

### **MECHANICAL SOP**

Issue No. 02 | Rev. No: 00 | Effective Date: 01.11.2019 | SOP/MEC/166

Issued By: M.R Approved By: HOD Mechanical

SOP FOR AFR LIFT OPERATION (RACK AND PINION)

Scope: Operation Of AFR Lift .
Responsibility: Section Engineer

Accountability: Mechanical-Section Incharge

PPE:

1. Safety helmet,

- 2. Safety shoe,
- 3. Hand gloves.
- 4. Safety helmet,
- 5. Safety shoe,
- 6. Hand gloves.

#### TOOLS:

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

#### **Hazard Analysis:**

Risks associated: : Mitigating Measures

Body Injury : Use proper tools and tackles

## **SOP For the AFR Lift Maintenance:**

- a) Take Electrical Shutdown for Equipment.
- b) Attain all the required permits (General / Hot / Height work, The Permit Papers should be with the person (fitter) working at site.
- c) Trained Worker should be engaged for working with related PPE"s.



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d) Use Certified Tools & Tackles for the job.

- e) Preheater Lift Rack and Pinions teeth checked, If anything found damage same to be change.
- f) Rollers lubrication ensured by operator as per OEM recommendation.
- g) If Gearbox oil leakage found. check the oil seal condition and plan for replacement
- h) Check roller condition. In case of roller damage, it should be replaced
- i) Check Vibration and Abnormal noise found
- j) Check wire rope condition
- k) Check buckets condition
- l) Clear all the tools & Material from the spot.
- m) Take a trail run.
- n) Clear the Energy isolation

### **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



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S L N o	Activity		Isola	Isolation Matrix for Utility & General Equipment. Isolation Type			
			Electrical Energy Other Energy			Energy	
1	LIFT Maintenanc e	Name and Tag for the Equipme nt	481 AL 01 Lift drive				

Job Safety Analysis	Job: Passenger Lift Maintenance	Date:21.06.2019	Analysis by: Section Engineer	Reviewed by : Section Head	
Title of employee doing job: Engineer	Supervisor: Section Incharge	Department: Mechanical.	Section: Pyro. & Cement Mills	Approved by: HOD Mech.	
Pog'd/recommended PDE:					

#### Req'd/recommended PPE:

Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Pinion/Roller Replacement	Body injury	Use proper tools	Tools may slip	Ensure proper tools & tackles in usage
Roller removal or Other Hot work	Burn Injury	Keep the working area free from flammable	Sparks may ignite the cloths / flammable material	Ensure the work man is to keep away and ensure the work area free from flammables. Check the availability of fire extinguisher



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Slip of Tools from platform	Body injury	Stay away from working platform	Fall of tools due to improper size and training	Only trained personnel should stay at work site
Removing and fixing of Roller and Pinion In Height Work	Fall due to Slippery	Use safety belt	Fall from height	Use Safety Belt