

ELECTRIC RIDERS

Electric Lift Trucks
Superelastic Tires

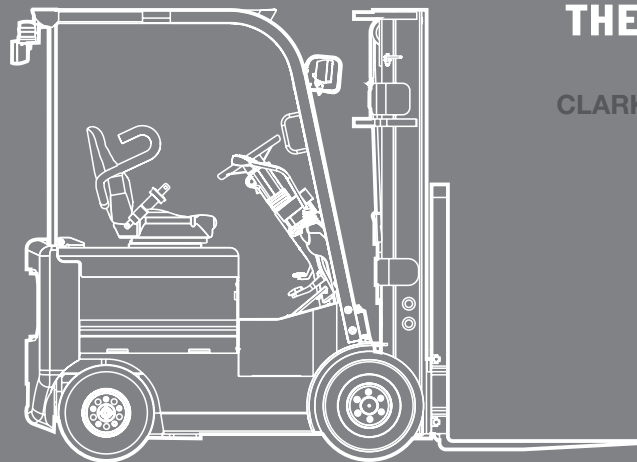
EPX16
EPX18
EPX20s

1600 kg
1800 kg
2000 kg

EPX16/18/20s



CLARK
THE FORKLIFT



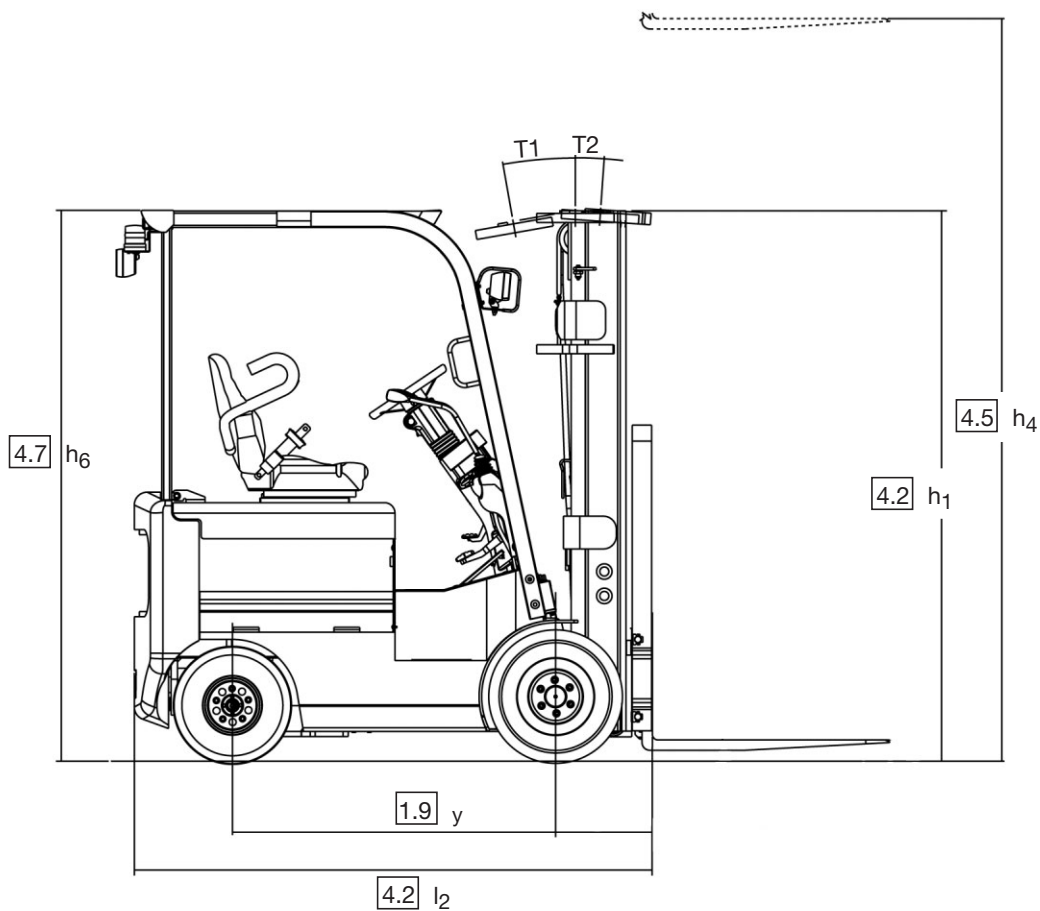
CLARK THE FORKLIFT

Europe

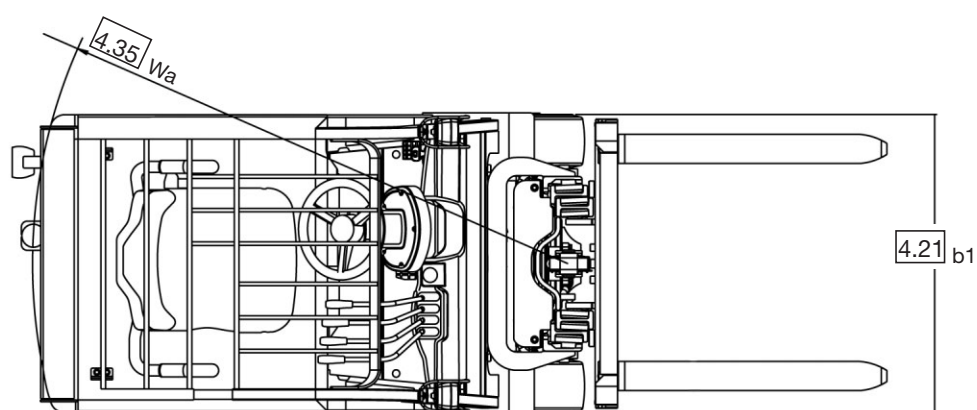
North America

South Korea

www.clarkmheu.com



EPX16/18/20s



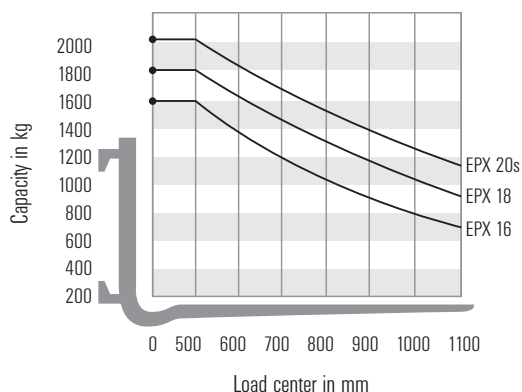
$$A_{st} = W_a + x + l_6 + a$$

$a = 200 \text{ mm (safety distance)}$

For corresponding data see
Specification Chart.

Truck Capacities

Capacity at different load centres



Note:

The listed capacities are valid only for the standard upright in vertical position with standard fork carriage and standard forks, up to max. lifting height of 3085 mm. The centre of gravity of the load may be displaced by max. 100 mm against the longitudinal centre plane of the truck. Load centre is determined from top and front face of the forks. The values are based on a 1000 mm cube load configuration with the centre of gravity at the true centre of the cube. With upright tilted forward lower capacity values are valid. Attachments, longer forks, exceptional load dimensions and higher lifting heights can reduce the capacity. Please talk to your CLARK dealer if you require further information.

Upright table

Capacity at different load centres

Upright table metrics in mm

