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Thinking Small: The Business Case for LCL



Using less-than-containerload (LCL) services to ship smaller ocean freight volumes can reap large benefits.

More to the Story:

When it comes to ocean freight, many shippers strive for full containerloads (FCL), believing that's their best option for moving goods across the sea. Often, they're correct—less-than-containerload (LCL) shipments can cost considerably more. But as some shippers begin to take a broader view of their supply chains, they find that smaller shipments can be the most cost-effective choice for certain combinations of goods, order size, and market need.

Perhaps that's why LCL has grown over the past decade. Getting a precise read on the percentage of steamship cargo moving via LCL is tough because service providers often consolidate shipments, then present them to steamship carriers as full containers. But in an analysis of shipments presented directly to steamship companies for consolidation into containers—a minority of the LCL market—international trade data research firm Datamyne found that LCL shipments held steady from 2010 through 2011 at nearly 15 percent of containers.

Several LCL consolidators report increases during the first half of 2012. The proportion of FCL to LCL shipments shifts with the economy, says Allen Clifford, president of the Containerization + Intermodal Institute (CII), a non-profit organization that educates shippers about containerization.

The high cost of air cargo is a driving force behind the rise of LCL, which offers increasingly diverse options. Within the past few years a new service tier—expedited LCL service—has emerged to meet demand for time-definite ocean transport, particularly for goods that previously moved by air. New steamship lanes are making Asia-to-U.S. East Coast LCL a more viable option. And, as sourcing locations diversify, new LCL services are entering the market.

Who Uses LCL?

Small- and mid-size businesses use LCL frequently because they simply don't have the volume to fill a full load, and waiting until they do would mean missing delivery deadlines. LCL shipments are also typical for companies opening new markets or serving smaller ones. And sometimes manufacturing a product—say, a sparingly used but vital and perishable ingredient for hand cream—depends on a small but regular supply. Retailers, especially apparel, are frequent LCL users, as are the automotive, oil and gas, chemicals, and e-commerce industries.

Avoiding air freight may have been a strong initial driver for shifting to LCL, but today another supply chain factor draws customers: smaller orders.

"In a down and uncertain market, companies are cautious about how much freight and inventory they produce," says Ken Black, director of logistics and engineering for Crowley Maritime Corporation, a U.S. marine solutions, transportation, and logistics company. When a customer wants smaller orders more frequently, air freight and LCL are the only global transportation options.

"LCL cargo shipments have increased because companies are skittish about buying volume," says Clifford. Because today's sophisticated technology can deliver better demand visibility, supply chain managers can more accurately forecast their needs and schedule smaller orders to arrive at prescribed intervals just in time—a tactic some logistics professionals call "warehouse on the water."

LCL shipments from Europe to the East Coast can arrive in as few as eight days, says Greg Howard, global CEO at CaroTrans, a Clark, N.J.-based non-vessel-operating common carrier (NVOCC) and ocean freight consolidator. The combination of increasing freight costs, tighter air cargo regulation, and airport delays convinces some shippers to decide they can wait a little longer for their goods.

It turns out they do not always have to wait that much longer for ocean shipments compared to air freight. "Nothing moves overnight from Asia," notes Joe Albelo, director of sales at Con-way Freight, a less-than-truckload carrier headquartered in Ann Arbor, Mich. "Airfreight shipments typically take five to eight days, due to delays or capacity constraints."

The simple definition of LCL's sweet spot is when a shipment weighs less than 10,000 pounds, or measures less than 800 cubic feet. But the true answer is more complicated, and the picture changes as rates fluctuate.

Total landed cost can be critical to help establish LCL shipping's true price tag. But so can the impact of choosing to move a smaller shipment sooner or a larger one later. Factors include manufacturing costs, the time it takes a manufacturer to fill a complete container, and the carrying cost of the excess inventory that moves in a full containerload. What is the cost of product obsolescence, and lost sales and profit if the goods are not available when they're needed? How does this compare to FCL's savings?

The equation tips toward LCL for Beauty & Logistics, a Miami-based fulfillment provider for distributors selling health and beauty products into duty-free shops in the Caribbean and South and Central America. Customer orders are typically one to five pallets, which must arrive in time to meet promotional and product-launch windows.

"Sometimes the deciding factor is not cost savings or transit time, but customer satisfaction," says Jose Rodriguez, export agent for Beauty & Logistics, which shipped via air until about five years ago, and now uses Crowley Maritime Corporation as its consolidator.

Some providers may offer services to reduce costs, such as consolidation close to sourcing points, or "milk runs" in which goods are picked up from multiple suppliers along a corridor to create a consolidated container. This might cost less than transporting the goods inland all the way to the port area, then paying for consolidation services—and doing the reverse at the destination. "Inland costs dramatically decrease," says Black. "Shippers can run domestic truckload one way."

