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ISO14001  
ISO14001:2015



ISO9001  
ISO9001:2015



HANGCHA trucks conform  
to the European Safety  
Requirements.

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# XC Series 4-W Electric Forklift Truck With Lithium Iron-Phosphate

with capacity of 4,000 to 5,000kg



*The World of Hangcha*  
SINCE 1956



# INNOVATIVE SOLUTIONS NEW POWER NOW

**XC series 4-5t new energy electric forklifts have tonnage extended on the basis of Hangcha Group's dedicated XC series 1-3.5t lithium battery vehicles. The whole series covers dedicated lithium battery models dedicatedly developed according to the characteristics of lithium batteries.**

Innovative, reliable lithium-ion technology, which are developed jointly by HANGCHA and CATL. Battery cells and modules are from CATL, with reliable quality, exclusively for HANGCHA.

Rapid charging and opportunity charging ensure continuous availability of trucks.

Lightweight design, flexible, high level of energy efficiency, maintenance-free, long service life.

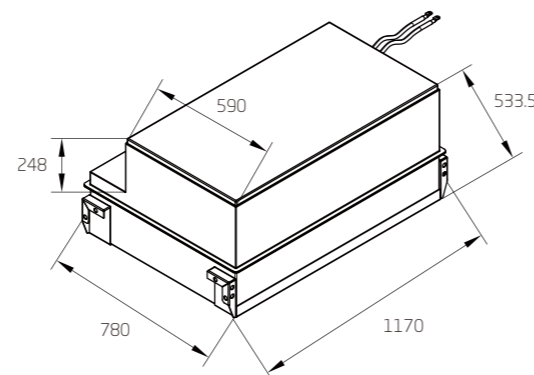


## Large-capacity CATL battery packs

Integrated Battery Management System (BMS) continually monitors energy management and ensures reliable operation.

HANGCHA provides Li-Ion battery with 5 years or 10000 hours warranty.

	Pack1	Pack2
	4 - 5t: standard	4 - 5t: optional
Battery capacity (kW·h)	80V*542Ah, 43.36Kwh	80V*813Ah, 65.04Kwh (Charger with dual charging ports)



## Excellent Ergonomic Design

- / The truck has a large operating space more than **50%** larger than the traditional electric truck.
- / The dashboard in the driver's cab is placed overhead and can be seen when the driver lifts her/his head, and the function buttons can be pressed easily.
- / For the optional integrated fingertip operating system, the combined operation armrest integrates the emergency shut-off, horn and quadruple thumb switches, etc., is electrically controlled through the CAN bus, and is highly reliable.
- / The enlarged brake pedal and appropriate regenerative braking function can effectively reduce the driver's fatigue.



## Advantages



*The rear axle is provided with a flexible suspension system (for standard configuration and with turning and deceleration functions) to effectively filter the road clutter and improve the driver's comfort.*

*The noise can be as low as 73dBA.*

The high-frequency MOSFET integrated controller ensures smooth and accurate driving and lifting control, and has excellent speed regulation performance, good performance of electronic control matching the motor, functions of regenerative braking, reverse braking and anti-sliding on ramps, etc., and high safety and reliability.

The ultra-high power AC traction motor has a bridge structure. An ultra-high power AC pump motor is used. The system has high efficiency, complete protection functions, built-in speed and temperature sensors, and greatly improved reliability and life.

# RELIABLE TRUCKS



**5 YEARS WARRANTY**

## Easy operations and maintenance

With the fully sealed hood and side plates, all major components including the electrically controlled components, motor, electrical components, etc. are sealed from dust and water.

The drive motor of a high protection level is dustproof and waterproof and highly reliable.

The packs can be easily removed by a manual or electric cart, and can be repaired and maintained conveniently.



The water resistance level of the vehicle is IPX4.



The hood (with a self-locking gas spring) can be opened at a large angle facilitating the maintenance and replacement of the battery.





## Safety

The optional descending lock function can disable the descending function when the driver leaves the seat and enable high safety.

