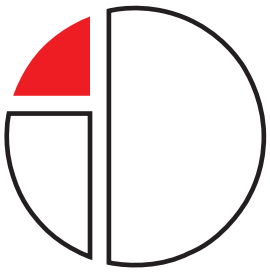
5 Ways to Reduce Costs of Your Industrial Vehicle Fleet

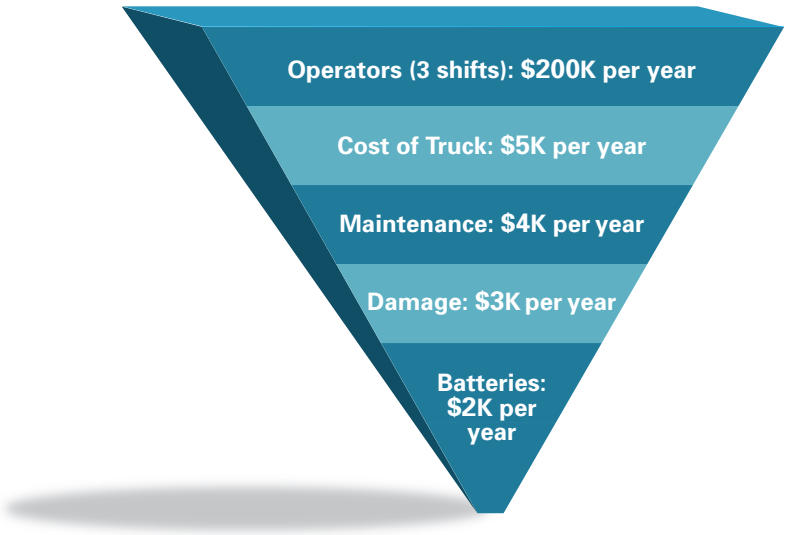


A Supply Chain Industry Review
by I.D. Systems, Inc.

Overview

The state of the economy is putting significant pressure on all businesses and management to do more with less. Job reduction seems to be the most prominent focus of most companies' cost reduction strategies. However, when supervisors and middle managers are downsized, day-to-day operations can become less efficient, placing even more strain on the remaining team.

In today's difficult economic environment, it is more critical than ever to shine a spotlight on your highest cost centers and evaluate readily achievable savings opportunities. Every day your business is paying significant amounts of money to own and operate your forklift fleet. The cost for each truck can be over $250,000 per year – inclusive of operator salaries, benefits, overtime, truck leases, maintenance, damage, and battery/fuel expense. For a 50 vehicle fleet, that multiplies to over $12,500,000 per year!



Some approaches to managing industrial vehicles, like outsourced maintenance and traditional fleet management programs, help make costs predictable, which is beneficial, but does not necessarily provide a meaningful way of **reducing costs**. Achieving productivity and cost benefits through the deployment of technology is a well established concept, but can it be applied to forklift fleet and operations management? Can behaviors and costs that have long been considered just "part of doing business" be changed? The answer is YES!

Common Industry Challenges

While every company is different, there are some common issues that are prevalent throughout the supply chain. Some of those issues include:

- Forklift drivers are typically the highest paid hourly employee in the supply chain. When you add in overtime, benefits, incentive pay and temporary staffing, the costs can exceed $70,000 per operator per year. If you run three shifts, that can translate to over $200,000 per year PER forklift.
- Capital costs for purchasing new vehicles is a significant budget line item. There are continual requests for new trucks, but when you walk the floor there always seem to be vehicles not in use.
- Leasing trucks helps spread the cost of ownership over several years, but how do you identify and prevent overtime payments on some leased vehicles while showing significant underutilization of others?
- Preventative maintenance (PM) and unplanned breakdown costs are extremely high, especially if you outsource maintenance.
- When vehicles are out of service, material delivery is adversely affected, resulting in the need to own and maintain spare equipment. Each "spare" can cost $10,000 annually.
- Facility damage caused by forklifts can exceed several hundred thousand dollars per year. Typically, it is extremely challenging to identify who caused the damage. Without accountability, it is very difficult to reduce damage in any meaningful way.
- The goal of a distribution center or manufacturing plant is to move material to the right place at the right time, as efficiently as possible. Detailed route, speed, and safety data is generally unavailable without extensive and continuous industrial engineering efforts.
- Inventory locations and production plans are constantly changing, causing industrial engineering standards to quickly become out of date.
- There are many different specialized jobs (and corresponding trucks) – how do you right size your fleet for each vehicle type and still get the job done?

