Why Lithium?

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There are 3 key applications where switching to Lithium-ion battery driven lift trucks can directly impact your bottom line.

Large electric trucks with industrial lead acid batteries.
Lithium-ion batteries last longer, charge faster and don't require battery rooms or eyewash stations. They are environmentally cleaner and weatherproofed, allowing them to work indoors and out.

Internal combustion engine driven lift trucks.
Lithium-ion trucks are much simpler designs that don't pollute, require substantially less mechanical service and have an overall lower cost of ownership. They can provide equal asset availability and uptime thanks to their ability to rapidly "opportunity charge" during breaks.

Pallet jacks and walkie stacker trucks.
Li-ion batteries last three to five times longer than Absorbed Glass Mat (AGM) batteries, which are often expensive to replace and require a trained service technician's visit. Lithium-ion batteries are much smaller and lighter than AGM batteries, resulting in smaller, more nimble machines.

With Big Joe Easy-Exchange technology and an optional second Li-ion battery
you can achieve infinite duty cycles.

Longer Lasting

Environmentally Friendly

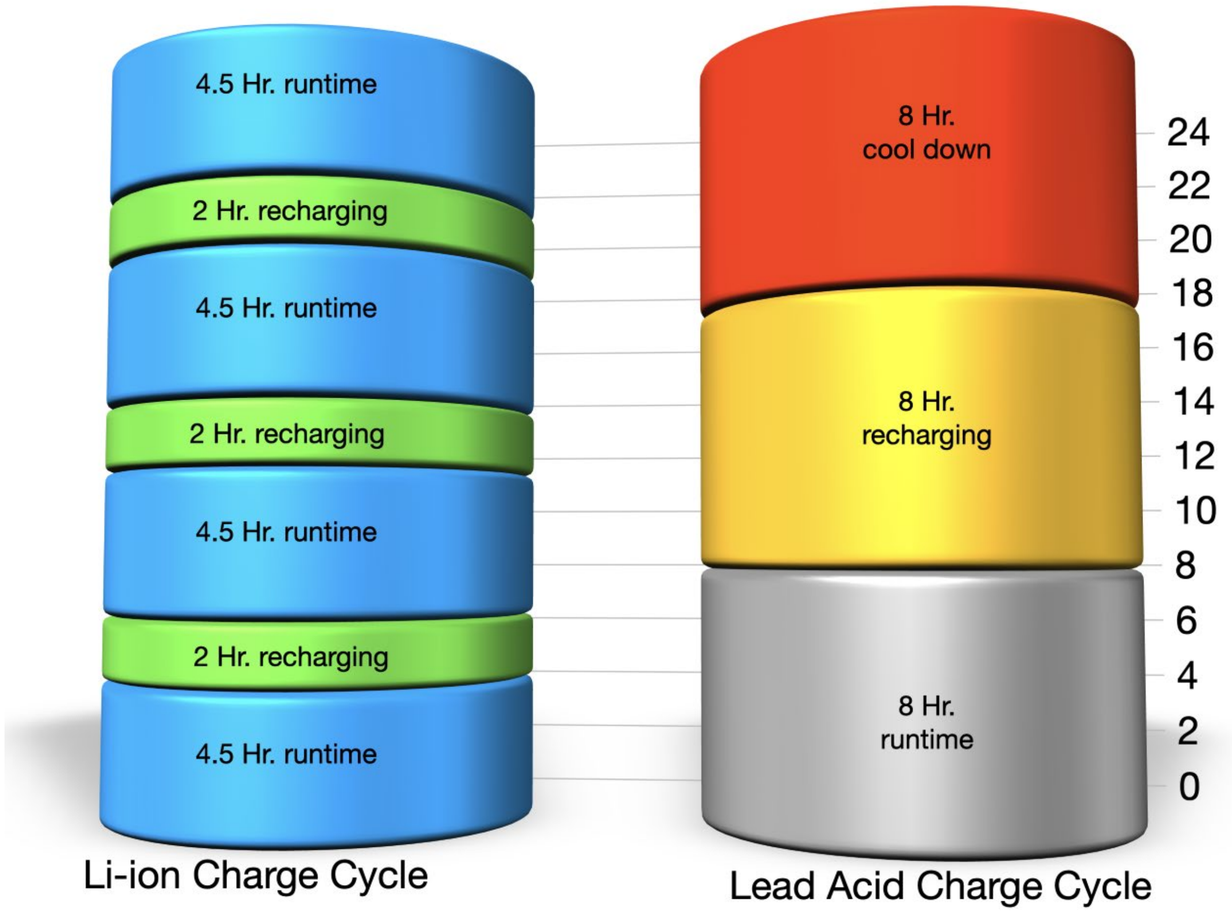
Faster Charging

Superior ROI

Li-ion batteries deliver unrivaled asset availability, proving that time is money!

