HELI

LI ION 3000-4000lbs (1.5-2.0 t)

G series LithiumBattery Powered
Three Wheel Stand-up Counterbalanced Trucks

CPDSR15-20



CPDSR15-20

LI ION

FEATURES OF
THE COMPLETED TRUCK

Operator comfort

- Rear padding and armrest help reduce fatigue.
- Multifunction control is ergonomically designed and easy to use.
- All controls are within easy reach to help reduce body strain.

Comfortable

- Side stance for operator to see well forward and backward.
- Automatic park brake applies when operator leaves the compartment or shuts forklift off.
- Programmable automatic deceleration in turns adds to safe operation.
- Optional intelligent security control system automatically adjusts tilt angle and drive speed according to mast height and load state.

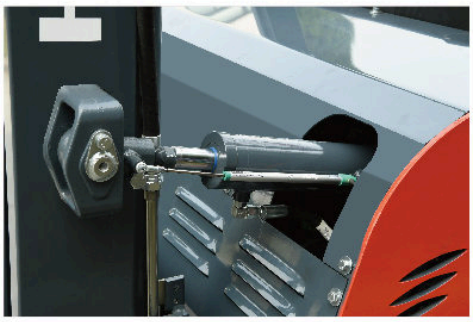
Working efficiency

- Small turning radius makes steering flexible and easy .
- With ZAPI control and AC powered motors, drive and hydraulic systems provide excellent energy efficiency .
- The large battery capacity for longer single shift work operation.
- With standard battery roller and side removal, battery change is quick and easy .

Serviceability

- Side door gives good access to drive motor and gearbox.
- Chassis components are well laid-out can be accessed with removable top and front covers .





Optional intelligent security control system adjusts tilt angle and speed for improved safety



Operator station provides comfort and efficient operation



Great visibility for improved operation and safety



Energy efficiency

- With optimized hydraulic system, truck is more energy efficient .
- All LED lights saves 80% of light energy.
- Regenerative motor braking recycles more energy during braking cycles .
- Programmable speed and acceleration settings can help users achieve excellent energy efficiency.

Improved operator’ s view

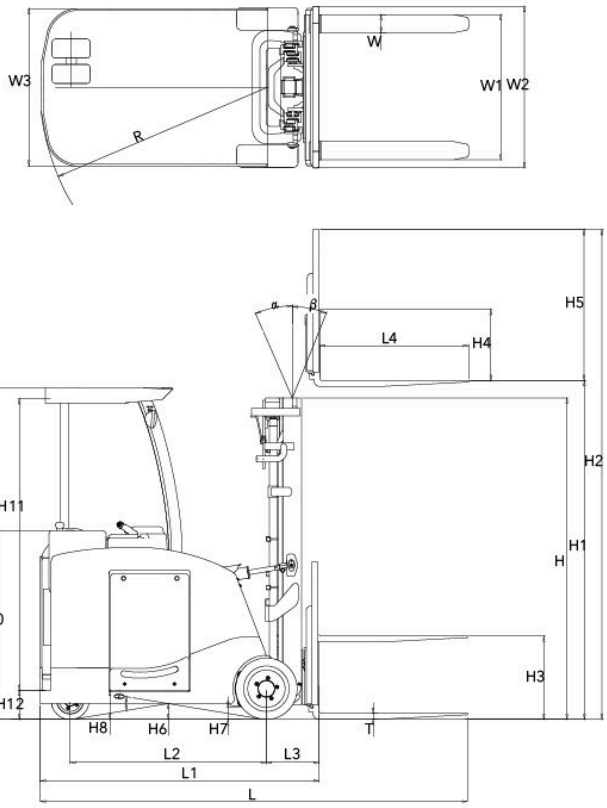
- Larger, rounded overhead guard is stylish and combined with strategically angled bars providing excellent visibility.
- Newly designed, wide view mast with special chain enlarges the operator’ s view looking forward.

