

GEORGIA PORTS AUTHORITY: PARTNERSHIP WITH KONECRANES ‘CRITICAL LINK’ TO SAVANNAH’S RISE AMONG CONTAINER PORTS

Businesses overuse the term “partnership,” says Curtis Foltz, executive director of Georgia Ports Authority (GPA). But he’s hard pressed to find a better word to describe GPA’s 20-year working relationship with crane manufacturer and service provider Konecranes.

“It’s truly a one-of-a-kind partnership in our industry, and it’s one in which Konecranes is a true service-oriented partner, allowing us to better service our customers.”

BY THE NUMBERS

Numbers alone show that the alliance, like a fulcrum, has lifted both partners:

- Konecranes entered the picture at GPA’s Garden City Terminal—on the Port of Savannah—in the mid-1990s. In that period, GPA ordered four Konecranes ship-to-shore container cranes and four rubber tired gantry (RTG) cranes.
- Konecranes’ presence at the terminal soon will grow to 26 ship-to-shore cranes and 146 RTGs with a pending order of four new STS cranes and 30 new RTGs. This and other recent orders help to position GPA for the 2016 completion of the Panama Canal expansion and a continuing rise in container-handling volume.
- GPA recently sold the last three of its non-Konecranes ship-to-shores, making GPA an exclusive Konecranes customer.
- Georgia Ports Authority, in the mid-‘90s, ranked 14th among U.S. ports in container volume, handling about 450,000 20-foot equivalent units (TEUs) per year. In 2014, the Garden City Terminal’s volume reached 3.35 million TEUs – a more than sevenfold increase and up 10.3 percent from 2013.
- In the last 15 years GPA has been the fastest growing container operator in the United States – now ranked fourth largest in the nation for volume. And the Port of Savannah is the second busiest container exporter, after the Port of Los Angeles.
- GPA’s Garden City Terminal, with more than 9,700 feet of contiguous berth space and 1,200 acres of land, is the largest single-operator container facility in North America.

‘THE CRITICAL LINK’

The partnership drives deeper than numbers. Foltz characterizes Konecranes as “the critical link” to GPA’s success.





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“It’s hard to really put a figure on how important Konecranes is to us. Clearly without the approach and relationship that we’ve had with Konecranes over time, we wouldn’t have been able to accomplish what we’ve accomplished,” he said. “We wouldn’t be as successful as we’ve been. We wouldn’t be able to handle the type of velocity that we’ve handled and throughput that we’ve handled.

“One of those critical elements to servicing customers is our container handling equipment, in both the RTGs and the ship-to-shore cranes. They are the critical link to our ability to service ships and customers and truckers very efficiently.”

IT STARTED WITH A GAMBLE

Foltz wasn’t on staff to see the first Konecranes equipment arrive at GPA. But Richard Cox was.

Cox arrived at GPA in 1995 as an assistant manager in engineering, shortly after GPA placed its first order with Konecranes for four ship-to-shore cranes. Cox, who now works with GPA as a consultant for Moffatt and Nichol, retired from GPA in 2013 as general manager of equipment and facilities engineering.

Soon after his arrival, Cox witnessed Konecranes take “a big gamble” with GPA.

Konecranes had just developed its first RTG, which introduced new technology to the market. Konecranes believed enough in the new product to offer GPA a no-risk opportunity to try it out in Garden City’s container yard.

“Konecranes would design, manufacture, ship, install, commission and allow us to run the equipment for six months as a test, and if we didn’t like it for whatever reason ... they would disassemble it and take it back.”

“It was a big gamble that Konecranes was putting out into the market, and GPA literally had no risk, no cash out of pocket, nothing to lose.”

KONECRANES PUT TO THE TEST

GPA took delivery of four of the cranes, and Konecranes offered to put one of them to a side-by-side trial run against one of GPA’s RTGs.

Each crane was driven by a GPA operator. The operator running the Konecranes unit received a few hours of instruction.

