



Log-Chip Trailer Offers Flexibility

By Barbara Coyner

With the world economy in turmoil and the timber industry swinging by a rope, truckers such as the Canadian-based DCT Chambers Group have their eye on maximum efficiency. Belt-tightening is a given, but so is flexibility, and that's what Chambers is after.

Multi-Tasking

The company is currently putting a lot of stock in a dual-purpose trailer that can haul either logs or chips. Company marketing manager Jim Patterson has his facts in order when it comes to seeing how the multi-tasking unit fits into the industry picture.

"Traditional supply chains of wood chips from sawmills to pulp mills have changed drastically in the last 5 years," Patterson says. "Sawmill production is inconsistent, species switches are more frequent, there's more product demand for other residuals such as shavings, chip fines, sawdust, and hog fuel, and destinations, routing, and haul distances have changed. Whole log chippers and grinders have added to these changes, with emphasis on swing demand and short term hauling."

Patterson's explanation of industry challenges summarizes the need for a flexible trailer that can route logs in one direction, and then pick up a load of biomass or residuals going the other way.

In Action in Canada

The dual-purpose trailer is no pipe dream. DCT Chambers has already been running the dual-purpose trailer in Canada.

"These units were designed and built by Don Glen Trucking out of Cowley, Alberta, and Western Trailer Manufacturing out of Boise, Idaho," Patterson says, noting that Glen Trucking was bought by Chambers in May 2006.

"The original concept design for similar two-way haul trailers went back to Western Trailers and Bulk Systems, which built a single prototype unit for hauling lumber and wood chips. Similar trailers -- called soft sided or curtain siders -- were also serving Boise Cascade mills in Oregon," he says. "Western Trailer Manufacturing worked closely with Don Glen on the lightest possible tare weights and on the transition systems between the two products: logs and chips."

New Dog, Old Trick

Patterson acknowledges that the soft-side technology isn't new, but Chambers has applied it to residual two-way hauling. "DCT used the curtain technology on other units in our fleet that were built and designed to haul liquid resins and composite board," he says. "The design is copied from Europe, where it is standard for trailers to use the soft sided technology."

So far, Patterson says, the trailers are not widely used in the United States. "Up until the recent closure of Boise Cascade's plywood plant in Medford, Ore., soft sided trailers were used to haul chips to a Boise pulp mill and return with veneer for plywood production. For log hauls, there have been other trailer designs that incorporate log bunks inside curtain trailers. Efficiencies are lost, however, when the log bunks need to be transported back to the log loading origin."



The Good and the Bad

Originally, DCT Chambers used the dual-purpose trailers for a 530-mile roundtrip between West Fraser's Sundre, Alberta sawmill and their Hinton, Alberta pulp mill, but the hauls have been discontinued.

Given the data collected during those hauls, the flexibility of the dual-purpose trailer can't be underestimated, especially in the new climate of alternative energy options for woody biomass.

On the Sundre/Hinton haul, the trailers saved approximately 261,818 gallons of fuel per year. At \$3 per gallon, that tallies to some \$785,000 in fuel cost savings annually. Weighed against the initial \$200,000 cost of the trailer, it is clear that the dual-use haulers reduce total costs significantly, as well as addressing mandated environmental concerns.

One big drawback for carriers, according to Patterson, is that sawmill infrastructure for residual loading has not kept pace with industry changes and needs. That means carriers carry more products further, while servicing bins and production flows with unchanged capacity. With some mills using such stagnant storage concepts for handling biomass, Patterson says carriers frequently use their trailers for storage and preloading, incurring costs in excess of longer-term storage solutions.

A Piece of the Puzzle

Like others addressing trucking efficiency, Patterson knows the dual-purpose trailers are just part of a lineup of innovation trying to get a grip in a slippery economy. Woody biomass, differing log lengths, and mill proximity all play into the mix. But so do seasonal fluctuations in driver employment.

When diesel prices shot through the roof, several independent haulers fled the industry. Newcomers to the business remain wary, preferring steady and more predictable work.

Patterson sees innovative equipment as one key to survival, but there also has to be efficient scheduling and dispatching. Ever-changing haul routes and less than dependable product lines keep the dice rolling, however. Nevertheless, Patterson places his bets with companies like DCT Chambers, a privately owned enterprise started in the mid-60s that has now grown to a fleet of over 250 trucks.

"The Chambers group has a reputation for many innovative operational strategies now adopted by the industry," says Patterson. "The company is known for high-cube, lightweight super trains, maximum payloads, centralized real-time dispatch, and on-board communication systems that manage fuel and driver performance, and safety systems that include monitoring of specific highway terrain and driver training."

Chambers also operates using multi-jurisdictional truck and trailer specifications, making it easier to haul in both Canada and the U.S. Clearly Patterson likes the fact that Chambers does its homework, investigating new haul concepts and mill infrastructure improvements, as well as investing in new trailers like the dual-purpose log and chip hauler.

With challenges mounting to stay efficient and viable, Jim Patterson thinks the dual-use log-chip trailers offer real cost savings and environmental benefits to those companies willing to work with the design configuration.