



**MOFFETT**

# MOFFETT E-SERIES

THE ELECTRIC TRUCK MOUNTED FORKLIFT





**THE FIRST ALL ELECTRIC  
TRUCK MOUNTED FORKLIFT  
INTRODUCING THE MOFFETT E-SERIES**



MOFFETT truck mounted forklifts have been hard at work at construction sites and depots across the world for over thirty years. Now MOFFETT has spearheaded innovation again with the world's first Lithium-ion powered truck mounted forklift.

The MOFFETT E-Series models are setting new standards in placing environmentally responsible technology on the back of your truck or trailer, while significantly reducing the total cost of ownership.

# STRONG AND SILENT

It is powerful and it is environmentally responsible. The MOFFETT E-Series offers a high lifting capacity of up to 2000 kgs. It runs on a lithium-ion battery; so it is completely emission-free and silent when it is being used.

## Emission free

The MOFFETT E-Series is equipped with the latest Lithium-ion battery technology. This means it does not generate or release any emissions.



Emission Free

## Silent operation

The MOFFETT E-Series runs on a battery. Its silent operation makes it perfect for urban and night-time deliveries.



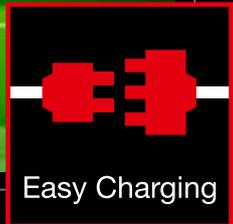
Silent  
Operation





## Easy charging

All MOFFETT E-Series models give you the flexibility of onboard charging as well as charging from a wall-socket.



## Reduced cost of ownership

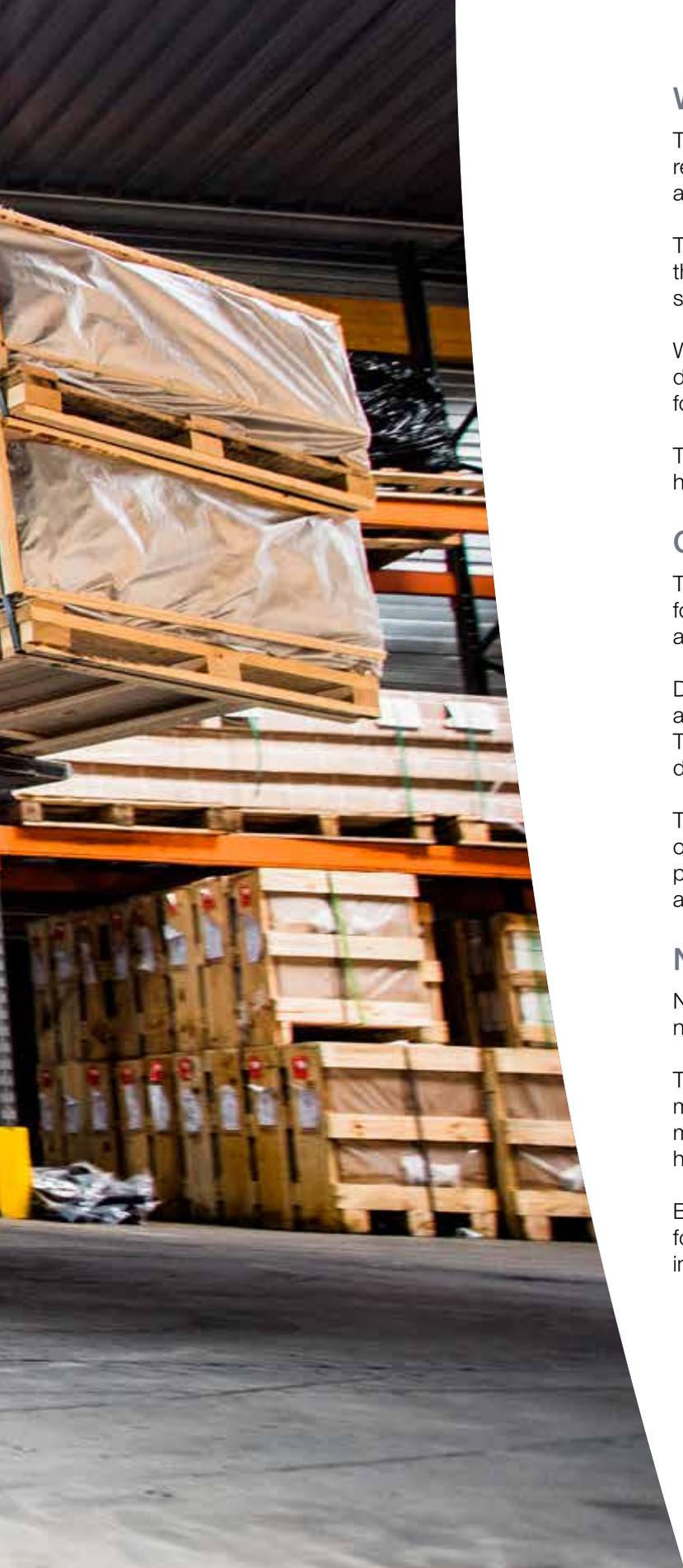
Because it operates on Lithium-ion technology, the MOFFETT E-Series offers a reduced Total Cost of Ownership and a much better Return on Investment as compared to diesel truck mounted forklifts.





