

Memo

Ref Number X4613729-546

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Title / Designation: Service Engineer

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Subject: Majuba U3 GO July 2025 and – SOW for Refurbishment of Various Lube/Seal Oil Components

1. Pedestal Oil Baffle Drains (High Pressure Cleaning, supply of High pressure cleaning machine, safety files and site establishment)

- 1.1. Unblock pedestal 1 bearing oil baffle drain
- 1.2. Unblock pedestal 2 bearing 2 oil baffle drain
- 1.3. Unblock pedestal 2 bearing 3 oil baffle drain
- 1.4. Unblock pedestal 3 bearing 4 oil baffle drain
- 1.5. Unblock pedestal 3 bearing 5 oil baffle drain
- 1.6. Unblock pedestal 4 bearing 6 oil baffle drain
- 1.7. Unblock pedestal 4 bearing 7 oil baffle drain
- 1.8. Unblock pedestal 5 bearing 8 oil baffle drain
- 1.9. Unblock pedestal 5 bearing 9 oil baffle drain

2. Lube Oil Bypass PRV (MAV10AA510) and Lube Oil Cooler Bypass PRV (MAV10AA506) Refurbishment

- 2.1. Site team Remove lube oil filter bypass PRV (MAV10AA510) and the lube oil cooler bypass PRV (MAV10AA506) from the plant, send both of them to the service provider for refurbishment, and pressure setting.
- 2.2. The lube oil filter bypass pressure relief valve to be set to a lift pressure of 75 kPa.
- 2.3. The lube oil cooler bypass pressure relief valve to be set to a lift pressure of 145 kPa.
- 2.4. Once the valves are overhauled and set to the required pressure, the supplier must contact Engineering personnel to come and witness bench test setting of the valves.
- 2.5. Dispatch the valves back to site with pressure certificates.

3. AC Seal Oil Pump Pressure Relieve Valve (MKW31AA001) and AC Seal Oil Pump Pressure Relieve Valve (MKW41AA001) (MAV10AA506) Refurbishment

- 3.1. Site team Remove AC Seal Oil Pump Pressure Relieve Valve (MKW31AA001) and AC Seal Oil Pump Pressure Relieve Valve (MKW41AA001) from the plant, send both of them to the service provider for refurbishment, and pressure setting.
- 3.2. The AC seal oil pump pressure relief valve (PRV) to be set to a lift pressure of 0.83 MPa.
- 3.3. The DC seal oil pump pressure relief valve (PRV) to be set to a lift pressure of 0.83 MPa.
- 3.4. Once the valves are overhauled and set to the required pressure, the supplier must contact Engineering personnel to come and witness bench test setting of the valves.
- 3.5. Dispatch the valves back to site with pressure certificates.

4. Supply Of Gasket and Filters

- 4.1. Supply of LP shaft bellow gaskets
- 4.2. Supply of Cross over pipes gaskets
- 4.3. Supply of inner casing window gaskets
- 4.4. Supply of pedestals O-ring (Pedestal 1-5)
- 4.5. Supply of jacking oil filters
- 4.6. Supply of lube oil filters

5. Main Oil Tank

- 5.1. Eskom Outages to place a contract with Sandblasting and Painting contractor.
- 5.2. The coat to be repaired if is above oil level. If is below oil level, clean damage coat and leave as is.

Note: This activity might delay transferring of oil back to the tank, which might delay alignment," team to align coupling holes and set coupling concentricity within OEM design specification.

6. **Surface Preparation for HP, IP and Turbine Valve for Lifex Scope. Surface Preparation for Cross Over Bellows and Bled Steam Bellows For NDT**

- 6.1. Surface grind the top HP turbine loop pipes
- 6.2. Surface grind bottom HP turbine loop pipes
- 6.3. Surface grind top IP turbine loop pipes
- 6.4. Surface grind bottom IP turbine loop pipes
- 6.5. Surface grind 8 HP turbine valves chest (internal and external)
- 6.6. Surface grind 8 IP turbine valves chest (Internal and external)
- 6.7. Surface grind LP Turbine Cross Over Pipes Bellows NDT
- 6.8. Surface grind LP Turbine Bled Steam Bellows for NDT
- 6.9. Surface grind LP1 Turbine Nozzle in preparation for NDT
- 6.10. Surface grind LP2 Turbine Nozzle in preparation for NDT

7. **Sandblasting of the Turbine Components (HP, IP, LP AND Valves Components) Outages to place contract with sandblasting service providers**

- 7.1. Sandblast HP turbine (Inner casing, diaphragms, outer casing. All the studs for inner casing and outer casing, nozzle)
- 7.2. Sandblast IP turbine (Inner casing, diaphragms, outer casing, All the studs for inner casing and outer casing, nozzle, diaphragms carriers)
- 7.3. LP1 Turbine (Diaphragms, studs for inner casing)
- 7.4. LP2 Turbine (Diaphragms and studs for inner casing)
- 7.5. 8 Valves for HP Turbine (Sandblast bonnet studs, Segments)
- 7.6. 8 Valves for IP Turbine (Sandblast bonnet studs)
- 7.7. HP Turbine Valves Servo (Sandblast springs and coat)

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- 7.8. IP Turbine Valves Servos (Sandblast springs and coat)
- 7.9. Conduct site establishment and de-establishment
- 7.10. Provide safety file

8. Supply of Low Bed Truck and 30T Mobile Crane

- 8.1. Deliver and Supply 2 Low Bed Truck and 2 Truck Driver for duration of 30 days
- 8.2. Deliver and Supply 30T Crane and 2 Crane Driver for Duration of 30 days

9. Refurbishment of Sandblasting Bay

- 9.1. Replace defected electrical wiring
- 9.2. Replace or repair any defected extraction fans
- 9.3. Replace any defected pipework
- 9.4. Replace water tank that are not in good condition
- 9.5. Fix damaged sandblasting bay structure (Doors and flooring)
- 9.6. Replace or Fix any defect observed

Compiled by



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Approved Outages

p.p



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Outage Coordinator

