



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



Issue No. 01	Rev. No: 00	Effective Date: 01.03.2016	SOP/MECH/55
Issued By: S.P		Approved By: HOD (MECH)	
SOP FOR SCRAPER CONVEYOR TAIL SHAFT REPLACEMENT			

**Scope/Purpose** : This SOP is applicable to Safe working for Scraper conveyor tail shaft 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. Chain pulley block
4. Spanners of various sizes
5. Hammer
- 6.

**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. Heavy lifting
3. Hydraulic cylinder usage



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**Procedure:**

1. Use Proper PPE & tools
2. Take proper Line clearance of Apron feeder and wobbler from concerned dept. as per the work condition.
3. Loosen the tension rod screw of tail shaft making chain loose.
4. Remove the shackle from chain making chain into two halves.
5. Remove the shaft from the conveyor.
6. Hold the existing tail shaft on chain pulley block and remove it from the conveyor
7. Insert the new tail shaft assembly and connect the tension screw with the bearing
8. Fix the chain and shackle along with chain
9. Tighten the tension screw in order to obtain appropriate tension

**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:**

1. Refer Scraper conveyor tail shaft replacement schedule
2. Hazard identification sheet is enclosed below.



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**Hazard Identification:**

<b>Hazard Identification</b>	Job: scraper conveyor tail shaft 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