



MECHANICAL SOP

Issue No. 01	Rev. No: 02	Effective Date: 17.10.2017	SOP/MEC/057
Issued By: M.R		Approved By: HOD-Mechanical	

MILL GEAR BOX OIL REPLACEMENT

Scope: To replace the gear box oil

Responsibility: Engineer/SH

PPE:

1. Safety helmet
2. Safety shoe
3. Mask
4. Safety goggles
5. Gloves

TOOLS:

1. spanner set
2. Crowbar

Hazard Analysis:

Risks associated:

Spill of oil

Fall of person

Mitigating Measures

Use proper oil trays

Use proper pumping device

Procedure:

- a. Take work permit as per LOTO standards.
- b. Use PPE's while working.
- c. Provide empty barrels, oil pump and hose pipes as per the requirement.
- d. Remove the drain valve dummy plug with the connection of hoses which is connected to the empty barrels.
- e. Pump out the oil in the gear box.
- f. Ensure the gear box oil emptied.
- g. Close the drain valve and circulate the flushing oil in the gear box.
- h. Remove the oil hoses and clean it.
- i. Remove the oil filters and clean it.
- j. Ensure the inlet and outlet pipes are emptied..
- k. Close the drain valve and provide dummy plug.
- l. Fix the all hose pipes and pump connections and filter (rough and fine).
- m. Start the pump and fill the fresh oil.



DALMIA CEMENT (B) LIMITED – Ariyalur



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- n. Ensure to check the oil leakage at hose connections and gear box doors. If any leakage arrest immediately.
- o. Check the oil level up to required level.
- p. Stop the pump and remove the pump connections.
- q. Clear the work permit for pump.
- r. Start the oil pump in local mode and check the pressures and oil flow.
- s. Clear all the LOTO permits and give clearance to start the drive.

Emergency / Emergency Shut OFF:

If any injury takes place, provide First aid and inform to the Safety department or Call Emergency number 3108/9865152222

Records/Annexure:

Refer LOTO standards/permit & JSA is enclosed below.

JOB SAFETY ANALYSIS :(JSA)

Job Safety Analysis	Job: Replacement of Gearbox oil	Date: 01 – 09 - 2014	Analysis by: Section Engineer	Reviewed by: Section Head
Title of employee doing job : Section engineer	Supervisor: Section Engineer	Department: Mech.	Section: Raw Mill, Cement Mill Coal mill	Approved by: HOD Mechanical.

Reqd./recommended PPE's : Safety Helmet, Safety shoe, Hand Gloves, Safety goggles. Nose mask.

Sl.No	Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What could go wrong	Corrective action
1	Opening the drain dummy plug	Burn injury	Ensure the valve before dummy should be in close condition.	Spillage of oil & hot oil may cause injury	Use trays
2	Emptying the oil	Injury	Ensure suitable pump pressure and hose connections	Fall /Slippage of men	Use tested hose pipe with proper fitting
3	Opening the hoses	Hand injury	Use proper tools.	Slippage of tools	Visual inspection before use

