



EPX20/25/30

AC 48V 4 wheel 2.0/2.5/3.0ton
Pneumatic tire

ECX20/25/30/30x

AC 36/48V 4 wheel 2.0/2.5/3.0Ton
Cushion tire



Clark-Built To Last



CLARK
THE FORKLIFT



From the very beginning, over 100 years ago, Clark has been at the forefront of every major technological advancement in the world's forklift industry. The new Clark AC Electric EPX and ECX series, an aggregate of all the benefits of AC electric technology, are another evolution of the industry, providing highest performance, efficiency and reliability.

Product Line Up



AC 48V 4 Wheel 2.0/2.5/3.0Ton
Pneumatic tire
EPX20, EPX25, EPX30



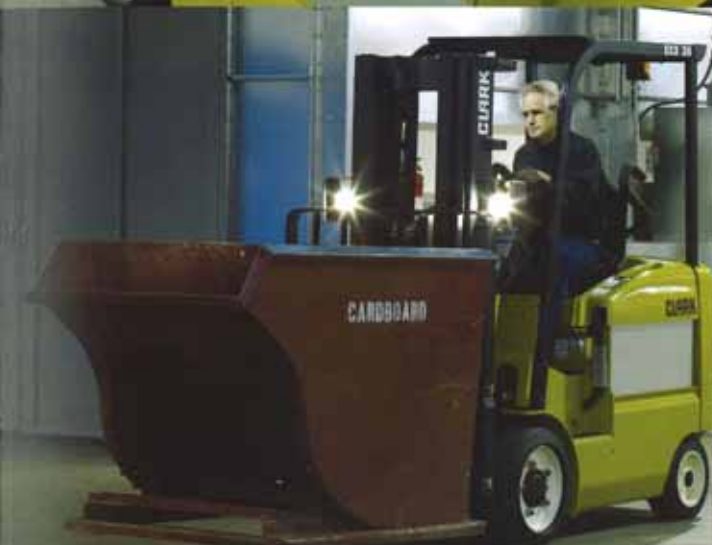
AC 36/48V 4 Wheel 2.0/2.5/3.0Ton
Cushion tire
ECX20, ECX25, ECX30, ECX30x

Best Productivity... AC MOTORS



- 100% AC system
- All motors are totally enclosed
- High torque drive motors provide high draw bar pull and gradeability

All Motors Used On The EPX/ECX are brushless induction motors, known for their simple yet rugged design. By eliminating brushes, Clark has made brush changes a thing of the past and motors no longer have to be pulled from the truck for the commutator to be turned. **All motors are totally enclosed** to seal out contaminants such as dust and water and are equipped with a **temperature monitoring device** that signals the control to cut back power should motor temperatures ever approach their limit. **Thermal protection** is standard on all motors, as are encoders that provide accurate speed feedback to the control. The heavy-duty drive motors produce outstanding draw bar pull (up to twice that of some competitors), allowing the EPX/ECX to ascend grades that were once only negotiable by internal combustion trucks.



Highest Efficiency... Electrical Control



- AC Traction and Pump Controls
- Drive system stall warning
- Three forms of regenerative braking
- Ramp start and controlled roll-back features
- Accurate speed control
- High acceleration rates and rapid reversal of direction possible
- Advanced thermal protection system
- High operating efficiency

Every EPX/ECX comes **standard with a hydraulic pump control** and fully proportional lift. The pump motor only spins as fast as the operator requests, expending only the needed energy. All controls are sealed, so they are environmentally protected, and frame mounted high off the ground behind the counterweight for protection. The controls have low audible noise, improved acceleration and most importantly, increased operating time per battery charge. Being totally solid state controls, there are no forward, reverse or bypass (1A) contactors to service or contactor tips to replace. The standard motor encoder allows vehicle speed to be accurately regulated even under varying load and operating conditions.

Regenerative braking returns energy into the battery, not into the brakes in the form of heat and is standard on the EPX/ECX. This is accomplished one of three ways; via releasing the accelerator pedal, changing direction of travel or applying the service brake. Using regenerative braking also prolongs the life of the truck's service brakes.

The Ramp Start Feature provides additional torque to eliminate roll back when starting on an incline. **The controller constantly monitors the temperature** of the AC motors and controls. If the temperature of either approaches its thermal limit, the controller gradually reduces system current. When temperatures return to normal, full power is automatically restored. This system offers a new level of protection and greatly reduces the likelihood of a motor burn out.

Drive at Ease

Standard low noise pump

A specially designed silent pump drastically reduces noise during lifting and steering. "On-demand power steering" is no longer needed in the EPX/ECX. Front and rear flank 4-point contact of the pump gears minimizes backlash over conventional 2-point gear contact. The 75% reduction in hydraulic pulse amplitude, plus the doubling in frequency, results in a low noise level.

