



CONE CRUSHER MAINTENANCE  
SIX STEPS TO PEAK  
PERFORMANCE



## MAX YOUR UPTIME

A cone crusher is punished during every minute of operation. It squeezes a dense mass between heavy castings until the mass disintegrates. It impacts and abrades material until it yields to the applied forces. It rumbles and vibrates and bangs as its core shaft spins eccentrically to capture and destroy chunks of stone.

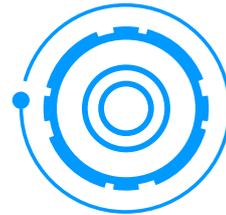
These powerful destructive forces take their toll on the machinery as well as the wear parts. Excessive wear and mechanical damage must be avoided as downtime and reduced output quality are so costly. Regular checking and maintenance are essential to keep your crusher – and your output – in prime condition.

Follow these basic tips to ensure profitable and trouble-free cone crusher operation.

### 1. THE WALK-AROUND

At the start of each day, give the crusher a quick visual inspection to check for potential issues. Evidence of an oil leak or excessive puddling of lubricant is a red flag. Lubricating and Hydroset oil levels should rest at the correct level – and the oil reservoir should be accessed without knocking contaminant into it. The oil strainer should be clear, conveyor and drive belts aligned and taut, bolts tight.

A visual check on the pinion shaft housing for leakages, and a tactile check of its temperature, will reveal some of the problems that can occur. Material spillage underneath the machine may need to be addressed – make sure residue does not find its way into components and contaminate lubrication. A daily morning walk-around establishes a good baseline for crusher performance.



### 2. THE PEER-IN

Looking into the crushing chamber through the inspection hatches on the feed hopper is a simple way to look for non-crushable items that might have entered the crushing chamber. Any such items should be removed before operation, as they might affect or partially block the crusher's intake. This will have a negative effect on the performance of the machine, and in the worst case, could be the starting point for a breakdown.

It's advisable to spend a few minutes examining the concave and mantle through the bottom shell inspection hatches. This will reveal possible cracks or abnormal wear that might affect performance or lead to downtime.





### 3. THE WARM-UP

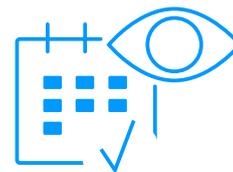
After starting the crusher's power plant, make sure the gauges are registering as the manufacturer recommends and that settings are correct for the material to be worked. Oil pressure should stay within acceptable limits. Idling the crusher during warm-up is acceptable, but not for an extended period.

Once the crusher is running and material is introduced, check gauges and computer readouts again to assure that all components are meshing as engineered and that production can proceed.



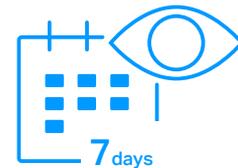
### 4. END-OF-DAY CHECK

Some inspections are best made after the crusher is shut down. For example, a spider bearing grease leakage may be visible on the main shaft sleeve after the crusher has been shut down. Some checks made at the end of the working will not have to be duplicated the following morning.



## 5. WEEKLY INSPECTION

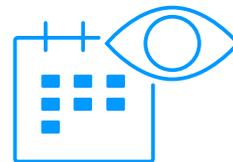
This more thorough check builds on daily observations. An oil filter and tank may pass the end-of-day checks, but a more complete examination at the week's end might show, for example, corrosive failure in an oil line. Liners and mantles that looked intact each day should be examined weekly for uneven wear, particularly when particularly abrasive material is being processed. Pinion shaft lubrication and gear backlash should be checked each week. The integrity of seals will be evident at the end of a week's operation, and unaligned conveyor and drive belts will display unevenness.