The standard configuration provides a fork descending buffering function. In addition, an optional electronic control function for buffering the fork's ascending is provided to protect the goods from falling and damaging the ground.

The handbrake can be optionally equipped with an alarm buzzer to prompt the driver to pull up the handbrake before leaving the truck.



Three horn buttons are provided, which are respectively on the driver's steering wheel, thumb switch equipped armrest (optional) and reverse armrest (optional), for alerting and protecting the surrounding people.



A PIN code should be provided before entering the system. 99 sets of PIN codes are available for the administrator. The truck is highly secured and irrelevant personnel cannot start the truck.



Quick charge < 2.0h  
(Optional charger)



## Main Accessories

The main electrical components such as the controller, contactor, power plug, emergency cut-off switch, dashboard, accelerator, are all products of well-known world brands.

The emergency cut-off switch equipped for the standard configuration complies with EU regulations.

The truck has passed the CE certification.

Electronic and hydraulic overload protection devices.



## Comfort

Owing to the low center of gravity and good stability, the driver feels comfortable during turning.

The ergonomically designed tilt-adjustable small-diameter steering wheel makes the driver feel good. The seat can be adjusted back and forth by 210mm. The operator can choose the best driving position.

The intelligent sensing enables buffered descending. When the fork is 100 - 60mm away from the ground, the descending will automatically slow down, so that the goods and pallet will not hit the ground and the goods and ground can be protected effectively.

With friendly human-computer interfaces, the new large-screen LED instruments have good visibility and clear readings.

Silence, no pollution, energy saving and other advantages meet the environmental protection requirements.



The wide-view mast with optimized design is unlikely to obstruct the operator's line of sight. The enlarged opening size of the fork carriage enables a wider view.



Grammer fingertip (Optional)

## Options

- / Lithium packs (roller type) that can be replaced quickly
- / Start with a PIN code or by swiping a card
- / Ultra-elastic solid nose tire
- / Environmentally-friendly colored solid tire
- / Left and right rearview mirrors
- / Reversing video
- / Front/rear blue lights
- / Rear operation lights
- / Dedicated lithium battery charger (Titan or Schneider)
- / Cold storage vehicle
- / Reverse armrest (containing a horn button)
- / Hood with a key lock
- / OPS seat sensing function
- / Fork ascending buffering
- / Triple multiway valve
- / Quadruple multiway valve
- / Quintuple multiway valve
- / Widened / heightened load backrest
- / Widened fork carriage
- / Forks of other lengths
- / Free duplex mast
- / Free triplex mast
- / Built-in side shifter
- / Accessories of other specifications
- / Grammer MSG531 suspension seat
- / Integrated fingertip control system including ergonomic armrests

## Standard specification

- / High-power AC drive motor
- / High-power AC oil pump motor
- / Silent gear pump
- / Multi-function color screen instrument cluster
- / Large integral rubber pedal pad
- / Stamped iron hood, stamped iron side plates
- / Stamped stainless steel boarding step
- / The gas spring of the hood with a touch-proof mechanism
- / Handbrake with a touch-proof mechanism
- / Turning deceleration function
- / Smart cloud module
- / Fork descending buffering
- / SPE power selection
- / Mileage display, operating time display
- / Integrated fuse box
- / Charging muzzle meeting national standards
- / DC-DC converter
- / Electronic cooling fan
- / Doublet multiway valve
- / Emergency shut-off switch
- / Reversing buzzer
- / Traction pin
- / Tool box, folder
- / Load sensing steering system
- / Standard duplex mast, fork, fork carriage and load backrest
- / Lithium packs with low temperature electric heating systems
- / LED combination headlights, LED rear combination three-color taillights

