UPTIME: 5 STEPS TO KEEP CONTAINER HANDLING MOVING

Do you have a plan if container handling equipment suddenly fails? Have you taken steps to make sure your operation is not caught unprepared? Are you taking steps to reduce the risk of failure to begin with?

Delays unloading can prevent on-time delivery to cargo owners, incurring financial penalties and straining relationships as resulting backlogs disrupt other incoming vessels. But if mission-critical equipment like lift trucks, empty container handlers and ReachStackers are not available to unload ships or barges as soon as they arrive, they risk exactly these issues.

Ports and terminals simply cannot afford tight margins to be threatened by the productivity and profit impacts that result from equipment downtime. This paper addresses the practical steps ports and terminals can take to understand and minimise the risk of container handling equipment downtime.

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1 // UNDERSTAND PLANNED AND UNPLANNED DOWNTIME

Start with understanding the two main types of downtime. Planned downtime is what it sounds like – something that organisations expect and can plan to avoid disrupting operations. For example, routine maintenance should be carefully scheduled to avoid disrupting regular business. Keeping operations on track when trucks are being serviced is particularly important in ports and terminals, where due to size and cost, spare equipment is in short supply.

But unplanned downtime is a much different story – it's unexpected and must be resolved as quickly as possible to minimise operational disruption. Therefore, reliability is an essential quality for container handlers, along with the resources and processes to address unexpected issues. If a truck must be taken out of service to replace a critical part, operations need to source and install the replacement part quickly so the truck is only out of service for hours – not days or weeks.

Why are container handlers susceptible to unexpected downtime? For one, they have long duty cycles, typically operating about 3,000 hours per year, for 10 years before being replaced. As with most aging equipment, parts can wear out over time. And while many terminals take a proactive approach to preventive maintenance, it can be difficult to predict exactly when a part might fail.

2 // KNOW THE CONSEQUENCES: WHAT MAKES A COSTLY DOWNTIME EVENT?

Does downtime always mean disaster? Not necessarily – time is the critical factor. The parts support and service capabilities of the local dealer and the equipment manufacturer can cause resolution timelines to vary widely, from a fast fix to lapses in equipment operation that can span weeks or months.

The significance of a downtime event is greatly influenced by the part in need of repair or replacement. A part is considered 'mission-critical' if its failure can take equipment out of service, such as hydraulic pumps and cylinders necessary for lifting and lowering containers or smaller items like controls and sensors.

Parts availability and transit time also influence the extent of downtime. Fast shipping methods like air freight are not always a viable option. If a terminal in Great Britain needs a large part that must travel by boat, such as a lift cylinder stocked across the Atlantic or in Continental Europe, transit time and customs inspection periods can significantly delay repair timelines – resulting in downtime for days or weeks.

In the real world, the cost of delaying a vessel with thousands of tonnes of cargo adds up fast. Downstream deliveries are subject to costly delays, not to mention the opportunity cost of the vessel waiting at port instead of generating revenue on the water.

3 // HOW TO MINIMISE DOWNTIME RISK

So how can ports and terminals mitigate the risk of downtime before it happens?

Consider reliability and durability as critical factors when evaluating equipment and be sure to look especially closely at critical parts. For example, uprights, which are essential to the operation of a container handler, must be built to last. Look for a proven track record – consult with your industry peers to help make the right choice of equipment supplier with reliability and maintenance in mind.

With equipment quality and reliability understood, evaluate if vendors can support and respond in the event of a service issue. Can they secure parts and make timely repairs?

To help answer that question, consider the location and resources of your equipment dealer and manufacturer. Is the dealer able to rapidly deploy parts or service technicians in the event of an issue? Does your local dealer stock not only regularly used maintenance parts, but mission-critical parts that are used less frequently? These might sit on the shelf for a year, maybe more, simply to ensure availability when you need them.

Another important recommendation when it comes to sourcing parts is redundancy – avoid a singular pathway to secure essential parts. Several layers of inventory availability can help prevent extended downtime. Look for essential parts stocked not only at your local dealer, but other dealers in the manufacturer's network and a central warehouse in the same region. The manufacturer can also play a direct role in sourcing urgently needed, but less commonly replaced, components, even pulling parts directly from production lines to help customers get them as quickly as possible.

4 // MAKE A SUPPORT PLAN TAILORED TO YOUR OPERATION

No two ports and terminals are exactly alike, and some may have unique characteristics that may require additional precautions to protect parts supply. This can include the dealer and manufacturer working with the terminal to identify a list of priority parts, based on criticality and anticipated need for regular replacement. Then, sending that inventory directly to the customer site and maintaining a critical stock at the local dealer, helping the terminal rest assured that a lack of parts availability would not keep their equipment out of service.

A remote location is an important factor to consider when planning for how to source parts. In an extreme case, the terminal location might be so remote that the nearest urban center and dealer location is hundreds of miles away, accessible by a several-hour-long flight, and transporting large parts must be done by barge – a two-week process. To prevent such a long wait for replacements, the terminal received an entire shipping container filled with parts to keep on-site. The dealer periodically ran inventory, using data on parts usage for billing and replenishment, helping keep the terminal stocked.

5 // DON'T SETTLE – RE-EVALUATE PERFORMANCE OVER TIME

No equipment is perfect but examining reliability records for container handlers can provide a reference point for how different equipment compares in practice, both in terms of overall reliability and regarding specific components.

If structural component failure happens in multiple container handlers, terminal operators might question whether they should continue to pay a premium based on a perceived reputation for reliability. Over time, unexpected repairs can reveal that high prices do not equate to quality. In a search for the optimal balance of quality, support and price, get references from other terminals and re-evaluate expectations for cost and support.

// IT TAKES TEAMWORK

Keeping container handling equipment running is a high-stakes game, as delays have far-reaching effects throughout supply chains, eroding customer trust and damaging relationships. Effectively managing downtime risk is a team effort. It requires collaboration between purchasing and operations when first evaluating container handling equipment. Then, long-term ownership tests the capability of manufacturer and dealer support.

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