CLARK Ref.	max. fork height h3	overall height lowered h1	free lift h2h5*
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Standard EPX 16, 18, 20s

(2 Stage Mast, standard free lift)

V	2545	1864	105
V	2795	1989	105
V	3085	2134	105
V	3285	2234	105
V	3640	2411	105
V	4070	2684	105
V	4365	2884	105
V	4655	3079	105

* without LBR

Upright table metrics in mm

CLARK Ref.	max. fork height h3	overall height lowered h1	free lift h2h5*
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Triple EPX 16, 18, 20s

(3 Stage Mast, full free lift)

M	3970	1864	1232
M	4345	1989	1357
M	4780	2134	1502
M	5185	2284	1652
M	5565	2444	1812
M	5740	2509	1877
M	6015	2634	2002
M	6470	2824	2192

* without LBR

Upright table metrics in mm

CLARK Ref.	max. fork height h3	overall height lowered h1	free lift h2h5*
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Hi-Lo EPX 16, 18, 20s

(2 Stage Mast, full free lift)

H	2925	1989	1363
H	3215	2134	1508
H	3515	2284	1658
H	3695	2374	1748
H	3810	2444	1818

* without LBR

ELECTRIC RIDERS

All values shown are for standard lift truck with standard equipment. If the truck is supplied with options, values may change. All values given may vary +5% and -10% due to the motor and system tolerances and represent nominal values obtained under typical operating conditions. Specifications for Non-emission limited truck.

