

The largest cranes of their kind in the world are coming to SWEET SAVANNAH'S PORT

Georgia Ports Authority (GPA) received four new ship-to-shore cranes from Konecranes in early 2009. These cranes are the largest of their kind in the world, another testimony to the continuous, strong relationship between GPA and Konecranes.

There is always a ship being loaded or unloaded inside the main gate of Garden City Terminal. The tall cranes look like they are guarding the containers from their lonely, noble height. The cranes stand by the Savannah River, some operating and others waiting for ships to arrive. The four new cranes are aboard their transportation vessel, ready to get pulled onto the dock, their final destination and dwelling.

The new cranes are brought by Dockwise M/V Tern from their location of assembly, Nantong, China. The trip has taken 52 days, since the specially designed vessel for moving large, heavy structures could not go through either the Panama or the Suez canals with its enormous load. The route had to be drawn around South Africa. The balance and weight were calculated carefully.

The Konecranes team in Savannah is ready when the

cranes arrive. The eight-person team unloading the cranes, setting them up, and doing the final commissioning is led by Site Manager **Seppo Salonen**. The team is supported by iron workers, millwrights, and electricians. Subcontractors have an essential role. The headcount, including the vessel staff, is almost twenty persons.

Getting the cranes out of the ship on berth and finally on the rails is a challenging and complicated task. The most important and essential consideration is the tide, which varies within a range of up to 7 feet (2 meters) at the Savannah Front River. The eight-day process only allows a 2–3-hour window for each possible unloading day. The transportation vessel is able to go down by pumping water into its frame tanks and rise again by pumping the water out, and this ability is an important factor when compensating the tidal movement of the vessel.

Everything has to be well planned to successfully offload the wide cranes onto the dock. A dedicated “hard” spot on the pier is chosen and the temporary rails are laid right by the vessel. Each crane is pulled with two winches, lifted up one side at a time, rotate the bogies, and then put them back down on final rails. Finally the whole upper part of the crane, weighting over 800 tons, will be lifted with four Konecranes lifting winches. The upper parts of the cranes were resting on the sill beams during the sea voyage due to the Savannah River bridge height restriction.



■ GPA delivers its customers 38 to 41 moves-per-crane-hour on ship-to-shore cranes

KONECRANES®



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“We go step by step. It takes a month before the boom is up and the cabling and electricity are on. This is a normal part of my work; I can’t feel the stress anymore,” says Electrical Supervisor **Matti Jokinen**, who has been in China since last July to oversee the manufacture, installation, and partial commissioning of the cranes. He has spent altogether 35 years on the road.

Fully assembled, the new cranes are approximately 425 feet (almost 130 meters) long, weigh 1,369 tons and rise 316 feet (approx. 96 meters) above the water. They are the largest of their kind in the world, capable of handling containers from Super Post-Panamax vessels that have a width equivalent to 22 containers. The state-of-the-art cranes are designed in Finland and assembled in China. The design and most of the key components are made in Hyvinkää, Finland, and the steel structures in China.

The new ship-to-shore cranes are environmentally friendly, with their ability to regenerate power within their braking system. The kinetic energy and power of gravity are being used to the full. For every one hour each crane is operational, it uses its own power for approximately 18 minutes.

“Our newest ship-to-shore container cranes are equipped with mechanical snag load devices that have eliminated all crane hydraulic systems. Thereby eliminating a potential source of hydraulic spills and helping to protect the environment,” GPA General Manager of Equipment Maintenance **Paul Harkness** says.

GPA Director of Engineering & Maintenance **Wilson Tillotson** is very excited about the four new cranes. He tells that Konecranes worked together with the GPA operations and maintenance teams to develop the design. The latest

generation of cranes is a product of GPA’s experiences with earlier cranes.

Growth with the right attitude

Georgia Ports Authority has a long history of growth. The South East has been the fastest expanding demographic region in the United States for several decades. 80 percent of the consuming population lives in the eastern half of the United States.

“We have a demographic, consuming, and manufacturing base that’s close to the Eastern seaboard,” Chief Operating Officer (COO) of GPA **Curtis Foltz** says.

“We are one of the few ports in the nation that has tremendous room to grow. With our current footprint, nearly 10,000 feet (approx. 3 kilometers) of continuous dock, we can offer customers areas for their distribution centers close to our port facilities. Unlike any other port in the nation, we have long term capacity inside our facilities, near port property expansion, and infrastructure transportation growth to provide a secure home for our customers’ future plans.”

GPA has functional rail services. Both Class 1 railroads that operate in the eastern half of the United States—Norfolk Southern and CSX—are located on the GPA port grounds. Goods can be transported very efficiently and cost-effectively to various locations—the Mid-Tennessee Valley, lower Midwest, the Gulf of Mexico, and Dallas are easily reached. Great mobility is available in the port and beyond.

According to Foltz, the most important reason for the success are the hard working men and women supporting the maritime industry here: GPA employees, the longshore men and the pilots who pilot and dock the boats up and down the river.

“They have an outstanding attitude. They’re committed to growth, they have a tremendous work ethic, and they’re focused on safety. There’s a high level of satisfaction and pride in what we’re able to do and accomplish.”

World-class mates meet

According to Chief Operating Officer of GPA Foltz, we consider Konecranes a world-class supplier of ship-to-shore cranes, rubber tired gantry cranes, and customer services. “We aim high within our industry, so we look for partners that have similar standards,” Foltz states.

GPA is fighting against the recession with growth plans and purchases. A new order of eleven RTG cranes from Konecranes was made in December. Once they arrive, GPA will have a total of 71 Konecranes RTGs. The new cranes tell about efforts to create opportunities for the future.

January 23 was a time to celebrate the solid, functioning, and long-term relationship. The 500th RTG made by Konecranes was delivered to GPA, the same customer that got the very first one in 1995. A bronze plaque will be permanently mounted on the 500th RTG in the field.

STORY AND PHOTOS BY TEEMU HOLMI