



**DALMIA CEMENT (B) LIMITED**  
**DALMIAPURAM**  
**CPP ELECTRICAL DEPARTMENT**



Issue No. 01	Rev. No: 00	Effective Date: 01.03.2016	SOP/CPP/05
Issued By: M.R		Approved By: HOD - CPP	
SOP for BORE WELL MOTOR REPLACEMENT WORK			

**Scope** : Describe the procedure for Replacement of Bore well motor

**Responsibility** : Electrical Engineer

**Accountability** : Section In-charge

**PPE:**

1. Goggles
2. Electrical safety Gloves
3. Safety shoes
4. Safety helmet

**Tools:**

1. Suitable spanners
2. Chain Block
3. Pipe wrench
4. Tripod/Hydra
5. Wire rope /D-shackle
6. Pipe clamps
7. Cutting player
8. Insulated Screw driver

**Hazards:**

**Risk Associated**

Electrical Shock  
Fall from Height  
Minor body injury  
Flash over  
Equipment damage

**Mitigating Measures**

Electrical Safety Gloves  
Standard/Certified Lifting tools  
Safety shoes, gloves, helmet, goggles

**Training needs:**

1. Electrical shock recovery Training
2. Emergency preparedness
3. Fire fighting
4. First aid training
5. Material handling



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**Procedure:**

1. Take the Energy isolation permit & work permit for the particular Panel as per ELEC/SOP/003.
2. Remove the Power cable connection of the motor at panel end.
3. Remove the Discharge pipe line at the point of bore well.
4. Provide the TRIPOD firmly.
5. Place the certified chain block in center of the TRIPOD.
6. Provide the Lifting clamp & tight firmly at bottom of the coupling.
7. Provide the wire rope with adequate capacity at both end of the clamp.
8. Load the pipe by using chain block.
9. Lift the pipe along with the power cable by using chain block.
10. After end of the pipe coupling provide another clamp & tight firmly.
11. Same procedures to be follow up to arrival of motor.
12. Decouple the Motor from the pump.
13. Remove the Old flexible power cable from the motor end.
14. Check the Meggar value of the new motor.
15. Fill the Distilled water in the motor by removing the water plug ,after filling the water tight the plug firmly & ensure no leakage.
16. Couple the motor with the pump.
17. Joint the power cable firmly & insulate with water proof tape/vulcanizing tape.
18. Load the Pump & motor with first length of the pipe line by using chain block.
19. Fix the pipe line one by one by using locking clamps.
20. Ensure the winding connection properly in case of star delta starter.
21. Connect the discharge pipe at end of the bore well.
22. Remove the TRIPOD & Tools Clear the surrounding area.
23. Clear the Permits as per ELEC/SOP/004.



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24. Record all Check point in the concern Check list.

**Emergency / Emergency Shut OFF:**

1. If electrical shock injury or body injury are there, give First aid and inform to the Safety department or Call Emergency number 222/9865155288/9865177444.

**Records/Annexure:**

1. Refer work permit certificates.
2. JSA as enclosed below.

**JOB SAFETY ANALYSIS :( JSA)**

<b>Job Safety Analysis</b>	Job: Replacement of Bore well motor	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Electrician	Supervisor: Section Engineer	Department: Electrical	Section:	Approved by:
Req'd/recommended PPE: Nose mask, Goggles, Electrical safety Gloves, Cotton Gloves, Safety shoes, Safety helmet				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Put on PPE, Take Permit				
Removal of Power cable from Panels	Electrical shock	Use Electrical safety gloves	Damaged Gloves	Periodic replacement
	Body injury	Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job
Fixing of Tripod	Fall from height	Use proper tools	Nonstandard /damaged tools	Training for tools handling/ Periodic replacement
	Body injury	Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job
While lifting /erecting falling of the material	Body Injury	Use tested & certified lifting tools	Nonstandard /damaged tools	Without PPE don't perform the job
Clear permit				



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