Solution

How can you achieve meaningful cost reductions while simultaneously enhancing throughput? **Vehicle Management Systems (VMS)** are the latest technology being deployed in all types of supply chain environments.

What is a VMS?

A VMS is a comprehensive, automated system for the management of any powered industrial vehicle. A VMS improves safety, reduces damage and optimizes vehicle and operator productivity within your facility.

At the core of a VMS is access control. Almost all material handling vehicles have their keys left in the ignition. Which means ANYONE can drive them at ANY time, with no accountability or measurement system. With a VMS implementation, only authorized and trained operators can drive equipment. Once an operator logs into their truck, they become accountable. Their activities are recorded and wirelessly transmitted to the VMS software.

A VMS provides real-time actionable data to those who can make decisions and drive efficiency every day. Management can adapt and respond to a wide range of cost savings opportunities.

5 Ways to Reduce Costs through Proven Technology

1 REDUCE LABOR COSTS

Operators are typically paid for three to four TIMES more hours than they actually spend moving material

Across multiple industries, initial VMS data has revealed a very similar and startling pattern of vehicle operation:

Typical Shift Pay	**8 hours**
Operator Logged in to Truck	**4 hours**
Truck In Motion	**2 hours**
Truck Moving with a Load	**1 hour**

One hour of product moved for every 8 hours paid!

This data has been collected from over 30,000 VMS vehicle installations. Of course, some operators are more effective than others, but VMS provides operational visibility and productivity metrics that are not achievable in any other way.

INDUSTRY EXAMPLE

An international Tier 1 automotive supplier recently increased the productive work time of their operators (time spent actually handling product) by 60% while simultaneously reducing the amount of unloaded travel by 38%. The overall result was an average improvement in daily operator throughput of more than 10%.

WMS is not enough!

A Warehouse Management System (WMS) or voice system tells people where and when to complete tasks. You can see when a task was received and scanners tell you when they are completed. What happens in between? Why do certain jobs take longer for one operator vs. another? By tracking and measuring precise vehicle use and combining VMS data with your WMS data, you now have a more complete picture of material movement. As a result, your operations can significantly improve – up to 30-40% in increased productivity and decreased task times. In addition, a VMS is a measurement tool for jobs that WMS does not and cannot monitor or initiate.

Incentive pay means you are paying for work that can already be achieved.

Many managers pay incentives to maximize operators' productivity. Pick more, get paid more. Without tracking and measurement, that can translate into paying bonus cash for work that can be accomplished in the allotted time. A VMS allows you to modify your standards and score your operators' performance based upon motion hours, lifts made, and login time. Lower performers are logged in/moving less and can be readily identified and retrained, and of course true star performers are still rewarded.

Overtime costs must be reduced…but how?

VMS allows you to monitor and control overtime pay. Why pay 10% of your operators overtime when the bottom 30% are logged into their vehicle for less than 4 hours a shift? You can not only reduce overtime, but also reduce the need to hire temps for peak work periods by looking at task data and relocating staff to areas of need.

Engineering standards – they drive staffing levels, but are they accurate?

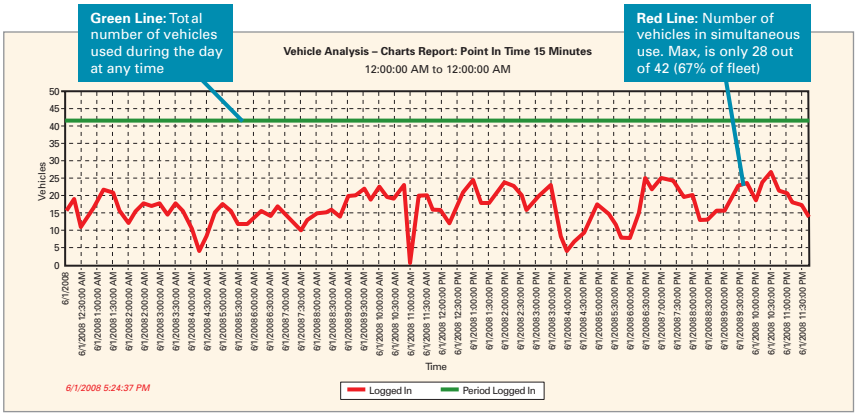
Many facilities plan and staff their operations based upon industrial engineering standards. VMS lets you refine the standards for each task based upon actual data from drivers collected over months, rather than a one-time "time and motion" study which is costly and time consuming to implement for every workflow change. A VMS is like having a constant, ongoing industrial engineering study performed on every vehicle in your fleet.

