

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



Issue No. 01 Rev. No: 00 Effective Date: 01.03.2016 SOP/MECH/58

Issued By: S.P Approved By: HOD (MECH)

## SOP FOR SCRAPER CHAIN ALIGNMENTWORK

**Scope/Purpose**: This SOP is applicable to Safe working for scraper chain alignment work

**Responsibility** : Engineer – Mech

Accountability : Dept.HOD / Site Engineer

PPE:

1. Safety helmet,

2. Safety shoes,

3. Safety Harness

4. Goggles

#### **Tools:**

- 1. Wire rope slings
- 2. Chain pulley block
- 3. Spanners of various sizes
- 4. Hydraulic jack
- 5. Hammer

#### **Hazard Analysis:**

Risks associated Mitigating Measures

Fall of material Use trained workmen and tested tools and tackles Burstage of hydraulic hose Use trained workmen and tested tools and tackles

### **Training needs:**

- 1. Usage of tools & PPE
- 2. Heavy lifting
- 3. Hydraulic cylinder usage

#### **Procedure:**



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- 1. Use Proper PPE & tools
- 2. Take proper Line clearance of Apron feeder and wobbler from concerned dept. as per the work condition.
- 3. Tie 4 piano wires with full tension along the center of tail sprockets (4 sprocket wheel)
- 4. Measure the dimensions of offset for each sprocket with ref to the drive sprockets..
- 5. Using hyd jack adjust the sprocket position to match the drive sprocket
- 6. Check the diagonal reading of the shafts from both ends.
- 7. Give appropriate tension to the chain.
- 8. Clear the permits and start the conveyor.

### **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. Hazard identification sheet is enclosed below.



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# **Hazard Identification:**

Hazard Identification	Job: crusher scraper conveyor alignment	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
Tying the wire rope sling to shaft  Hydraulic jack usage for shifting the sprockets	Untested tools taken for usage/damaged tools/failure of lifting material & exceed SWL  Failure of hyd. Jack/hose burstage/slipping of jack from position	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.  Check condition of jack/ensure hose healthiness/tie jack with rigid support before giving load	Fall of material  Oil burstage/jack slip and fall	1. Test certificates of tools to be ensured 2. Validity of test certificate to be verified 3. Trained persons to be engaged  Hyd. jack inspection due date to be verified.  Ensure workmen not very close to the working area during jack load condition