



DALMIA CEMENT (B) LIMITED



ARIYALUR

MECHANICAL

| | | | |
|--|-------------|----------------------------|--------------|
| Issue No. 01 | Rev. No: 00 | Effective Date: 01-11-2019 | SOP/MECH/202 |
| Issued By: M.R | | Approved By: HOD (Mech) | |
| SOP-JSA FOR COMPRESSOR GENERAL MAINTANANCE | | | |

Scope : This SOP is applicable to Safe working for COMPRESSOR GENERAL MAINTANANCE .

Responsibility : **Section Engineer – Mech.**

Accountability : **Section Manager – Mech.**

PPE:

1. Helmet.
2. Safety shoe.
3. Ear plug.
4. Safety goggles.
5. Rubber hand Gloves.
6. Hand Gloves.
7. Nose mask.

Tools:

1. Box Spanner set.
2. Ring Spanner set.
3. Air hose.
4. Waste cloth.



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Hazards:

Risks associated

Electrical shock

Pressurized air release

Hot oil spillage

Fall of objects

Mitigating Measures

1.Safe and tested tools and tackles

2. On job training

1.Release the air through drain valve and kept it open till the job done.

1.Proper draining of oil.

1. Usage of certified tools.

Training needs:

1. Fire fighting.
2. Emergency preparedness.
3. Electrical prevention training.
4. Assembly procedure.
5. Lubricant handling.
6. Lifting of objects.

Procedure:

1. Change the control from remote mode to local mode and ensure the local press button.



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2. The permit paper should be with the person who is working in the site.
3. Release the pressure through drain valve and kept it open till the job completed.
4. Check for any oil and air leak.
5. If found any arrest the same.
6. Remove the suction air filter.
7. Check the dust accumulation and for damage if so replace the filter.
8. Clean the suction air-filter.
9. Check the lubricant level on the separator element.
10. If found low top up the required amount of lubricant.(SOP no:14)
11. Check the heat exchange condition and clean it.



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12. Check the dryer condensate condition and clean it.
13. Check the refrigerant pressure on dryer.
14. Clean the compressor by blowing air under 2.5 bar.
15. Close the drain valve.
16. Change the control from local mode to remote mode and release the local press button .
17. Take a trial run.
18. Note the compressor suction filter DP,dryer PDP and pressure setting.

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



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Records/Annexure:

1. JSA is enclosed below.
2. Isolation Matrix.

JOB SAFETY ANALYSIS :(JSA)

| Job Safety Analysis | Job: COMPRESSOR GENERAL MAINTANANCE | Date: 04– 05 - 2020 | Analysis by: Section Engineer | Reviewed by: Section Head |
|---|---|--|--|--|
| Title of employee doing job: Section Engineer | Supervisor: Section Engineer | Department: Mech. | Section: UTILITY | Approved by: HOD Machanical |
| Req'd/recommended PPE: Safety helmet, Safety shoe, Safety goggles, Ear plug, Nose mask & Hand Gloves. | | | | |
| Sequence of Basic Job Steps | Potential Hazards | Recommended Safe Job Procedure | What Could Go Wrong | Corrective Action |
| Valve operation | Hand injury / Fatal | Closed the out let valve and open the drain (manual) valve | System will be pressure raised it will blasting the system | Ensure valve condition before start the work |
| Hot lubricant handling | Resource usage/hand injury | Rubber hand glove usage/Usage of proper tools. | May be a injury/burn/land contamination. | Proper lubricant handling. |



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Isolation Matrix:

| SL No | Activity | | | Isolation Matrix for Utility & General Equipment. | | | | | | | |
|-------|--------------------------------|--|---|---|--|--|--|--------------|--|--|--|
| | | | | Isolation Type | | | | | | | |
| | | | | Electrical Energy | | | | Other Energy | | | |
| 1 | COMPRESSOR GENERAL MAINTANANCE | | Pyro and dense phase compressor- 441CP1-4, 421CP1 Cement mill and Fly ash unloading compressor- K21CP1-5 , Packing plant 621 CP 2-5 N2 COMPRESSOR | | | | | | | | |