

The Best Practices to Maintain a Three Roll Mill

To achieve the highest level of equipment performance and maximize the useful service life of various equipment components, a quality maintenance program is essential. A chain is no stronger than its weakest link, and maintenance is a critical link in every chain.

We recommend that you establish a regular maintenance program in conjunction with a maintenance log to record all pertinent data. Information accumulated can be used in predicting the obtainable length of uninterrupted operation and the kind of spare parts that should always be stocked in-house. Although a quality maintenance program and a good maintenance log will not eliminate unexpected problems and/or production stoppages, both have the potential to minimize these occurrences.

Follow the checklist below to make sure your mill always performs at top condition.

1. The machine has an oil seal structure for gears that requires industrial grease. We recommend using general bearing grease to lubricate our mill (such as Mobil Mobilith SHC100 Synthetic Bearing Grease, for example). The grease level should reach only half of the gauge to prevent it from spraying out. After the machine runs for 120 hours, the lubrication grease must be applied to the transmission axle through the lubricating inlet with an injection tool, such as a standard grease gun. Lubrication grease should be frequently applied to places such as hand wheels, and the high/low speed roller bearing base to prevent the gear teeth from choking.
2. If concaved area in the middle of the roller, roller surface erosion, or roller surface distortion is found, please stop the operation and repair the rollers (by polishing) immediately.
3. If the roller has been repaired too many times and the diameter is more than 1mm smaller than its original size, the gap between rollers would be too big to grind the material well. The gear must be replaced under this condition to accommodate the reduced diameter, or the roller must be replaced.
4. The edge of the scraper blade must be very sharp and smooth. Any burrs or splits are seriously prohibited. When the blade is short, just loosen the screws to take the blade out more. If the blade is completely worn and you need to change to a new blade, please choose a material with the right hardness between 30HRC and 40 HRC.
5. If the mill has not been operated for a long time, please apply anticorrosion grease on the roller surface and other relevant places to avoid stains and pinholes. Thorough inspection shall be carried out before the next operation.
6. If cooling water flows into the machine, it shows that the cooling water flow is too strong. The water inlet valve should be tuned down a little. In the meantime, loosen the water drainage screw, let the water inside the gear box flow out, and increase the size of the hose for water drainage.