**DESIGNED FOR OUTSIDE  
TO INSIDE OPERATION**

**THE TRUCK MOUNTED FORKLIFT  
FOR YOUR BUSINESS**



## Warehouse Deliveries

The MOFFETT Truck mounted Forklift has a proven track record of saving time and money for businesses across all industries.

The new emission free E-Series is ideal for operations that require the movement of goods from outside to inside such as warehouses and distribution centres.

With a lift capacity up to 2,000 kg, a powerful one-wheel drive traction system and a tight turning circle, this agile forklift is capable of accessing the most confined areas.

The new E-Series reduces the need for additional warehouse material handling equipment.

## City Distribution

The highly manoeuvrable truck mounted forklift is ideal for urban deliveries in locations where access is restricted and low noise is paramount.

Deliveries are made without any engine noise or emissions, allowing the operator to travel right to the point of delivery. This ensures faster delivery times and reduced product damage.

The E-Series will accelerate the swift logistical support of your organisation, improving the level of service you provide to your customers giving you a competitive edge and the opportunity to increase your customer base.

## Night-time Operations

Night time delivery operations are often faced with stringent noise regulations e.g. within residential areas.

The new E-Series is a low noise and zero emissions machine designed for this growing area of business, minimising the impact of air and noise pollution and helping speed up the delivery process.

By incorporating this new electric truck mounted forklift into a delivery system it enables greater flexibility in planning out of hour's deliveries.

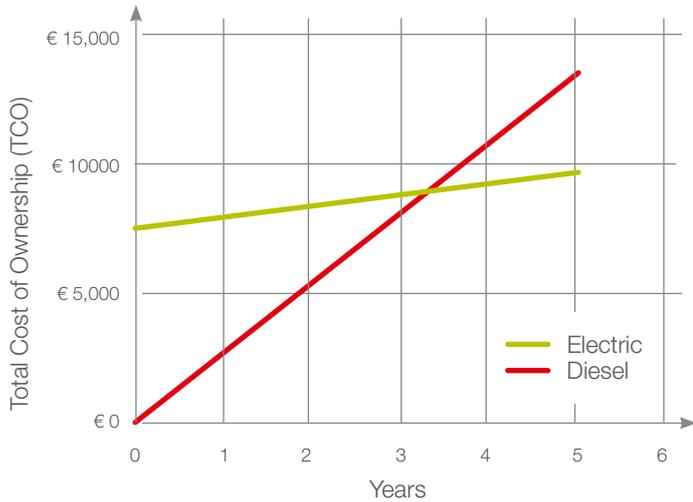
E-power  
– ready in less than one minute  
– any time day and night

# TOTAL COST OF OWNERSHIP

In developing the New E-Series truck mounted forklift for our customers, MOFFETT has considered the key importance of Total Cost of Ownership (TCO).

