



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT
ARIYALUR
ELECTRICAL MANUAL**



Issue No. 01	Rev. No: 02	Effective Date: 07.07.2017	SOP/Elect /15
Issued By: MR		Approved By: HOD ELECTRICAL	
SOP For EOT Crane Maintenance			

Scope : This Procedure is to establish and ensure safe Maintenance activities of EOT Crane.

Responsibility : Section Engineer – Electrical

Accountability : Section Head-Electrical

PPE:

1. Safety helmet,
2. Safety shoe,
3. Rubber Gloves.
4. Safety belt

Tools:

1. Insulated tools
2. Discharge rods

Hazard Analysis:

Risks associated

Fall from height
Electrical shock

Mitigating Measures

Use of safety belt
Use of proper tools

Training needs:

1. Usage of tools and Nature of Hazards
2. Usage of PPEs

Procedure:

1. Take the LOTO permit for the particular Crane as per ELEC/SOP/003.
2. Discharge the bus bars properly. While discharging use PPEs like Safety Belt.
3. Clean the bus bars, panels, motors, and other accessories with Wire Brush / Hand Blower / Cloth. While cleaning, use PPEs like Nose mask, goggles, hand Gloves and Safety belt.



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4. Open the Doors, Covers of panels, motor terminal box and other accessories, while opening handle the covers firmly and use PPEs like safety belts.
5. Clean the panel chambers, motor terminal box, and other accessories with Wire Brush / Hand Blower / Cloth. While cleaning use PPEs like Nose mask, goggles, safety belt and hand Gloves.
6. Check the Connection tightness of motor terminal, Panel Power and Control connections, GRR power connections and accessories Connections. While checking the tightness, use the tools firmly and Safety belt.
7. Check the Insulation Resistance, Winding Resistance and Inductance of the Motor winding. After checking the Insulation resistances again discharge the motor terminals.
8. Close the all covers & Doors and box up with Silicon Paste to restrict the dust entry.
9. Clean the LPB and Check the Control Wiring Tightness. While cleaning use PPEs like Nose mask, goggles and hand Gloves
10. Check the Motors, Panels and LPB Body earthing.
11. Check the Condition of LPB & Limit Switches actuators and Contacts.
12. Clear the LOTO permit as per ELEC/SOP/004.
13. Take Trial if Possible and record all Check point in the concern Check list.

Emergency / Emergency Shut OFF:

1. If electrical shock injury or burn is there, give First aid and inform to the Safety department or Call Emergency number 3108/9865152222/9750963761.

Records/Annexure:

JSA is enclosed below.



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JOB SAFETY ANALYSIS:(JSA)

Job Safety Analysis	Job: EOT Crane Maintenance	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Electricians	Supervisor: Section Engineer	Department: Electrical	Section:	Approved by:
Reqd./recommended PPE: Safety helmet, Safety shoe, Rubber Gloves & Safety belt.				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Obtain LOTO permit	Electric shock	LOTO permit procedures	Usage of Improper tools	Usage of proper tools
Ensure Power supply is disconnected	Electric shock	Proper inspection methods	Usage of Improper tools	Usage of proper tools
Opening of panels, motor terminal box and other accessories	Electric shock	Use Proper tools	Electric shock due to dischargeable components	Follow up of proper discharging methods
	Fall from height	Use safety belt with double lanyard	Defective safety belt	Check the belt condition before use / Check the inspection validity
	Body injury	Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Periodic replacement
Cleaning of motor, panels and other accessories	Irritation of eye	Wear goggles	Damaged goggles/non standard goggles/ Not wearing goggle	Periodic replacement / Proper training/ Follow SOP
	Inhalation of Dust	Wear Nose mask	Damaged nose mask/Not wearing Nose mask	Periodic replacement/ Proper training/ Follow SOP
Tightness checkup of panel power and control connections, motor terminations, GRR, and other accessories	Body injury	Use proper tools	Nonstandard /damaged tools	Training for tools handling/ Periodic replacement
		Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job
Checking of motor IR / WR /IN values	Electrical shock	Use Tested Electrical Rubber Hand gloves	Damaged Gloves / Not checked before use	Periodic replacement/ To check for Damage before use
		Use Calibrated meters/ Good probes	Faulty meters / damaged probes	Meter shall be calibrated periodically and check meter and probes before use. / Replace faulty probes



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Closing of panels, motor terminal box and other accessories	Body Injury	Use proper tools	Nonstandard /damaged tools	handling/ Periodic replacement
		Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job