The ability to guarantee a certain cargo volume over time means it is possible to negotiate a competitive rate for LCL, says Robert Lieberman, owner/managing director of Glass Packaging Solutions, a Lincoln, N.C., importer of high-end glass bottles from Europe. Many of his customers request LCL shipments as part of just-in-time inventory programs.

Even for small shipments, however, these rates may not equal a better deal. "Consider the cost of a 20-foot container," advises Sara Mayes, president of Gemini Shippers Group, a New York-based shippers' association. "If you are moving 14 or 15 cubic meters of cargo, it's probably cheaper to ship FCL."

Expanding Options

As sourcing locations diversify and demand increases, the scope of LCL services has grown. "The routes have always been there, but they're growing in size, with more vessels and more frequency," says CII's Clifford.

"CaroTrans has enhanced its LCL offerings, expanding trade lanes and adding more point-to-point services to avoid overseas hubs and handling centers," adds Howard. The new service lanes include China to Chile, Chile to Peru, and Australia to Europe.

Con-way Freight is expanding OceanGuaranteed, the expedited LCL service it offers in conjunction with international supply chain service provider APL Logistics. The service, which ships from 12 Asian ports to Los Angeles and Seattle,

recently added ports in Xiamen, China, and Jakarta, Indonesia. OceanGuaranteed is a premium, guaranteed, day-definite and asset-based LCL service that is 30 percent faster than standard ocean/intermodal moves, and up to 75 percent less expensive than air freight. The service is intended for high-value products, time-critical materials, and items that have a short shelf life, with not enough margin to warrant air freight, but requiring more reliable transit times than traditional LCL.

A definitive arrival date is a particular distinction. "LCL used to be a shipper's least-favorite option because there is no certainty of delivery or transit time to mainland customers," says Con-way's Albelo. The guaranteed delivery dates have attracted business even from customers within 300 to 400 miles of West Coast ports, to ensure they avoid processing delays. OceanGuaranteed freight is typically offloaded within five hours of the vessel's arrival.

Other logistics professionals report increased use of alternative routing, if the shipper can afford the extra time it sometimes requires. "The biggest difference is Asia to the East Coast," says Stephen Dedola, chief operating officer of Dedola Global Logistics, an international freight forwarder headquartered in Los Alamitos, Calif. "It's an all-water route, but costs less than mini-landbridge," in which goods are delivered to a West Coast port and moved by train to their ultimate destination.

The Upside of LCL

LCL delivers a number of benefits. Shippers can buy specific service packages from full-service consolidators, and ensure extra shipment supervision. Beauty & Logistics chose its consolidator for the combination of technology-enabled visibility and the ability to work with a contact person at its destination ports.

"Some shippers don't use online tools, and don't plan to," says Rodriquez. "It's important to have both a contact person at the destination, and automated service in the United States for status updates."

Other advantages LCL provides include:

- **Delineated costs.** LCL makes it easier to allocate freight costs because an LCL shipment's order amount or cubic foot size is clear.
- **Flexibility.** The small order sizes enabled by LCL not only reduce inventory investment, they also give shippers flexibility. "Shippers can change their product mix on a dime without wasted inventory," notes Glass Packaging Solutions' Lieberman, who ships LCL with Troy Container Line, a Red Bank, N.J.-based NVOCC. "We don't mind paying 10 cents more if we have that flexibility, because it may pay off in the long term."
- **Speedier vessels.** Chris Hellow, chief operating officer of the import department at Troy Container Line, which ships about 80 percent of its cargo via LCL, says transit time in consolidation will be fastest with LCL because consolidators can select vessels with direct routes or fewer stops as opposed to long routes with multiple stops.
- **Preferential treatment.** "LCL consolidation containers move at higher freight rates than general commodity FCL, so carriers tend to give them preferential loading," says CaroTrans' Howard. Another reason: LCL container shipments are usually consistent in volume, and typically shipped port-to-port.

Tradeoffs and Risks

By its very nature, LCL introduces extra risk into shipping. Chief among them is loss of control over the cargo. The consolidator may have relationships with multiple ocean carriers, so the shipment could move on any one of several carriers' vessels—even if the shipper has an FCL contract with a different ocean carrier.

In addition to the typical vagaries of ocean transport, shipments risk damage from other goods sharing the container. Consolidation and deconsolidation mean extra handling, and shipments may go to one or more secondary sort centers before arrival at the destination port—exposing the cargo to damage and theft risks. This can be particularly true for economy LCL services that include several stops along the way.

Shipment documentation is another concern. An LCL container is only as customs-ready as the weakest paperwork. One shipper not in compliance can delay all the properly managed shipments. "For OceanGuaranteed service, we separate C-TPAT from non-C-TPAT-certified cargo," says Con-way's Albelo. The service also clears its LCL shipments through Customs before arrival.

High-quality consolidators take pains to select like shipments for consolidation. They avoid mixing commercial goods with shipments made by individuals, hazardous with non-hazardous materials, and non-compatible hazardous shipments.

