**PMR FOR BUCKET ELEVATOR**

**RUNNING INSPECTION**

**1 - VIBRATION MEASUREMENT:** Carry out vibration and bearing condition monitoring on the drive system (motor, reducer, elevator bearings).

2 – LUBRICATION: Extract an oil sample from the reducer (if sump has a volume larger than 100 litres or 25 gal). Send it to a laboratory for analysis.

**STOPPAGE INSPECTION**

| INSTRUMENTATION TESTS |
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| * Test boot level switch operation and adjustment. Use a simulated input |
| * Test safety interlocks by simulated input |
| * Test bucket motion detector and integrity of signal by simulated input |
| * Test bucket motion detector for proper adjustment |
| * Test torque limit switch operation, integrity of signal and adjustment. Use a simulated input |
| * Test speed sensor interlock by simulated input. |
| MECHANICAL TESTS   |  | | --- | | * Inspect elevator head traction hub & rim for excessive wear | | * Inspect elevator buckets for excessive wear and cracks | | * Check that the buckets are properly fixed to the chain (or belt). Retighten bolts with the prescribed torque (if needed) | | * Check that the elevator chain is properly centered | | * Inspect elevator chain side bars for excessive and/or uneven wear. Compare against manufacturer recommendation. | | * Inspect elevator chain bushings for excessive wear. Compare against manufacturer recommendation. | | * Inspect chain sprockets for abnormal or uneven wear | | **STRAND (RUBBER BELT) BUCKET ELEVATOR** | | * Check that both pulleys are firmly mounted (no axial displacement along the shaft) | | * Check elevator shafts for cracks with ultrasonic equipment | | * Measure chain elongation. Use manufacturer specifications for the maximum recommended elongation. Record and trend values | | * If chain elongation exceeds 2%, dismount 5 chain pins. Measure their outer diameter and the inner diameter of the mating bushings. Use manufacturer specifications for the maximum recommended wear. Record and trend values | | * Check chain links for cracks. | | * Check chain pins for fatigue, hitting them with a hammer and judging from the sound. Dismount buckets if these might be damaged by the test. Replace damaged pins | | * Measure belt hardness Shore A (for Strand bucket elevator). Compare against manufacturer recommendation. If none is available, new belt should be ordered upon reaching 85 A and replaced at 90 A | | * Retighten splice bolts (strand bucket elevator) up to the prescribed torque | | retighten motor, reducer and bearing housing fixation bolts  **MOTOR INSPECTION**   | * Check proper grounding of equipment | | --- | | * Measure resistance to ground of the motor. Record and trend value | | |
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