

28 JUN. 1962

Rpt. 13

No. 1494

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 4.6. 1962 When handed in at Local Office 19 Port of Rijeka

No. in Survey held at Rijeka Date, First Survey Last Survey 19
Reg. Book (No. of Visits)

3743 on the M.V. "WYSPIANSKI " Tons Gross 5731 Net 3071

Built at Rijeka By whom built Brodogradiliste 3.Maj Yard No. 482 When built 1962

Owners Polish Government Port belonging to Gdynia

Installation fitted by Messrs. brodogradiliste 3.Maj When fitted 1962

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. no Radar yes

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

Heating 220 V. Power 380 V. 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. One on port side. Two 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 400 KVA@636A; 250KVA@396A, and at what current do the reverse power 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 & armoured, galleys lead covered & armoured

and laundries lead covered & armoured State how the cables are supported or protected cables supported on perforated cable

profiles and in holds protected in enclosed steel cable trays

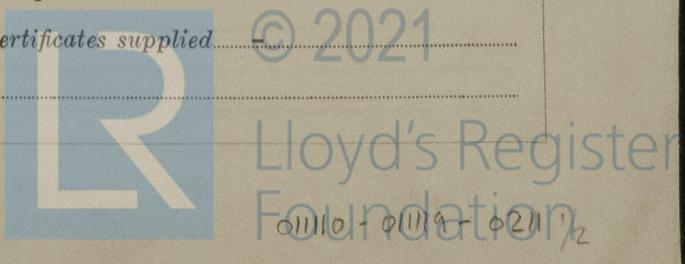
Are all lead sheaths, armouring and conduits effectually bonded and earthed yes Are all cables passing through decks and watertight

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 -



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 220 V 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 two, 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...

E.S.D., if fitted state maker Kelvin Hughes location of transmitter and receiver... between frames 147 and 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				Revs. per Min.	TYPE	PRIME MOVER
			KVA per Generator	Volts	Ampères				
MAIN	2	Rade Koncar	400	400	578	500	SC 1226-12	Jugoturbina-Sulzer	
	1	Rade Koncar	250	400	361	500	SC 1002-12	" "	
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 Pole phase	Sectional Area or No. and Dia. of Strands sq. mm.	In the Circuit	Rule			
MAIN GENERATOR	2	400	4	95	578	700	50	V.C.I	Lead alloy sheathed
" " EQUALISER									
Auxiliary Generator	1	250	3	70	361	435	65	V.C.I	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 phase	Sectional Area or No. and Dia. of Strands sq. mm.	In the Circuit	Rule	APPROX. LENGTH (lead plus return feet)	INSULATION	PROTECTIVE COVERING
Control board for lighting	2	50			230	230	60	V.C.I	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 (lead plus return feet)	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 forward	2	70	146	182	315	Rubber	Lead alloy sheathed
S.B.Cargo winches midships	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 forward	1	95	55	110	278	"	" " "
S.B.Galley and 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	V.C.I	" " "
S.B.Workshop	1	50	34	75	42	Rubber	" " "
S.B.Evaporator (V.D.)Plant	1	25	18,5	50	45	"	" " "
S.B.Separator Plant	1	95	83	110	32	"	" " "
S.B.Auxiliary Boiler Plant	1	50	59,4	75	38	"	" " "
S.B.Transfer Pump	1	50	44	75	45	"	" " "
S.B.Hydrophore	1	25	45,9	50	67	"	" " "
S.B.Engine room fans	1	50	59	75	30	"	" " "
S.B.Main engine pumps	1	70	32	182	40	"	" " "
S.B.Main engine pumps	1	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 (lead plus return feet)	INSULATION	PROTECTIVE COVERING
Compressor	2	60	1	120	83	130	28	Rubber	Lead alloy sheathed
M.E.lubricating oil pump	2	130	1	120	185	205	33	V.C.I	" " "
M.E.F.W.cooling pump	2	34	1	50	48	75	35	Rubber	" " "
M.E.S.W.Cooling pump	2	46	1	95	68	110	38	"	" " "
M.E.Booster pump	2	8	1	10	13	28	40	"	" " "
M.E.F.Valve cooling pump	2	2,4	1	2,5	4	11	50	"	" " "
Aux.Eng.S.W.cooling pump	2	2,2	1	16	15	37	44	"	" " "
Engine room fan	4	8,8	1	16	15	37	68	"	" " "
Fire pump	1	36	1	70	50	182	56	"	" " "
Ballast pump	1	53	1	95	78	110	64	"	" " "
General service pump (4 lps)	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	70	64	182	240	"	" " "
Capstan	2	32	1	50	66	75	250	"	" " "
Windlass	1	24	1	70	110	182	370	"	" " "
Fuel oil transfer pump	1	16,4	1	35	25	60	44	"	" " "
" " Sewer "	2	5,2	1	4	8	17	50	"	" " "
San.W.Hydrophore pump	2	2,4	1	2,5	4,3	11	55	"	" " "
Drinking W. "	2	2,4	1	2,5	4,3	11	58	"	" " "

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.

**BRODOGRADILISTE 3. MAJ
RIJEKA**

[Signature]

Electrical Contractors.

Date 14. VI. 1962

COMPASSES

Have the compasses been adjusted under working conditions... yes

[Signature]

**BRODOGRADILISTE 3. MAJ
RIJEKA**

Builder's Signature.

Date 14. VI. 1962

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 "JOZEF CONRAD"

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

The material 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 ... £ 116-0-0 + 243.600.-Din. When applied for,

bus

19

Travelling Expenses (if any) £ : :

When received,

19

[Signature]
 Surveyor to Lloyd's Register of Shipping
 (F.G. Burn)

Committee's Minute

FRIDAY 13 JUL 1962

Assigned *Su Rpt 1.*

#-RMS
9.7.62.

5m.3.58-Transfer. (MADE AND PRINTED IN ENGLAND) (The Surveyors are requested not to write on or below the space for Committee Minute.)



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