Li-ion batteries can provide up to 10 more hours of uptime per 24 hour period vs. industrial lead acid batteries.

There really is no comparison. The advanced technology of Li-ion batteries allows them to be fully charged in 2-3 hours and gain an opportunity charge of 1% every 80 seconds during coffee breaks or other idle periods, resulting in greater uptime. Li-ion batteries completely shatter the 8 hours of use / 8 hours to charge / 8 hours to cool down cycle times required for industrial batteries. They eliminate the labor associated with battery swaps and free up the floorspace of a battery room for more storage.



Li-ion vs Industrial Lead Acid

Li-ion vs. Internal Combustion (IC) trucks

One of the biggest drawback to electric lift trucks has always been asset availability in high volume warehouses, DCs and cross docking applications. Thanks to opportunity charging,

Li-ion trucks are now on an equal playing field with IC trucks for asset availability.

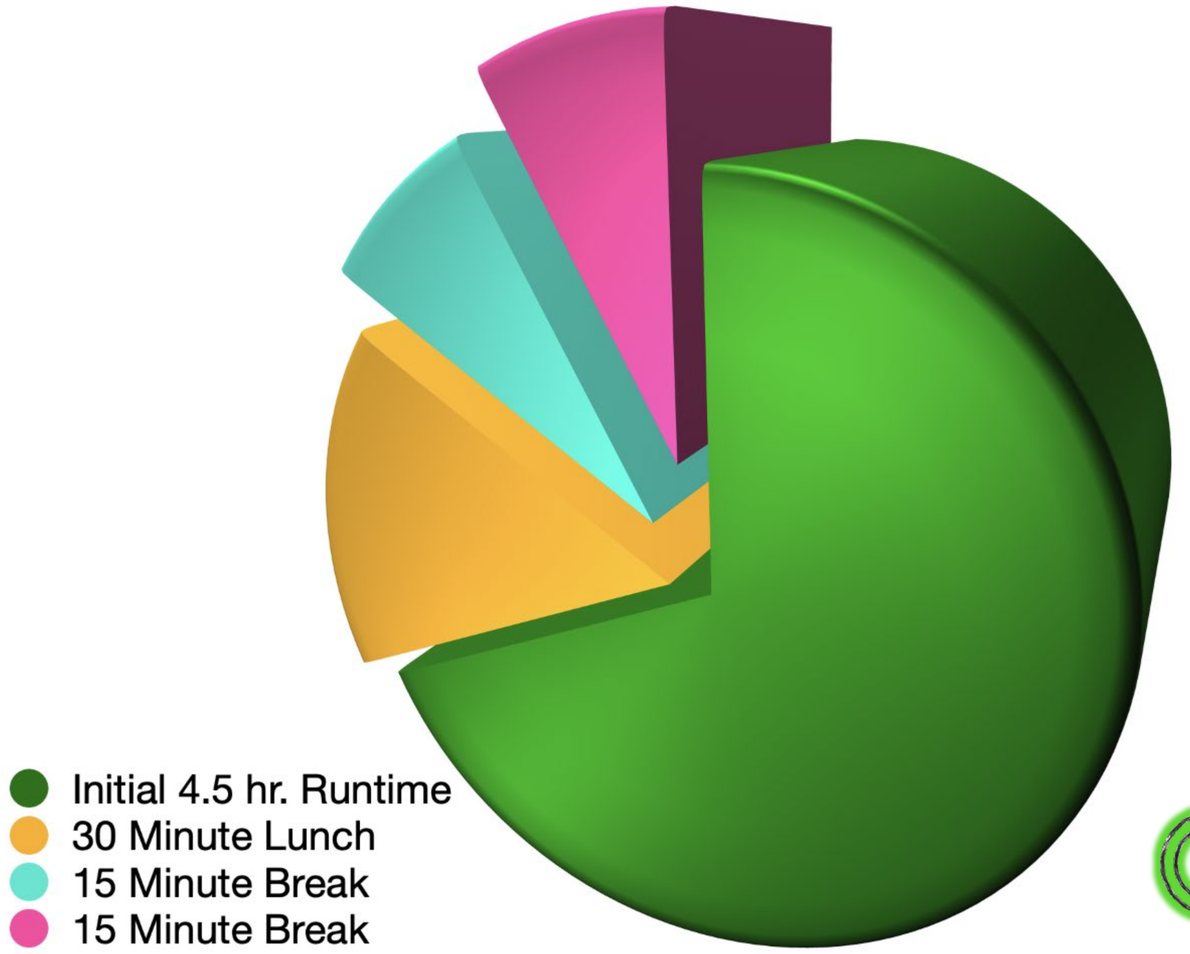
When you consider the simplified maintenance on electric trucks vs IC engines, Li-ion powered trucks deliver far better ROI over their life cycle.