2 REDUCE FLEET SIZE

Do you find that certain areas of your facility "need" more forklifts and more overtime? How do you allocate vehicles to various departments? Do you rent or consider renting vehicles for peak periods? How many vehicles are out of service in maintenance at any time? What if those vehicles had less down time?

Vehicle Management Systems provide unique insight into fleet operation by evaluating how your current vehicles are used and if there are any opportunities to better allocate them. At any given time, you can identify the peak use of your fleet by each department or area in your facility. In other words, you can evaluate how many vehicles are being used at once. In addition, you can evaluate overall utilization, including peaks and valleys of productivity, so that your operations can be better balanced over time and work areas. Why buy or rent vehicles to meet perceived peak needs when data can provide real metrics to evaluate this decision?

Many VMS customers have not purchased new trucks in years because they were able to reallocate their vehicles without affecting efficiency.



Actual client data collected over a 24-hour period.

INDUSTRY EXAMPLE

Visibility of how many vehicles are actually used to satisfy the demands of the overall operation, and individual departments, enabled a national distribution enterprise to be able to reduce the total vehicle fleet at its sites by more than 11%.

3 REDUCE PLANNED AND UNPLANNED MAINTENANCE COSTS

The more vehicles in Maintenance ("the Shop"), the more vehicles you need in your fleet. By using VMS to schedule Preventative Maintenance (PM) based on actual motion hours (vs. hour meter or calendar time), you can typically reduce PM costs by nearly 50%. Hour meters generally run when the key is turned, not when the vehicle is actually moving. Ask your dealer/manufacturer's rep, how many hours of motion time are assumed when the 300 hour PM is scheduled. They will typically say "all 300 hours." However, a VMS will show that motion time is typically 50% of logged hour meter time. Reducing PM cycles means lower costs, as well as more vehicles in operation since they are only being serviced when necessary.

INDUSTRY EXAMPLE

A major government organization recently adjusted its preventative maintenance schedule from servicing each of their 35 trucks once per month, to maintenance based on actual vehicle motion time. Within a year they reduced their maintenance events by 70%, while still maintaining compliance with forklift manufacturer requirements.

Additionally, by executing vehicle inspections via VMS electronic checklists, operators can identify emerging problems in real time. Maintenance is automatically notified and can address the issues, before they become more costly repair items that keep vehicles out of service.

Without the ability to measure or collect data, your supervisors and managers run their operation based on what they know and can see. However, a VMS opens a wealth of possibilities to use your existing fleet differently – even just slight changes not only increase effectiveness, but provide significant cost savings.

4 REDUCE DAMAGE AND INCREASE SAFETY

Lift truck damage accounts for 90% of rack failures.†

Inventory and facility damage often become just another "cost of doing business." When you purchase new vehicles, you usually see immediate signs of abuse, like dents and paint chips within the first few weeks. It is generally accepted that forklift abuse and the subsequent damage that comes with it is a sign of "good use" of that truck. However, each dent represents damage not just to the lift itself, but to the rack, wall, pole or goods that were hit.

INDUSTRY EXAMPLE

By being able to accurately monitor vehicle impacts, and hold operators accountable for their actions, a major manufacturer was able to reduce the number of impacts that occurred per vehicle operating hour by 39%. This improvement in overall operator behavior resulted in a 45% reduction in the costs associated with vehicle-related damage.

There are numerous OSHA safety regulations in place to help ensure a safe work environment. The most prominent are summarized below:

- **Before use, drivers are required to inspect vehicles for unsafe conditions**

  OSHA requires that industrial trucks be examined before being placed in service. They shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. When industrial trucks are used around the clock, they shall be examined after each shift. When defects are found, they shall be immediately reported and corrected [29 CFR 1910.178(q)(7)]. Source: CDC/NIOSH

- **Employers need to ensure that only TRAINED operators can use forklifts and like equipment**

  OSHA has promulgated the Final Rule for Powered Industrial Truck Operator Training [29 CFR 1910.178(l)], which became effective March 1, 1999. The standard requires operator training and licensing as well as periodic evaluations of operator performance. Source: CDC/NIOSH

Ultimately, everyone needs to comply with these regulations. A VMS can help you do so by enforcing daily vehicle safety checklists as well as tracking and authorizing drivers' access to vehicles.

Once you have trained operators, how can you cost effectively ensure that only those drivers are using the vehicles? **Access control ensures only trained operators can access vehicles and electronic vehicle checklists ensure that each vehicle is inspected every day or shift.** A VMS also identifies unsafe driving patterns, including speeding and impacts. All of these benefits together makes the workplace safer not just for the drivers, but for all other employees and pedestrians that work so closely around them.

