		
MAIN ...	2	Cant. Rium. dell' Ad.	230	220	1045	500	HSC - SR	Cant. Rium. dell' Adriat
AUXILIARY GENERATOR	1	---	30	220	136	400	Steam Eng.	Franco Tosi - Legnano
ROTARY TRANSFORMER	2	---	40	110	364	2000	Elect. Motor	Cant. Rium. dell' Adriat

#### GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.			APPROX. LENGTH (lead plus return loop). In the Circuit.	INSULATI-	PROTECTIVE COVERING.
		No. in Parallel.	Sectional Area of Strands. sq. mm.	In the Circuit. Rule.			
MAIN GENERATOR ...	230	3	100 x 2	1045 ✓ 1164	HO	Rubber	Lead cov. - Steel braid.
" " EQUALISER ...	✓	2	315 x 2	✓ 602	20	---	---
AUXILIARY GENERATOR ...	20	1	100	136 ✓ 158	30	---	---
ROTARY TRANSFORMER: MOTOR ...	(60 kw)	1	200	220 ✓ 240	30	---	---
" " GENERATOR...	HO	1	400	364 ✓ 388	30	---	---
" " Equaliser	✓	1	200	✓ 240	16	---	---

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

DESCRIPTION.	FM 1	1	25	51 ✓ 62	80	Rubber	Lead cov. - Steel braid.
" "	FM 2	1	100	112 ✓ 158	100	---	---
" "	FM 3	1	HO	52 ✓ 82	110	---	---
" "	FM 4	1	100	122 ✓ 158	140	---	---
Deck power section board	SC 1	1	32	61 ✓ 72	90	---	---
" "	SC 2	1	80	80 ✓ 136	185	---	---
Workshop section board	FO	1	25	23 ✓ 62	50	---	---
Air conduit.	TV	1	40	71 ✓ 83	60	---	---
Deck lighting amidships	SLC 2	2	80	150 ✓ 136	185	---	---
" " aft	SLC 1	1	200	174 ✓ 249	60	---	---
Engine lighting	SLM	1	80	120 ✓ 136	20	---	---
Miscellaneous (220 v)	SV	1	25	17 ✓ 62	210	---	---

#### LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return loop). In the Circuit.	INSULATI-	PROTECTIVE COVERING.
	No. in Parallel.	Sectional Area of Strands. sq. mm.				
Wireless	RT	1	32	30 ✓ 72	100	Rubber
Navigation lighting	QFN	1	4	2 ✓ 21	220	---
Miscellaneous (110 v)	SV	1	16	15 ✓ 18	220	---
Searchlight (Suez Projector)		1	20	14 ✓ 57	120	---
Cyrocompass		1	6.3	12 ✓ 30	176	---
Cyropilot		1	2.5	4 ✓ 11	170	---
Radar		1	6.3	12 ✓ 30	26	---
Elec. Room lighting Sect. B.	LM 1	1	25	52 ✓ 62	32	---
" "	LM 2	1	25	51 ✓ 62	28	---
Boiler Room	LMC	1	10	17 ✓ 37	48	---
Accommodation	LC 1	1	10	10 ✓ 37	110	---
" "	LC 2	1	10	25 ✓ 37	36	---
" "	LC 3	1	16	31 ✓ 48	H2	---
" "	LC 4	1	16	35 ✓ 48	20	---
" "	LC 5	1	25	49 ✓ 62	52	---
" "	LC 6	1	10	22 ✓ 37	32	---
Deck lighting	LCE 1	1	32	51 ✓ 72	30	---
" "	LCE 2	1	HO	53 ✓ 83	2H	---

#### MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.					
lub. oil pump	2	100	1	HO	365 ✓ 388	60	Rubber
S.W & W cooling pump	3	61	1	200	222 ✓ 249	60	---
Turning gear	1	15	1	25	59 ✓ 62	60	---
Elec. space fans	2	0.5	1	16	38 ✓ 48	65	---
Steering gear	1	20	1	HO	78.5 ✓ 80	50	---
Fuel valves cooling pump	2	2.5	1	4	11.8 ✓ 21	50	---
Fuel oil feeding pump	2	1.25	1	2.5	6 ✓ 11	HO	---
Refrigerated store comp.	1	11.5	1	16	16 ✓ 48	20	---

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

CANTIERE NAVAL MONFALCONE

M. Montanari

Electrical Contractors.

Date

2 LUG 1954

COMPASSES.

Have the compasses been adjusted under working conditions.

CANTIERI RIUNITI DELL'ADRIATICO

CANTIERE NAVAL MONFALCONE

M. Montanari

yes

Date

2 LUG 1954

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

yes

Is this installation a duplicate of a previous case.

yes

If so, state name of vessel.

"FIAMME" - C.R.D.A. Yard 1776

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, whether insulation tests, etc., have been made, opinions as to class, etc.)

The electrical installation of this vessel has been fitted under special survey in accordance with or equivalent to Rule requirements and approved plans.

The workmanship and materials are good.

On completion the plant was tried under full working conditions, the insulation resistance tested and all found satisfactory.

In my opinion, this installation is eligible for full classification.

(The Surveyors are requested not to write on or below the space for Committee's Minutes.)

noted J.S.

24/9/54

Total Capacity of Generators. 720 ✓ Kilowatts.

DUAL CLASS  
L. R. & R. I.

X.  
AGC  
11.8.54

Less 15% for dual class

The amount of Fee ... £ 351.900.-

When applied for,  
26.7.1954

Car Fund

8.797.-

When received,

19

Travelling Expenses (if any) £ 8.798.-  
Rev Tax 3% 11.085.

Surveyor to Lloyd's Register of Shipping.

S. Desari

Committee's Minute FRIDAY 1 OCT 1954

Assigned See Rpt. 4.

9.4. Transfer

(MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minutes.)



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