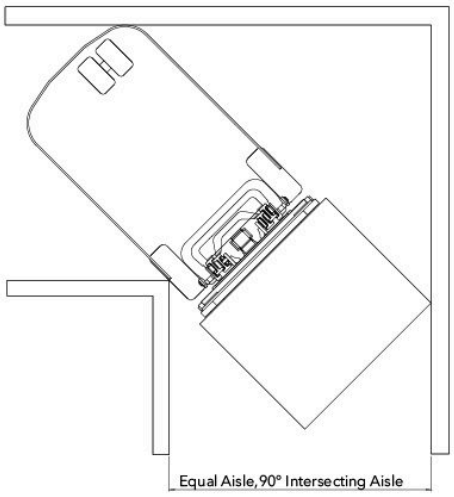
CPDSR15-20 LI ION

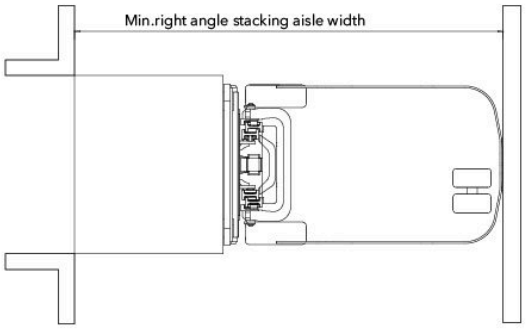
Manufacturer's Data and Design Characteristics

