

Take A Load Off Your Fleet; Loads don't have to be burdens. With the right combination of information, engineering and imagination, fleet managers can make lift trucks much more efficient.

Tom Andel, Editor-in-Chief

Logic. If you have a problem with that, take it to a lift truck specialist. That's what many materials handlers do when they have load handling challenges. Physics comes in when considering elements like load stability and center of gravity. Logic involves variables such as operator skills and work environment.

Outside the box

Not all load handling challenges involve boxes. One in particular is a pig. Not an oinking pig, but one that separates various types of crude oil products in pipelines. Enbridge Energy's Ft. Atkinson Pipeline Maintenance Group had some initial concepts for this specialized handling device and approached Ron Hendriksen, a sales representative for Badger Toyota Lift (800-242-0541, www.badgerttoyotalift.com), a Toyota dealer in New Berlin, Wisc., who worked with attachment provider Cascade Corp. (800-242-2233, cascorp.com).

The challenge was in manipulating this long barbell-shaped device so as not to cause damage or injury. Cascade applied some of its drum clamp technology and adjusted it to handle a "pig."

"It took us about eight months to come up with an application we thought would work," says Hendriksen.

"We could pick it up and rotate it, but the idea of setting that pig down on the ground was the hard part. Tilt was another big part of it. Putting the 'bottlers' tilt' on that mast gave us that little extra

degree of backward and forward tilt needed to set it into the shipping cradle."

The pig is then cleaned and transported by flatbed back to the beginning of the pipeline for another trip through it.

Back in the box

Even applications involving boxes pose a fair share of complications. Take the case of Goodwill-Easter Seals of Minnesota. This involved a Gaylord box.

The textiles this charity doesn't sell at its stores are sold on the salvage market. That means dumping them into a baler in preparation for sale to buyers. Getting an object from Point A through Point Z is a matter of physics and

"We were manually dumping these Gaylord boxes into the hopper and then collapsing the Gaylords and restacking the pallets in a labor intensive operation," explains Dick Smith, director of distribution and logistics for Goodwill-Easter Seals. "We were having injuries with all the lifting and stretching and bending when they were pulling those big cardboard Gaylords back out of the hopper. We were spending thousands of dollars a year on injuries alone."

Larry Tamm, territory manager for Cascade, and his team came up with a solution that was new to Smith: a bulk box handler for flipping and dumping palletized Gaylord boxes, which measure 40 × 40 × 48 inches.

“One of the challenges with these boxes is that the bottom may just have a piece of tape holding it in place, so you have to handle it with the pallet underneath,” Tamm explains. “So if you’re dumping it, you have to lift and rotate the pallet and the box. We use our standard bulk box handler, which has rubber covered arms to clamp the box and forks that rotate along with it. They dump it into a hopper that feeds a baling machine. When they were doing this by hand it took hours. This cut their time down to nothing and eliminated a lot of extra work.”

Another benefit, according to Smith, is the flexibility of using the box handlers in other applications, such as dumping trash into a trash compactor and dumping scrap metal into big open top containers for shipment. By multi-tasking the equipment and reducing injuries, Smith says they achieved payback.

Multi-pallet handling

Even the simplest solutions can be mind-blowers if you’ve never considered them for your applications. Such was the case at Pactiv Corporation, a leader in the consumer and foodservice/food packaging markets. Pactiv was used to using carton clamps when loading and unloading trucks. It wasn’t until they placed another order for more of these clamps that they learned about a new approach.

“We sent one of our guys out to spend time with this customer,” recalls Ronny Keene, vice president of sales and marketing for attachment provider Bolzoni Auramo (800-358-5438, www.bolzoni-auramo.com). “He saw them handling all these pallets and asked if they ever tried a single-double pallet handler. They never did. We started demo-ing at a number of their facilities.”

The ability to handle two pallets at a time isn’t new, but Keene is amazed at how many companies consider it new. Considering this attachment’s origins, it’s easy to see how the productivity it can bring keeps it relevant.

Don’t forget slipsheets

The sudden ability to handle two pallets at a time, in the same time you can handle one, is a huge step up. The same paybacks of multifunctionality can apply if you handle pallets and slipsheets, as Purina does. This maker of pet food can’t allow the wood pallets its products are shipped on to be used in any of its plants. That means having to transfer the product off the wood pallet and onto a plastic pallet to avoid any chance of contamination. They use slipsheets, push/pulls and load inverters to accomplish this.

Specifically, they use Cascade’s Mark 55 push/pull. Hydraulically positionable outer platens open for conventional slipsheet handling and close to allow pallet handling.

“This can be a very costly addition to a traditional forklift, but a Mark 55 can operate with just two hydraulic functions instead of three,” explains Steve Ferreira, marketing manager for Yale/Chase Materials Handling, Inc. (562-463-8000, www.yalechase.com), which supplies equipment to Purina.

Lift truck manufacturers are evolving their products to more easily accommodate such functions, however. It’s all in the hydraulics.

“The hydraulics that come with a lift truck are being affected by trends with attachments,” says David LaDue, manager product strategy for Yale Materials Handling Corporation Yale Materials Handling Corporation (800-233-9253, www.yale.com). “Going faster and heavier and higher requires using more hydraulic fluid, and therefore high-flow hydraulic valves.”

Just plain forks Some handling tasks need finesse more than they need engineering. It’s amazing what a skilled forklift operator can do with an awkward load. And when it comes to awkward, it’s hard to beat 650 pounds of fluff.

By fluff we mean the stuff that stuffs teddy bears at 350 Build-A-Bear Workshops in malls around the country. These are stores where people literally build their own bears. Delivering the stuffing to these workshops is the most complex aspect of this company's materials handling logistics. The producers of this stuffing have bigger customers than Build-A-Bear—like pillow and mattress manufacturers. These customers require stuffing to be delivered in 650-pound bales, therefore that's how Build-a-Bear must accept it.

"That's fantastic if you're moving it around a depot on a forklift but within our stores we're talking about a workshop attendant who does this part time," says Jonah McIntire, Build-A-Bear's supply chain improvement manager. "She has to break the compression band and open up the stuffing bale."

When the franchise began 11 years ago, materials handlers had trouble getting this bale off the pallet and into a store's door. So they started delivering these bales on appliance dollies. At the depot, the company uses a lift truck and a very skilled operator to chisel the forks between the bale and the pallet, lift the bale, set it down on the floor, use the forks to flatten the rounded bottom of the bale so it stands upright, then chisel under the bale again, lift it and slide it onto a dolly. The bale is then strapped to the dolly.

McIntire says the company is working on a more elegant solution that incorporates asset management. These bales cost about \$500 each and the company warehouses 400 at a time. That's \$200,000 in inventory.

"If we could go to a different size bale by opening a depot where we break these down, that would have an immediate \$200,000 payback," McIntire says.

For now, because these bales of stuffing are the most expensive items in the Build-A-Bear supply chain, the company uses Manhattan Associates' Extended

Enterprise Management Visibility Tool (678-597-7091, www.manh.com) to keep track of how much stuffing is in transit and what's at those intermediate distribution points. The visibility tool will also help the company keep track of the dollies, each of which costs about \$100.