

Rpt. 13.

No. 15229

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

27 OCT 1957

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

No. in Survey held at VIZAGAPATAM. Date, First Survey... Last Survey 19...
Reg. Book.

on the S.S. "JALAPRAKASH" "JALAPRATAP" Tons { Gross... Net...

Built at VIZAGAPATAM. By whom built HINDUSTAN SHIPYARD. Yard No. III. When built 1952.

Owners SCINDIA STEAM NAVIGATION CO. LTD. Port belonging to BOMBAY.

Electrical Installation fitted by HINDUSTAN SHIPYARD. Contract No. III. When fitted 1952.

Is vessel fitted for carrying Petroleum in bulk No. Is vessel equipped with D.F. No. E.S.D. No. Gy.C. No. Sub. Sig. No.

Have plans been submitted and approved YES. System of Distribution Two Win. Voltage of supply for Lighting 110.

Heating - Power 110. Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current state frequency - Prime Movers,

has the governing been tested and found efficient when the whole load is suddenly thrown on and off YES. Are turbine emergency governors fitted with a

trip switch as per Rule - Generators, are they compound wound YES, are they level compounded under working conditions YES.

if not compound wound state distance between generators - and from switchboard - Where more than one generator is fitted are they

arranged to run in parallel No., 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 - Have certificates of

test for machines under 100 kw. been supplied YES. and the results found as per Rule YES. Are the lubricating arrangements and the construction

of the generators as per Rule YES. Position of Generators ENGINE ROOM - SBD. SIDE - INBOARD AND OUTBOARD

POSITIONS. is the ventilation in way of generators satisfactory YES. are they clear of inflammable material YES, if situated

near unprotected combustible material state distance from same horizontally - and vertically - are the generators protected from mechanical

injury and damage from water, steam and oil YES. are the bedplates and frames earthed YES. and the prime movers and generators in metallic

contact YES. Switchboards, where are main switchboards placed ENGINE ROOM - FACING DYNAMOES.

are they in accessible positions, free from inflammable gases and acid fumes YES. are they protected from mechanical injury and damage from water, steam

and oil YES. if situated near unprotected combustible material state distance from same horizontally YES. and vertically YES. what insulation

material is used for the panels SYNDANYO. 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 frame effectually earthed YES.

Is the construction as per Rule YES. including accessibility of parts YES. absence of fuses on the back of the board YES. individual fuses

to pilot and earth lamps, voltmeters, etc. YES. locking of screws and nuts YES. labelling of apparatus and fuses YES. fuses on the "dead"

side of switches YES. Description of Main Switchgear for each generator and arrangement of equaliser switches D.P.S.T. linked

switch.

and for each outgoing circuit D.P.D.T. knife switch.

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

ammeters two voltmeters - synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection - Earth Testing, state means provided Earth lamps.

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Switches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an approved type YES, are all fuses labelled as per Rule YES, are the reversed current protection devices connected on the pole opposite to the equaliser connection —, have they been tested under working conditions —. Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule YES.

Cables, are they insulated and protected as per the appropriate Tables of the Rules 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 3.5 u.s.g., are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets YES. Are paper insulated and twisted cables insulated cables sealed at the exposed ends — with insulating compound — or waterproof insulating tape —. 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 cables laid under machines or floorplates No, if so, are they adequately protected —. Are cables in machinery spaces, galleys, laundries, etc., lead covered — or run in conduit —. State how the cables are supported and protected CLIPPED ON PERFORATED TRAY.

Are all lead sheaths, armouring and conduits effectually bonded and earthed YES. Refrigerated chambers, are the cables and fittings as per Rule —. 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 and with what material LEAD. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule —. Emergency Supply, state position — and method of control —.

Navigation Lamps, are they separately wired YES, controlled by separate double pole switches YES, 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. Secondary Batteries, are they constructed and fitted as per Rule —, are they adequately ventilated —.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof YES. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present No, if so, how are they protected —.

and where are the controlling switches fitted —, are all fittings suitably ventilated YES.

are all fittings and accessories constructed and installed as per Rule YES. Searchlight Lamps, No. of —, whether fixed or portable —, are their fittings as per Rule —. 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 free from damage from water, steam and oil —, if situated near unprotected combustible material state minimum distance from same horizontally — and vertically —.