Cox recalls that each operator drove about 1,000 feet to a container stack, grabbed a box and loaded it on a truck before returning to the start. “They had identical gantry speeds, identical trolley and main hoisting speeds, so really it was apples to apples,” Cox said.

That is, until the operator of GPA’s RTG waited for the machine’s spreader bar to stop swinging so it could latch on the container.

The Konecranes RTG arrived “virtually at the same time” to pick up its designated container, Cox said. However, the spreader bar of the Konecranes RTG steadied immediately, grabbed hold of the container, and loaded it.

The Konecranes 16-wheel RTG completed the test in about 60 percent of the time required by GPA’s RTG. “It was really noticeable,” Cox said.

“The operator said it was a much smoother ride, and he was able to get on the box and off the box a lot faster. So for the operators, it was like the best thing that had ever happened to them.”

Konecranes’ new technology, Active Load Control, made the difference, preventing sway and enabling precise adjustments for faster container handling.

“Today that sway control is just as effective; still the best in the industry,” Cox said.

LOWERING COSTS - ECONOMIC & ENVIRONMENTAL

GPA also became the first North American customer to buy Konecranes’ new electric-powered rubber tired gantry (eRTG) cranes, taking delivery of four in 2012.

The 30 RTGs currently on order at GPA also are electric, part of GPA’s initiative to reduce operating expenses and environmental impact. The eRTGs reduce carbon footprint by 96 percent per crane, compared to diesel RTGs. The eRTGs, which are equipped with a diesel engine for moving between container rows and operating during power outages, consume only five percent of the fuel used by conventional RTGs.

Over the next three to four years, Konecranes will convert one-third – about 40 cranes – of Garden City Terminal’s diesel-powered RTG fleet. Eventually, GPA will convert its entire fleet, saving about 2.7 million gallons of diesel a year.

Konecranes has previously retrofitted the RTGs with high-efficiency diesel engines and exhaust systems that reduce carbon emissions.

In partnership, GPA and Konecranes have already converted all of the terminal’s ship-to-shore cranes to electric power, saving about 1.9 million gallons of fuel a year.

SAVING - AND CREATING - ENERGY

On top of that, GPA now generates electricity to satisfy part of the STS cranes’ power requirements. Konecranes and GPA developed an energy collection system that captures kinetic energy from lowering containers.

“We are generating a significant amount of electricity to operate those cranes,” Scott Lane, vice president and general manager of Konecranes Port Service for North America, said.



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GPA reports that over the past 10 years fuel consumption has been reduced by more than 50 percent per container handled at the terminal. GPA's energy saving programs and efficiency upgrades save more than 6.8 million gallons of fuel a year.

For reducing emissions and other environmental initiatives, GPA has won the American Association of Port Authorities Environmental Enhancement Award, as well as awards from the EPA and the Georgia Urban Forest Council.

In addition to improving energy efficiency, GPA and Konecranes have worked together to improve performance of STS and RTG cranes, Foltz said. "Our operators provide feedback to Konecranes on the best elements of the equipment that we have. We build upon the base unit of 20 years ago, and every year we have made continuous improvements.

CONTINUAL REFINEMENT

"We couldn't have done it without that collaborative partnering approach where we bring both parties to the table. We have effectively helped [Konecranes] design what we think is the most reliable, fastest and safest piece of equipment that's in the marketplace today."

Tuomas Saastamoinen, sales and marketing director for Konecranes Port Cranes, said, "We have been incorporating a lot of (GPA's recommendations) in our products, so we have been exploiting, in a way, the GPA-dedicated feedback. We have always been thinking that if GPA wants this then there must be other customers who want this as well."

GPA also appreciates the comparatively low total cost of ownership of Konecranes equipment over its lifetime.

Lane said that Konecranes equipment typically costs more than competing brands. The higher initial cost, he explained, reflects Konecranes design and manufacturing, which add value by improving reliability, performance and life cycle of the cranes—and lowering their operating costs.

