



DALMIA CEMENT (B) LIMITED – Ariyalur

MECHANICAL SOP

| | | | |
|--|-------------|-----------------------------|-------------|
| Issue No. 02 | Rev. No: 00 | Effective Date: 01.11.2019 | SOP/MEC/164 |
| Issued By: M.R | | Approved By: HOD-Mechanical | |
| SOP-JSA for MAINTENANCE OF GRINIDING AID PUMPS | | | |

SCOPE: MAINTENANCE OF GRINDING AID PUMPS

Responsibility: Section Engineer

Accountability: Mechanical - Section In charge

PPE:

1. Safety helmet,
2. Safety shoe,
3. Mask.
4. Gloves – Cotton knitted
5. Ear Plug
6. Goggles

TOOLS:

1. Box spanner set.
2. Ring spanner set.
3. Local stop key.
4. Grease gun.

Hazard Analysis:

Risks associated:

Water spillage

Tool slip

Mitigating Measures

appropriate P P E's.

Use appropriate tools

PROCEDURE:

1. Take the LOTO for pump and remove the electrical connection.
2. Clean the outer surface thoroughly.
3. Remove the motor from base frame.



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4. Remove the pump casing by unscrewing the casing nut and bolts.
5. Remove the gland / mechanical flange
6. Check the pump casing visually for any holes/damages.
7. Check the impeller, shaft and sleeve if any cracks or damage replace with new one.
8. Clean all parts thoroughly with diesel.
9. Replace with all new gaskets
10. Fit the pump casing to the bearing frame.
11. Fit the motor at base and do the realignment of motor and pump.
12. Give the electrical connection and clear the line clearance.
13. Open the pump inlet and out let valves.

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. Isolation Matrix.
2. JSA as enclosed below

Job Safety Analysis:

| | | | | |
|--|---------------------------------------|--------------------------------|-------------------------------|-----------------------------|
| Job Safety Analysis | Job: Maintenance grinding aid of Pump | Date: 6/05/2019 | Analysis by: Section Engineer | Reviewed by: Section Head |
| Title of employee doing job: Technician | Supervisor: Section Engineer | Department: Mechanical | Section: Cement Plant | Approved by: HOD Mechanical |
| Required/recommended PPE: Safety helmet, Safety shoe, & Safety belt, goggles | | | | |
| | | | | |
| Sequence of Basic Job Steps | Potential Hazards | Recommended Safe Job Procedure | What Could Go Wrong | Corrective Action |



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| | | | | |
|----------------------------|-------------------|--------------------------|--------------------------|--|
| Removal of motor | Motor Slip / Fall | Use proper lifting tools | Failure of lifting tools | Use tested tools Deploy trained manpower. |
| Assembling of pump & motor | Motor Slip / Fall | Use proper lifting tools | Failure of lifting tools | Use tested tools Deploy trained manpower. |

| SL No | Activity | | | | Tag / Name of the Equipment |
|-------|----------|--|--|--------------------------|-----------------------------|
| | | | | | Isolation Type |
| | | | | Electrical Energy | Other Energy |

| | | | | | | | |
|----|----------------------|--------------------------------|--------------------------|-----------------------|--|--|--|
| 01 | Maintenance of Pumps | Name and Tag for the Equipment | 561WP4 Grinding aid pump | Inlet & Outlet Valves | | | |
|----|----------------------|--------------------------------|--------------------------|-----------------------|--|--|--|