SWEEPING MILLINGS (GRINDINGS)

TOPICS

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Maintenance

Millings (sometimes called grindings) are ground-up asphalt material removed from the surface of the roads and parking lots. They will be recycled into new asphalt and reapplied to roads. Millings can be a very heavy, sticky material. Millings can be in very deep cuts and can be extremely thick and packed down depending on how much traffic drives on them and how worn the milling machine is.

Milling site managers like smooth running operations (which means fast moving equipment including the sweepers). If possible, always sweep at low ground speed. This gives the sweeper time to clean up as it goes but also prevents overloading the elevator and main broom. The heavier the material is the slower you should sweep. The sweeper is more efficient at low speeds than at higher speeds and the fewer passes that are required means more time sweeping and less time backing up or turning around in traffic.

1. **Speed**
   Slow down. Sweeping at low speeds allows the sweeper to clean up as it goes, making fewer passes to do the job. Usually there is a lot of material where the milling machine has stopped milling leaving a pile. These piles can easily over load the elevator; if it isn't given enough time to clear. In this case you may need to stop all forward motion and let the elevator clear then move another 6" and stop to let it clear. Repeat this until through the pile. Once the pile has been gone through on the first pass then the next pass it should be gone.

2. **Auxiliary Engine RPM**
   Always run the auxiliary engine at maximum rpm in this application. This puts the material into the front of the hopper giving better loading but also takes the material away faster from in front of the main broom making it less likely to stall. If the stall alarm does start, then the main broom and elevator are stalled. Using the main broom sweep forward switch bump the main broom into reverse. It only takes a second in reverse to clear then put switch back into sweep forward again and continue sweeping.


3. **Adjustments**

   The main broom adjustment is a critical setting for this application. If there is too much broom down pressure then the broom will stall under load. If not enough down pressure then it won't clean out the corners of the cut and possibly leave more fine material on the surface. The main broom down pressure should be set to 5-7" pattern.

4. **Drag Shoes**

   The carbide drag shoes mounting plates can be bent when turning into and out of a milling cut. If the brooms are down while turning a corner the drag shoes can catch on the edge of the cut and bend the mounting plate on which the drag shoes are mounted. When turning out of a milling cut raise the broom first and then turn out. When turning into a milling cut keep the main broom raised and back up to where the cut starts and then put the brooms down.
   There are drag brushes that can prevent the drag shoe plated from getting bent. To install these drag brushes the drag shoe and mounting plate must be removed and the brushes attached to the main broom arms. Since the brushes do not present a solid wall that holds material into the main broom they will trail slightly. This may or may not be an issue to the milling operation.

5. **Dust Control**

   Dust may or may not be an issue on milling applications. The milling equipment uses large volumes of water for dust control and cooling of the points. If the sweeper is sweeping close behind then chances are the sweeper will not require water. Unlike air sweepers it will not harm the StarFire sweepers to sweep with no water. The water is used strictly for dust control.

6. **Maintenance**

   When sweeping millings it is imperative the sweeper is cleaned daily. Millings are very sticky and will cake on everything. It also weighs considerable and will hang on wiring harnesses and hoses possibly breaking wires and fittings. This material will also pack into the elevator chains and on the squeegee flights causing stalling of the elevator, electrical problems and oil leaks. Even the inside of the hopper must be checked for material build up especially in the door hinge area which will cause the door not to close correctly which will cause other functions not to work correctly.