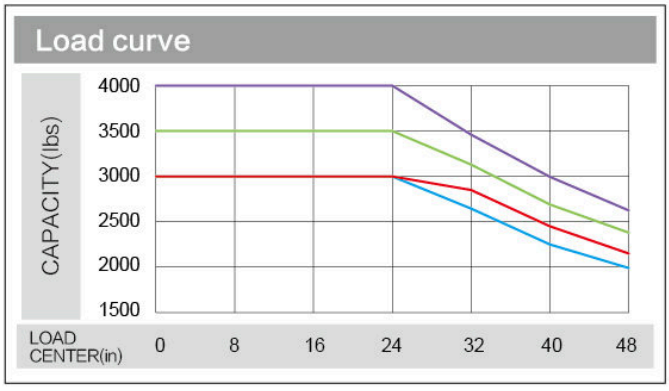
	General														
1.01	Manufacturer					HELI									
1.02	Model					CPDSR15		CPDSR15		CPDSR18		CPDSR20			
1.03	Configuration number					GA2LI		GB2LI		GA2LI		GA2LI			
1.04	Load Capacity①			lb	kg	3000	1362	3000	1362	3500	1589	4000	1816		
1.05	Load center			in	mm	24	610	24	610	24	610	24	610		
1.06	Power	Electric				48V		48V		48V		48V			
1.07	Tire type②	Solid pneumatic				cushion		cushion		cushion		cushion			
1.08	Wheel(x=driven)	Number front/rear				2×/2		2×/2		2×/2		2×/2			
1.09	Operator Type					Stand-up Rider Counterbalance		Stand-up Rider Counterbalance		Stand-up Rider Counterbalance		Stand-up Rider Counterbalance			
	Dimensions														
2.01	Max.lifting height		H1	in	mm	185	4700	185	4700	185	4700	185	4700		
2.02	Max.lifting height	With backrest	H2	in	mm	227	5758	227	5758	227	5758	227	5758		
2.03	Free lift height		H3	in	mm	45	1145	45	1145	45	1145	45	1145		
2.04	Mast overall height		H	in	mm	85	2160	85	2160	85	2160	85	2160		
2.05	Forks	Length×width×thickness	L4×W×T	in	mm	42×3.9×1.4	1070×100×35	42×3.9×1.4	1070×100×35	42×3.9×1.4	1070×100×35	42×4.8×1.6	1070×122×40		
2.06	Optional lengths		L4	in	mm	33/36/48/54/60	850/920/1220/1370/1520	33/36/48/54/60	850/920/1220/1370/1520	33/36/48/54/60	850/920/1220/1370/1520	33/36/48/54/60	850/920/1220/1370/1520		
2.07	Carriage herght	Without load backrest	H4	in	mm	20.4	520	20.4	520	20.4	520	20.4	520		
		With load backrest	H5	in	mm	41.7	1058	41.7	1058	41.7	1058	41.7	1058		
2.08	Tilt	Forward/backward	α/β	deg		3/5		3/5		3/5		3/5			
2.09	Fork spacing	Out to out min/max	W1	in	mm	37.8/7.8	960/200	37.8/7.8	960/200	37.8/7.8	960/200	37.8/7.8	960/200		
2.10	Overall length③	Without fork/with fork	L/L1	in	mm	109.8/67.7	2790/1720	111.8/69.7	2840/1770	111.8/69.7	2840/1770	114.4/72.2	2905/1835		
2.11	Overall width	Wheel outside	W2	in	mm	42.3	1075	42.3	1075	42.3	1075	42.3	1075		
2.12	Chassis width		W3	in	mm	41.7	1058	41.7	1058	41.7	1058	41.7	1058		
2.13	turning radius		R	in	mm	55.7	1415	57.7	1465	57.7	1465	60	1525		
2.14	Wheelbase		L2	in	mm	47.4	1205	49.4	1255	49.4	1255	52	1320		
2.15	Load distance③	Axle to fork face	L3	in	mm	12.7	323	12.7	323	12.7	323	12.7	323		
2.16	Equal Aisle④	90°intersecting aisle		in	mm	66.5	1688	67.2	1706	67.2	1706	68.1	1729		
2.17	Aisle width④	Right angle stacking		in	mm	112.8	2865	114.8	2915	114.8	2915	117	2975		
2.18	Head length⑤		H9	in	mm	88	2230	88	2230	88	2230	88	2230		
2.19	Inside clearance overhead guard		H11	in	mm	78.2	1987	78.2	1987	78.2	1987	78.2	1987		
2.20	Step height		H12	in	mm	7.4	188	7.4	188	7.4	188	7.4	188		
2.21	Chassis height		H10	in	mm	50	1271	50	1271	50	1271	50	1271		
	Performance														
3.01	Travel speed	Loaded/unloaded		mph	km/h	7.2	11.6	7.2	11.6	7.2	11.6	7.2	11.6		
3.02	Lift speed	Loaded/unloaded		ft/min	m/s	65/110	0.33/0.56	65/110	0.33/0.56	65/110	0.33/0.56	61/105	0.31/0.53		
3.03	Lowering speed	Loaded/unloaded		ft/min	m/s	98.2	0.45	98.2	0.45	98.2	0.45	98.2	0.45		
3.04	gadeability 5 minute rating	Loaded/unloaded		%		15/15		15/15		15/15		15/15			
3.05	drawbar pull 5 minute rating	Loaded/unloaded		lbf	N	2925/2655	13000/11800	2925/2655	13000/11800	3442/3038	15300/13500	3442/3038	15300/13500		
	Weight														
4.01	Truck weight⑤	With minimum weight battery		lb	kg	7596	3445	8057	3654	8379	3800	8401	3810		
4.02	Front axle load⑤	Loaded/unloaded (with battery)		lb	kg	9078/4128	4117/1872	9601/4377	4354/1985	9975/4553	4524/2065	10449/4564	4739/2070		
4.03	Rear axle load⑤	loaded/unloaded (with battery)		lb	kg	1297/3468	588/1573	1455/3680	660/1669	1605/3825	728/1735	1484/3837	673/1740		
	Chassis														
5.01	Type size	Front				16.25×6-11.25		16.25×6-11.25		16.25×6-11.25		16.25×6-11.25			
5.02	Type size	Rear				10×5-6.5		10×5-6.5		10×5-6.5		10×5-6.5			
5.03	Tread width	Front		in	mm	36.3	922	36.3	922	36.3	922	36.3	922		
5.04	Tread width	Rear		in	mm	6.7	170.5	6.7	170.5	6.7	170.5	6.7	170.5		
5.05	Ground clearance	At lowest point at mast		in	mm	3.8	95	3.8	95	3.8	95	3.8	95		
5.06		Center of wheelbase		in	mm	4	101.5	4	101.5	4	101.5	4	101.5		
5.07		Lowest point		in	mm	3	76	3	76	3	76	3	76		
5.08	Battery roller height			in	mm	7.1	180	7.1	180	7.1	180	7.1	180		
5.09	Grade clearance	Loaded		%		36.2		34.7		34.7		32.9			
5.10	Brakes	Service/parking				Foot-motor/Auto-electric		Foot-motor/Auto-electric		Foot-motor/Auto-electric		Foot-motor/Auto-electric			
	Electrical														
6.01	Battery	Capacity at 6 hr.Discharage rate		Ah	kwh	271	13.1	404	19.5	404	19.5	404	19.5		
		Min.Battery weight		lb	kg	1411	640	1733	786	1733	786	1733	786		
		Battery compartment size, maximum		in	mm	16.5×38.5×31	420×980×787	18.5×38.5×31	480×980×787	18.5×38.5×31	470×980×787	21×38.5×31	535×980×787		
6.02	Motor	Drive motor capacity，60min.Rating		hp	kw	6.1	4.5	6.1	4.5	6.1	4.5	6.1	4.5		
		Pump motor capacity，15%.Rating		hp	kw	14.75	11	14.75	11	14.75	11	14.75	11		
		Steering motor capacity，50%.Rating		hp	kw	0.54	0.4	0.54	0.4	0.54	0.4	0.54	0.4		
		Controls,drive、hydraulic、steering		type		MOSFET/AC		MOSFET/AC		MOSFET/AC		MOSFET/AC			
		Number of speed		All motors		Infinitely variable		Infinitely variable		Infinitely variable		Infinitely variable			

