



DALMIA CEMENT (B) LIMITED – ARIYALUR

MECHANICAL SOP

Issue No. 02	Rev. No: 00	Effective Date: 01.11.2019	SOP/MEC/071
Issued By: M.R		Approved By: MECHANICAL HOD	
SOP FOR BAG FILTER FAN MAIN BEARING REPLACEMENT			

Scope: Bag filter Fan Main bearing Replacement

Responsibility: Section Engineer

Accountability: Mechanical-Section In charge

PPE:

1. Safety helmet,
2. Safety shoe,
3. Hand gloves.

TOOLS:

1. Box spanner set.
2. Ring spanner set.
3. ChainBlocks.
4. Wire rope slings.
5. Line dory.
6. Water level.
7. Manila / Nylon rope.
8. "D" Shackle.
9. Puller.
10. Feeler Gauge

Hazard Analysis:

Risks associated : Mitigating Measures

Body Injury : Use proper tools and tackles

SOP OF BAG FILTER FAN MAIN BEARING REPLACEMENT

1. Take the line clearance of bag filter Fan
2. Use PPE's while working.
3. Disconnect the fan main drive electrical connection.
4. Dismantle the fan drive coupling.
5. Isolate the damper for reduce the dust leakage.
6. Dismantle the plumber block cover for both bearings.
7. Dismantle the fan impeller from the shaft.



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8. Lift the shaft by chain block or manually depend on the size.
9. Remove the coupling by puller.
10. After lifting the shaft remove the locking ring & spacer, bearing in a order (with specified tools as per **OEM** instruction).
11. Change bearing & fix the new bearing in the same place of old one.
12. Check the clearance of bearing by feeler gauge
13. Fix the bearing housing cover with bolts.
14. Fix the fan impeller in same place.
15. Open the damper, tight the bolts of the coupling.
16. Clear the line clearance & work permit.
17. Check the fan vibration level & bearing temperature.

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. Refer Line clearance certificates.
2. JSA as enclosed below

SL No	Activity			Isolation Matrix for Utility & General Equipment.							
				Isolation Type							
				Electrical Energy				Other Energy			
7	Bag filter fan main bearing replacement	Name and Tag for the Equipment		Bag filter fan	Rotary air lock of particular bag filter			Close the fan inlet damper and lock it			



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Job Safety Analysis	Job: Bag Filter Fan Bearing Changing	Date: 01/09/2014	Analysis by: Section Engineer	Reviewed by : Section Head
Title of employee doing job: Engineer	Supervisor: Section In charge	Department: Mechanical.	Section: Pyro. & Cement Mills, Raw mill	Approved by: HOD Mech.
Req'd/recommended PPE:				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Fan Impeller Removal by chain block	Body and Hand Injury	Use chain block while standing by side of impeller	Chain Block may slip	Use certified and tested chain block, of proper load. Hook chain block properly with safety latch
Coupling Removal by puller	Hand Injury	Use Proper Puller and Proper Hydraulic Jack	Puller May got Broken and jack may fail	Use skilled and Standard Hydraulic Jacks