Superior ROI

1% runtime every 80 seconds!

Opportunity charging during breaks and downtime creates unrivaled asset availability !

On products like our LXE37 Spark forklift truck you can add up to two hours of runtime during a 30-minute lunch break and two 15-minute breaks, resulting in 6.5 hours of continuous runtime per shift! Li-ion batteries charge much quicker than they can be used on Big Joe vehicles while eliminating the cool-down cycle of lead acid batteries. In typical usage, a Li-ion truck will provide reliable asset availability that ensures you always have enough power to get the job done.



Faster Charging

Li-ion vs Absorbed Glass Mat (AGM)

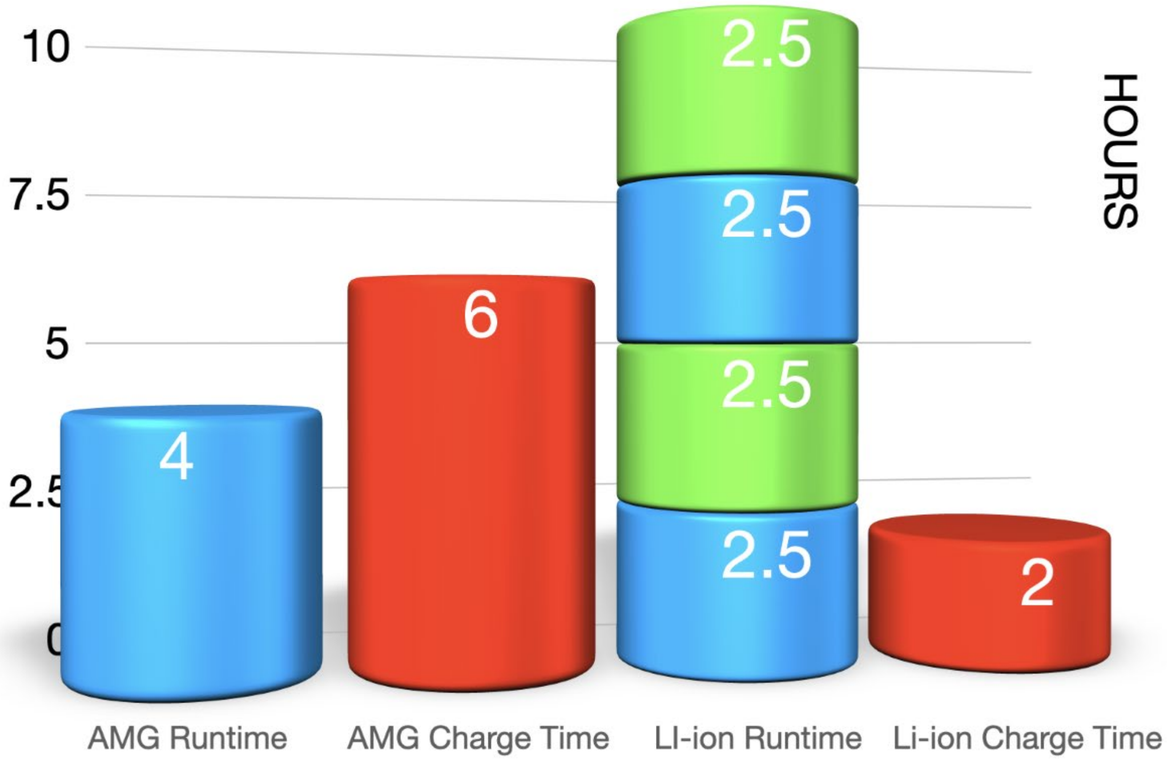
Li-ion batteries are smaller, lighter and offer Easy-Exchange technology similar to power hand tools. Because they have longer run times and shorter charging cycles vs. AGM batteries you can achieve infinite duty cycles with an optional second Li-ion battery, meaning you'll never have to worry about having enough power to complete the job.

