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Looming US tariffs put economic viability of STS cranes in doubt

According to a survey conducted by the American Association of Port Authorities with the US Maritime Administration, 165 cranes are either on order or will be ordered from China over the next 10 years. Photo credit: Robert V Schwemmer / Shutterstock.com.

Peter Tirschwell, Vice President | Aug 1, 2025, 12:09 PM EDT

US ports and terminal operators facing up to 270% tariffs on ship-to-shore cranes they'll receive from China in the coming months are considering reselling the units or laying them up in bond if they don't receive exemptions from the Trump administration.

The tariffs taking effect Oct. 14, absent relief of some kind, will make the total cost unfeasible for ports and terminals, tripling the price tag in some cases. While the industry lobbies the White House for an exemption, marine terminal operators may be forced to resell or even abandon cranes if the tariffs take effect, said Carl Bentzel, president of the National Association of Waterfront Employers (NAWE).

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Such moves would interrupt normal US replenishment demand of 20 to 25 cranes per year on an installed base of an estimated 450 ship-to-shore (STS) cranes deployed at ports in the US and US territories.

“Without relief or accommodation, these tariffs pose a serious risk of rendering critical investments economically unfeasible and will ultimately undermine the very policy objectives they are intended to advance,” Ports America CEO Matthew Leech told the *Journal of Commerce*.

Port Houston is proposing grandfathering China-built ship-to-shore cranes that were under contract and in fabrication before Dec. 31, 2024.

“This proposal would solve the Port Houston issue, along with similar issues Port Freeport, Port of Virginia and Ports America have with their STS cranes currently completing fabrication,” according to Port Houston Executive Director Charlie Jenkins.

But with that solution not guaranteed, alternative options being considered by ports and terminals include not putting the cranes to use.

“If they must pay these tariffs, they will have three options,” Cary Davis, president of the American Association of Port Authorities (AAPA), wrote in a May letter to US Trade Representative (USTR) Jamison Greer. “First, they can let the cranes collect dust while they are held in bonded warehouses at an additional cost. Second, they can attempt to slash budgets elsewhere to pay the tariff costs. Or third, ports planning future procurement can purchase used cranes instead, which are not as structurally or operationally sound.”

Port productivity at risk

The result of not upgrading or expanding ship-to-shore crane capacity would have several negative consequences, including lower port productivity driven by longer wait times for ships, delayed cargo availability and the inability to handle larger ships.

That would further erode the competitiveness of US ports, which rank low in global port productivity rankings and are among the most expensive in the world on a per-container lifted basis. The main benefit of larger cranes is greater height, meaning US ports would face greater operational challenges handing larger ships without the upgrades.

The Port of Virginia told the USTR it expects to be handling vessels in the 18,000 to 20,000-TEU range in the coming years, but that “without continued investment in greater port capacity, these larger ships are hampered from consistently calling the

East Coast because the existing infrastructure, specifically ship-to-shore cranes, cannot support them."

Houston is a case in point in terms of the immediate challenges US ports are facing from the potential tariffs. The port is under contract with dominant Chinese crane manufacturer ZPMC for eight cranes at $14 million each scheduled for delivery in the spring of 2026. If it is forced to pay the full tariffs, it will owe $302.4 million in total, which would equate to more than half of the port's annual container operating revenues and greater than a full year of operating cash flow, Jenkins wrote.

The tax figure includes a proposed additional 100% tariff on China-made ship-to-shore cranes on top of 25% tariffs imposed in 2024 and the 145% in tariffs that still could be applied to all Chinese goods absent a broader settlement.

For Ports America, the price tag for a single STS crane scheduled to arrive at Gulfport in early September is $16 million.

"However, any scenario in which the total landed cost — including applicable penalties, tariffs and related charges — exceeds $22 million would render the equipment economically unviable for deployment," Leech said. "In such a case, the only practical options would be to resell and re-export the crane or to store it in a bonded facility without commissioning it or paying duties."

Reshoring push from White House

New legislation just introduced in the House of Representatives seeks to encourage the domestic building of cranes to lessen the dependence on China-built equipment, which makes up 80% of cranes at US ports and has raised security concerns.

Although no solid plan to support US manufacturing or assembly of cranes has materialized as yet, affected ports appear to universally support the idea. The Canadian infrastructure investor Brookfield is discussing such an initiative in collaboration with Matsui-Paceco, Paceco being the builder of the original container cranes for Sea-Land Service Inc. in the 1960s.

A White House meeting in April attended by several US port leaders included participation by Peter Stone, a leader of Brookfield's US port business. At that meeting, according to one participant, the message from White House officials was: "We don't understand why US industry is buying Chinese equipment and we don't want you to. We want you to get on board with a program that creates availability of US-assembled cranes."

"There was no objection to this from the assembled ports assuming a transition agreement covering price, timing and specs," the meeting participant told the *Journal of Commerce*.

"Currently, there is ongoing engagement on developing a framework to nearshore and onshore STS crane manufacturing between the Trump administration, Congress and industry stakeholders. However, no agreement has been proposed as of yet."

If the threatened tariffs are implemented and remain in place, a prospect ports are taking seriously, it would stunt the planned expansion of US port capacity.

According to an AAPA survey conducted with the US Maritime Administration, 165 cranes are either on order or will be ordered for delivery from China over the next 10 years, potentially being subjected to a prohibitive $6.7 billion in tariffs and penalties.

Terminal operators are finding that ramping up orders through alternative manufacturers is proving a challenge. One terminal operator told the *Journal of Commerce* that it recently completed a tender for procurement of additional cranes. It said that in both cases the lowest price quoted was 65% to 75% higher than what it was paying for the same cranes ordered for use outside of the US.

It attributed the price gap to increased demand for non-Chinese built cranes versus the production capacity of alternative manufacturers. In other words, apart from the short-term need for tariff exemptions on Chinese cranes already on order, longer term there is an even bigger need for mitigating measures to facilitate new crane orders in a market where insufficient alternative supply is available.

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