



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT  
DALMIAPURAM  
MECH DEPARTMENT**



Issue No. 01	Rev. No: 00	Effective Date: 01.03.2016	SOP/MECH/54
Issued By: S.P		Approved By: HOD (MECH)	
SOP FOR GRINDING PATH REPLACEMENT			

**Scope/Purpose** : This SOP is applicable to Safe working for Grinding Path replacement

**Responsibility** : Engineer – Mech

**Accountability** : Dept.HOD / Site Engineer

**PPE:**

1. Safety helmet,
2. Safety shoes,
3. Safety Harness
4. Goggles

**Tools:**

1. Electrically Operated Trolley Crane
2. Wire rope slings
3. Hydraulic Jack
4. Chain pulley block
5. Spanners of various sizes
6. Hole punch
7. Hammer

**Hazard Analysis:**

**Risks associated**

Fall from height  
Fall of material

**Mitigating Measures**

Use certified scaffold from competent person  
Use trained workmen and tested tools and tackles

**Training needs:**

1. Usage of tools & PPE
2. Working at height
3. Heavy lifting
4. Hydraulic cylinder usage

**Procedure:**

1. Use Proper PPE & tools



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2. Take proper Line clearance of crusher, wobbler and 21NBC1 belt conveyor from concerned dept. as per the work condition.
3. Open the crusher casing and provide wooden choke between the door and casing.
4. Unscrew the side doors of the cotter pin which is to be removed.
5. Confined space permit to be made for the workmen entering inside the crusher bottom chute.
6. Raise Scaffolding on 21NBC1 Belt conveyor inside the crusher assembly up to bottom of grinding path
7. Ensure the stability of scaffolding by competent person and hang suitable tag for safe working
8. Lifting hook to be welded at the center of grinding path
9. Adjusting arm of grinding path 2 pins out of 4 pins to be removed with hammering
10. Tie the wire rope on the lifting hook of grinding path and other end to the EOT crane hook.
11. By operating the crane up, give slight load to the wire rope.
12. Remove the top pins by using hydraulic jack.
13. Once the both top pins are removed, hammer bottom 2 pins making grinding path free suspending in crane..
14. By operating crane lift up the grinding path and keep it aside.
15. Lift the new grinding bath by using EOT crane and insert inside the crusher.
16. After positioning the grinding path, insert all the 6 pins and fix the side doors.
17. Remove door chokes and close the casing door.

**Emergency / Emergency Shut OFF:**

1. If cut or fall injury is there, First aid should be given and Safety department to be informed. Call Emergency number 222/516/523/9865177444/9865195111.

**Records/Annexure:**



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1. Refer Grinding path changing schedule
2. Hazard identification sheet is enclosed below.

**Hazard Identification:**

<b>Hazard Identification</b>	Job: Grinding path replacement	Date:	Analysis by: Mech dept.	Reviewed by: Safety dept.
Title of employee doing job: Company workmen	Supervisor: Section Engineer	Department: Mech	Section: Plant	Approved by: Unit Head
Req'd/recommended PPE: Safety helmet, Safety shoes, Safety belt, & Goggles				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Erection of scaffolding from conveyor to rotor bottom	Slip / fall	Use proper scaffold approved by competent person	Slip / fall	Trained person to be engaged
Tying the wire rope sling to the grinding path	Untested tools taken for usage/damaged tools/failure of lifting material & exceed SWL	Tested tools to be mandatory use at site Physical condition of tools to be verified before taken into use by line engineers Proper fixing of lifting tools with considering load carrying capacity.	Fall of material	1. Test certificates of tools to be ensured 2. Validity of test certificate to be verified 3. Trained persons to be engaged
Hydraulic jack usage for removing and inserting the pin	Failure of hyd. Jack/hose burstage/slipping of jack from position	Check condition of jack/ensure hose healthiness/tie jack with rigid support before giving load	Oil burstage/jack slip and fall	Hyd. jack inspection due date to be verified. Ensure workmen not very close to the working area during jack load condition