### 4.0t XC series mast specification

Type	Max. Fork Height	Lowered	Overall height		Free lift		Tilting range		Load capacity	
			With backrest	Without backrest	With backrest	Without backrest	F	R	4.0t load capacity at 500mm	
									Single Tire	Double Tire
mm	mm	mm	mm	mm	mm	(°)	(°)	kg	kg	
STD .Duplex	2250	1875	3420	3040	150	150	5	10	4000	4000
	2450	1975	3620	3240	150	150	5	10	4000	4000
	2650	2075	3820	3440	150	150	5	10	4000	4000
	3000	2250	4170	3790	150	150	5	10	4000	4000
	3300	2400	4470	4090	150	150	5	10	4000	4000
	3500	2500	4670	4290	150	150	5	10	4000	4000
	3600	2550	4770	4390	150	150	5	10	4000	4000
	3700	2600	4870	4490	150	150	5	10	4000	4000
	4000	2825	5170	4825	150	150	5	10	4000	4000
	4300	2975	5470	5125	150	150	5	6	3600	3800
	4500	3075	5670	5325	150	150	5	6	3400	3600
	4700	3175	5870	5525	150	150	5	6	3200	3400
	4800	3300	5970	5700	150	150	5	6	3000	3200
	5000	3400	6170	5900	150	150	5	6	2800	3000
	5500	3650	6670	6400	150	150	3	6	2600	2900
6000	3900	7170	6900	150	150	3	6	2000	2800	
Full Free Lift	2450	1975	3620	3200	805	1200	5	10	4000	4000
	2650	2075	3820	3400	905	1330	5	10	4000	4000
	3000	2250	4170	3750	1080	1500	5	10	4000	4000
	3300	2400	4470	4050	1230	1650	5	10	4000	4000
	3500	2500	4670	4250	1330	1700	5	10	4000	4000
	3700	2600	4870	4450	1430	1800	5	10	4000	4000
	4000	2825	5170	4825	1655	2000	5	10	4000	4000
	3350	1875	4520	4125	705	1100	5	10	4000	4000
	3500	1920	4670	4260	750	1160	5	10	4000	4000
	3650	1975	4820	4425	805	1200	5	10	4000	4000
Triplex	3980	2075	5150	4725	905	1330	5	10	4000	4000
	4250	2175	5420	5035	1005	1430	5	6	3400	3600
	4500	2250	5670	5250	1080	1500	5	6	3200	3400
	4700	2315	5870	5445	1145	1570	5	6	3100	3300
	4800	2400	5970	5700	1230	1500	5	6	3000	3200
	5200	2500	6370	6000	1330	1700	5	6	2700	3100
	5500	2600	6670	6300	1430	1800	3	6	2250	2800
	6000	2825	7170	6825	1655	2000	3	6	1700	2600
	6500	3075	7670	7375	1905	2200	3	6	1600	2400
	7000	3175	8170	7875	2005	2300	3	6	1500	2200

