



DALMIA CEMENT (B) LIMITED – ARIYALUR



MECHANICAL SOP

Issue No. 01	Rev. No: 02	Effective Date: 17.10.2017	SOP/MEC/067
Issued By: M.R		Approved By: HOD Mechanical.	
BELT CONVEYOR			

Scope: Idler / Pulley Replacement

Responsibility: Shift Fitter

Accountability: Mechanical-Section Engineer / Shift Engineer

PPE:

1. Safety helmet.
2. Safety shoe.
3. Hand Gloves.
4. Safety Goggles.

TOOLS:

1. Box spanner set
2. Ring spanner set
3. Chain block
4. Belt clamp with bolt & nut
5. Sling & D shackle.

SOP FOR IDLER/PULLEY REPLACEMENT

1. Empty out the belt if the material is inside the belt.
2. Take line clearance for the drives.
3. Use PPE's while working.
4. Any material spillage is their put it inside the circuit.
5. Lift or lose the take-up to reduce the belt tension.
6. Take height work permit if it required.
7. Remove the old idler or pulley.
8. And fix the same in the center line of the conveyor.
9. Make the belt tension by take-up.
10. Use manual pumps or funnel for filling or draining the oil to reduce the oil spill.
11. Clear the LC, Return the work permit.
12. Take trail for the belt.



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Emergency / Emergency Shut OFF:

1. 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. Refer Line clearance in Process department.
2. JSA is enclosed below.

Isolation Matrix:

SL No	Activity			Isolation Matrix for Utility & General Equipment.							
				Isolation Type							
				Electrical Energy				Other Energy			
1	Conveyor Idler/Pulley Replacement	Name and Tag for the Equipment		Drive for the Equipment	Feeding Equipment.						

JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis	Job: Belt Conveyor Idler/Pulley Replacement	Date: 01 – 09 – 2014.	Analysis by: Section Engineer.	Reviewed by: Section Head.
Title of employee doing job: Shift fitter	Supervisor: Shift Engineer / Section Engineer	Department: Operation / Mechanical	Section: Applicable for All Belt conveyors	Approved by: HOD- Mechanical.
Req'd/recommended PPE: Safety helmet, Safety shoe, Safety goggles & Cotton hand Gloves.				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action



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Lifting the take up	Hand injury	Use good Chain blocks/slugs/ D shackle to lift the take up.	Chain blocks/slugs/D shackle may be in damage condition	Check the condition of lifting tools.
Tightening the Belt clamp.	Hand injury.	Use proper spanners only to avoid slip / shear of bolt and nut during tightening.	Spanners may slip and chance to fall bolt may shear / cut during load.	Use correct size and condition of spanner.
Removing & Fixing the Idler/pulley	Hand injury	Use proper Zugard for holding or lifting idler/pulley while fixing	Holding pipe may slip during fixing	Use correct holding pipe or Zugard.
Removing the clamp	Body injury	Use proper spanners only to avoid slip / shear of bolt and nut during opening.	Spanners may slip and hit hands while opening. bolt may shear / cut during load	Check the condition of the bolt / nut and spanner
Releasing the take up.	Hand injury.	Use good Chain blocks/slugs/ D shackle to down the take up.	Chain blocks/slugs/D shackle may be in damage condition	Check the condition of lifting tools