Real time communication is achieved by integrated LCD display that is logically linked to a control monitoring system



Park Brake



Seat Belt Alert



Drive controller & motor overheat warning indicator lamp



Pump controller & motor overheat warning indication lamp



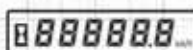
Planned maintenance



Battery discharging



Drive Speed



Hour meter
& Travel Speed



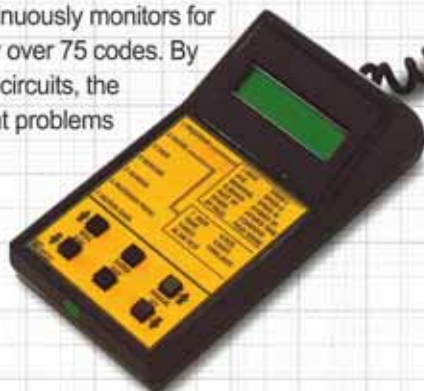
Service Status

Controlled descent feature Should a driver leave the EPX/ECX on an incline with the key on and the parking brake not set, it will not descend the incline uncontrolled. When the controller senses movement, but no accelerator pedal input, it signals the drive motors to apply counter torque allowing the truck to slowly descend the incline in a controlled manner.

Speed Limiting Maximum travel speed can be programmed to meet customer requirements and if necessary, forward and reverse can be set independently. Since top speed and direction changes are regulated by the controller, the forward, reverse and 1-A contactors are eliminated.

Fully Programmable Up to 20 performance parameter settings such as acceleration, creep speed and regenerative braking rate can be adjusted to precisely match truck performance to your requirements.

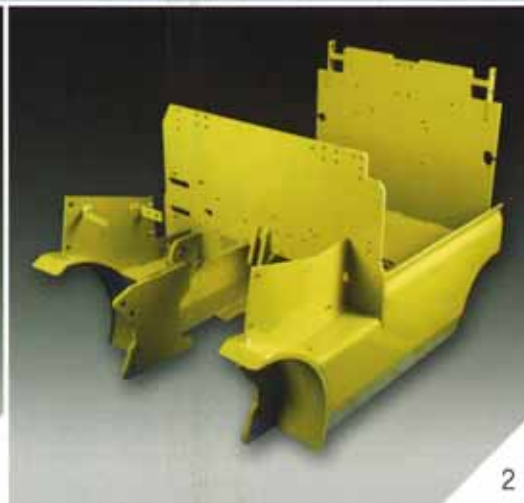
Fault Codes The controller continuously monitors for proper operation and can display over 75 codes. By checking more components and circuits, the controller is better able to pinpoint problems and reduce down time.



Other Features



1



2



3



4



5



6

1. Rugged Upright And Carriage Sealed and canted rollers minimize deflection and free-play in both the upright and carriage. Six carriage load rollers spread out the load, significantly improving roller life. Side thrust rollers help prevent racking during off-center loading and massive high-strength steel fork bars work to extend component life.

2. The Rugged Frame is constructed of 10mm thick steel. Some competitors use thinner steel and even some plastic components - not the way to build a rugged lift truck. All major EPX/ECX components are protected within the frame or massive counterweight.

3. Proven drive axle The CLARK ED30 drive axle incorporates a one-piece housing which reduces the possibility of leaks. It also utilizes durable helical gears for smooth, quiet operation. This axle is time-proven with millions of operation hours in some of the most demanding applications.

4. The Rugged Cast Steer Axle offers maximum protection for the dual-action steer cylinder and fittings while still allowing easy access to these components. Shields protect bearing seals that could otherwise be damaged by string and debris.

5. Access To The Motor Compartment is Simple Lift out the floorboard, raise the hood and all the major components of the truck, including AC controls are easily accessible in a matter of seconds - no tools required.

6. Visibility is critical to an operator's performance and safety. CLARK's nested upright rails provide positive rail interlock and a narrow "column" to maximize the vision window. The overhead guard safety bars run parallel to the operator's line of sight. This results in less product damage when picking and pulling loads from rack locations. A clear, unobstructed view also protects your most valuable asset - your employees.

Dependable Parts = Dependable Trucks



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Bucheon, Korea



CMHA
Changwon, Korea



CMHC
Lexington, KY, USA



CMHEU
Duisburg, Germany



CMHBR
Valinhos, Brazil

Unrivaled Parts Support Our Duisburg, Germany, Louisville, USA, Valinhos, Brazil, and Bucheon, Korea aftermarket distribution centers provide parts to Clark dealers all over the world. We are focusing on providing excellent off-the-shelf availability, quality parts, quick response time and competitive pricing. Our goal is 95% fill rate on parts for Clark Forklifts.

The Clark PartsPro System is our industries leading electronic parts and service documentation system, that provides Clark dealers and customers with an efficient and accurate method of identifying parts for every Clark forklift built since 1961. PartsPro ensures the availability of the most current technical information and has the unique capability to create parts manuals specific to your mixed Clark fleet, making it simple to positively identify and order from your local Clark dealer. The right Clark part-The First Time, Every Time.



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