

Rpt. 13

No. 1349

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 19... When handed in at Local Office 19... Port of Rijeka

No. in Survey held at Rijeka Date, First Survey 12.6.61. Last Survey 3.11.61
Reg. Book (No. of Visits 14)

on the M.V. "JOZEF CONRAD" Tons { Gross Net

Built at Rijeka By whom built Brodogradiliste "3.Maj" Yard No. 480 When built 1961

Owners Polish Ocean Lines Port belonging to Gdynia

Installation fitted by Brodogradiliste "3.Maj" 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. yes Sub.Sig. no Radar yes

Plans, have they been submitted and approved yes System of Distribution 3 Phase A.C. Voltage of Lighting 220V

Heating 220V Power 380V D.C. or A.C. Lighting A.C. Power A.C. If A.C. state frequency 50 c/s

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 -

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 Engine Room Lower platform. Two on Port Side One on Starboard Side

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 Engine Room Forward at 2nd platform level

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 panel, 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 Equipped with three-pole circuit breakers and no-volt, short circuit, delayed overload and reverse power relays.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit are fitted with relays protected circuit breakers. Non-essential consumers connected to the preferential tripping system.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 27 ammeters 5 voltmeters 3 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 none earthed star point Preference Tripping, state if provided yes, and tested yes

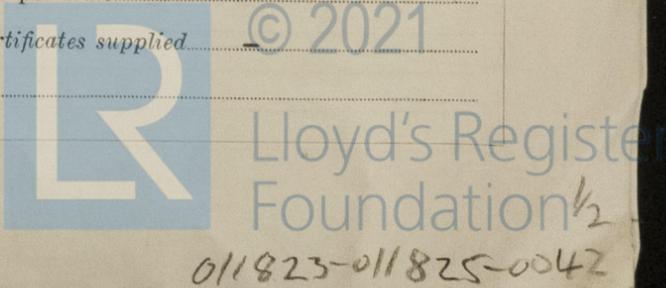
Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an Approved Type yes make of fuses Siemens Schuckert are all fuses labelled yes If circuit breakers are provided for the generators, at what overload do they operate generator 400KVA 630A 32 KW, and at what current do the reverse current protective devices operate 32 KW 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 1.4% volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends none

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 & arm., galleys lead covered & arm. and laundries lead covered & arm. State how the cables are supported or protected cables supported on perforated cable profiles and in holds protected in enclosed steel cable 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 -

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... Emergency Supply, state position in bridge deckhouse after starboard side.

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... 200 ampere hours... Where required to do so does it comply with 1948 International Convention... yes

Lighting, is fluorescent lighting fitted... yes... If so, state nominal lamp voltage... 220V... and compartments where lamps are fitted...

Engine room, gangways, messrooms and saloons

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... 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... yes... are the frames effectually earthed... yes... 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... 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... —... 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... yes

E.S.D., if fitted state maker... Kelvin Hughes... location of transmitter and receiver... between frames 147-148

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	KVA	RATED AT			PRIME MOVER	
				KVA per Generator	Volts	Ampères	Revs. per Min.	TYPE
MAIN	2	Rade Koncar - Zagreb	400	400	578	500	SC1226-12	Jugoturbina-Sulzer
	1	Rade Koncar - Zagreb	250	400	361	500	SC1002-12	" "
EMERGENCY ROTARY TRANSFORMER								

GENERATOR CABLES

DESCRIPTION	No. of	KVA	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (feet) (meters)	INSULATION	PROTECTIVE COVERING
			No. in Parallel per Pole	Sectional Area or No. and Dia. of Strands sq. mm.	In the Circuit	Rule			
MAIN GENERATOR	2	400	4	95	578	700	50	VCI	Lead-alloy sheathed
" " EQUALISER									
Auxiliary Generator	1	250	3	70	361	435	65	VCI	Lead-alloy sheathed
EMERGENCY GENERATOR									
ROTARY TRANSFORMER: MOTOR									
" " GENERATOR									

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.)

DESCRIPTION	No. of	KVA	No. in Parallel per Pole	Sectional Area or No. and Dia. of Strands sq. mm.	In the Circuit	Rule	APPROX. LENGTH (feet) (meters)	INSULATION	PROTECTIVE COVERING
Central board for lighting	2	50	230	230	60	VCI	Lead-alloy sheathed		
Battery charging board	1	1,5	11	12	84	Rubber	" " "		

