M 05-24 1000-17-ENG

Service datasheet

Gearless SAG and Ball Mills or gear pinion drive

SAG and Ball mills are part of the comminution process and reduce the ore to the desired size to maximize recovery in the flotation process.

Analysis and audit plans to suite your needs

These assets have a long wear life, but when they fail or have unexpected downtime they affect the plant's operation. Therefore, inspection and predictive maintenance becomes extremely relevant to reach the expected productivity.

FLS introduces audit plans that provide knowledge of your equipment's status, whether it is an operating inspection done without stopping the equipment or a stopped equipment inspection to check items according to the plant's scheduled maintenance. FLS also includes a comprehensive service plan where a full mill status analysis is done to verify its operation, critical bolts status, coupling, drive system alignment, and lubrication system.

The comprehensive service is an activity performed by FLS directly, which uses all of our know-how to generate a complete equipment status analysis. The personnel involved in these plans are FLS-certified engineers, working with a reliable team that meets every mining safety standard.

Mission Zero Towards zero emissions by 2030

FLS

Preventative maintenance prevents downtime and unneeded costs

The purpose of these audits are:

1. To provide your asset's status as for its mechanical and instrumentation aspects.
2. To communicate equipment deviations from its design parameters.
3. To provide the necessary recommendations to avoid corrective maintenance.
4. To provide the necessary recommendations to perform preventive maintenance.
5. To increase your equipment reliability.
6. To allow the maintenance team to prepare scheduled maintenance programmes focused on the analysis FLS provided.

Inspection content:

Plan A
Operating and stopped mill inspection
- Critical coupling leak inspection
- Feed seals inspection - discharge
- Feed rest inspection - discharge
- PAD and lub. system operational variables analysis
- Trunnion temperature inspection
- Lubrication system inspection
- Brake system leaks and timing inspection

Plan B (includes Plan A)
Operating and stopped mill inspection
- Lubrication system pump flow and flow divider analysis
- Lubrication system oil status analysis
- Mill gear-pinion drive system inspection
- PADs/Bronze hydrostatic lift analysis
- Trunnion RTDs
- Buna face seal inspection
- Ultrasound wear inspection for critical components
- Gear greasing system inspection
- Alarm verification - operational variable settings and collection
- Brake GAP wear, braking time, and base bol torque inspection
- Mill, seals, and critical couplings inspection

Plan C (includes Plan A and B)
Comprehensive mill service
- SPC4 bolt elongation check
- Critical coupling feeler check
- Powertrain alignment check
- Trunnion - trunnion liner wear inspection
- Gear pinion root backlash contact check

Recommended inspection frequency: Every two years

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