1.1 Manufacture (Abbreviation)		CLARK	CLARK	CLARK	
Specifications	1.2 Manufacture's designation	EPX16	EPX18	EPX20s	
	1.3 Drive Unit	Elec-48V	Elec-48V	Elec-48V	
	1.4 Operator type stand on / driver seated	Rider-seated	Rider-seated	Rider-seated	
	1.5 Load Capacity / rated load	Q(Kg)	1600	1800	2000
	1.6 Load Center distance	c (mm)	500	500	500
	1.8 Load Center distance, centre of drive axle to fork face	x (mm)	375	375	375
	1.9 Wheelbase	y (mm)	1250	1250	1250
Weight	2.1 Service weight	kg	3155	3300	3455
	2.2 Axle loading, laden front / rear 5)	kg	4058/697	4375/725	4655/790
	2.3 Axle loading, unladen front / rear	kg	1388/1817	1315/1987	1265/2190
Tires, Chassis	3.1 Tire type, P=pneumatic, SE=superelastic, C=cushion 3)		SE	SE	SE
	3.2 Tire size, front		21x8-9	21x8-9	21x8-9
	3.3 Tire size, rear		5.00-8	5.00-8	5.00-8
	3.5 Wheels, number front/rear (x=drive wheels)		2x/2	2x/2	2x/2
	3.6 Tread, front	b10 (mm)	845	845	880
	3.7 Tread, rear	b11 (mm)	900	900	900
	Dimensions	4.1 Tilt of upright/fork carriage, α/β	deg	6/10	6/10
4.2 Height, upright lowered		h1 (mm)	2135	2135	2135
4.3 Freelift		h2 (mm)	105	105	105
4.4 Lift height 1)		h3 (mm)	3085	3085	3085
4.5 Height upright extended 2)		h4 (mm)	4305	4305	4305
4.7 Height overheadguard (cab): Std / Container		h6 (mm)	2145	2145	2145
4.19 Overall length		l1 (mm)	2945	2965	3010
4.20 Length to face of forks		l2 (mm)	2025	2045	2090
4.21 Width		b1 (mm)	1035	1035	1070
4.22 Fork dimensions		s*e*l (mm)	40X100X920	40X100X920	40X100X920
4.23 Fork carriage ISO 2328, A, B			CL 11A	CL 11A	CL 11A
4.24 Fork carriage width		b3 (mm)	940	940	940
4.31 Ground clearance minimum, unladen		m1 (mm)	115	115	115
4.32 Ground clearance center of wheelbase		m2 (mm)	115	115	115
4.35 Turning radius	Wa (mm)	1805	1835	1880	
4.36 Right Angle Stack Aisle (add load leng & clearnce)	b13 (mm)	-	-	-	
Performance	5.1 Travel speed laden/unladen	km/h	17/17	17/17	17/17
	5.2 Lift speed laden/unladen	m/s	0.45/0.60	0.43/0.60	0.41/0.54
	5.3 Lowering speed laden/unladen	m/s	0.50/0.45	0.50/0.45	0.50/0.45
Drive Line	7.1 Type of battery		Lead-acid	Lead-acid	Lead-acid
	7.2 Maximum capacity of battery 4)	AH/5hr	500(580)	580	580
	7.3 Minimum weight of battery	kg	848	888	888
	7.4 Diameter of drive motor	mm	200	200	200
	7.5 Diameter of hydraulic motor	mm	170	170	170
	7.6 Drive motor control		Mosfet/Inverter	Mosfet/Inverter	Mosfet/Inverter
	7.7 Speed control		Mosfet/Inverter	Mosfet/Inverter	Mosfet/Inverter
	7.8 Hydraulic motor control		Mosfet/Inverter	Mosfet/Inverter	Mosfet/Inverter
Miscellaneous	8.1 Operating pressure for attachments	kg/cm ³	140	140	140
	8.2 Sound level, driver's ear 6)	dB(A)	72	72	72

- 1) See Upright Table. Contact CLARK Representative for additional lift heights
- 2) Specifications are given with the upright noted in line 10
- 3) Solid pneumatic only
- 4) Reduces capacity, contact factory
- 5) Loaded axle weights are based on 24" load center for English units and 500 mm for metric
- 6) Equivalent permanent sound-pressure level L pAeq,T in accordance with DIN EN

Operator cell

The lower step height, the steel step plate and all ergonomics are designed for customer's comfort and convenience. Large floorboard area accommodates large boots. The clear arranged display provides important truck information so that the operator is well informed and able to do safety work all the time.

Motor

All new AC-motors are fully enclosed to keep out dust and contaminants. Wet environment is not an issue. No brushes have to be changed or commutator to turn over at the induction motors. Only serviceable parts are bearings and seals. All motors are equipped with a thermistor which constantly monitors temperature. Should the temperature approach the thermal limit, the control gradually cuts back current. Limiting current does not limit maximum travel speed. Once motor temperature decreases, full power is automatically restored. Operator may never feel the cut-back.

Latest Zapi-AC-system is minimizing energy consumption.

Brakes

Regenerative braking returns energy into the battery, not into the brakes in the form of heat and is standard on the EPX. 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.

Steering

Because of its hydrostatic steering system the EPX 16/18/20s is easily maneuverable.

Hydraulic system

One AC motor for lifting and steering operation. A flow control valve ensures that steering has priority. Linear potentiometer on lift handle provides fully proportional lift. At conserving energy, motor only runs as fast as needed. Motor speed can be adjusted to meet attachment needs. The pump motor is designed to reduce steering and lift noise.

Upright

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 significantly extend component life. Visibility is critical to an operator's performance and safety. CLARK's nested upright rails provide positive rail interlock and 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.

Miscellaneous standard

A complete light package and an amber strobe beacon lamp, a multi-function diagnostic dash display with hour meter and battery discharge indicator with lift interrupt is standard. The standard painting is CLARK-green, the operator's compartment and upright is black.

Supplementary equipment

Great assortment of supplementary equipment is available. It is possible to set up the truck performance to customer's requirement.

Safety

The ramp start feature provides additional torque to eliminate roll back when starting on an incline. EPX-series has an CE-certificate and conforms to european safety standards.



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