### Mini 5.0t XC series mast specification

Type	Max. Fork Height	Lowered	Overall height		Free lift		Tilting range		Load capacity	
			With backrest	Without backrest	With backrest	Without backrest	F	R	5.0t load capacity at 500mm	
									Single Tire	Double Tire
mm	mm	mm	mm	mm	mm	(°)	(°)	kg	kg	
STD .Duplex	2250	1875	3420	3040	150	150	5	10	4990	4990
	2450	1975	3620	3240	150	150	5	10	4990	4990
	2650	2075	3820	3440	150	150	5	10	4990	4990
	3000	2250	4170	3790	150	150	5	10	4990	4990
	3300	2400	4470	4090	150	150	5	10	4990	4990
	3500	2500	4670	4290	150	150	5	10	4990	4990
	3600	2550	4770	4390	150	150	5	10	4990	4990
	3700	2600	4870	4490	150	150	5	10	4990	4990
	4000	2825	5170	4825	150	150	5	10	4750	4990
	4300	2975	5470	5125	150	150	5	6	4500	4750
	4500	3075	5670	5325	150	150	5	6	4250	4500
	4700	3175	5870	5525	150	150	5	6	3850	4100
	4800	3300	5970	5700	150	150	5	6	3750	4000
	5000	3400	6170	5900	150	150	5	6	3500	3750
	5500	3650	6670	6400	150	150	3	6	2850	3500
6000	3900	7170	6900	150	150	3	6	2200	2950	
Full Free Lift	2450	1975	3620	3200	805	1200	5	10	4990	4990
	2650	2075	3820	3400	905	1330	5	10	4990	4990
	3000	2250	4170	3750	1080	1500	5	10	4990	4990
	3300	2400	4470	4050	1230	1650	5	10	4990	4990
	3500	2500	4670	4250	1330	1700	5	10	4990	4990
	3700	2600	4870	4450	1430	1800	5	10	4990	4990
	4000	2825	5170	4825	1655	2000	5	10	4990	4990
	3350	1875	4520	4125	705	1100	5	10	4990	4990
	3500	1920	4670	4260	750	1160	5	10	4990	4990
	3650	1975	4820	4425	805	1200	5	10	4990	4990
Triplex	3980	2075	5150	4725	905	1330	5	10	4990	4990
	4250	2175	5420	5035	1005	1430	5	6	4200	4500
	4500	2250	5670	5250	1080	1500	5	6	4000	4250
	4700	2315	5870	5445	1145	1570	5	6	3650	3900
	4800	2400	5970	5700	1230	1500	5	6	3750	4000
	5200	2500	6370	6000	1330	1700	5	6	3100	3500
	5500	2600	6670	6300	1430	1800	3	6	2850	3350
	6000	2825	7170	6825	1655	2000	3	6	2200	2950
	6500	3075	7670	7375	1905	2200	3	6	1950	2800
	7000	3175	8170	7875	2005	2300	3	6	1800	2200