NOTE：① Optional masts,attachments,longger load dimensions and higher lifting heights may result in derating of the capacity.congtact your local dealer. ② Tire type can change polyurethane. ③ if truck is equipped with an integral sideshifter,add 1.2 in.
④ With 48"long and 40"wide pallet load,wide view full free 3-stage mast, allowing zero clearance,right angle stacking=Turn Radius + Load Distance + Load Length + Clearance. ⑤ With wide view full free 3-stage mast，mast model ZSM470









CPDSR15-GA2LI CPDSR15-GB2LI CPDSR18-GA2LI CPDSR20-GA2LI

Note: The vertical axis is the load capacity,and the horizontal axis is the load center,which is calculated from the front face of the forks ti the forks to the load centre of gravity. Capacity curves shown are for a standard mast at zerodegree tilt with standard forks, Changing mast tilt, using non-standrad forks or loading large goods can affect load capacity. This chart can be used to estimate load capacity at virious load centers for standard masts. Contact HELI for specific load ratings for your situation.

RENEWABLE ENERGY TECHNOLOGIES

With the AC controlling renewable energy technologies, the forklift is more energy-saving and the working hour of the battery is extended by 15%.

15%

LITHIUM BATTERY COMPARTMENT SIZE

MODEL	Lithium Batery Specifications					Weight
	Size(Max.)(mm)			Electrial		
	DimL	DimW	DimH	Volts	(AH)	lbs
CPDSR15-GA2LI	975	420	790	48	271	1411
				48	404	1411
CPDSR15-GB2LI		470		48	404	1733
				48	542	1733
CPDSR18-GA2LI				48	404	1733
				48	542	1733
CPDSR20-GA2LI		535		48	404	1733
				48	606	1733

