

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

21 JUL 1958

Date of writing Report 4-7-1958 When handed in at Local Office 15-7-1958 Port of Antwerp

No. in Survey held at Bruges Date, First Survey 25-3-1918 Last Survey 16-6-1918  
Reg. Book. (No. of Visits 10)43912 on the m.v. "JANAKI" Tons {Gross 1124  
Net 474

Built at Bruges By whom built Chant. Nav. de Bruges Yard No. 34 When built 1958

Owners Malabar s.s. Co. Ltd. Port belonging to Bombay

Installation fitted by Ets. Campbell &amp; Isherwood s.a. When fitted 1958

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 Two wire D.C. Voltage of Lighting 220

Heating Power 220 D.C. or A.C., Lighting -- Power -- 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. yes Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule. yes Position of Generators One 80 KW. generator

Stbd. Side M.E. room, and One 80 KW. generator and one 32 KW. generator Port side M.E. room.

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. stbd. side thwartship, forwd. side M.E. room.

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. yes, 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. Three pole circuit breakers (G.E.C.) with delayed overload protection and short circuit protection on two poles.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. Double pole switches with fuses on each pole or double pole circuit breakers.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. yes Instruments on main switchboard. 3 ammeters. 2 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 indicating lamps 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 G.E.C. England, are all fuses labelled. yes If circuit breakers are provided for the generators, at what overload do they operate. 150% 20 sec., and at what current do the reverse current protective devices operate. 10% of full load current. Cables, are they insulated and protected as per Rule. yes

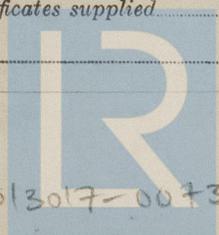
if otherwise than as per Rule are they of an Approved Type. state maximum fall of pressure between bus bars and any point under maximum load. 2 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends. yes

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. no, if so, are they adequately protected. State type of cables (if in conduit this should also be stated) in machinery spaces. V.R.I. IC&amp;A, galleys. V.R.I. IC &amp; A and laundries. State how the cables are supported or protected. clipped to bulkheads or to steel cable trays. All cables are protected against mechanical damage where necessary.

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. none

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

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. 90 Am/hr. Where required to do so does it comply with 1948 International Convention. yes

Lighting, is fluorescent lighting fitted. none. 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. one, 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. none, 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. none

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. M.I.M.C. Co. Ltd. location of transmitter and receiver. Cofferdam main E.R.

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				TYPE.	PRIME MOVER.
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.		
MAIN	2	Garbe Lahmeyer & Co	80	220	364	720	Diesel motor	M.A.N. AG. Augsburg
Harbour <del>EMERGENCY</del> ROTARY TRANSFORMER	one	Lloyds Dynamowerke A.G.	25	220	114	1500	Diesel motor	Klockner & Humboldt Deutz A.G.

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	80	2	19/.083	364	404	26m	V.C.	LC & A
EQUALISER	1		1	19/.083		202	13m	V.C.	LC & A
Harbour <del>EMERGENCY</del> ROTARY TRANSFORMER: MOTOR	1	25	1	19/.083	117	202	30m	V.C.	LC & A

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

DESCRIPTION.	No. of	Kw.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
02.16/02.13/02.11 to distr.brds. 15, L2	1		1	3/036	10	10	60m	V.R.I.	LC & A
02.15/02.14/ to distr.Brds. 13 & 14	1		1	7/036	20	24	36m	"	"
02.12/ to distr. brds. L1	1		1	7/044	30	31	10m	"	"
02.17/02.5 to distr.brd. 16, P6, P1	1		1	7/044	40	45	60m	V.C.	LC & A
02.48 to distr.brds. P2	1		1	7/029	15	15	36m	V.R.I.	LC & A
02.60 to distr.brds P.3	1		1	19/064	125	143	36m	V.C.	LC & A
02.61 to distr.brds. P.4	1		1	19/083	160	202	80m	V.C.	LC & A
02.10 to radar	1		1	7/044	40	45	80m	V.C.	LC & A
02.40 to distr.brd. V1	1		1	7/036	20	24	40m	V.I.R.	LC & A

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.			
<b>DISTRIBUTION CABLES FROM SECTION BOARDS TO DISTRIBUTION FUSE BOARDS.</b>							
04-55 from Sect.brd.L4 to distr.brd.	1	3/.036	10	10	20m	V.I.R.	LC & A
03-51 from Sect.brd.P6 to distr.brd. P6	1	7/.036	20	24	30m	V.I.R.	LC & A

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No.	B.H.P.	No.	B.H.P.	No.	B.H.P.	No.	B.H.P.	No.	B.H.P.
Air compressor	1	9.6	1	7/044	40	45	16m	V.C.	LC & A.			
Lub.oil pump	1	6.5	1	7/044	30	31	16m	V.R.I.	LC & A			
S.W.Cooling pump M.M.	1	15	1	7/064	80	80	24m	V.C.	LC & A			
E.W. Cooling pump M.M.	1	14.5	1	7/052	60	60	24m	V.C.	LC & A			
Steering gear motor	2	6	1	7/044	60	31	60m	V.R.I.	LC & A			
General service pump	1	15	1	7/064	80	80	15m	V.C.	LC & A			
Ballast & Fire pump	1	28	1	19/064	125	143	18m	V.C.	LC & A			
Fuel transfer pump	1	3	1	7/029	15	15	13m	V.R.I.	LC & A			
Harbour sea water pumps	2	55	1	7/044	30	31	30m	V.R.I.	LC & A			
Windlass	1	38	1	19/083	160	202	50m	V.C.	LC & A			

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.

*[Handwritten signature]*

Electrical Contractors. Date 18 JULI 1958

ETABLISSEMENTS  
CAMPBELL & SHIRWOOD N.V.  
ELECTRICIENS - MECANICIENS  
Genustaat 11, A. TERPEN  
Tel. 33 2 1 1 - 32 01 25

COMPASSES

*[Handwritten signature]*

Have the compasses been adjusted under working conditions. yes

Builder's Signature. Date

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 as fitted If not, state date of approval. 11-2-58 / 31-1-58

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 vessel has been installed under the Special Survey of the Society's Surveyors in accordance with the Rules, the approved plans and the Secretary's letters. The materials and workmanship are good. Insulation and other tests required by the Rules have been carried out with satisfactory results.

The electrical equipment of this vessel is eligible in my opinion, to be incorporated in the class assigned to the machinery.

Total Capacity of Generators 185 Kilowatts.

The amount of Fee ... £s. 12200, - When applied for, 18-7-1958

Travelling Expenses (if any) £s. 2330, - When received, 19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUESDAY 26 AUG 1958

Assigned See Rpt. 1.

41  
24-7-58  
50  
500,000 - Transfer. (MADE AND PRINTED IN ENGLAND)  
(The Surveyors are requested not to write on or below the space for Committee Minutes.)



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