The cost of one incident, whether it's from an untrained driver, or major damage to a rack from careless driving can more than justify an investment in a VMS technology that helps manage these conditions.

†Source: "Broken Racks Can Break the Bank", Material Handling Management, July 2007

5 REDUCE LOST PRODUCTIVITY

Each day or week, supervisors assign drivers to various areas of a building or to perform certain tasks based upon their best projection of demand. By using a VMS, supervisors have a tool to identify work performed by each driver and match it against peak work flows. By reviewing this data, daily assignments can be fine tuned to match actual needs vs. perceived needs.

INDUSTRY EXAMPLE

A leading automotive manufacturer has been able to increase the effectiveness of its material handling resources by a range of 58% to 76% by rebalancing material delivery methods that minimized the hour-by-hour variability of equipment and resource demands within each shift of operation.

Find "Missing" Trucks

Without access control, anyone can use any truck at any time, so there is nothing enforcing a vehicle's return to its designated area. You may have invested in WMS, barcoding, RFID or voice, but none of these technologies can be optimized if the trucks are not in service or in their assigned location. When trucks are not where they are supposed to be, what is the cost of operators or supervisors walking the floor looking for an available truck?

Evaluating The Right VMS

When considering a VMS vendor, it is essential to evaluate the following criteria:

Will the system void your truck manufacturers' warranty? You should require that the proper concurrences are in place from the original equipment manufacturers and dealers to ensure that the VMS will not interfere with UL approvals and other key safety endorsements. Does the vendor have concurrences in place or will that potentially slow down your deployment?

The system should work on ANY type of truck, now and in the future. To provide the most value, a VMS needs to be installed on all trucks in the workplace. You may not want to be "locked into" a particular truck manufacturer for your next year's truck purchases, but this can happen if you buy a VMS system that only works on one truck type. The data capture also needs to be consistent regardless of model/type/age. One motion hour on one truck type should be identical to one motion hour on a different type.

Select a vendor with years of experience, that can offer best practices learned from thousands of installed vehicles. On the surface, VMS systems can appear the same. However, very few vendors' systems have been in place for years and can therefore address the myriad day-to-day issues that will inevitably arise. If an operator forgets his badge one day, is that day's data lost? If an operator is deleted from the system, how do historical reports address this? Ensure that your VMS system makes your job easier and more efficient than before you had the system!

The VMS should easily integrate with other systems. If you already have databases for maintenance, WMS, timecards, or safety, ensure that the selected VMS can easily exchange data with those programs. Also, be sure that the VMS system will not be a burden on your IT department.

The VMS vendor should team with you to achieve the Return on Investment you signed up to when the project was approved. Whether its 6 months or 12 months, the time horizon you need to show a return on investment is going to be quick. Identify a VMS company that will work with you to meet or exceed your goals, instead of launching the system and the deployment becomes a full time job beyond your existing responsibilities.

Summary

The supply chain is a significant cost center for your business. If the same work can be done with less expense, the savings flow directly to your company's bottom line. Technologies that have proven to cut costs WITHOUT reducing efficiency are a business imperative. I.D. Systems has worked with the most efficient companies in the world to derive significant and meaningful economic value from the daily use of VMS in their supply chain. With VMS technology, you can have it all – reduced costs, increased productivity and an ROI that supports technology investments in any type of economy.

PowerFleet™ is the industry-leading VMS from I.D. Systems. Manage your fleet of industrial vehicles by increasing safety, reducing damage and optimizing vehicle use, including:

- Operator management through access control
- Vehicle safety through automated OSHA checklists
- Damage reduction through impact detection and management
- Optimized utilization through measurement of vehicle use
- Plus, reduced maintenance costs, visibility, text messaging and battery management.

For more information on I.D. Systems' Vehicle Management System, please go to **www.id-systems.com/CutCosts** or contact us at info@id-systems.com or 201.996.9000.

About I.D. Systems, Inc.

I.D. Systems, Inc. (NASDAQ: IDSY) is the leading provider of VMS for securing, tracking, and managing high-value enterprise assets. These assets include industrial vehicles, such as forklifts and aircraft ground support equipment, and the people who operate them. The company's patented wireless system, which utilizes radio frequency identification, or RFID, technology, addresses the needs of organizations to control track, monitor, and analyze their assets. Our VMS has been deployed on more than 30,000 vehicles across hundreds of facilities.

I.D. Systems is listed on the NASDAQ Global Marketplace under IDSY.

For more information, visit **www.id-systems.com/CutCosts**

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