



DALMIA CEMENT (B) LIMITED – ARIYALUR



MECHANICAL

Issue No. 02	Rev. No: 00	Effective Date: 01.11.2019	SOP/MEC/171
Issued By: M.R		Approved By: HOD-Mechanical	
SOP FOR SECONDARY CRUSHER SIDE COMBS REPLACEMENT			

Scope : SOP Secondary crusher side comb replacement

Responsibility : Section Engineer – Mech

Accountability : Section Manager - Mech

PPE:

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

TOOLS:

1. Welding shield
2. Welding machine
3. Grinding machine
4. Chipping hammer
5. Wire Brush

Hazard Analysis:

Risks associated:

Mitigating Measures

Slip of tools : Use appropriate tools

Electric shock : Use appropriate gloves & machine Earth system

SOP FOR SECONDARY CRUHSER SIDE COMBS REPLACEMENT

1. Use ppe's while working.
2. Take the worn out side combs which has to be hard faced.
3. Check the welding machine and holder condition for side combs cutting and welding.
4. Check the height of the tooth's which has to be welded.



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5. Electrodes to be preheated by electrode ovens as per recommendations.
6. Cut the worn out side combs segments in Infill box set by Using LH 801 Electrodes.
7. Total 3 no's of side comb segments to be cut and removed from the infill box set
8. After the cutting of side comb segments infill box surfaces grinding to be done
9. Switch on welding fume extractor machine.
10. Keep the extractor arm hood at top of segment in the gap of minimum 250 mm.
11. Open the Compressor airline valve and maintain minimum air pressure of 4 bar.
12. Check the DP of welding fume extractor and if DP is more than 1.0 kPa, filter has to be cleaned manually after switching off the machine.
13. Keep the welding fume extractor machine in continuous operation
14. Side comb segments tooth tip hard faced by Cobal arc 1 m electrode
15. After the hard facing of side comb segments, shifted and setting has to be made in infill box set with proper alignment.
16. Then use 7018 electrodes to weld the segments with infill box by making of 100 mm stich welding.
17. Check the height of the welding layer with template.
18. Check for any welding cracks
19. Slags to be removed by chipping hammers

Emergency / Emergency Shut OFF:

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



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Records/Annexure:

1. JSA as enclosed below

Job Safety Analysis	Job: Crusher Side comb segment replacement	Date: 02/07/2016	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job : Section engineer	Supervisor: Section Engineer	Department: Mechanical	Section: RMH Truck tippler	Approved by: HOD Mechanical
Req'd/recommended PPE:				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Removing of chips	Body injury	Use appropriate tools	While removing slags, chipping hammer slip.	Use Correct type of tools and hammers.
Using the Welding machine	Hand injury (electric Shock)	Use proper Earth connection	While Welding the job, secondary earth not connected properly	Check the earth connection before doing the welding
Using of Welding fume extractor	Hand injury (Using of compressed air line for purging)	Fix hoses with proper clamping	If any loose connection in compressed air line, hose would hit the hand	Hose to connected with proper fitting and tightness to be verified
Using of Welding fume extractor	Hand injury (electric Shock)	Use proper Earth connection	While doing the job, secondary earth not connected properly	Check the earth connection before starting the job