Armstrong brings it back

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BY **JOHN D. SCHULZ**, CONTRIBUTING EDITOR

Sometimes it's best to control your own destiny. Just ask the transportation team at Armstrong World Industries, a 150-year-old flooring, ceiling, and cabinet manufacturer based in Lancaster, Pa.

After outsourcing its transportation functions to a major third-party logistics provider (3PL) in January 2007, the logistics department of the $2.8 billion company quickly realized—in less than a year—that the new partnership was not going to pan out. In short: The arrangement was not meeting Armstrong's established cost and service goals.

"The biggest flaw was that our 3PL took a one-size-fits-all approach," says Marcus Smith, Armstrong's manager of transportation procurement. "We have specialized needs, especially in truck equipment. We use flatbeds, dry vans, driver-assisted vehicles, and short, straight trucks in and out of New York City. They didn't appreciate the complexity of our business."

Managing transportation was once a core competency of Armstrong. According to Smith, it used to take pride in prequalifying its carriers, negotiating rates, and managing its own logistics relationships. "Carriers were almost an extension of us," Smith says. And that personal touch was lost under the 3PL's management.

According to Smith, it was evident pretty much from the start that it wasn't going to work. Armstrong has 32 plant locations operating out of its four divisions with 10,800 employees. Under the arrangement with the 3PL, it was using as many as 120 different trucking companies to service those locations. According to Smith, it got to be too many.

"New carriers were just sprung on us," says Smith. "And

After outsourcing its transportation functions to a 3PL in January 2007, the 150-year-old manufacturer decided to bring logistics and transportation back under its own roof to tighten controls, establish carrier measurement, and rack up the savings.

in house

as we got into the summer of 2007 it got very busy and the problems started magnifying." There were complaints about service. There were late deliveries. Carriers were not on time for pickups. Customers didn't recognize Armstrong's new carriers and wanted some of the familiar faces back. But mostly, says Smith, there was a failure by the 3PL to understand Armstrong's customer requirements.

"Perhaps we just didn't properly communicate on the front end, or our 3PL failed to understand how critical the service was," says Smith. "But no matter how we looked at it, we just couldn't afford delays in shipments and there was a fundamental failure to recognize our service demands."

Smith and his team knew that enough was enough. It was time to bring its transportation function back in house. In fact, Armstrong's bold move has earned Smith and company the 2010 NASSTRAC Shipper of the Year Award.

"When we evaluated the recent initiatives at Armstrong, it became immediately clear that their transportation is closely aligned with their various business units," says Brian Everett, NASSTRAC's executive director. "Through carrier performance measurement via a monthly scorecard, and their own cost performance, they significantly improved service and reduced costs—something that most shippers are trying to accomplish in the 'new reality' of our economy. Their initiatives are extremely impressive and certainly worthy of this year's award."

PULLING IN THE REINS

After outsourcing the transportation function in January 2007, it became almost immediately apparent that the decision was a mistake. Armstrong senior management began reviewing its decision and in late 2007, four rival 3PL bids were solicited along with a cost analysis for re-establishing the in-house transportation department.

Armstrong decided to pursue an in-house transportation strategy based on excellence in the management of the transportation processes, balancing the cost against fully meeting customer requirements. Bidding commenced; and according to Smith, the in-house model came in 60 percent lower than the current 3PL provider and more than 40 percent less than the lowest cost 3PL bidder.

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half what everybody else was charging," says Smith. "Every 3PL comes in and says that they'll save us between 7 percent and 10 percent off the top. We knew we were different. We struggled with it. We said: 'Can this be real? Can we do it better?'"

It turns out that the Armstrong team could. Smith huddled with Howard Liddic, the company's long-time outbound transportation manager, and brainstormed. The team revisited Armstrong's past best transportation practices on how it reviewed carriers and benchmarked them against the best.

In order to do the job right, Armstrong created a seven-person in-house transportation department to replace the 10-person staff employed by the 3PL. The new staff consisted of three new hires to augment four Armstrong employees. According to Liddic, there was a very nice mix of skills, including some outside people with a broader view of logistics and transportation to complement the Armstrong folks who were very familiar with the company's processes and culture.

"We just didn't bring it back in house," says Smith. "We set up a very strong, formal process for managing carriers, score-carded them, and increased business with the good ones."

This group was charged with a phased transition over a two month span in late 2008. The transition was completed on Jan. 1, 2009.

PUTTING THE NEW PROCESS TO WORK

Changes had to be made almost immediately, both in planning and processes. Armstrong officials knew what they wanted out of their new in-house transportation department, but assuring that success took some painstaking work. A commitment to deliver the service at the best cost was integral to Armstrong's new transportation strategy. In order to do that, metrics were established to measure service versus cost performed by all of its 90 trucking partners.

It also began twice-a-year benchmarking initiative using Chainanalytics' software to get a true apples-to-apples comparison of carrier performance. According to Smith, the Chainanalytics data is utilized to target specific cost reduction opportunities and to communicate results to management.