"The value of these benefits exceeds the initial price premium," he said. "The busier the operation, the sooner the payback happens."

Konecranes also minimizes equipment downtime. "We're now keeping the RTGs and the ship-to-shores at a 99.4 percent uptime," Lane said.

Lowering Total Cost of Ownership

From his experience at GPA, Cox has found this to be true.

"When I was hired, there was a huge problem with downtime. It was the single biggest issue for the container cranes and equipment. They had downtimes of about 3.5 percent.

"GPA wanted me to come in and fix their crane problem. They said, 'Rich, what we want you to do is buy all the cranes. But you're also going to be responsible for the maintenance.' That

combination of being the guy who has to buy it and then service it makes a huge difference in the way you look at and buy equipment.

"All of a sudden you're not buying based on price. You're buying based upon the cost to maintain it and to operate it."

Based on GPA's historical maintenance data, the lower maintenance costs for the Konecranes ship-to-shore cranes and RTGs have more than offset the difference in purchase price, Cox said.

He added that about three years ago the governing authority of another U.S. port approached GPA. Cox said they told him, "Rich, we clearly want to go with Konecranes, but we haven't figured out how to justify it."

MINIMIZING DOWNTIME

So Cox provided the port's representatives copies of GPA's records, which showed that crane downtime was at four-tenths of one percent, "which apparently was significantly less than the cranes they were using."

Based on GPA's experience with crane reliability and low maintenance costs, he said, "They were able to justify buying Konecranes also."

GPA's own crane maintenance team covers most day-to-day requirements, while Konecranes' Savannah service team—eight technicians and a programmable logic control engineer—provides support. The Konecranes team provides specialized services, for instance, adding a safety interlock or anti-collision program. The Konecranes technicians also are responsible for crane modernizations and upgrades such as fuel-saver technology.

And when the need arises, GPA is backed up by Konecranes' network of over 100 crane service branches, the largest in North America, Lane said. "Few crane companies in the port industry have service organizations in the U.S."

SHOWCASE FOR PORT CRANES

While Konecranes equipment and service have boosted GPA's productivity, GPA has been a boon to Konecranes. The Garden City Terminal has turned into a showcase of Konecranes port cranes for potential customers, Saastamoinen said.

"GPA has been very helpful and very willing to host our professional customers" from the U.S. and around the world, he added. He credits GPA for having an impact on "well over two-thirds" of Konecranes' port crane sales in the U.S.

And Cox adds that from what he has seen, potential customers who bring an RTG operator with them are more likely than others to buy. "Every time a customer brought an RTG operator, in almost every case that I know of over the 19 years, as soon as the operator got in there, they fell in love with it, and they ended up buying a Konecranes RTG."



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LOOKING TO THE FUTURE

With the Panama Canal expansion due for completion next year, Foltz said he is looking ahead to continued growth for the Port of Savannah.

He said the expansion “solidifies the importance of our ports. It solidifies the importance of commerce and freight and servicing the Southeast, and it just further solidifies the need for us to make sure that the relationship we have with Konecranes in both buying and delivering world class equipment continues in the years ahead.

“It’s why in the last 10 years we have been building infrastructure to support the supply chain and why we have been ramping up equipment orders from Konecranes—all in anticipation of post Panama Canal expansion.” This preparation includes the recently approved deepening of the river to accommodate super post-Panamax freighters that carry more than 10,000 TEUs.

GPA’s 10-year strategic plan calls for continued improvement of capacity and velocity, rising from 2014’s 4.5 million TEUs to 6.5 million TEUs in 2024. The plan, projecting \$1.3 billion in capital investment, includes increasing the number of ship-to-shore cranes from 22 to 30 and RTGs from 116 to 169.


In the next 15 to 20 years GPA looks to develop a terminal across the Savannah River from Garden City.

“We are not only excited about the past relationship, but we are looking forward to continuing to build and develop an even deeper relationship with Konecranes,” Foltz said.



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