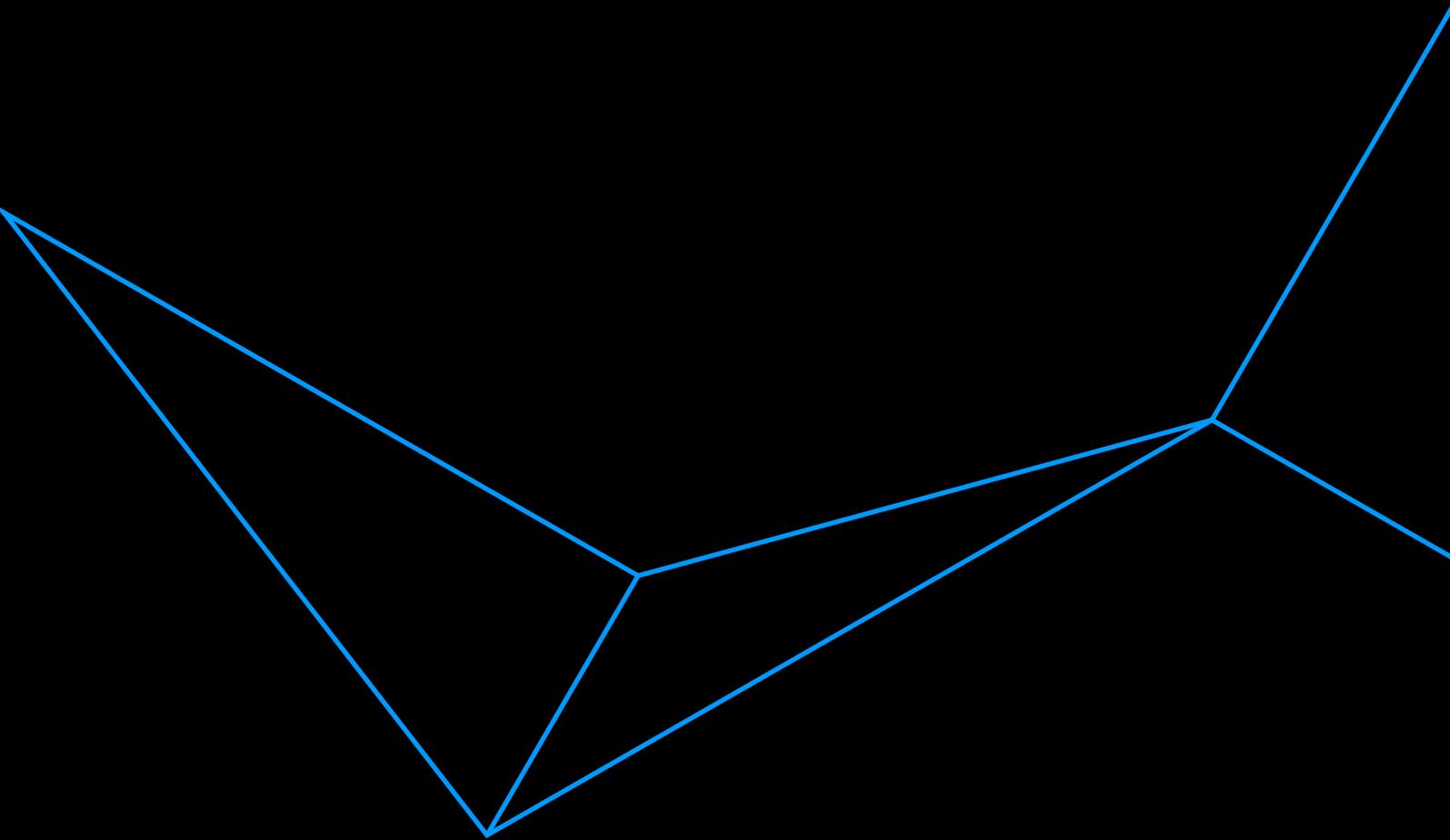


## 6. ANNUAL INSPECTION

A top-to-bottom inspection once a year – or better still, every 2,000 hours – is best practice for maintenance. But remember that important inspection measures must be taken every time the crusher is opened, and intervention may be needed at earlier intervals.

In practice, though, relatively few cone crusher owners take the time for a thorough examination. However, there are many good opportunities for doing this. Changing out a liner, or performing an emergency repair, can require a crane. With the heavy lifting equipment already in place and operations already disrupted, this is a good time to dismantle a unit and look for issues such as worn sleeves and bushings, compromised seals and disintegrating hoses. Catching a failing component before it fails will prevent ancillary damage and unplanned downtime.





For more information on how to improve your operations, contact your local Sandvik team or call our global head office on +46 (0) 8 456 11 00.

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