### 4.5t XC series mast specification

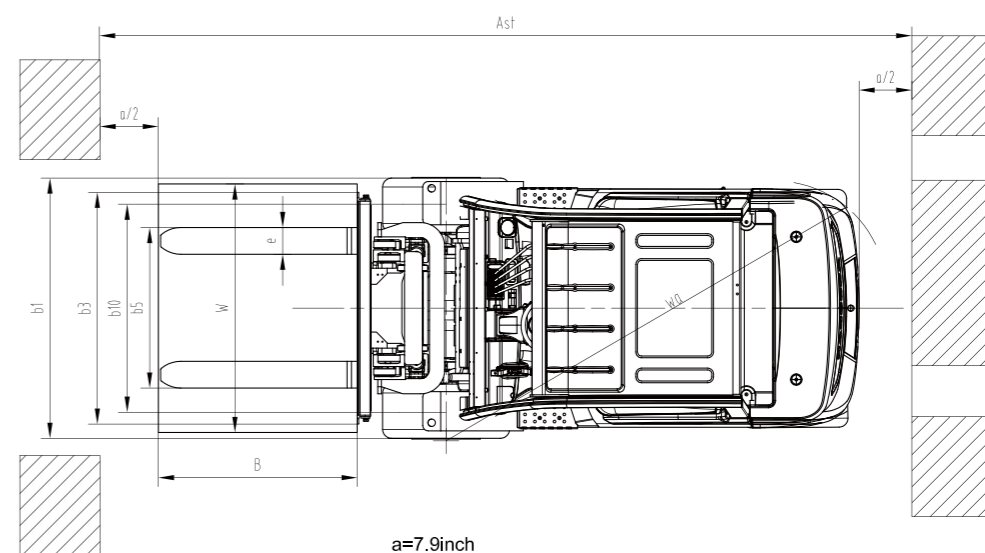
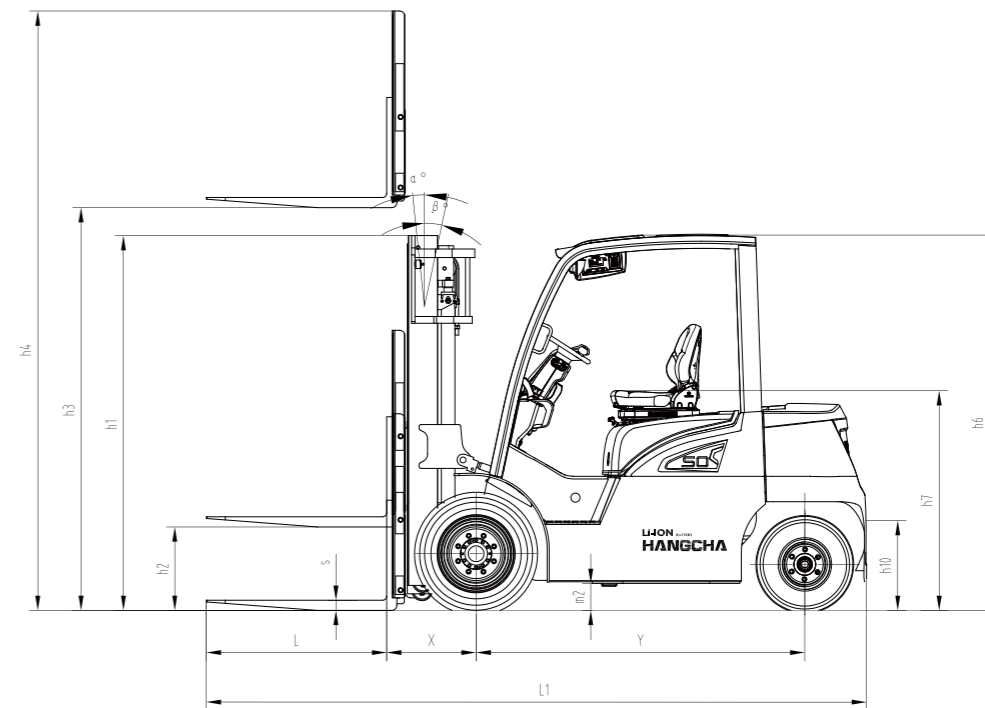
Type	Max. Fork Height	Lowered	Overall height		Free lift		Tilting range		Load capacity	
			With backrest	Without backrest	With backrest	Without backrest	F	R	4.5t load capacity at 500mm	
									Single Tire	Double Tire
mm	mm	mm	mm	mm	mm	(°)	(°)	kg	kg	
STD .Duplex	2250	1875	3420	3040	150	150	5	10	4500	4500
	2450	1975	3620	3240	150	150	5	10	4500	4500
	2650	2075	3820	3440	150	150	5	10	4500	4500
	3000	2250	4170	3790	150	150	5	10	4500	4500
	3300	2400	4470	4090	150	150	5	10	4500	4500
	3500	2500	4670	4290	150	150	5	10	4500	4500
	3600	2550	4770	4390	150	150	5	10	4500	4500
	3700	2600	4870	4490	150	150	5	10	4500	4500
	4000	2825	5170	4825	150	150	5	10	4250	4500
	4300	2975	5470	5125	150	150	5	6	4000	4250
	4500	3075	5670	5325	150	150	5	6	3800	4050
	4700	3175	5870	5525	150	150	5	6	3450	3700
	4800	3300	5970	5700	150	150	5	6	3350	3600
	5000	3400	6170	5900	150	150	5	6	3150	3400
	5500	3650	6670	6400	150	150	3	6	2550	3100
6000	3900	7170	6900	150	150	3	6	1950	2800	
Full Free Lift	2450	1975	3620	3200	805	1200	5	10	4500	4500
	2650	2075	3820	3400	905	1330	5	10	4500	4500
	3000	2250	4170	3750	1080	1500	5	10	4500	4500
	3300	2400	4470	4050	1230	1650	5	10	4500	4500
	3500	2500	4670	4250	1330	1700	5	10	4500	4500
	3700	2600	4870	4450	1430	1800	5	10	4500	4500
	4000	2825	5170	4825	1655	2000	5	10	4500	4500
	3350	1875	4520	4125	705	1100	5	10	4500	4500
	3500	1920	4670	4260	750	1160	5	10	4500	4500
	3650	1975	4820	4425	805	1200	5	10	4500	4500
Triplex	3980	2075	5150	4725	905	1330	5	10	4500	4500
	4250	2175	5420	5035	1005	1430	5	6	3800	4050
	4500	2250	5670	5250	1080	1500	5	6	3600	3850
	4700	2315	5870	5445	1145	1570	5	6	3450	3700
	4800	2400	5970	5700	1230	1500	5	6	3350	3600
	5200	2500	6370	6000	1330	1700	5	6	3000	3300
	5500	2600	6670	6300	1430	1800	3	6	2550	3100
	6000	2825	7170	6825	1655	2000	3	6	1950	2800
	6500	3075	7670	7375	1905	2200	3	6	1800	2600
	7000	3175	8170	7875	2005	2300	3	6	1750	2400