A good consolidator knows what items Customs tends to check more thoroughly and keeps those separate from other goods, says Dedola. But hazardous goods can sometimes experience delays because of other hazardous shipments the consolidator is handling at that time, limiting service options.

Fees can also add up. Consider forklift and accessorial charges; documentation, demurrage, and clean truck fees; peak-season surcharges; and costs associated with PierPASS, a traffic mitigation program. Some fees are the same whether the shipment is FCL or LCL, so the shipping-cost-per-item increases for LCL shipments. Some consolidators and logistics providers seek to mitigate the likelihood of unexpected fees and keep costs more predictable by aggregating fees into a landed cost.

"If shippers are straightforward with the information they provide to freight forwarders, there should be no problems," advises CII's Clifford. "If they leave details out, they might get a few surprises."

For example, one bottlemaker forgot to mention the wire swing top on a shipment of glass bottles, and the shipment was delayed for four weeks while U.S. Customs and Border Protection determined if the wire was explosive.

Other tradeoffs include:

- Earlier cargo and dock cut-off times, and more time for delivery at the end of the route, adding as much as one week to transit time.
- Extra packaging required.
- Delays. Many steamships are opting for slow steaming on some routes to cut fuel costs—moving at 19 knots rather than 22 to 23 knots as in years past. Together with consolidation and deconsolidation time and interim stops, that can mean long and uncertain transit times.

Best Practices for LCL Shipments

While consolidators offer many services, the ultimate onus for successful LCL falls on the shipper.

Most importantly, shippers must ensure they have compiled the correct documentation. "Of the 17,000 individual shipments we will handle this year, at least 20 percent will have documentation issues that incur extra charges for importers," says Troy's Hellow.

It is also vital to plan sufficient time for Customs clearance. Don't promise to meet a customer's delivery date within five days of discharge, for example, when Customs delays could push delivery time to 14 to 21 days.

Effective packaging is the key to avoiding some LCL risks. Packaging requirements exceed even those of LTL, because the cargo will not only be packed with other shippers' goods, but will be subject to the rigors of sea transport.

"Square, neat freight is best for LCL, because stackability is a big issue," says Crowley's Black.

In the United States and Europe, LCL consolidators often emphasize pallets and shrinkwrap. In Asian ports, many goods are hand-packed directly into containers without forklifts to increase space utilization, so cartons suitable for manual handling are a must. Many NVOCCs, consolidators, and freight forwarders offer packing guidelines on their Web sites.

Uniformity also helps; it may pay to wait to ship oversize or odd-shaped goods until you can fill your own container, due to the extra handling and risk.

Another strategy is amassing shipments from multiple suppliers so yours becomes the head load or nose load—the shipment with the largest volume in the container—which can reduce costs. "Volume wins in this business, even at the LCL level," says Dedola.

Some shippers also look to buy LCL services opportunistically. "There are some good deals on LCL from service providers trying to fill containers," he adds.

Finally, know that "issues will always arise," says Hellow. "Choose a service provider that can fix problems quickly and efficiently."

Full containerloads continue to be the goal for shippers looking to keep a tight lid on shipping costs. But LCL services are evolving and diversifying to fit specific needs in a marketplace hungry for new and cost-effective transportation options.

Selecting a Consolidator

In addition to the due diligence a company must undertake to ensure the financial viability and integrity of any service provider, choosing a consolidator, international freight forwarder, or NVOCC with particular capabilities and qualities can help make LCL shipping easier.

Primary requirements include a strong track record and a solid network. "A good consolidator is only as good as the destination agent or services," says Ken Black, director of logistics and engineering for Crowley Maritime Corporation.

Make sure the consolidator offers all the services required at the destination, such as strong local Customs and transportation knowledge, and several partners to provide flexible shipping options. Robert Lieberman, owner/managing director of Glass Packaging Solutions, develops personal relationships within his consolidator partners' companies, and sends them strategically timed e-mails to help manage shipments.

Ensure the consolidator offers the services you want—end-to-end, only inbound or outbound, and the right modes and markets—particularly if sourcing locations are growing more diverse. CaroTrans reports an increase in LCL containers in Vietnam, Brazil, Australia, Europe, India, and the United Kingdom. "Consider using a master consolidator that can offer critical mass and service reliability to ensure your shipment doesn't sit waiting for enough cargo to fill a container," suggests Greg Howard, global CEO, CaroTrans.

Other items for the selection checklist include solid technology systems that provide shipment visibility, established processes for handling goods, and use of bonded warehouses for consolidation/deconsolidation. Know how the provider handles damages.

Also investigate the warehouse where consolidation will take place. How experienced is the staff? How well do they pack? How far is it from the port, and how smooth is the route?

Finally, verify that security measures include well-organized processes, the right certifications, and established documentation and release instructions so the shipment is passed into the right hands. A domestic bonded warehouse secured to U.S. Customs and Border Protection standards, and use of video to record loading and unloading, are also valuable.