

MAINTENANCE TIP:

Maintaining Linear Edger Performance

The key to linear edger performance can be taken right from the machines name, in that everything needs to run on a straight line or in a “linear” fashion. In fairly simple terms a linear edger system passes a board to be edged along a straight path, through a scanner of some sort and then into a sawbox that is capable of cutting in a line that isn’t necessarily aligned with that board’s path. While this is arguably the simplest way to handle the optimized edging process, eliminating all of the starting/stopping, grabbing and positioning that takes place between the scanning and sawing operations of a transverse edger system, linear edger users still need to keep a close eye on their edger system in order to keep things working properly. This is of course in an effort to realize the highest possible recovery of yield and value that their edging system can provide.

Perhaps the most often overlooked and arguably the most important factor behind a linear edger system returning highest yields over time is the alignment of its components. A linear edger system works around the assumption that the board is scanned in the exact same position relative to a chosen reference line (usually the system centerline) that it will be in when it is processed by the saws. As the boards travel relatively long distances between being scanned and being sawn we have to be very careful to properly maintain the performance of the transfer devices in between.

In particular, mills should pay very close attention to:

- Edger infeed belt tracking, making sure that the belt tracks perfectly parallel to the edger system centerline.
- There are no humps or twists in the belt path that will cause the board to “walk” or “spin” on the surface of the belt. Sometimes this isn’t discernable to the



naked eye but by watching a board travel down a belt at very slow speed, comparing it to a fixed centerline at several different intervals along the way, we can see movement of the board either side to side or of a rotational nature.

- Transition areas need to be smooth and level, in particular those:
 - Through the scan zone (if you have 360 scanning). 360 degree scanning can be very beneficial to a mill but require careful attention during installation to ensure that boards will not move relative to the center line as they pass from one belt to the next. McDonough’s latest infeed belt designs minimize the distance between these belts, providing a constant, engineered space for the scanner to see through.
 - Between the infeed belt and the edger feed system. As the board to be sawn is handed off to the edger there is potential for the board to move slightly if the edger feed system isn’t in good alignment with the edger itself.

Saw calibration to the transfer system.

After transfer systems are aligned then saw entry points that are consistent with those planned by the optimizer are established by:

- Calibrating one saw (usually the center saw) to the entry points desired by the optimizer. This is done by marking the board while it sits on the infeed conveyor, after optimization, with the desired points of saw entry. By then sawing the board and measuring the difference between the actual entry point and the target entry point we can calibrate the saw positioning servo to correct for any error.
- Each of the remaining saws are then calibrated by sawing more lumber and comparing the sawn piece width to the target piece width. Re-calibration of the remaining saw servos is used to correct these piece widths, being sure to leave the first saw that you calibrated alone.

If you need any help with this or any other type edger system maintenance, please don’t hesitate to call McDonough to schedule an appointment.

If you have any maintenance tips to share or would like one answered, write to:

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