Lift Your Profits with Material Handling Equipment Analytics

Drive cost savings
in the auto industry

POWERFLEET

People Powered IoT

Material Handling Equipment (MHE) Analytics

Material Handling Equipment Analytics, like the industry-leading Powerfleet IQ™ platform from Powerfleet, helps the automotive industry cut costs and rethink industrial engineering standards.

What You Don't Know About MHE Analytics Can Cost You

In an industry that's been around since the 1890s, you'd think every conceivable cost efficiency has already been exploited. But that couldn't be further from the truth.

Today's most successful automotive, OEM and aftermarket parts manufacturers and distributors are using Big Data and Analytics to cut costs and maximize productivity.

When you drill deeper into your manufacturing and distribution operations with the right technology, you expose inefficiencies that go unnoticed. Then, you can reduce or eliminate them. One area of data being mined to new depths is material handling — specifically the use of lift trucks, tuggers and other industrial vehicles.

Industrial trucks are costly. Buy. Maintain. Fuel. Repair. When you add operator wages and benefits across multiple shifts, you're looking at well over $200,000 per vehicle, per year. If you're serious about cutting costs, it's time to look deeper into the data.

With MHE analytics, you can find — and slam the brakes on — unnecessary costs before they drain your profits.

Turn Big Data into Big Dollars with Equipment and Labor Analytics

- **Which of your sites are underperforming?**
- **Where can you increase efficiency at each plant?**
- **How do you know when your forklifts are in motion, so you can track the frequency and efficiency of their use?**

MHE Analytics gives you the answers and helps you streamline processes that hurt productivity.

Instantly, you can understand how each of your facilities compares to your corporate averages, and make informed decisions accordingly. After one of our major automotive clients identified gaps in expected vs. actual truck usage, their executives cut costs – including overtime – by over $2 million per year.

Site	Vehicles	Days	Avg Days Used	Avg Days Used Pct Var of Fleet Avg	Motion Hrs	Avg Daily Motion Hrs	Avg Daily Motion Hrs Pct Var of Fleet Avg			Quadrant Indicator
Tenafly	102	22	17.26	31.79%	6,716.23	3.25	6.2		3.06	1
Woodcliff Lake	85	22	20.49	32.70%	6,396.58	3.10	1.33%	15.44	3.06	1
Norwood	117	15	13.45	-12.89%	5,872.88	3.73	22.07%	15.44	3.06	2
Closter	54	11	9.87	-36.89%	1,509.88	2.83	-7.32%	15.44	3.06	3
River Edge	5	4	1.00	-93.53%	2.75	0.55	-81.99%	15.44	3.06	3
Montvale	15	22	3.87	-74.96%	15.92	0.27	-91.02%	15.44	3.06	3
Cresskill	72	22	17.74	14.84%	2,778.75	2.14	-30.89%	15.44	3.06	4

Dashboard Vehicle Productivity By Site: The productivity gaps become obvious.

MHE Analytics can also help you identify activity gaps between the number of forklifts available at each site vs. the peak number actually in use at any given time.

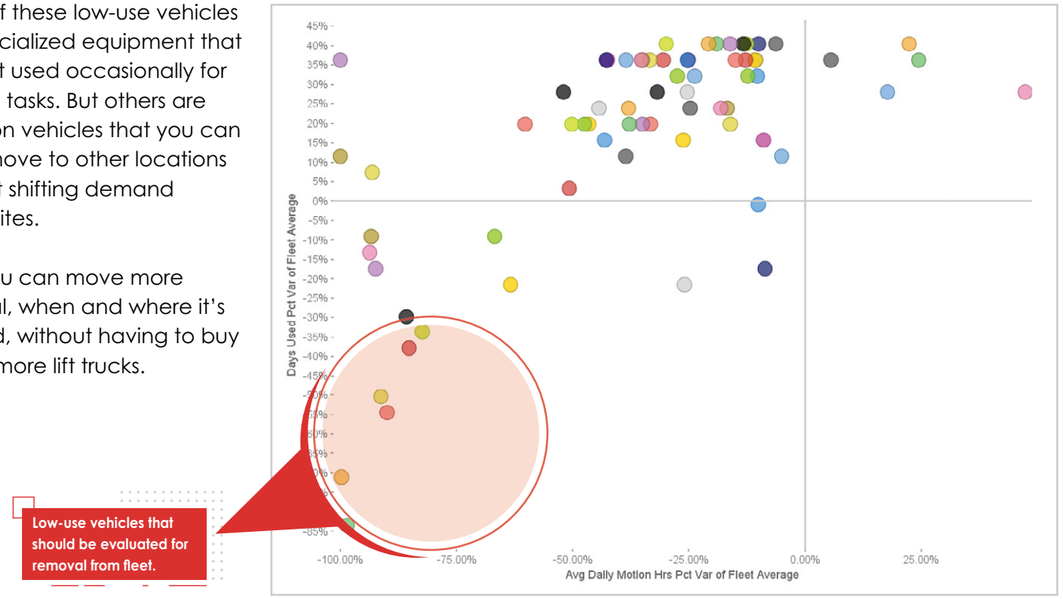
When these gaps are significant, you can take action by reallocating equipment to busier or growing sites, and reassigning staff to other jobs.