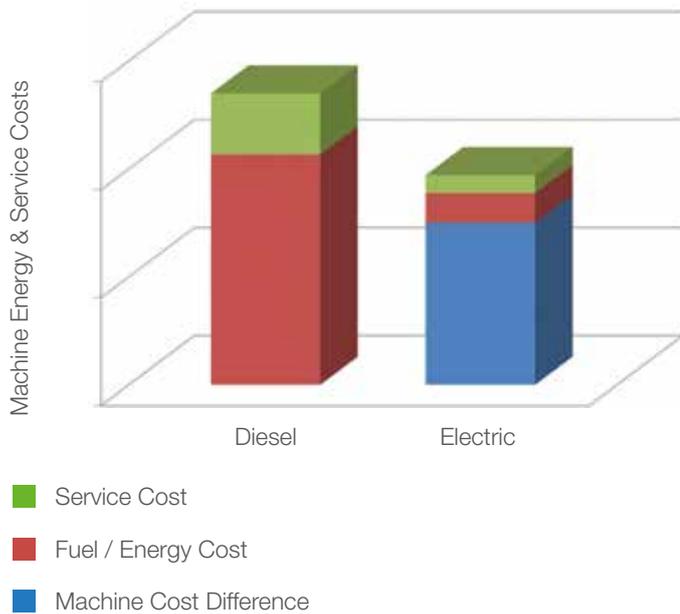
The data below shows a comparison between Diesel and Electric for the same given duty cycle:

**Total Cost of Ownership (TCO) vs Years**



The new E-series electric truck mounted forklift with Lithium-ion technology offers the best return on investment in industrial applications like food, night time deliveries and urban applications. With its low noise and zero emissions it has the ability to go where no other truck mounted forklift has gone before, giving increased flexibility and utilisation.

**Diesel vs. Electric – Total Cost of Ownership breakdown**



Data based on estimated machine cost difference, energy figures from Eurostat, service figures based on averages from main TMFL EU markets, based on annual 300 hrs and 5 years ownership.



## Batteries

The E-Series models are equipped with the latest Lithium-ion battery technology resulting in a number of advantages:

- High number of charge cycles
- Faster charging and lower self-discharge
- Longer operating hours with constant performance
- Lower weight
- No gassing during charging or storage



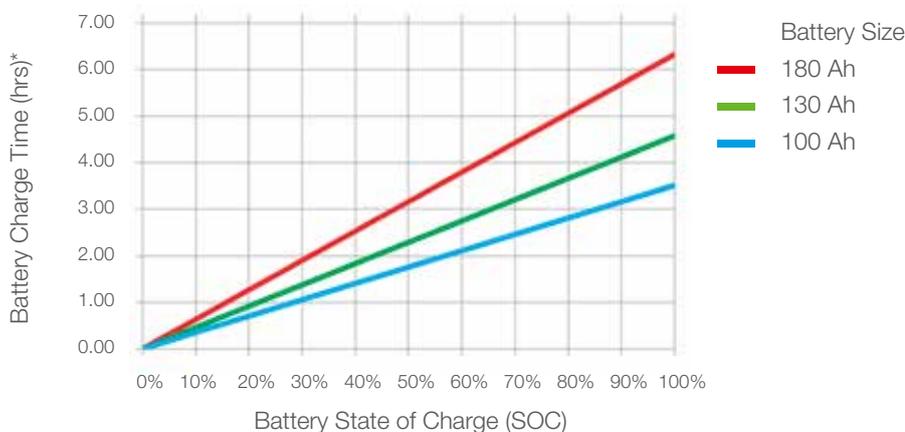
# DURABILITY & PERFORMANCE

## Charging

The E-Series models are fitted with an on board charger providing complete flexibility in terms of charging location and specification of carrier vehicle.

Depending on battery size the forklift can be fully charged from as little as 3 hours.

### Battery Charge Time vs. Battery Size



\* Charge time based on 1.5 kW charger @ 15° C Ambient

“Because of traffic volumes during the day we do all our deliveries at night. Some of the depots we deliver to are in built up areas and the silent running truck mounted forklift is ideal to ensure that we cause minimum disruption to local residents while taking into account operational needs and costs.”

