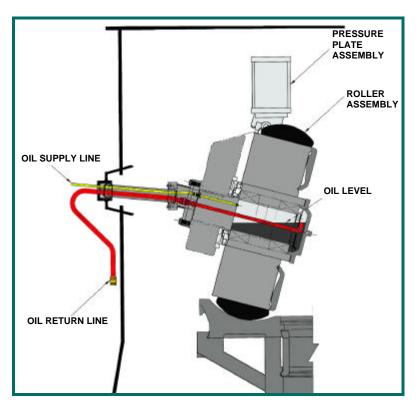
Metso Minerals Aftermarket Services Roller Mill Improvements



Recirculating Lubrication System for Roller Bearings

The existing oil bath lubricating method provides no filtering and the high oil temperature reduces the oil viscosity. Contaminated low viscosity oil reduces life of the roller bearings. The Recirculating Lubrication System filters the oil to proper cleanliness level and cools the oil to maintain adequate viscosity. The benefit is increased life on your roller bearings.

The system consists of a set of supply and return pumps for each roller and an oil conditioning circuit.

Supply oil is pumped above each roller with a low pressure pump and is gravity fed into the roller. Oil is drawn out of each roller by the return oil pump, which creates a siphoning effect. Oil level is maintained by a standpipe inside the roller. The return oil pump does not remove oil below this level.

Oil lines are routed through a swiveling pipe arrangement (similar to seal air pipes) that is attached to the back of each roller assembly. Oil is filtered on both the supply and return lines. The conditioning circuit cools the oil and also has its own filter. The seal grease line can also be routed to the outside of the mill through the same pipe. This system reduces the number of mill shutdowns for monitoring roller oil level and greasing of the seals.



Fabricated Ported Air Ring

These rings can be installed in sections. Complete mill disassembly is not required. Cast liner inserts can be configured for control of air flow and are replaceable.

Roll Wear Segments & Table Liners

Mesto Minerals offers the latest in wear materials for long life of these components.

Roll Rebuilding & New Roll Manufacturing

Mesto Minerals can rebuild your rolls to OEM specifications or build complete new rolls.

Complete Mill Rebuilding & Fabrication

Mesto Minerals has the manufacturing facilities to fabricate complete mill housing sections.

Rotary Air Lock Feeder

This is a rotary type feeder that replaces the triple flap type feeder.

Pull Rod Boots

These pull rod boots can be installed without disconnecting the pull rods.

Field Services

Mesto Minerals field representatives, supported by design and process engineers, provide mechanical troubleshooting expertise and supervision for maintenance or overhaul programs.

Mesto Minerals Engineering offers specialized service to maintain or improve the mechanical and process operations of your facility. These specialized services include:

- Installation/start-up support
- · Operations and maintenance training
- Inspection and assessment of equipment condition
- Redesign of existing equipment



Supply and return oil lines on outside of mill



Lubrication system located in lube room

Metso Minerals offers design improvements and replacement equipment to service your MPS Roller Mill. These improvements will allow you to increase productivity, increase equipment life and reduce downtime.

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