



## DALMIA CEMENT (B) LIMITED – ARIYALUR



### MECHANICAL

Issue No. 02	Rev. No: 00	Effective Date: 01.11.2019	SOP/MEC/172
Issued By: M.R		Approved By: HOD-Mechanical	
SOP FOR SECONDARY CRUSHER INFILLBOX REPLACEMENT			

**Scope** : SOP Secondary crusher Infill box replacement

**Responsibility** : Section Engineer – Mech

**Accountability** : Section Manager - Mech

**PPE:**

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

**TOOLS:**

1. Chain block 2 ton – 2 no's
2. Pneumatic wrench
3. 36 mm deep socket
4. Hand blower
5. Compressed air

**Hazard Analysis:**

**Risks associated:**

**Mitigating Measures**

**Slip of tools** : Use appropriate tools

**Compressed air** : Use appropriate gloves & check hose condition

1. Take confined space permit and combined permit with the line clearance. Use LOTO system
2. Permits and line clearance paper should be with the people who are working in the site.
3. Use PPE's while working
4. Take the shutdown of secondary Crusher drive A and drive B and top and bottom belt conveyors
5. Hook the confined space token in designated place and open the door.



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6. Lock the wedge piece b/w rotors and also in side combs,
7. Check the pneumatic wrench for any air leakage, hose damage and mounting of spindle,
8. Loosen the infill box set bolts with pneumatic wrench with 36 mm deep socket
9. Remove worn out infill box set with help 2-ton chain block 2 no's and take out,
10. Clean the Infill box seating with surface with hand blower,
11. Install new infill box set with fasteners and tight the bolts by using pneumatic wrench.
12. After installation entry inside the secondary crusher and ensure Rotor segments tooth and infill box side comb tooth do not collide with each one.
13. Remove wedge piece, all tools and tackles.
14. Take out confined space token and ensure that nothing inside crusher
15. Close the door and take the trial

### 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:

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



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### JOB SAFETY ANALYSIS :( JSA)

<b>Job Safety Analysis</b>	Job: coSecondary crusher Infill box set replacement	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: LS CRUSHER	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
Open the inspection door	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
Struck up of drill bit while cleaning the sticky material.	Body injury	Use only certified drilling machines to avoid slip / shear of drill bit during cleaning.	Drill bit may struck up and hit hands while cleaning. Drill bit may shear / cut during load	Check the condition of the drill bit / handle.
Hand Blower operation	Eye injury & Dust inhalation	Use only certified Hand blowers.	Power Cable damage	Check the condition of cable and certification to use.
		Use safety goggles, nose mask and earplug	PPE may be in damaged cond. Dust may spilled into eyes	Check the condition of PPE



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Remove the infill box set	Body injury	Use only certified Pneumatic wrench to avoid unsafe operation .	Hose burst	Check the valve, hose and wrench condition
			Box spanner slip	Check the box spanner is properly fixed with nut
Fixing the segment	Body injury	Use only certified Pneumatic wrench to avoid unsafe operation	Hose burst	Check the valve, hose and wrench condition
			Box spanner slip	Check the box spanner is properly fixed with nut
Close the inspection door	Body injury	Use only proper spanners to avoid slip / shear of bolt and nut during screwing.	Spanners may slip and hit hands while screwing. Bolt may shear/cut due to load	Check the condition of the bolt / nut and spanners