They also last longer, delivering up to five times the life of a typical AGM battery, saving you costly maintenance and battery replacements.

Faster Charging

Longer Lasting

Achieve Infinite Duty Cycles with 2 Li-ion Batteries



AGM truck downtime 6 hours / Li-ion truck downtime 0 hours (100% availability).

Create a cleaner, greener, safer workplace

Li-ion vs. Industrial Lead Acid

Li-ion batteries are cleaner, greener and safer than industrial lead acid batteries in so many ways:

1. They contain no poisonous lead or dangerous acid
2. They do not vent toxic gasses during operation making them safe for use around food processing
3. There are no chemical spills to worry about, including acid leaks and battery wash downs
4. They do not require eyewash stations
5. There are no dangerous battery changes, making them safer for personnel
6. They eliminate dangerous and congested battery charging rooms

Cleaner

Greener

Safer

Li-ion vs. Internal Combustion (IC) trucks

Li-ion batteries are cleaner, greener and safer than industrial IC powered trucks:

1. IC trucks burn propane and generate toxic carbon monoxide
2. IC truck exhaust creates a sooty residue throughout your facility
3. Storing flammable propane on site is dangerous
4. Employees can be injured changing heavy propane cylinders

Li-ion batteries let you think outside the box!

Li-ion vs. Industrial Lead Acid

Electric lift trucks have largely been confined to interior warehousing applications due to their susceptibility of short circuiting from exposure to water. Li-ion technology allows the battery and components to be weatherproofed, removing the productivity barrier that has long existed at the facility door.

LI-ion vs. Internal Combustion (IC) trucks

Li-ion trucks can perform the tasks in yards, outdoor docks and in parking lots that were previously only handled by IC trucks and do it at a lower cost per shift. Opportunity charging makes Li-ion trucks an excellent choice for performing cross docking operations and working in high volume DCs, where industrial battery powered electrics were traditionally unable to compete due to the limitations of charging cycles.

Li-ion vs. AGM

Li-ion powered pallet jacks have smaller footprints and weigh less than comparable AGM powered units, making them an excellent choice for lift gate fleets. This provides enhanced maneuverability inside trailers and on the gate itself, while allowing for higher payloads. They are also weather-resistant for use in parking lots and other outdoor deliveries.

BIG JOE

Less is more with Li-ion batteries

Li-ion vs. Industrial Lead Acid

Li-ion batteries have a higher power density in a considerably smaller footprint than an industrial battery. This means the operator's compartment of a LI-ion truck can be larger and more ergonomically designed for all day comfort, resulting in better employee moral and higher productivity. They are also more efficient, allowing for 95% of the stored power to be used compared to 80% - 85% from industrial batteries, resulting in lower electricity bills.

LI-ion vs. Internal Combustion (IC) trucks

Li-ion powered lift trucks have a much lower cost of ownership than IC trucks due to the fact that they have less moving parts and are easier to maintain. This results in greater uptime and lower service costs over the lifetime of the vehicle, strengthening your bottom line. Additionally, electricity is a regulated commodity, while the price of propane fluctuates with market trends and events. Switching to a Li-ion powered fleet can simplify monthly budgeting, and predictably lower your operating costs.

Li-ion vs. AGM

Li-ion batteries are smaller and lighter than AGM batteries, yet deliver comparable power. Li-ion powered pallet jacks and stackers are smaller more nimble trucks that can allow for tighter aisle spacing, increasing the potential capacity of your warehouse or floor space of work areas. Their lighter weight also allows Li-ion jacks and stackers to be used on retail floors without fear of damaging other assets.