Have motors of 100 B.H.P. and over been inspected by the Surveyors during manufacture and testing —. Have certificates of test for motors under 100 B.H.P. intended for essential services been supplied and the results found as per Rule —. Control Gear and Resistances, are they constructed and fitted as per Rule YES. 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 the cartridge type —.

are they of an approved type —. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type —. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule —, are they suitably stored in dry situations —. Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory YES.

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	20 KW.	110.	182.	400.	STEAM		
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH	HOW PROTECTED.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands, Sq. Ins. or Sq. Mm.	In the Circuit.	Rule			
MAIN GENERATOR	20	1	0.2 H.	268.8	184.	37	L.C.VIR.	Classified on M.S. perforated tray.
EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
GENERATOR								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS	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).	INSULATED WITH	HOW PROTECTED.
Ventilating fan motor S.B. & D.B.	1	0.060	64.3	83	84	L.C.VIR.	Armoured & Braided.
Engine room S.B. & D.B.	1	0.0225	43.9	46	28	L.C.VIR.	"
Saloon D.B.	1	0.0225	38.1	46	360	L.C.VIR.	"
Crews Room main.	1	0.0225	10.0	46	400	L.C.VIR.	"
Aft accommodation D.B.	1	0.0225	32.5	46	410	L.C.VIR.	"
Cargo Main to S.B.	1	0.0225	37.1	46	90	L.C.VIR.	"
Midship accommodation D.B.	1	0.0225	31.9	46	150	L.C.VIR.	"
Navigation D.B.	1	0.007	8	24	432	L.C.VIR.	"

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	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).	INSULATED WITH	HOW PROTECTED.
NAVIGATION LIGHTS	1	0.002	1.8	5	750	L.C.VIR.	"
LIGHTING AND HEATING	1	0.002	3	5	—	L.C.VIR.	"

MOTOR CABLES. Main Distribution 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. Ins. or Sq. Mm.	In the Circuit.	Rule	APPROX. LENGTH (lead plus return feet).	INSULATED WITH	HOW PROTECTED.
Cargo S.B. to D.B. 1.	1		1	0.010	20.4	31	284	L.C.VIR.	Armoured & Braided.
Cargo " " " 2.	1		1	0.007	16.7	24	64	L.C.VIR.	"

MOTOR CABLES. NON-ESSENTIAL.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	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).	INSULATED WITH	HOW PROTECTED.
Thermostatic vent motor	1	3	1	0.0225	26	46	390	L.C.VIR.	Armoured & Braided.
" " "	3	1.5	1	0.007	15	24	380	L.C.VIR.	"
E.W. Pump motor	1	0.5	1	0.003	5.7	10	75	L.C.VIR.	"

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.

For Hindustan Shipyard Ltd.

James C. Campbell
Chief Shipyard Manager

Electrical Engineers.

Date 22.8.52

COMPASSES.

Minimum distance between electric generators or motors and standard compass 27 ft.

Minimum distance between electric generators or motors and steering compass 30 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 0.35 Ampères inside feet from standard compass & inside feet from steering compass.

A cable carrying — Ampères — feet from standard compass — feet from steering compass.

A cable carrying — Ampères — feet from standard compass — feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power yes

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted yes

The maximum deviation due to electric currents was found to be nil degrees on all course in the case of the

standard compass, and nil degrees on all course in the case of the steering compass.

For Hindustan Shipyard Ltd.
James C. Campbell
Chief Shipyard Manager

Builder's Signature.

Date 22.8.52

Is this installation a duplicate of a previous case yes If so, state name of vessel JAG RANEE

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

The electrical equipment of this vessel has been installed under special survey in accordance with approved plans and the Secretary's letters. The workmanship is good. On completion of the installation the insulation tested in accordance with Rule requirements, with satisfactory results.

The installation has been examined under full working conditions, speed governors tried, with satisfactory results.

It is submitted that this installation be classed in the Register Book in accordance with the machinery class as now recommended.

Total Capacity of Generators Forty Kilowatts.

The amount of Fee Rs. 1430: { When applied for, 19
Travelling Expenses (if any) £ : { When received, 19

E. Griever.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 28 NOV 1952

Assigned

See F.E. mch. rpl