As the waterfall chart on the right shows, only about 80 out of 104 lift trucks in this fleet are ever being used at the same time.

Day-to-Day Simultaneous Vehicles In Motion:
Add the capability to easily identify your most and least active trucks.

Some of these low-use vehicles are specialized equipment that only get used occasionally for specific tasks. But others are common vehicles that you can easily move to other locations to meet shifting demand across sites.

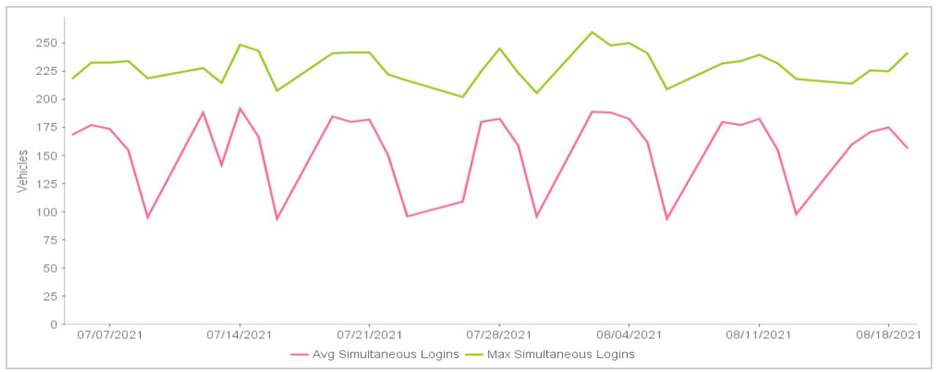
Now you can move more material, when and where it's needed, without having to buy or rent more lift trucks.



Average Daily Use % Variance From Fleet Average: Managers get detailed vehicle usage data for the whole fleet.

Industrial engineers who use MHE Analytics can better assess how much time activities in shipping/receiving, assembly, stamping, maintenance and other areas actually take. Then, compare those figures with the original job plans.

The chart below reveals that of the 250 operators in this group, a maximum of only 225 operators were ever logged into their equipment at the same time. And the average number of operators logged into froklift trucks or tuggers at any one time was much lower – approximately 100. To optimize asset utilization and reduce costs, at least 10 (and possibly as many as 25) of these vehicles and operators in this group could safely be reassigned to other tasks or locations. When you apply this kind of analysis to all departments in all sites across your enterprise, it's clear you can dramatically improve productivity and decrease downtime.



Simultaneous Login Daily Summary: Identify gaps between the number of vehicles/operators deployed vs. how many are actually used any any given time.

“Keys” to Safety, Damage and Culture Change for KPI Cost Savings

As a manager, you’ll appreciate how MHE Analytics can help reduce forklift-related damage costs by 60–90% across your enterprise. That alone can save millions of dollars. It will also become clear to operators and managers that you’re tracking all sources of vehicle and product damage, as well as the severity of each accident.

You’ll notice that the number of accidents will start to decrease — often dramatically!

When used with Powerfleet’s telematics system, the Powerfleet IQ™ analytics platform provides key performance indicators (KPIs) for critical forklift and MHE safety metrics, such as:

Rate of impact events per vehicle motion time

Rate of vehicle lockouts due to critical safety issues

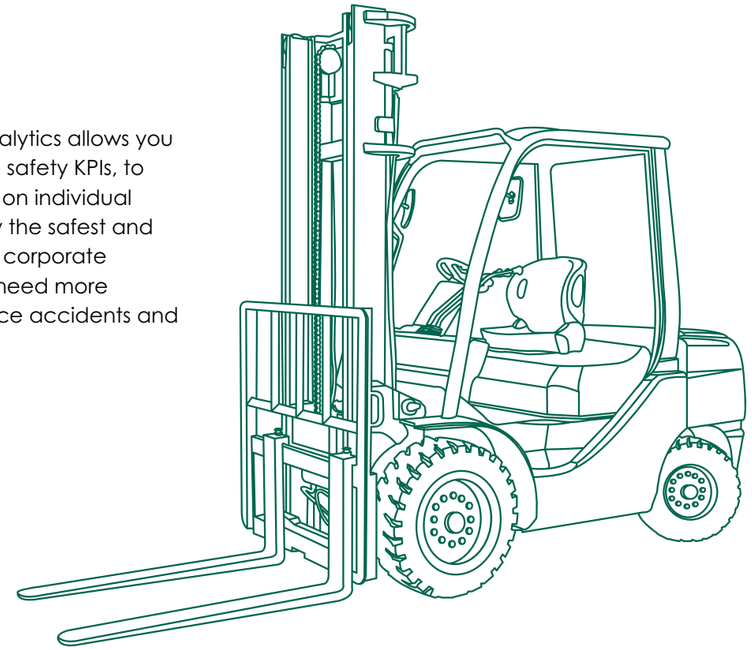
Rate of vehicle lockouts due to failure of operators to complete their pre-shift safety checklists

On the KPI dashboard below, review the 7-day rankings and 30-day trends for each site. They depict high and severe impacts incurred by each site’s forklift fleet. They’re coded with either green, yellow or red dots to convey compliance with corporate standards, improvements needed, or unacceptable performance by a particular site. During this week, the company did not have any unacceptable sites.