### 5.0t XC series mast specification

Type	Max. Fork Height	Lowered	Overall height		Free lift		Tilting range		Load capacity	
			With backrest	Without backrest	With backrest	Without backrest	F	R	5.0t load capacity at 600mm	
									Single Tire	Double Tire
mm	mm	mm	mm	mm	mm	(°)	(°)	kg	kg	
STD .Duplex	1950	1500	3120	2870	150	150	5	10	5000	5000
	2150	1975	3320	3070	150	150	5	10	5000	5000
	2350	2075	3520	3270	150	150	5	10	5000	5000
	2700	2250	3870	3620	150	150	5	10	5000	5000
	3000	2400	4170	3920	150	150	5	10	5000	5000
	3200	2500	4370	4120	150	150	5	10	5000	5000
	3300	2550	4470	4220	150	150	5	10	5000	5000
	3400	2600	4570	4320	150	150	5	10	5000	5000
	3700	2825	4870	4675	150	150	5	10	4700	5000
	4000	2975	5170	4975	150	150	5	6	4500	4700
	4200	3075	5370	5175	150	150	5	6	4200	4450
	4400	3175	5570	5375	150	150	5	6	3850	4100
	4500	3300	5670	5550	150	150	5	6	3700	3950
	4700	3400	5870	57						

