



DALMIA CEMENT (B) LIMITED –DPM



MECHANICAL SOP

Issue No. 03	Rev. No: 00	Effective Date: 01.08.2016	SOP/MEC/
Issued By: M.R		Approved By: HOD (MECH)	
SOP for Screw pump Inspection and bearing changing			

Scope:

This SOP is applicable for Screw pump Inspection and bearing changing safely.

Responsibility : Section Engineer – Mech

Accountability : Section head – Mech

PPE:

1. Helmet,
2. Safety shoe,
3. Goggles
4. Gloves.
5. Nose mask

Tools:

1. Spanner set
2. Hammer
3. Torch light

Hazards:

Risks associated

1. Fall of Material from Bin
2. Body injury
3. Leg injury
4. Hand injury

Mitigating Measures

1. Safe and tested tools and tackles
2. On job training



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Isolation matrix:

1. Energy Isolation of Screw pump and associated Equipments, motorized valves etc.,
2. Mechanical Isolation/Closing of Gate valves in pipeline system.

Procedure:

1. Take proper work permit and Energy Isolation Permit as per work standards.
2. Ensure Lock out, Tag Out and Tryout and mains switched off properly.
3. Ensure suction and delivery pipe line are closed and valves are switched off.
4. Dismantle the coupling and pump guard/Cover.
5. Dismantle all pipe lines connected with screw pump for inspection.
6. Inspect coupling, pump bearings, pump internals and shaft seals conditions.
7. If required replace the Bearing as per OEM manual/catalogue instructions.
8. Install new bearings mounting properly.
9. Ensure all checks for screw pump bearing replacement have done as per OEM instructions.
10. Close the guard/cover.
11. Clear the work permit and inform to section Engineer/Section Head.

Emergency Shut- off:

1. In case of parts are moving, Emergency switch should be activated by the person.
2. If body injury is there, First aid will be given and inform to the Safety department or Call Emergency number 555/222/9865155288.

Records/Annexure:

1. Refer Line clearance/permit in mech department.
2. JSA is enclosed below.



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JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis	Job:	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Section Engineer	Supervisor: Section Head	Department: Mech	Section: PYRO	Approved by:
Req'd/ recommended PPE: Safety helmet, Safety shoe, Gloves, Goggles, Gloves& Nose mask				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Dismantling Of Inspection Door/cover.	Hand, leg and body injury	Ensure proper tools and job training	Hand and leg may injure while dismantling of parts	Job training on tools and tackles to be given for proper usage
Pump Internals inspection	Hand & leg injury	Ensure proper tools and job training	Pump internal parts slip and fall on hand and leg.	Job training on tools and tackles to be given for proper usage
Pump bearing replacement	hand & leg injury	Ensure proper tools and job training	Tools/Spanners may get slip and injure hand, leg and body	Ensure proper PPE's/certified tools usage