TOP 5 STEPS

TO MAINTAIN THE CRUSHER FOR OPTIMUM RECYCLING

A guide with the top five best practices to keep your equipment up and running.

ASPHALTPRO

HOW TO MAINTAIN THE CRUSHER FOR OPTIMUM RECYCLING

IN ANY RECYCLING CRUSHING OPERATION, MAINTAINING YOUR equipment is the best way to ensure the machine's longevity and productivity. Developing a maintenance program that fits the needs of your equipment and your operation is key. It's important to set guidelines for operators to follow so here are the top five best practices to keep equipment up and running and make every operation more profitable.

1. SAFETY SHOULD BE THE NUMBER ONE CONCERN IN EVERY OPERATION.

Before an operator gets near the equipment to perform maintenance duties, he or she must understand the importance of lockout/tagout, the safety procedure that ensures that the power source is cut off and cannot be restarted before the service or maintenance work is complete. Lockout/tagout procedures are critical to preventing injuries and fatalities on the job site.

2. DEVELOP A MAINTENANCE PROGRAM FOR ALL GREASES AND OILS.

A maintenance program that details lubrication intervals, oil changes and filter changes is vital to keeping equipment running smoothly. Every piece of equipment has different needs, which is why it is important to follow the manual recommendations, but it's equally as important to consider environment and application factors.

You need to be conscious of the levels of dust and dirt. When asphalt dust and oils build up in the radiator, it affects the heat exchange of the radiator. When the asphalt enters a warm radiator, it tends to adhere to the cooling fins. Many times, it's not even visible, but it's important to maintain that at least daily.

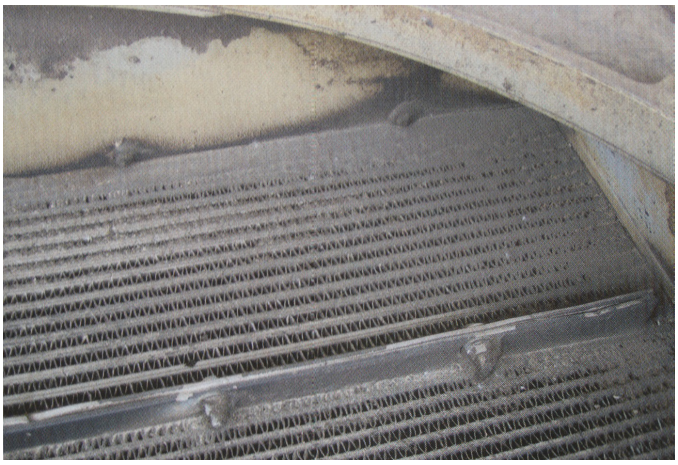
Use any citrus-based cleaner to remove oils from the radiator. The best method is to let the radiator and equipment cool down, and then apply the citrus cleaner and rinse with cool water.

It's not easy to remove asphalt dust and oil from the radiator, and if you allow them to build up over time it becomes difficult, if not impossible, to remove them. If you implement a daily regimen for cleaning the radiator, it becomes very simple to stay ahead of the build-up and avoid radiator issues. Basic housekeeping rules apply here. The cleaner you keep your equipment, the better it can be maintained.

3.OBSERVE YOUR EQUIPMENT DAILY.

As you are operating your equipment, it's important to pay attention to the details—not only the way it looks, such as belt tracking, belt tension, oil temperatures, loose bolts and material buildup—but also the way it sounds.