WIDE VIEW MAST

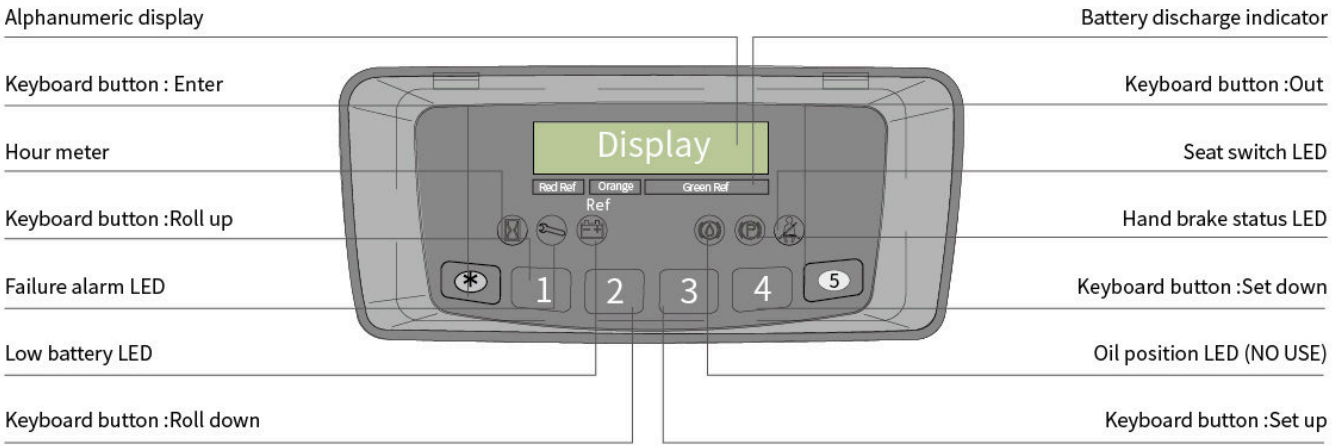
Mast model	Maximum Fork Height H1	Capacity(load center 24")								Overall Height H	Mast Extended height H2	Freelift with backrest H3	Tilt Range α/β	Service Weight(unload)			
		CPDSR15-GA2LI		CPDSR15-GB2LI		CPDSR18-GA2LI		CPDSR20-GA2LI						CPDSR15-GA2LI	CPDSR15-GB2LI	CPDSR18-GA2LI	CPDSR20-GA2LI
			Integral sideshifter		Integral sideshifter		Integral sideshifter		Integral sideshifter								
	in(mm)	lb/kg		lb/kg		lb/kg		lb/kg		in/mm	in/mm	in/mm	deg.	lb/kg	lb/kg	lb/kg	lb/kg
M250	98/2500	3000/1360	3000/1360	3000/1360	3000/1360	3500/1590	3500/1590	4000/1815	4000/1815	70/1775	140/3558	3.3/85	3/5	7228/3278	7570/3433	7905/3585	7927/3595
M300	118/3000	3000/1360	3000/1360	3000/1360	3000/1360	3500/1590	3500/1590	4000/1815	4000/1815	80/2025	160/4058	3.3/85	3/5	7289/3305	7629/3460	7971/3614	7991/3624
M330	130/3300	3000/1360	3000/1360	3000/1360	3000/1360	3500/1590	3500/1590	4000/1815	4000/1815	86/2175	172/4358	3.3/85	3/5	7325/3322	7667/3477	8006/3631	8028/3641
M350	138/3500	3000/1360	3000/1360	3000/1360	3000/1360	3500/1590	3500/1590	4000/1815	4000/1815	90/2275	180/4558	3.3/85	3/5	7349/3333	7691/3488	8035/3644	8057/3654
M370	146/3700	3000/1360	3000/1360	3000/1360	3000/1360	3500/1590	3500/1590	4000/1815	4000/1815	93/2375	187/4758	3.3/85	3/5	7174/3344	7715/3499	8061/3656	8084/3666
M400	157/4000	3000/1360	3000/1360	3000/1360	3000/1360	3500/1590	3500/1590	4000/1815	3858/1750	101/2575	199/5058	3.3/85	3/5	7484/3394	7826/3549	8174/3707	8196/3717
M425	167/4250	3000/1360	2756/1250	3000/1360	3000/1360	3500/1590	3417/1550	3748/1700	3638/1650	106/2700	209/5308	3.3/85	3/5	7515/3408	7856/3563	8207/3722	8229/3732
M450	177/4500	2756/1250	2425/1100	3000/1360	3000/1360	3329/1510	3219/1460	3638/1650	3527/1600	111/2825	219/5558	3.3/85	3/5	7543/3421	7885/3576	8239/3736	8260/3746
M500	197/5000	2491/1130	2535/1150	2866/1300	2800/1270	3000/1360	2910/1320	3351/1520	3240/1470	121/3075	238/6058	3.3/85	3/5	7603/3448	7945/3603	8304/3766	8326/3776
M550	217/5500	2227/1010	2160/980	2535/1150	2425/1100	2690/1220	2580/1170	3000/1360	2866/1300	133/3375	258/6558	3.3/85	3/5	7795/3535	8136/3690	8443/3829	8465/3839
M600	236/6000	1985/900	1764/800	2205/1000	1985/900	2425/1100	2205/1000	2535/1150	2425/1100	143/3625	278/7058	3.3/85	3/5	7854/3562	8196/3717	8509/3859	8531/3869

