



## DALMIA CEMENT (B) LIMITED - Ariyalur

### MECHANICAL.

Issue No. 02	Rev. No: 00	Effective Date: 1.11.2019	SOP/MEC/33
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Issued By: M.R	Approved By: HOD-Mechanical.
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### SOP FOR V-BELT REPLACEMENT

**Scope:** To replace V-belts

**Responsibility:** Engineer/SH

**PPE:**

1. Safety helmet
2. Safety shoe
3. Mask
4. Safety goggles
5. Hand Gloves

**TOOLS:**

1. Screw driver
2. spanner set
3. Hydraulic jack

**Hazard Analysis:**

**Risks associated:**

Struck on rotor

Fall of tools,

**Mitigating Measures**

Use correct methods to remove

Carry the tools in tool bags

**Procedure:-**

- a. Take the LOTO for the drive as per Isolation Matrix.
- b. The Work permit paper should be with the person who is working in the site.
- c. Removal of the drive guard.
- d. Loosen the Motor Base bolts & shift the motor by loosen the jack bolts to release the tension of the belts.
- e. Remove the V-Belts from small pulley.(For LS Crusher remove the Jack shaft bearing housing bolts, Coupling bolts & lift the Jack shaft)



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- f. Remove the V-belt from big pulley also.
- g. Clean the V-groves of both pulleys.
- h. Ensure length of the V-belts in a new set must be equal.
- i. Place the belts on Large & small pulleys.
- j. Fix the bearing Housing & coupling bolts for LS crusher Jack shaft.
- k. Give tension to the new belts by shifting motor & align the both pulleys.
- l. Tighten the motor base bolts.
- m. Place the Drive guard & take Trail after clearing the permits.

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

1. If any injury takes place, provide First aid and inform to the Safety department or Call Emergency number 3108/9865152222

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

Refer LOTO standards/permit & JSA is enclosed below.

### **JOB SAFETY ANALYSIS :( JSA)**



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<b>Job Safety Analysis</b>	Job: V-Belt replacement	Effective Date: 01/09/2014	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job : Section engineer	Supervisor: Section Engineer	Department: Mechanical	Section: Utility & LSC	Approved by: HOD-Mechanical.

Reqd./recommended PPE's : Safety Helmet, Safet shoe, Hand Gloves, Safety goggles. Nose mask.

Sl. No	Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What could go wrong	Corrective action
1	Removal of Drive guard	Major Injury	Use proper PPE	Slip/fall of guard	Allot trained workers
2	Removal of V belts	Hand injury	Use proper tools	Struck of hand	Remove from small pulley first by loosening the motor base.
3	Fixing of V-Belts	Hand injury	Use proper tools & PPE	Cut/Struck of hand	Ensure V-grove sharp edges & deploy trained man power.
4	Lifting of Jack shaft	Major injury	Use proper tested hydraulic jack & PPE	Injury by slip of jack	Allot trained workers



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#### **Isolation Matrix:**

S. No	Activity				Tag / Name of the Equipment	
					Isolation Type	
					Electrical Energy	Other Energy

1	V-Belt replacement	Name and Tag for the Equipment	371 LP1 & 2 DIESEL PAUMP	371BL1 COAL BLOWER	371FP1 FK PUMP				
			371 SD1 outlet damper	371SG1 Knife gate					