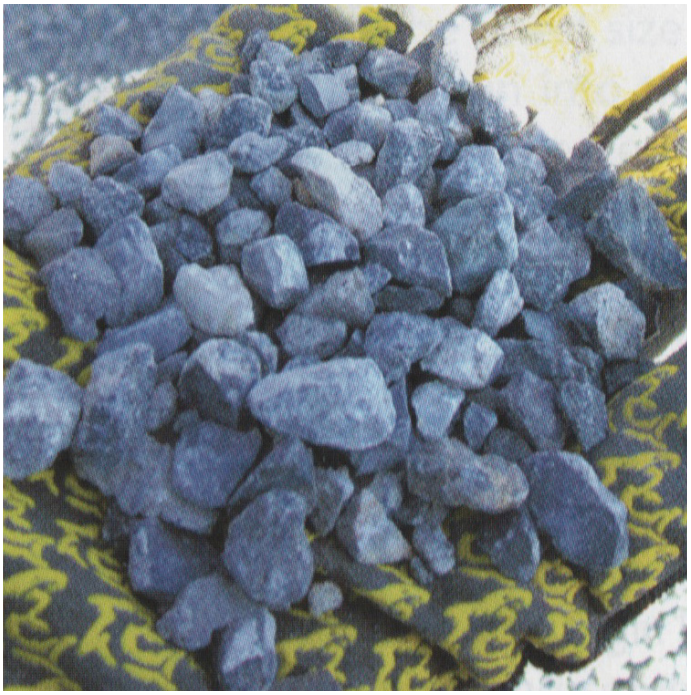
This blow bar shows minimal wear; it's not quite ready for replacement.



This dirty radiator can be cleaned by cooling the equipment down, using a citrus-based cleaner and then rinsing it with cool water.

If you can catch something before it comes apart, then you can save yourself a lot of downtime. Sounds can be a great tool to use in predicting maintenance failures, such as squeaky bearings, metal rubbing on metal and high pitched noises that are out of the ordinary.

As you notice crusher wear parts start to wear, it's important to adjust the crusher's settings to match your production requirements, particularly in recycle applications. Flip the blow bars or



Recycled matertial (above on left) is ready to be processed. After it's processed through an FT4240 impact crusher, it's a more uniform size (above on right).

replace them when they reach the wear line on the back side of the blow bar. Most OEMs do not encourage going past this recommended mark, as this only leaves 3/4-inch of blow bar remaining above the rotor. If exceeded, this will start wearing on the rotor itself and will dramatically affect crusher performance, i.e. production. Some crusher settings can be adjusted to one inch of the blow bar. With this being said, with crusher setting adjustments you can wear the blow bar down to 3/4-inch from the outside diameter of the rotor.

As for the wear liners, the producer can wear them down to half of the original thickness of the liner. This is due to the bolt that holds the liner to the hood. The bolt head wears along with the liner, and if left, could break off and fall into the crusher. If the liner is allowed to wear too thin, it could also break and fall into the crusher.

Even if changing the blow bars or liners is expensive, you're saving money in the long run. If the wear is accelerated by very abrasive material, then constant attention is going to be needed. By being attentive to your parts, you are going to keep your production high and minimize downtime. Keep in mind that in a recycle operation, the material can be extremely abrasive, and if it is, it may require more frequent crusher setting adjustments.

4. USE LOW-CHROME OR MEDIUM-CHROME WEAR PARTS IN RECYCLE APPLICATIONS.

Blow bar metallurgy plays an important part in overall plant performance. Choosing the right metallurgy will reduce the number of times one has to replace wear parts. Certain natural aggregates within the recycle may be highly abrasive and require a specific metallurgy to prolong the life of the blow bar. In certain applications where a high amount of steel is introduced into the crusher by means of rebar or mesh, operators should know that higher chrome content is not as tolerant to the introduction of metal into the crusher as low-chrome or medium-chrome options.

5.EDUCATE YOURSELF ON THE PRODUCT.

While application is often not considered a maintenance issue, the two go hand-in-hand when caring for your equipment. For example, two of the most critical aspects of an operation when making spec product in terms of productivity and wear of the machine are screen size and apron settings. Operators can optimize productivity in their crushing plants by using the machine's top deck as a buffer deck whenever possible, thereby reducing carryover. Likewise, by maintaining proper apron settings, material can get through the machine in one pass, which also helps improve productivity and reduce wear.

Maintenance is often thought of as merely lubrication, but how you use the equipment is a big part of maintaining the equipment. Oversized feed material can slow production and cause equipment damage, therefore causing downtime and incurring expense. So sizing material prior to feeding the crusher is vital to maintaining crusher longevity and increasing your crusher's throughput. As an operator, your job is to maintain the equipment by operating it correctly. Education of the product is a good maintenance tool. The better understanding you have of how the equipment works, the better you are equipped to maintain it.