

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

13 NOV 1952

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

No. in Survey held at VISAKHAPATNAM. Date, First Survey See M.Rpt. Last Survey.....19.....
Reg. Book. (Number of Visits.....)

on the S.S. "JALAPUSHPA" Tons { Gross.....
Net.....

Built at VISAKHAPATNAM. By whom built Hindusthan Shipyard, Ltd. Card No. V.C. 112 When built 1952

Owners Scindia Steam Navigation Co. Ltd., Port belonging to BOMBAY

Electrical Installation fitted by Hindusthan Shipyard Ltd. Contract No. / 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 DC 2.wire Constant Volt Voltage of supply for Lighting Constant.
age.

Heating / Power / Direct or Alternating Current, Lighting DC Power DC 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 Starboard Side of Engine room on Tanktop.
One each inboard and outboard.

, 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 on the forward, bulkhead of the engine room

Store on Starboard Side of Engine Room.

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 / and vertically /, what insulation

material is used for the panels Syndanio, 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 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 for incoming mains:-

A fuse on each pole A.D.P. linked knife switch, a voltmeter, ammeter and pilot lamp

mounted for each generator.

and for each outgoing circuit A fuse on each pole and D.T.D.P. linked knife switch.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule / Instruments on main switchboard 2

ammeters 2 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 A 2 way and off bar linked S.P. switch controlling

2 lamps having longitudinal filament in sides and middle part earthed across, the supply.

Cables

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 YES. 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 /, state maximum fall of pressure between bus bars and any point under maximum load 1. VOLT, 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 varnished cambric 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 L.C.A. & B Cables clamped on M S perforated channels fixed on under side of decks in Engine & Boiler spaces and cargo spaces and accommodation. 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 Sheet. 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 /. are all fittings and accessories constructed and installed as per Rule /. 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 YES 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 /. 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 YES, are they suitably stored in dry situations YES. 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.	
		K. watts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	20	110	182	400	Steam Engine.		
		each						
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

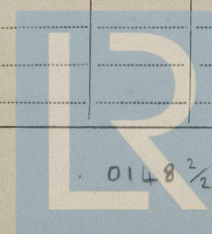
DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH	HOW PROTECTED.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule			
MAIN GENERATOR .Outboard..	20.0	One	0.2 sq.in.	184	33	L.C.V.I.R.	Clamped on M.S. per-	
.. .. EQUALISER ..							forated channels with	
							brass clamps.	
Inboard	20.0	One	0.2 sq.in.	184	32	-do-	-do-	
EMERGENCY GENERATOR ..								
ROTARY TRANSFORMER: MOTOR ..								
.. .. GENERATOR ..								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS								
Main Switch Board to vent sec. board	One	0.06sq.in.	64.3	83	84	V.I.R.	L.C.A. & B Clamps & Channels	
Vent. Sec. box to vent. fans Dist. Board	One	0.0225	38.3	46	68	-do-	-do-	
Main Switch Board to Eng. Rm. Dist. Board	One	0.0225	43.9	46	50	-do-	-do-	
Main switch board to cargo sec. box.	One	0.0225	37.1	46	90	-do-	-do-	
Cargo sec. box to Ford cargo Dist. Board.	One	0.0100	20.4	31	280	-do-	-do-	
Cargo sec. box to Aft cargo Dist. Board.	One	0.0070	16.7	24	64	-do-	-do-	
Main switch board to wireless.	One	0.0225	10.0	46	400	-do-	-do-	
Main Switch Board to saloon Dist. Board.	One	0.0225	37.86	46	350	-do-	-do-	
LIGHTING AND HEATING, ETC. CABLES								
Main Switch Board to Aft Dist. Board	One	0.0225	32.5	46	400	-do-	-do-	
Main Switch Board to Midship Dist. Board.	One	0.0100	31.95	31	140	-do-	-do-	
Main Switch Board to Nav. & Inst. Dist. Board.	One	0.0070	8.0	24	425	-do-	-do-	
Navigation Lights.	One	0.0020	1.8	5	750	-do-	-do-	
Lighting and heating in general	-	-	-	-	-	-	-	

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Ventilator fan motor	1	3.0	One	0.0225	26.0	46	39	V.I.R. L.C.A. & B on channel in cargo spaces and
-do-	2	1.5	One	0.0070	15.0	24	38	L.C. in Accommodation.
Lathe Motor	1	1.5	One	0.0070	15.0	24	13	-do-
Fresh water pump	1	0.5	One	0.0030	5.7	10	15	-do-
Exhaust fan	1	0.2	One	0.0020	2.56	5	15	L.C. in conduit.
Refrigerating Motor	1	0.5	One	0.0030	5.7	10	36	L.C. in casing.



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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 H. C. Shipyard Ltd.,

James C. Humphrey
Chief Shipyard Manager

Electrical Engineers.

Date 27th October 1952

COMPASSES.

Minimum distance between electric generators or motors and standard compass 20 feet

Minimum distance between electric generators or motors and steering compass 20 feet

The nearest cables to the compasses are as follows:—

A cable carrying 0.34 Ampères ~~is not~~ rims inside the compass, ~~is not~~ is not steering compass.

A cable carrying 0.34 Ampères ~~is not~~ rims inside the compass, ~~is not~~ is not 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 degrees on course in the case of the standard compass, and degrees on ~~For H. C. Shipyard Ltd.~~ course in the case of the steering compass.

James C. Humphrey
Chief Shipyard Manager

Builder's Signature.

Date 27th Oct 1952

Is this installation a duplicate of a previous case YES If so, state name of vessel JALAPUTRA

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 Secretary's Letter - The workmanship is good.

On completion of the installation the insulation was tested in accordance with Rule requirements and found satisfactory.

The installation was examined under full working conditions, governors tried and all found in good order.

It is recommended that this installation be classed in the Register Book in accordance with the Machinery Class.

Total Capacity of Generators Kilowatts.

The amount of Fee

Rs. 1430/-

When applied for,

19.52

Travelling Expenses (if any) £

When received,

19

Surveyor to Lloyd's Register of Shipping.

J. V. Naylor

Committee's Minute

FRI 28 NOV 1952

Assigned

See F.E. mch. rpt.