



DALMIA CEMENT (B) LIMITED –DPM



MECHANICAL SOP

Issue No. 03	Rev. No: 00	Effective Date: 31.10.2016	SOP/MEC/
Issued By: M.R		Approved By: HOD (MECH)	
SOP for Kiln thrust roller hydraulic cylinder Changing			

Scope:

This SOP is applicable for Kiln thrust roller hydraulic cylinder changing safely.

Responsibility : Section Engineer – Mech

Accountability : Section head – Mech

PPE:

1. Helmet,
2. Safety shoe,
3. Goggles
4. Gloves.
5. Nose mask
6. Apron-Heat protection

Tools:

1. Spanner set.
2. Hammer.
3. Torch light.
4. Gas cutting tools.
5. Welding tools.

Hazards:

Risks associated

1. Body injury
2. Leg injury
3. Hand injury

Mitigating Measures

1. Safe and tested tools and tackles
2. On job training

Isolation matrix:

1. Energy Isolation of Kiln main drive and Auxiliary drive.
2. Energy Isolation of All kiln feed group Kiln Feed Elevator, Kiln feed RAV, Preheater Fan.
3. Energy Isolation of Cooler Drives, All cooler fans, Clinker crusher.
4. Energy Isolation of Fuel/Coal Feed Group Coriolis System –Agitator Drive, Multicore, Multi Cell, PA Fan, Turbo Blower.
5. Mechanical Isolation/Closing of Pneumatic Gates of Coal Bin Extraction system.



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Procedure:

1. Take proper work permit and Energy Isolation Permit as per work and safety standards.
2. Ensure Energy Lockout, Tag out, Try out and mains switched off.
3. Ensure proper cooling of kiln shell temperature.
4. Ensure proper welding machine and gas cutting machine safety.
5. Check cylinder assembly and dismantle its accessories.
6. Check cylinder assembly and dismantle as per OEM manual/instructions given.
7. Replace new cylinder and its pipelines, accessories etc., properly.
8. Ensure proper connections have given for leak-proof pipelines.
9. Ensure all checks on hydraulic cylinder replacement have done properly.
10. Clear the work permit, Energy isolation and inform to section Engineer/Section Head.

Emergency Shut- off:

1. In case of parts are moving, Emergency switch should be activated by the person.
2. If body injury is there, First aid will be given and inform to the Safety department or Call Emergency number 555/222/9865155288.

Records/Annexure:

1. Refer Line clearance/permit in mech department.
2. JSA is enclosed below.



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JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis	Job:	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Section Engineer	Supervisor: Section Head	Department: Mech	Section: PYRO	Approved by:
Req'd/ recommended PPE: Safety helmet, Safety shoe, Gloves, Goggles, Gloves& Nose mask				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Dismantling of cylinder and accessories	hand & body injury	Proper Job training to be given for lifting tools	Person/machinery parts, tools may get slip/fall on body	Ensure wearing PPE's safety work and certified tools.
Mounting new cylinder	hand & body burn injury	Job training and wearing of PPE's	Person/machinery parts, tools may get slip/fall on body	Ensure wearing PPE's safety work and certified tools.