Mark Wilson, Transport Manager,  
FPS, Sheffield, South Yorkshire, UK

# LEADING TECHNOLOGY

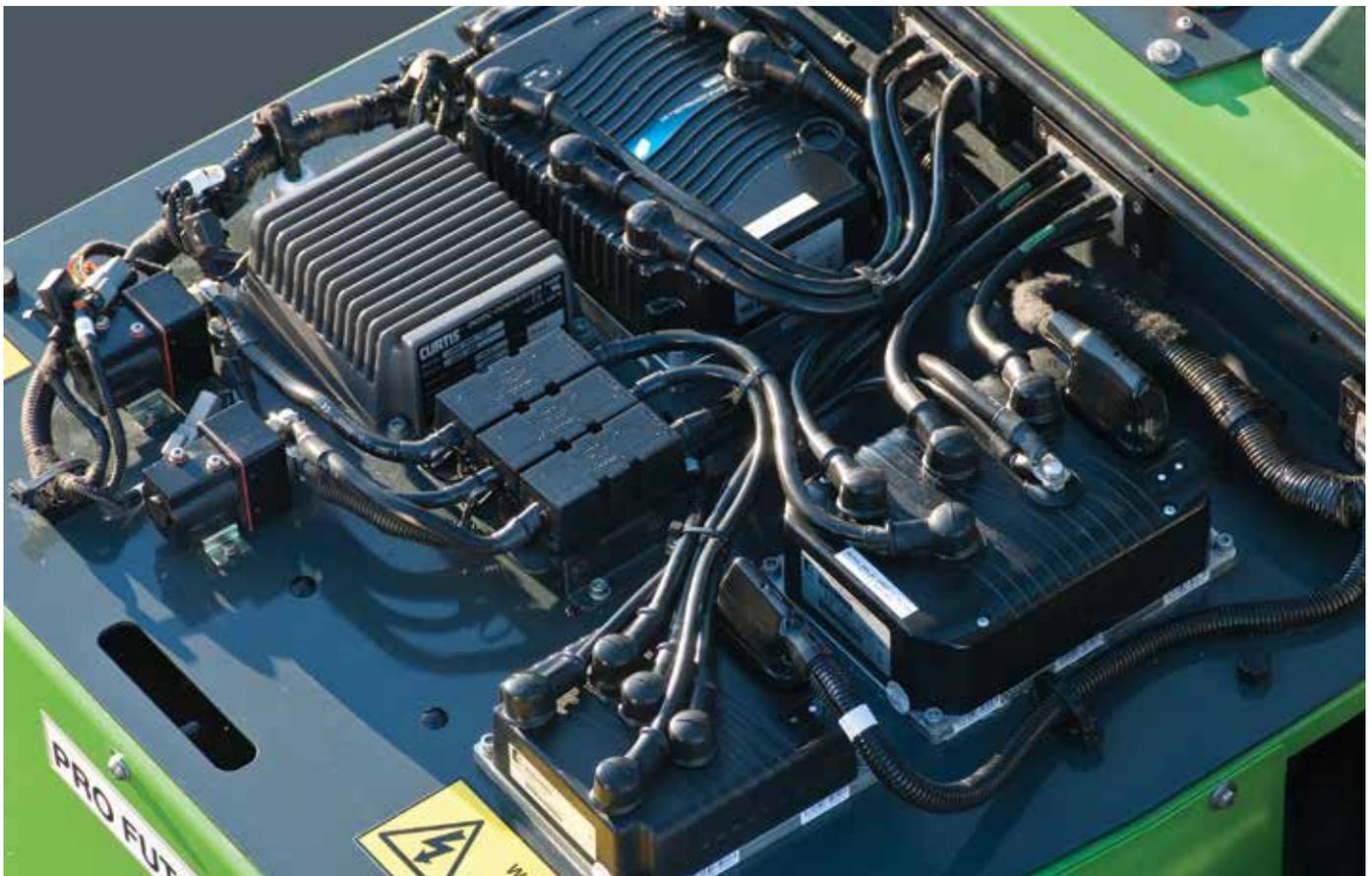
## Control Systems

The controls are designed to give the easiest transition for operator training while utilising all the benefits of an electronic control system:

- Automotive Forward/Reverse Control
- Foot pedal throttle by wire ability to interlock and program
- Hydraulic levers with programmable speeds for Lift, Reach, Tilt and Sideshift
- Steering safety ability to program limits for angle vs. speed for improved safety
- Seat belt and seat presence interlocked operation
- Electronic CAN BUS control carrying all the control signals in a two wire system
- Steer by wire ability to interlock and program steering

## Power Systems

- All motors are latest AC technology which means they are easier to seal and they have no contacts that require service
- The latest programmable AC controllers are used which are capable of smoothly converting the battery DC current to AC for the motors
- The controllers also control the machines functionality and safety
- The powerful rear traction motor drive assembly is fitted with a 21" tyre and has a totally enclosed drive system
- The hydraulic system is driven by a silent helical pump which supplies oil to the main hydraulic functions