Once a carrier is qualified, freight rates and contracts are negotiated to Armstrong's standards. Rates are loaded in both the SAP and Manhattan Associates' transportation planning and execution software systems. There are weekly tender monitoring reviews and department meetings to ensure that

the team is proactively identifying problem areas.

Under this new system, Smith says freight costs and associated drivers are analyzed monthly, both by budget and by lane. This enables Armstrong to quickly identify variances and prompt quick follow-up action. "We have weekly monitoring on which carriers are getting which shipments," Smith says. "That turns into a monthly monitoring cycle in which we're tracking our spend per shipment. We track service by plant, by customer, and by carrier."

The carrier scorecard assigns every carrier a numerical rating based on seven key metrics. Those scorecards are reviewed monthly. Any carriers performing below expectations are identified and follow-up actions are established. These can include a formal performance review, a reduction in business, or the removal of a carrier from Armstrong's network.

"The implementation of carrier scorecards is designed to make the carriers more robust in their service," Liddic explains. "Our carriers take them very seriously because they know they are directly tied to their standing with Armstrong."

Armstrong began refocusing on asset-based carriers to support its plant and customer process, and the team implemented an "elite" carrier program to reward high-performing carriers. It also made a strategic decision to refuse to bring new carriers with unknown service levels into its carrier base without first properly vetting their service abilities.

SOLVING PROBLEMS

One of the issues that made Armstrong's transportation situation unique—and put additional stress on its original 3PL relationship—was its need for different types of equipment and its varying services requirements. In New York City, for example, it began using 40-foot straight trucks instead of typical 53-foot trailers due to their ability to negotiation city streets.

Instead of utilizing just one type of equipment, Armstrong uses various types of trucks to haul its dizzying array of raw materials and finished products. It now uses multiple types of equipment from its various carriers. This equipment includes flatbed trailers, dry vans, taut liners (those soft-sided "curtain" trucks) and other specialized equipment, depending on customer need. "Our network is very complex," says Liddic. "We are very integrated with our carriers now—a level of integration we were not able to achieve with a 3PL."

For example, many Armstrong customers do not have a loading dock. Instead, Armstrong's carriers now know that they must unload those trucks in parking lots. "Our carriers all know that," says Liddic. "They know our customers as well as we do. Our carriers are now very committed on the customer end."

For example, under the 3PL, Armstrong was shipping some of its floor covering rolls via more expensive flatbed equipment. That required a handling crew to secure it and then cover the load, all costing time and money. "We spec'd equipment just for them," says Jim Germak, president and owner of Jagtrux, a 40-truck, 250-trailer fleet—and one of Armstrong's 90 core carriers.

"We run curtain-sided trailers in the Northeast that eliminates the need for flatbed. They're saving all that handling. Not only that, we provide for finished product on one end and are able to bring back raw materials on the way back," says Germak.

One other issue that needed to be overcome was that many Armstrong distributors in the Northeast had little storage space for its recycled material. Germak suggested dropping one of Jagtrux's trailers and their location. When used products came back, they placed them in that trailer. When it was full, Jagtrux swapped it out with an empty one. "We do that with half dozen of its distributors in the Northeast, and it's worked out very well," adds Germak.

Another problem revolved around an Armstrong supplier of Perlite, a white volcanic rock used in making floor coverings. In the past, it had to use spotty rail service out of its Delaware location. Jagtrux was able to replace those rail shipments by utilizing what's called a hopper trailer—a double 42-foot trailer, similar to a rail grain hopper car. It now runs eight hopper trailer loads a week out of that location instead of rail.

"And we did it at a cost comparable to rail," adds Germak.

BENEFITS ABOUND

According to all of Smith's calculations, Armstrong has benefited both in cost and service. He says bringing transportation back in house has resulted in an overall cost reduction of 15.4 percent per unit shipped last year—a number that has surpassed Smith's own internal estimates.

"We definitely thought there were savings out there, but we were surprised by the magnitude of the savings," Smith says.

In addition, transportation has become more disciplined with better service. On-time delivery improved from 95.2 percent in 2008 to 96.7 percent last year. The number of missed items in deliveries fell from 396 in 2008 to 177 last year. "We've been very satisfied," says Smith.

Besides the savings, there is the pride that comes from managing a job well. In decades past, Armstrong traditionally had managed its own transportation. "This was not a radical change for us," adds Liddic. "Our internal customers were very used to it. It became apparent that this was the route to take. Not just to save the money, but to get back to Armstrong's legacy of transportation."

Smith emphasizes that he does not want to be seen as a 3PL basher. "A good 3PL definitely serves a great purpose, and I still recommend them," he says. We just have a business with a lot of specialized needs. We're better served being on the team internally." ☐

—John D. Schulz is a Contributing Editor for Logistics Management