# XC Series 4.0~5.0t Electric Forklift

Distinguishing mark	1.1	Manufacturer	HANGCHA GROUP CO.,LTD.				
	1.2	Manufacturers type designation	CPD40-XD4-SI28	CPD45-XD4-SI28	CPD50-XXD4-SI28	CPD50-XD4-SI28	
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Electric	Electric	Electric	Electric	
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated	Seated	
	1.5	Load capacity/rated load	Q (kg)	4000	4500	5000	5000
	1.6	Load centre distance	c (mm)	500	500	500	600
	1.7	Load distance, centre of drive axle to fork	x (mm)	520	520	520	525
	1.8	Wheelbase	y (mm)	1950	1950	1950	1950
Weight	2.1	Service Weight	kg	5830	6200	6870	7150
	2.2	Axle loading, laden front/rear	kg	8110/1720	9525/1175	10554/1316	10810/1340
	2.3	Axle loading, unladen front/rear	kg	2625/3204	2790/3410	2900/3970	2930/4220
Tyres, chassis	3.1	Tyres: solid rubber, super elastic, pneumatic, polyurethane	Pneumatic	Pneumatic	Pneumatic	Pneumatic	
	3.2	Tyre size, front	250-15	250-15	28×12.5 - 15	28×12.5 - 15	
	3.3	Tyre size, rear	23×9 - 10	23×9 - 10	23×9 - 12	23×9 - 12	
	3.4	Wheels, number front rear (x = driven wheels)	2*/2	2*/2	2*/2	2*/2	
	3.5	Tread, front	b10 (mm)	1118	1118	1155	1155
	3.6	Tread, rear	b11 (mm)	1110	1110	1110	1110
Dimensions	4.1	Tilt of mast/fork carriage forward/backward	Grad	5/10	5/10	5/10	5/10
	4.2	Height, mast lowered	h1 (mm)	2250	2250	2250	2250
	4.3	Free lift	h2 (mm)	150	150	150	150
	4.4	Lift	h3 (mm)	3000	3000	3000	3000
	4.5	Height, mast extended	h4 (mm)	4170	4170	4170	4170
	4.6	Height of overhead guard STD.	h6 (mm)	2220	2220	2220	2220
	4.7	Coupling height	h10 (mm)	530	530	530	530
	4.8	Overall length	l1 (mm)	3911	3911	3916	3921
	4.9	Length to face of forks	l2 (mm)	2841	2841	2846	2951
	4.21	Overall width	b1 (mm)	1368	1368	1458	1458
	4.22	Fork dimensions	s/e/l (mm)	50*122*1070	50*150*1070	55*150*1070	60*150*1070
	4.23	Fork carriage DIN 15 173 --- ISO 2328, class/type A,B		ISO 2328 3A	ISO 2328 3A	ISO 2328 3A	ISO 2328 4A
	4.24	Fork-carriage width	b3 (mm)	1200	1200	1200	1200
	4.25	Distance between fork-arms	b5 (mm)	310/1250	310/1250	310/1250	310/1250
	4.31	Ground clearance, laden, below mast	m1 (mm)	150	150	150	150
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	150	150	150	150
	4.33	Aisle width for pallets 1000 x 1200 crossways	Ast (mm)	4270	4270	4270	4270
	4.34	Aisle width for pallets 800 x 1200 Lengthways	Ast (mm)	4070	4070	4070	4070
4.35	Turning radius	Wa (mm)	2550	2550	2550	2550	
4.36	Internal turning radius	b13 (mm)	730	730	730	730	
Performance Data	5.1	Travel speed, laden/unladen	km/h	18/18	18/18	18/18	18/18
	5.2	Lift speed, laden/unladen	m/s	0.350/0.430	0.350/0.430	0.350/0.430	0.330/0.430
	5.3	Lowering speed, laden/unladen	m/s	0.430/0.480	0.430/0.480	0.430/0.480	0.430/0.480
	5.4	Drawbar pull, laden/unladen	N	18600/20000	18800/20200	20000/20600	20300/20800
	5.5	Max. Drawbar pull, laden/unladen	N	23000	24000	26000	28000
	5.6	Gradeability, laden/unladen	%	15/20	15/20	15/20	15/20
	5.7	Acceleration time, laden/unladen (0-10m)	s	5.0/4.8	5.2/5.0	5.6/5.3	5.8/5.4
	5.8	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic
	5.9	Parking brake		Mechanical	Mechanical	Mechanical	Mechanical
Electric-engine	6.1	Drive motor rating S2 60 min	kW	23	23	23	23
	6.2	Lift motor rating at S3 15%	kW	28	28	28	28
	6.3	Battery voltage, Std	V/Ah	80/542	80/542	80/542	80/542
	6.4	Standard Weight of lithium iron phosphate battery	kg	430	430	430	430
	6.5	Min. battery weight	kg	430	430	430	430
	6.6	Max. battery weight	kg	600	600	600	600
Addition data	8.1	Type of drive control		MOSFET/AC	MOSFET/AC	MOSFET/AC	MOSFET/AC
		Manufacturer		INMOTION	INMOTION	INMOTION	INMOTION
		Control Model		ACS80XL-550C	ACS80XL-550C	ACS80XL-550C	ACS80XL-550C
	8.2	Operating pressure for attachments	bar	185	185	185	185
	8.3	Oil volume for attachments	l/min	65	65	65	65
	8.4	Sound level at the driver's ear according to EN / DIN 12 053	dB (A)	75	75	75	75
	8.5	Towing coupling, type DIN		Φ35 Pin	Φ35 Pin	Φ35 Pin	Φ35 Pin
	9.1	Hydraulic Tank - capacity (drain & refill)	liter	46	46	46	46



a=7.9inch  
 $AST=a+Wa+ X+B$   
 a=200 mm safety clearance  
 $AST=a+Wa+ X+B$

Lifting capacity (kg)