WIDE VIEW FULL FREE 3–STAGE MAST

Mast model	Maximum Fork Height H1	Capacity(load center 24")								Overall Height H	Mast Extended height H2	Freelift with backrest H3	Tilt Range α/β	Service Weight(unload)			
		CPDSR15-GA2LI		CPDSR15-GB2LI		CPDSR18-GA2LI		CPDSR20-GA2LI						CPDSR15-GA2LI	CPDSR15-GB2LI	CPDSR18-GA2LI	CPDSR20-GA2LI
			Integral sideshifter		Integral sideshifter		Integral sideshifter		Integral sideshifter								
	in(mm)	lb/kg		lb/kg		lb/kg		lb/kg		in/mm	in/mm	in/mm	deg.	lb/kg	lb/kg	lb/kg	lb/kg
ZSM360	142/3600	3000/1360	3000/1360	3000/1360	3000/1360	3500/1590	3500/1590	4000/1815	3968/1800	70/1775	160/4658	31/775	3/5	7444/3376	7905/3585	8227/3731	8249/3741
ZSM400	157/4000	3000/1360	2910/1320	3000/1360	3000/1360	3500/1590	3500/1590	3924/1780	3836/1740	76/1925	199/5058	36/910	3/5	7499/3401	7960/3610	8282/3756	8304/3766
ZSM435	171/4350	2910/1320	2822/1280	3000/1360	3000/1360	3500/1590	3417/1550	3858/1750	3748/1700	80/2025	213/5408	40/1025	3/5	7546/3422	8006/3631	8328/3777	8350/3787
ZSM450	177/4500	2800/1270	2800/1230	3000/1360	3000/1360	3417/1550	3373/1500	3748/1700	3638/1650	82/2090	219/5558	42/1075	3/5	7568/3432	8028/3641	8350/3787	8372/3797
ZSM470	185/4700	2756/1250	2646/1200	3000/1360	3000/1360	3373/1500	3197/1450	3638/1650	3527/1600	85/2160	227/5758	45/1145	3/5	7596/3445	8057/3654	8379/3800	8401/3810
ZSM480	189/4800	2756/1250	2646/1200	3000/1360	3000/1360	3373/1500	3197/1450	3638/1650	3527/1600	86/2190	231/5858	46/1175	3/5	7607/3450	8068/3659	8390/3805	8412/3815
ZSM500	197/5000	2691/1130	2535/1150	2932/1330	2778/1260	3042/1380	2954/1340	3351/1520	3263/1480	90/2290	239/6058	50/1275	3/5	7667/3477	8127/3686	8450/3832	8472/3842
ZSM540	213/5400	2227/1010	2160/980	2646/1200	2491/1130	2734/1240	2646/1200	3000/1360	2910/1320	95/2425	254/6458	56/1410	3/5	7768/3523	8207/3722	8551/3878	8573/3888
ZSM600	236/6000	1896/860	1764/800	2271/1000	2138/970	2359/1070	2271/1030	2646/1200	2535/1150	104/2640	278/7058	65/1625	3/5	7854/3562	8315/3771	8637/3917	8659/3927
ZSM650	256/6500	1609/730	1543/700	1984/880	1874/850	2050/930	1984/900	2315/1050	2205/1000	111/2830	298/7558	71/1815	3/5	7929/3596	8390/3805	8712/3951	8734/3961

Reliable special designed instrument

The reliable special instrument gives a complete display of the vital information, like operation status, fault detection, etc. It ensures the operator predominate the vehicle status more intuitive and convenient.



Intelligent display for GA2LI&GB2LI

Standard configuration

Wide view standard mast
Integral sideshifter
Standard fork
Class II standard carriage
Load backrest
Three-spool proportion control valve
Joystick
88" Overhead guard
LCD combined display
Solid tire
Wide-angle rearview mirror
LED front work lights
LED warning light(flashing)
Electric horn
USB charging output
Hydraulic steering
Automatic steering slow down device
Regenerative braking
Electronic Packing brake
OPS (Operator presence sensing)
Battery side extraction
Electronic lift buffer
Hydraulic drop buffer
Driving speed decreases during high lift

Optional device

Wide view full free 3-stage mast
LED Warning lights(rotating/buzzer)
Polyurethane tires
Traceless tires
Rear work light
Blue safety light
Long forks
Lower type overhead guard
Accessory hydraulic component
Tilt cylinder protection sleeve
Customer color
Battery loading and unloading car
Intelligent security control system
Adjustable elbow support
EPS(Electronic power steering)
High configuration joystick

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Our products are subject to improvements and changes without notice.