



## DALMIA CEMENT (B) LIMITED – ARIYALUR



### MECHANICAL

Issue No. 02	Rev. No: 00	Effective Date: 01.11.2019	SOP/MEC/183
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Issued By: M.R	Approved By: HOD-Mechanical
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### SOP FOR REPLACEMENT OF MILL MAIN GEAR BOX LUB PUMP

**Scope** : This SOP is applicable to Safe replacement of mill main gear box lub pump

**Responsibility** : Section Engineer – Mech

**Accountability** : Section Manager - Mech

**PPE:**

1. Safety Helmet,
2. Safety steel toe shoe,
3. Hand Gloves Cotton/Leather
4. Safety goggles.
5. Nose mask.

**Tools:**

1. Spanner set
2. Nylon rope

**Hazards:**

**Risks associated**

Body injury  
Cut injury  
Caught in-between

**Mitigating Measures**

Safe and health tools and tackles  
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**Training needs:**

1. Emergency preparedness
2. work procedure
3. Dismantling & Assembly procedure

**Isolation Required:**

- LOTO for Main drive and lub pump
- Local valve isolation for oil inlet and outlet

**Procedure:**



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1. Attain General work permit.
2. Use LOTO system
3. Permits and line clearance paper should be with the people who are working in the site.
4. Use PPE's while working
5. Take the LOTO for main drive / lub pump/ local isolation for oil inlet and outlet
6. Drain the oil and water on the pipe line
7. Remove the inlet and outlet pipe flange on the pump
8. Dismantle the motor and pump
9. Check the condition for spider
10. Replace the old pump with new one
11. Fix the inlet and outlet pipe flange with the pump
12. Fix the pump with motor and the tight the base bolt
13. Remove the LOTO and remove the valve lock
14. Take trail and check the pump out let pressure below 4 bar

#### **Emergency / Emergency Shut OFF:**

If body injury is there, First aid will be given and inform to the Safety department or Call Emergency number 3108/9865152222

#### **Records/Annexure:**



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1. JSA is enclosed below.
2. Isolation Matrix.

### JOB SAFETY ANALYSIS :( JSA)

<b>Job Safety Analysis</b>	Job: REPLACEMENT OF MILL MAIN GEAR BOX LUB PUMP	Date: 08 – 04 - 2020	Analysis by Section Engineer	Reviewed by: Section Head
Title of employee doing job : Section engineer	Supervisor: Section Engineer	Department: Mech	Section: KVRM	Approved by: HOD-Mechanical
Reqd./recommended PPE's : Safety Helmet, Safety shoe, Hand Gloves, Safety goggles. Nose mask.				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Replacing of new pump	Body injury	Use only proper spanners to avoid slip / shear of bolt and nut during un screwing.	Spanners may slip and hit hands while un screwing. Bolt may shear/cut due to load	Check the condition of the bolt / nut and spanners.
Caught in between	Leg injury	First lock the two rotors with stoppers	Stoppers may be in damage condition.	Check the condition of stoppers



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SL No	Activity	Isolation Type						
		Electrical Energy				Other Energy		
1	<b>Primary crusher In-situ casting repairingn</b>	Tag /Name of the Equipment	Mill main drive L41MD1	LUB PUMP L21LP1	OIL INLET VALVE	OIL OUT LET VALVE		