



## DALMIA CEMENT (B) LIMITED – ARIYALUR

### MECHANICAL SOP

Issue No. 02	Rev. No: 01	Effective Date: 01.11.2019	SOP/MEC/136
Issued By: M.R		Approved By: HOD Mechanical	
SOP FOR SECONDARY CRUSHER TOOTH SEGMENT HARD FACING			

**Scope:** Crusher tooth segment hard facing job

**Responsibility:** Fitter/ Welder/ Supervisor

**Accountability:** Mechanical-Section Engineer / Section Head

**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. Chipping hammer
4. 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 TOOTH SEGMENT HARD FACING**

1. Take hot work permit with all necessary precautions.
2. Use PPE's while working.
3. Check the welding machine, cables and holder condition before welding.



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4. Take the worn out segments which has tooth height of more than 60 mm.
5. Electrodes used for buffer layers welding to be preheated in oven up to 250 ° C for duration of one hour.
6. Clean the segment tooth by wire brush.
7. Do buffer layers welding up to 80mm height.
8. Remove the slag after welding each layer.
9. Don't require to preheat the hard facing electrode which is moisture proof flux coating electrode.
10. Do hard facing the segment tooth up to height of 85 mm.
11. Check the height and profile of welding layers with template.
12. Check for any visual welding cracks.
13. Clean the burrs in segments by chipping hammers.
14. Store the hard faced segments in designated frames.
15. Close the hot work permit.

#### **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:**

1. JSA as enclosed below



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<b>Job Safety Analysis</b>	Job: Crusher tooth segment hard facing job	Date: 02/07/2016	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job: Crusher tooth segment hard facing job	Supervisor: Section Engineer	Department: Mechanical	Section: LS Crusher	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