



By Kathryn Pedde

Continuous Improvement with JAX



We put our JAX gantry into full operation in late 2023, but we never stopped working to enhance its effectiveness. That's the advantage of having owner-operators who are hands-on in the plant every day.

Fortunately, we began with a proven automated gantry system equipped with a proven vacuum pick-up technology, all manufactured and installed by Sage Automation, located in Beaumont, Texas. We believe this is the first adaptation of proven automated technology in a component plant, and we're very pleased with the results.

Unlike many other component plant innovations, JAX is designed to work with the most challenging material, Southern Pine lumber, which is the only species we use in our truss plant. Of course, we've had to make adjustments to the picking heads and gripping surface as we've gained experience with JAX. But JAX has never let us down during the post-COVID rush of orders, consistently supplying lumber to two linear saws and a component saw. No longer are we picking individual sticks of lumber, instead we only handle full bundles of 2x4s through 2x12s.

Additional Innovations to Keep Up with JAX

With JAX picking up lumber so quickly, we soon learned that we needed a more efficient way to keep JAX stocked with full bundles! Since we were often restocking JAX ourselves, we were getting very tired manhandling carts loaded with two tons of lumber. While we used a fork lift to load carts, we had to manually push or pull carts to get them to the desired location within JAX.

To minimize downtime, we designed JAX with two separate safety zones, so that the JAX Gantry could keep picking in one zone while we were restocking the other. Yet, we still had times when the JAX gantry was slowed down, so we adapted an electric pallet jack to the task and called it Tugger!



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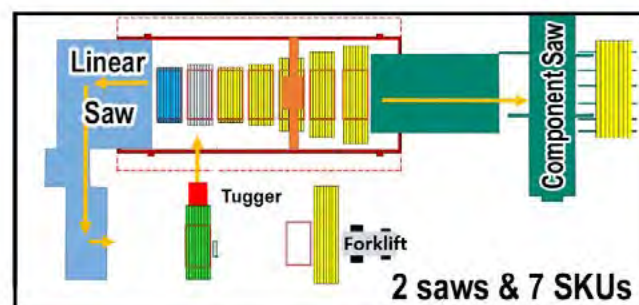
Here's how we modified a Toyota electric pallet jack to create Tugger:

- Onto its forks, we installed an 18" high wood platform.
- On the top of the platform, we created a gripping surface with upside-down connector plates.

Here's how to operate Tugger:

- Position Tugger beneath the portion of a bunk that extends beyond the ends of a cart.
- Raise the forks so that the teeth of the connectors engage the bottom of the bundle.
- Guide Tugger using the controls on its handle to pull, push, or turn it into the desired location.

In this diagram of a truss plant with two saws, you can see how easy it is to position Tugger within the configuration for maximum convenience. On our plant tours, Tugger continues to impress attendees. Furthermore, Tugger is just one of the innumerable enhancements we've made and continue to make with JAX.



Remember, with JAX, only full bundles are handled, which eliminates 200+ picks by hand on every bundle of 2x4s. With JAX, no one picks individual pieces. With JAX, saws run at maximum efficiency because they are fully stocked. And JAX doesn't pick the wrong grade of lumber in the heat of summer. The result is dramatic labor savings, less turnover, and more consistent and accurate saw output.

If we're not on the plant floor, we're in our office, watching JAX live on a computer screen and making sure that JAX keeps the feed decks of all three of our saws fully loaded. When you visit us, you can see Tugger, JAX The Wood Retriever, and the JAX-Universal Compiler (JAX-UC) software running smoothly. Please call me or Richard Pedde at 980-404-0209 with any questions or to request a tour. We're in Shelby, North Carolina, less than an hour from the Charlotte airport.