



#### **MECHANICAL**

Issue No. 02 Rev. No: 00 Effective Date: 01.11.2019 SOP/MEC/179

Issued By: M.R Approved By: HOD-Mechanical

**SOP** for External Oil filtration in Main gearbox

**Scope: External Oil filtration in Main gearbox** 

**Responsibility: Section Engineer** 

Accountability: Mechanical-Section In-charge

PPE:

1. Safety helmet,

- 2. Safety shoe,
- 3. Nose Mask,
- 4. Hand gloves
- 5. Safety goggles

#### TOOLS:

- 1. Box spanner set.
- 2. Ring spanner set.
- 3. Pipe wrench
- 4. Cotton waste.
- 5. Filters.

#### **Hazard Analysis:**

Risks associated : Mitigating Measures

Body Injury : Use proper tools and tackles

### **SOP for External Oil filtration in Main gearbox**

- 1. Take Loto for Main gearbox Electrical energy.
- 2. Remove the drain valve dummy plug with the connection of hoses which is connected to the oil filtration unit
- 3. Clean the oil filtration unit and filters.
- 4. Pump out the oil in the gear box.





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- 5. Ensure the gear box oil coming from outlet port.
- 6. Run the filtration unit upto the total oil is getting filtered.
- 7. Remove the oil hoses and clean it.
- 8. Remove the oil filters and clean it.
- 9. Ensure the inlet and outlet pipes are emptied..
- 10. Close the drain valve and provide dummy plug.
- 11. Ensure to check the oil leakage at hose connections and gear box doors. If any leakage arrest immediately.
- 12. Check the oil level up to required level.
- 13. Stop the pump and remove the pump connections.
- 14. Clear the work permit for pump.
- 15. Clear all the LOTO permits and give clearance to start the drive.

### **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		Isolation Matrix for Utility & General Equipment.  Isolation Type  Electrical Energy Other Energy				
1	External Oil filtration in Main gearbox	Name and Tag for the Equipme nt	Drive for the Feeding Equipme nt	Drive for the Discharg e Equipme ntt			

Job Safety Analysis	Job: External Oil filtration in Main gearbox		, ,	Reviewed by : Section Head
Title of employee doing job : Section engineer	Supervisor: Section Engineer	Department: Mech.	Section, Ram Mill	Approved by: HOD Mechanical.

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

SI.No	Sequence of Basic Job Steps	Potential Hazards	Sare Job	What could go wrong	Corrective action
	Opening the drain dummy plug	, ,	should be in close	Spillage of oil & hot oil may cause injury	Use trays





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2	Emptying the oil	, ,	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
4	Starting the pump	Electric shock	Use certified filtration unit.	Electric shock	Visual inspection before use