Crown Connectivity Series

Changing Metrics – and
Mindsets – in the Warehouse
**Part One: Five Goals the Connected
Warehouse Can Help You Achieve**

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Introduction

Crown has been providing forklift connectivity and fleet management solutions since 2005. During that time, we have worked closely with our customers to help them integrate forklift fleet management into their businesses. Through that process we've learned valuable lessons about technology adoption in material handling.

This paper captures those lessons to help accelerate forklift fleet management adoption and prepare the industry for more complex technology initiatives.

This is Part One of the Crown Connectivity Series. The series includes the following:
- Part One: Five Goals the Connected Warehouse Can Help You Achieve
- Part Two: Optimizing the ROI of Forklift Fleet Management Through Phased Implementation
- Part Three: Four Keys to Unlocking Value from Forklift Connectivity

Visit crown.com to download the entire Crown Connectivity Series.

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Why Technology Implementations Fail

Warehouse and material handling managers continue to face pressure to reduce costs and improve productivity. As with any continuous improvement process, information is the key to identifying and eliminating waste and inefficiency.

Forklift fleet management consists of the collection, analysis and use of relevant fleet information to reduce costs and improve operator and truck productivity. There are two components to a comprehensive forklift fleet management program: maintenance and operations. The maintenance component collects and consolidates information from forklift service events to better manage costs, standardize processes and extend forklift life. The operations component involves collecting data on forklifts and operators to improve safety, utilization and productivity. It can automate processes, such as collecting compliance information, to improve operational efficiency and consistency.

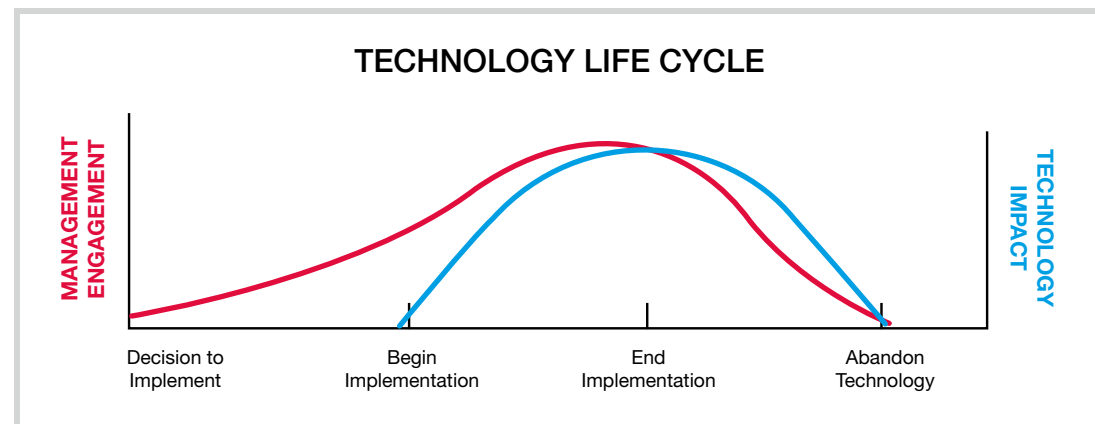Convenient access to this data can help answer critical questions such as:

- Do we have the right number of forklifts?
- How can we minimize the number of forklift impacts to reduce damage?
- Who are our most productive and least productive operators?
- Are we applying the same service standards across all forklifts in the fleet?
- What forklifts are most reliable in our environment?

The larger issue for most organizations is whether they can use the information from a forklift fleet management system to change established behaviors and practices. The natural tendency for employees to do things the way they have always done them can be so powerful that it inhibits change and reduces the value of new technology. Here is how that can play out:

- The organization makes the decision to add connectivity to its forklifts and invests in a fleet management system.
- An implementation plan is developed to ensure the technology works and associates understand how to use it.
- Forklift operators, aware they are being monitored, become more conscious of their performance, creating improvements in key operating metrics.

- Managers familiarize themselves with the management dashboard but never integrate it into their daily activities.
- Operators see no evidence the system is being used and revert to old habits.
- Key operating metrics return to where they were before the system was implemented.
- Management decides the system isn't worth the time and uses it less and less frequently.

Improving key operating metrics in the warehouse often requires permanent changes in employees' behavior. That takes time and commitment. The first step in making those changes is gaining visibility into current behaviors so that actionable opportunities for improvement can be identified. Technology provides that visibility.

TECHNOLOGY LIFE CYCLE

MANAGEMENT ENGAGEMENT

TECHNOLOGY IMPACT

Decision to Implement — Begin Implementation — End Implementation — Abandon Technology

The results realized through new technology often correlate with management engagement. When managers become disengaged following the implementation period, initial results are not sustainable.

Five Goals

This paper focuses on the five goals material handling organizations are establishing to achieve a fast return on their investment in forklift fleet and operator management.