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

DESCRIPTION	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (feet) (meters)	INSULATION	PROTECTIVE COVERING
	No. in Parallel per Pole	Sectional Area or No. and Dia. of Strands sq. mm.	In the Circuit	Rule			
S.B.Cargo winches fore	2	70	146	182	315	Rubber	Lead-alloy sheathed
S.B.Cargo winches midship	2	120	161	260	278	"	" " "
S.B.Cargo winches aft	2	120	161	260	196	"	" " "
S.B.Boat winches	1	16	27	37	90	"	" " "
S.B.Cargo hold fans aft	1	70	32	182	196	"	" " "
S.B.Cargo hold fans fore	1	95	55	110	278	"	" " "
S.B.Galley & Bakery	1	95	95	110	82	"	" " "
S.B.Refrigerating plant	1	50	52	75	75	"	" " "
S.B.Laundry	1	35	22	60	40	"	" " "
S.B.Air conditioning plant aft	2	50	167	230	68	VCI	" " "
S.B.Workshop	1	50	34	75	42	Rubber	" " "
S.B.Evaporator plant	1	25	18,5	50	45	Rubber	" " "
S.B.Separators plant	1	95	83	110	32	"	" " "
S.B.Donkey boiler plant	1	50	59,4	75	38	"	" " "
S.B.Transfer pump	1	50	44	75	45	"	" " "
S.B.Hydrophores	1	25	45,9	50	67	"	" " "
S.B.Engine room fans	1	50	59	75	30	"	" " "
S.B.Main engine pumps	(1) 2	70	32	182	40	"	" " "
S.B.Main engine pumps	(1) 2	70	32	182	36	"	" " "

MOTOR CABLES

ALL IMPORTANT MOTORS TO BE ENUMERATED	No.	B.H.P.	No. in Parallel per Pole	Sectional Area or No. and Dia. of Strands sq. mm.	In the Circuit	Rule	APPROX. LENGTH (feet) (meters)	INSULATION	PROTECTIVE COVERING
Compressor	2	60	1	120	83	130	28	Rubber	Lead-alloy sheathed
M.E.Lubricating pump	2	130	1	120	185	205	33	VCI	" " "
M.E.F.W. cool. pump	2	34	1	50	48	75	35	Rubber	" " "
M.E.S.W. cool. pump	2	46	1	95	68	110	38	"	" " "
M.E.Booster pump	2	8	1	10	13	28	40	"	" " "
M.E.F. Valve cool.pump	2	2,4	1	2,5	4	11	50	"	" " "
Aux.Eng.S.W.cool pump	2	9,2	1	16	15	37	44	"	" " "
E.R. fan	4	8,8	1	16	15	37	68	"	" " "
Fire pump	1	36	(1) 2	70	50	182	56	"	" " "
Ballast pump	1	53	1	95	78	110	64	"	" " "
General service pump	1	30	1	50	45	75	60	"	" " "
Lub oil purifier	2	4	1	4	7	17	70	"	" " "
Diesel oil clarifier	2	7,5	1	10	12	28	75	"	" " "
Fuel oil purifier	2	12,5	1	16	19	37	72	"	" " "
Steering gear	2	20	(1) 2	70	64	182	240	"	" " "
Capstan	2	32	1	50	66	75	250	"	" " "
Windlass	1	74	(1) 2	70	110	182	370	"	" " "
Fuel oil transf. pump	1	16,4	1	35	25	60	44	"	" " "
Fuel oil transf. pump	2	5,2	1	4	8	17	50	"	" " "
San. W.Hydrophore pump	2	2,4	1	2,5	4,3	11	55	"	" " "
Drink.W.hydrophore pump	2	2,4	1	2,5	4,3	11	58	"	" " "

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.

Electrical Contractors.

Date 21th December 1961

~~BRDOGRADILISTE „J. MAJ“~~
 RIJEKA

COMPASSES

Have the compasses been adjusted under working conditions. yes

Builder's Signature.

Date 21th December 1961

~~BRDOGRADILISTE „J. MAJ“~~
 RIJEKA

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. no If not, state date of approval. 3.2.61.

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 equipment of this ship has been installed under Special Survey in accordance with the Society's Rules, Approved Plans and Secretary's letters.

The materials and workmanship are good.

On completion of installation the generators were examined under full working conditions and found satisfactory. Paralleling of generators and operation of relays for overload and reverse power, etc., witnessed and found satisfactory.

Total Capacity of Generators. 840 Kilowatts.

The amount of Fee ...	£ 116 : 0	When applied for,
+ 243.600.-		19
Travelling Expenses (if any) £	:	When received,
	:	19

Fred. G. Burn.
 Surveyor to Lloyd's Register of Shipping

Committee's Minute. FRIDAY 23 MAR 1962

Assigned. See Rpt 1

F. (RMS)
 12.1.62

Sm. 358—Transfer. (The Surveyors are requested not to write on or below the space for Committee Minute.)
 (MADE AND PRINTED IN ENGLAND)

