



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



Issue No. 01	Rev. No: 00	Effective Date: 01.03.2016	SOP/MECH/57
Issued By: S.P		Approved By: HOD (MECH)	
SOP FOR CRUSHER JACK SHAFT BEARING REPLACEMENT WORK			

**Scope/Purpose** : This SOP is applicable to Safe working for crusher jack shaft bearing 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. Hydraulic jack
6. Hammer

**Hazard Analysis:**

**Risks associated**

Fall of material  
Burstage of hydraulic hose

**Mitigating Measures**

Use trained workmen and tested tools and tackles  
Use trained workmen and tested tools and tackles

**Training needs:**

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



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



Issue No. 01	Rev. No: 00	Effective Date: 01.03.2016	SOP/MECH/57
Issued By: S.P		Approved By: HOD (MECH)	
SOP FOR CRUSHER JACK SHAFT BEARING REPLACEMENT WORK			

**Procedure:**

1. Use Proper PPE & tools
2. Take proper Line clearance of crusher, wobbler and 21NBC1 belt conveyor from concerned dept. as per the work condition.
3. Loosen the drive bed of crusher to make v-belt loose.
4. Mark the jack shaft housing and lift the jack shaft assembly using chain block.
5. Remove the old worn out NDE bearing from the jack shaft
6. Insert the new bearing from one end.
7. Remove the coupling of DE and remove DE bearing.
8. Insert the De bearing and fix the coupling in position.
9. After placing the jack shaft with bearing assembly tighten the bearing as per clearance required.
10. Give belt tension and Check the tension as per required standards

**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.



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



Issue No. 01	Rev. No: 00	Effective Date: 01.03.2016	SOP/MECH/57
Issued By: S.P		Approved By: HOD (MECH)	
SOP FOR CRUSHER JACK SHAFT BEARING REPLACEMENT WORK			

**Hazard Identification:**

<b>Hazard Identification</b>	Job: crusher jackshaft bearing 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
Tying the wire rope sling to the jack shaft	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 the bearing	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