



## DALMIA CEMENT (B) LIMITED – Ariyalur



### MECHANICAL

Issue No. 01	Rev. No: 02	Effective Date: 17-10-2017	SOP/MEC/10
Issued By: MR		Approved By: HOD-Mechanical.	
MAINTENANCE OF AIR SLIDE FAN			

**Scope:** Maintenance of airside fan

**Responsibility:** Section Engineer

**Accountability:** Mechanical-Section Incharge

**PPE:**

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

**TOOLS:**

1. Required Tools

**Hazard Analysis:**

**Risks associated:**

Rotation of the Equipment

Training needs:

**Mitigating Measures**

Lock the rotation manually & Locally while requairment.

1. Usage of tools and Nature of Hazards
2. Usage of PPEs

**Procedure:**

1. Take LOTO
2. Use ppe's while working.
3. Coupling guard removed
4. Input coupling inspection
5. DE & NDE Bearing housing top cover opened for bearing inspection
6. Grease removed for checking bearing condition
7. Check Bearing clearance with feeler gauge
8. Grease applied for bearings



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9. Bearing Housing refixed and tightened proper
10. Inspection door opened for impeller cleaning
11. Lock the impeller rotation
12. Impeller coating cleaned fully
13. Check cowl gap
14. Coupling guard refixed
15. LOTO cleared for operation
16. Trail run taken

#### **Emergency / Emergency Shut OFF:**

1. If any injury is there, and inform to the Security Havildar / safety department or call Emergency number

#### **Records/Annexure:**

1. JSA is enclosed below.



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#### JOB SAFETY ANALYSIS :( JSA)

Job Safety Analysis	Job: Main. Of Air slide fan	Date:	Analysis by:	Reviewed by:
Title of employee doing job:	Supervisor: Section Engineer	Department: Mechanical	Section: Plant	Approved by:
Req'd/recommended PPE: Safety helmet, Safety shoe, & Safety belt.				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Coupling guard removed	Hand Injury	Use proper spanners to avoid shear of bolt and nut during opening.	Spanners may slip and hit hands while opening.	Check the condition of the bolt ,nut and spanner
Bearing Housing Top cover opened for inspection	Hand Injury	Use proper spanners to avoid slip	Spanners may slip and hit hands while opening.	Check the condition of the bolt ,nut and spanner
Grease removed from Housing	Body injury	Use proper grease drums for put old grease and maintain floor cleaning	Old spillage grease on floor may result slippage	Use proper grease drums for removing grease
Bearing Clearance checked with feeler gauge	Figure Injury	Use Hand Gloves	Feeler gauge may scratch the figure	Use PPE Properly
Grease applied for bearings	Body injury	Applied properly without spillage and maintain floor cleaning	Spillage grease on floor may result slippage	Applied grease Correctly without spillage
Bearing Housing refixed and tightened proper	Hand Injury	Use proper spanners to avoid shear of bolt and nut during opening.	Spanners may slip and hit hands while opening.	Check the condition of the bolt ,nut and spanner



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Inspection door opened for impeller cleaning	Hand Injury	Use proper spanners to avoid shear of bolt and nut during opening.	Spanners may slip and hit hands while opening.	Check the condition of the bolt ,nut and spanner
Lock the impeller rotation	Hand Injury	Use proper tools for arresting impeller rotation	Locking piece may slip and hit on hand	Use Proper Tools
Impeller coating cleaned fully	Hand Injury	Use proper tools and PPEs to avoid scratch on hand	While cleaning impeller rust or cleaning tool scratch the hand	Use Proper Tools and PPEs
Check cowl gap	Figure Injury	Use proper tools and PPEs to avoid scratch on Figure	Cowl gap checking area found less clearance. So Figure may Injured	Use Proper Tools and PPEs
Coupling guard removed	Hand Injury	Use proper spanners to avoid shear of bolt and nut during opening.	Spanners may slip and hit hands while opening.	Check the condition of the bolt ,nut and spanner



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SL NO	ACTIVITY		RVRM Isolation matrix							
			Type of isolation							
			<b>ELECTRICAL ENERGY</b>				<b>OTHER ENERGY</b>			
6	<b>Air Slide fan Maintenance</b>	<i>Name and Tag for the Equipment</i>	<b>Isolate Fan Drive</b>					<b>Isolate the Outlet throttle valve.</b>		