1. Reducing Impacts

It can be a little shocking when you analyze the number of forklift impacts in a typical warehouse objectively. In some warehouses, 50 or more impacts a day are common and considered part of the cost of doing business.

The cause of these impacts may be poor warehouse design, operator competency or other factors, but management complacency is often the real culprit. When impacts are tolerated by management, conditions that contribute to impacts don't change. More than anything, reducing impacts requires a change of attitude first, followed closely by determining where and when impacts are occurring.

Forklift connectivity can provide that visibility. A forklift fleet management system can quantify impacts by operator and generate alerts when major impacts occur. The key for management is to act on those alerts. A manager, realizing that reducing impacts is the primary goal of the management system, must take the time to investigate the situation by speaking to the operator and examining the location and cause of the impact. When this discussion happens, operators will begin to understand that impacts—and the damage they cause—should not be taken lightly.

Initially, management should go into the investigation expecting the operator to minimize the incident because many operators accept that bumping and scraping forklifts is normal. This attitude can be changed when impacts are treated as accidents that require investigation.

When that begins to happen, improvement happens quickly and the number of alerts decreases correspondingly.

Food services provider Clemens Food Group is an example of how this can work. Clemens implemented forklift fleet management across its 230 forklifts with the primary goal of reducing impacts. Using data from the forklift fleet management system, warehouse managers were able to identify areas of the warehouse where impacts were most likely to occur and operators that were most likely to be involved. By dealing with these root causes, the organization was able to achieve an 80 percent reduction in major impact events.

When impacts are accepted as routine and not investigated, they become more and more common. Click the image to learn more.

2. Increasing Utilization

When global office furniture manufacturer Steelcase completed the integration of several acquisitions, including facility consolidations, the company had a view of its forklift fleet that logistics manager Dennis Carlson described as "quite cloudy." With new forklifts acquired through the acquisition and some trucks moving as a result of consolidation, Carlson knew he needed "a better understanding of the number of trucks in my fleet, the condition of those trucks and, most importantly, their utilization rates."

With forklift fleet management, he was able to get the understanding he was seeking. "The system [showed me] when our trucks were not moving," Carlson said. "And the data showed that, in many cases, utilization was sporadic."

With a focus on utilization and the necessary data to support decisions on the fleet, Steelcase was able to reduce its fleet size by 40 percent. Based on that success, company management gained an appreciation for the value of data from the system and now uses it to inform ongoing planning.

Even organizations that haven't been involved in acquisitions will find data on truck utilization valuable in evaluating fleet size and the need for new forklifts.

3. Streamlining Compliance

Every organization has processes in place to ensure compliance, but how well are those processes working and being documented? The vehicle-based terminals that collect and transmit data as part of a forklift fleet management system bring increased rigor and oversight to compliance processes.

First, the terminals can control access to the truck to ensure that only certified operators use the equipment. The terminal also guides the operator through the vehicle inspection process, documenting that the process has been completed and the time it took. If the truck does not pass inspection, a notification is sent to management and the truck is locked, preventing operators from driving trucks that have not passed inspection. In addition, the system can track operator hours and manage certification and training schedules.

Compliance is such an important issue that it is often a primary goal for it to be the primary goal of a forklift fleet management implementation. In fact, the pre-inspection checklist was identified as the most important forklift fleet management feature by respondents to a recent *DC Velocity* survey.

Forklift fleet management systems can ensure compliance by requiring the operator to sign in and complete a compliance checklist before he or she can operate the truck.

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Compliance was the primary goal for medical products distributor Owens & Minor, which used forklift fleet management to streamline pre-shift inspections and improve operator certification management.

According to Rod Smarsh, Owens & Minor warehouse manager, "we can now ensure that equipment is properly inspected every day, and we can quickly produce the proper documentation if needed."

4. Enhancing Productivity

Almost every warehouse has hidden opportunities to increase productivity. Here are two ways that connected forklifts can lead to measurable productivity gains:

Reducing Battery Change Times

Bottlenecks at the battery changing station can force operators and trucks to sit idle waiting to change batteries. These bottlenecks can be minimized or even eliminated with a management system capable of tracking batteries across multiple trucks and staging battery changes. For facilities where changing stations are often clogged, orchestrating battery changes can result in measureable improvements in operator productivity and truck utilization.
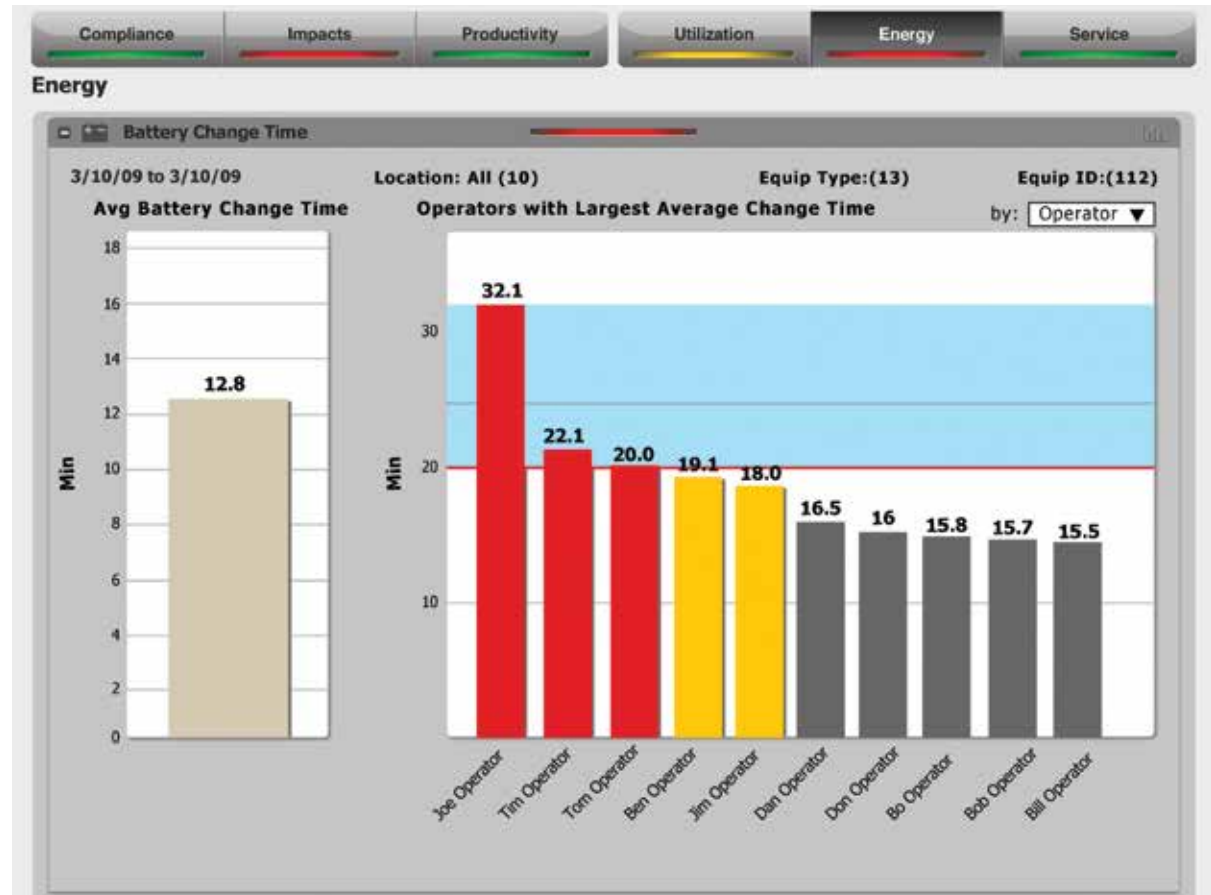
Operator productivity can be measured and enhanced through forklift fleet management.

Measuring Operator Performance

Forklift fleet management can be used to identify the most and least productive operators. Through operator log-ins, important productivity metrics — including average travel time, average lift time, actual travel times, actual lift times, time stopped and time stopped with no operator — individuals and groups can be measured and benchmarked. With this information, management can encourage behaviors and practices exhibited by the best operators while providing additional support and training for operators who are underperforming.

Conclusion

5. Reducing Service Costs

Understanding your maintenance spend is a key to gaining control over costs and identifying opportunities to improve fleet performance. Connecting forklifts to a fleet management system that includes a maintenance module provides a simple and efficient platform for maintenance tracking, providing visibility into total maintenance costs for individual trucks and entire fleets over multiple locations. Paperless processes also reduce administrative time associated with forklift maintenance.

The pressure to reduce supply chain costs isn't going away. Fortunately, there are opportunities in most warehouses to make significant reductions if the right systems are put in place to provide management with the information to resolve issues and make better decisions. Material handling organizations have been reluctant to implement new technology because of concerns over cost and disruption to operations. In some cases, these concerns are valid; however, forklift connectivity and fleet management use reliable technology that is proven to deliver insight into truck utilization, maintenance, compliance, safety and operator productivity. There is now sufficient experience with forklift connectivity to ensure that implementation issues can be resolved relatively quickly and that significant value can be realized if the organization sets clear goals.

Crown's award-winning line of forklifts maintains a reputation for advanced product design, engineering and technology, and integrated manufacturing processes. Offering a broad range of forklifts, as well as automation and fleet management technologies, Crown seeks to provide customers with forward thinking and innovative products designed to improve performance and lower operating costs. Headquartered in New Bremen, Ohio, with regional headquarters in Australia, China, Germany and Singapore, Crown operates a global service and distribution network.

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