	High/Severe Impact Rate		Lockouts for Critical Rate		Lockouts for Non-Compliance Rate	
Site	7 Day Alert	7 Day Thresholds	7 Day Rank	Rolling 30 Day	30 Day Trend
Demarest	●	5 - 15	1	2.06	↓
Norwood	●	5 - 15	2	5.76	↓
River Edge	●	5 - 15	3	4.59	↓
Oradell	●	5 - 15	4	6.30	↓
Woodcliff Lake	●	5 - 15	5	5.76	↓
Closter	●	5 - 15	6	6.23	↑
Cresskill	●	5 - 15	7	13.44	↓
Montvale	●	5 - 15	8	9.25	↓
Old Tappan	●	5 - 15	9	10.5	↑

KPI Dashboard: See enterprise-wide and individual safety trends.

With productivity dashboards, MHE Analytics allows you to see everything from enterprise-wide safety KPIs, to specific site data, to detailed statistics on individual operators. So, you’ll be able to identify the safest and least safe fleets, compare your sites to corporate benchmarks, and know which drivers need more training. You can use this data to reduce accidents and damage costs significantly.



Clean Up Maintenance Costs By Controlling Fleet Efficiency

You can also use MHE Analytics to improve forklift maintenance efficiency. Analytics data allows you to monitor your fleet more carefully, and respond to challenges more quickly. This sophisticated, but simple-to-use technology helps reduce costs at automotive plants by providing you with:

Real-time alerts when pre-shift checklists flag maintenance issues

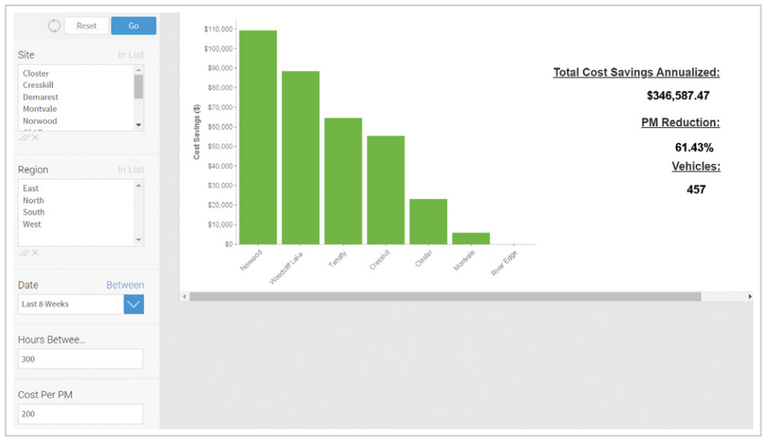
Remote lockout of equipment that needs repair or is overdue for maintenance

Precise preventive maintenance scheduling, based on time in motion, not key or calendar time

Instant location of equipment on a facility map, so it can be retrieved quickly, which is especially important in large plants

As a corporate manager, you'll appreciate how MHE Analytics accumulates and analyzes data across your entire enterprise. Imagine being able to assess your most and least efficient maintenance practices, identify ways to improve at individual sites, and help maintenance managers become more effective by changing their routines.

As an example, let's say Plant A and Plant B have about the same rate of unplanned maintenance, even though Plant A does preventive maintenance every 250 motion hours and Plant B does them every 300 hours. If Plant A changes its maintenance routine to every 300 hours, it will save about 17% of the time and money it spends on preventative maintenance.



Vehicle Preventive Maintenance Cost Savings By Site: Dashboard
Preventive maintenance is based on actual motion-hours, not on key login time.z

You can use telematics data from MHE Analytics to quantify and forecast maintenance cost savings on a site-by-site basis.

Conclusion

Big Data Offers Big Auto Industry Benefits

Bottom line: As an automotive industry manufacturer or distributor, you can count on receiving 3 major benefits by using MHE Analytics across your enterprise:

Productivity improvements that maximize forklift/MHE usage, equipment allocation and labor cost savings.

Safety metrics that create a stronger safety culture and lower forklift/MHE accident costs.

Maintenance data and best practices, which help lower forklift/MHE maintenance costs.

There are many more ways to mine data, and the cost savings and productivity improvements can be dramatic.

For more details about improving productivity and safety while cutting costs, contact Powerfleet now.

About Powerfleet

People Powered IoT

Powerfleet (NASDAQ: PWFL; TASE: PWFL) is a global leader of internet of things (IoT) software-as-a-service (SaaS) solutions that provides a single pane of glass to manage both fleets and assets in order to optimize utilization and maintenance, driver behavior, and fuel consumption, all delivered by a world-class customer success team.

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