## Dash Display



- The main display is sealed to IP65 and features integrated switches that are used for indicators, lighting and horn, as well as doubling up as navigation for the display menus
- The main display shows State of Charge (SOC) and a Power Meter showing how hard the machine is being used as well as regeneration indicator showing when the machine is generating charge for the batteries
- Other display parameters such as hours run, service countdown and direction selection are shown at the bottom of the screen
- Separate menus for OEM, Service and operator parameters are available to allow the machine to be monitored without the need for a laptop
- The display also features an alarm window which shows operator interlock alarms in blue and system alarms in red
- A separate charging screen is displayed when the battery is on charge which incorporates a low temperature alarm

# LEADING TECHNOLOGY

## Ergonomics

- Spacious open cabin design for maximum visibility and comfort
- Tinted all-weather overhead guard cover
- Easy reach control levers
- Comfortable pedal and steering
- Operator friendly entry/exit with slip resistant steps and easy reach grab handles
- Smooth driving control
- Optional: Remote Ground Mount™ System



## Safety

- Maximum Visibility (360 degrees)
- Overhead Guard ROPS/FOPS tested
- Interlocking seat belt and operator controls
- Programmable steering response vs. speed for increased stability
- Flashing beacon, work lights and reverse bleeper
- LED road lights for transport on truck/trailer

## Performance

- Compact and highly manoeuvrable
- Powerful rear wheel traction
- Low unladen weight
- Ability to handle goods from outside to inside
- Ultra Low Noise
- Zero Emissions

## Maintenance

- Long service intervals
- Reduced Total Cost of Ownership
- IP 65 proof electrical components
- Easy access to all serviceable parts
- LED lighting for longevity and less maintenance
- Weather and corrosion resistant features include:
  - Plastic conduit protecting wiring harness
  - Powder-coat paint
  - Nitrotec treated pins





## Technical specification

	E2 12.1	E4 20.1
Lifting Capacity	1,200 kg @ 600 mm	2,000 kg @ 600 mm
System Voltage	48 v	48 v
Battery Capacity*	100 Ah (130 Ah)	130 Ah (180 Ah)
Standard Tyres	400x4/21x8-9	18x7-8/21x8.9
Drive Wheels	Single Rear 21"	Single Rear 21"
Unladen Weight*	1590 kg	1680 kg
Overhang*	1160 mm	1160 mm
Ground Clearance	190 mm	190 mm

*The above specifications can be changed by the manufacturer without prior notice.*

*\* The values vary depending on machine specification. Optional capacity in brackets*





# ENVIRONMENTAL RESPONSIBILITY

## HELPING TO PROTECT THE ENVIRONMENT – EVERY WORKING DAY

MOFFETT, the industry pioneer and market leader is once again setting the standards, placing environmentally responsible technology on the back of your truck.

The new E-Series models come with all that makes MOFFETT the most popular truck mounted forklift in the world – minus the CO<sub>2</sub> emissions.

With exceptional durability and reliability, together with the guaranteed quality you have come to expect, this machine sets the standard in environmental responsibility.

# PRO FUTURE

Pro Future™ is marking for products and solutions with less environmental impact. These products and solutions have passed certain industry- leading criteria regarding energy efficiency, the power source, emissions, noise pollution and recyclability.

By investing in equipment with the Pro Future™ seal, you gain the ability to develop operations with improved sustainability while at the same time reducing your cost of operation considerably.

PRO FUTURE 



Accredited with the Quiet Mark by the Noise Abatement Society, the E-Series has been recognised for its outstanding quiet technology, helping to reduce the noise levels in our environment.

For more information: <http://www.quietmark.com>

The world's first Lithium-ion powered truck mounted forklift will increase the efficiency of your fleet with zero fuel consumption and the satisfaction of knowing that you are protecting the environment for future generations.

# BUILT TO PERFORM

Hiab is the world's leading provider of on-road load handling equipment. Customer satisfaction is the first priority for us. Hiab's product range includes HIAB loader cranes, JONSERED recycling and forestry cranes, LOGLIFT forestry cranes, MOFFETT truck mounted forklifts and MULTILIFT demountables, as well as DEL, WALTCO and ZEPRO tail lifts.

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