

WSA121

HEAVY DUTY LI-ION STACKER 1.2T

1200 kg | 4800 mm | 24 V Li-Ion



The WSA Series is designed for intensive warehouse operations, distribution centers, and logistics facilities where stacking speed, precision, and uptime are critical. Thanks to proportional lifting control, operators can stack pallets smoothly and safely, even in multi-level racking. Compact size and improved visibility make the WSA Series highly effective in confined areas, while its strong mast options provide reliable residual capacity at high lift levels.

SPECIFICATION	REF	UNIT	VALUE
Battery type			Li-Ion
Battery nominal capacity		Ah	100
Battery voltage		V	24
Load capacity	Q	kg	1200
Load centre distance	c	mm	600
Service weight		kg	955
Retracted mast height	h_1	mm	1970
Lift height	h_3	mm	2915
Height, mast extended	h_4	mm	3425
Overall length		mm	1864
Overall width	b_1/b_2	mm	810
Length to face of forks	l2	mm	714
Fork dimensions	s/e/l	mm	65×170×1150
Turning radius		Wa	1446
Operator type			Pedestrian
Load distance, centre of drive axle to fork		mm	690

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Features

Fast and precise stacking

The WSA Series achieves lift heights of up to 4.5 m in just 15 seconds, dramatically improving stacking speed. The proportional lifting system ensures precise pallet placement in multi-level racking.





User-friendly details

The redesigned cover includes a storage pocket and USB charging outlet, letting operators store documents or recharge devices while working. Ergonomic tiller design and creep speed mode further enhance safe and comfortable operation.

Compact design with great visibility

With shorter length to face of forks and reduced turning radius (as low as 1446 mm), the WSA stackers are perfect for confined aisles. The WSA161 includes two side cylinders as standard, improving operator visibility during lifting.





Advanced Li-ion power system

Equipped with a 24V/100Ah Li-ion battery and integrated charger, the WSA Series supports fast, flexible charging and zero maintenance. Optional larger 205Ah Li-ion batteries extend operating time for multi-shift applications.

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VDI Chart

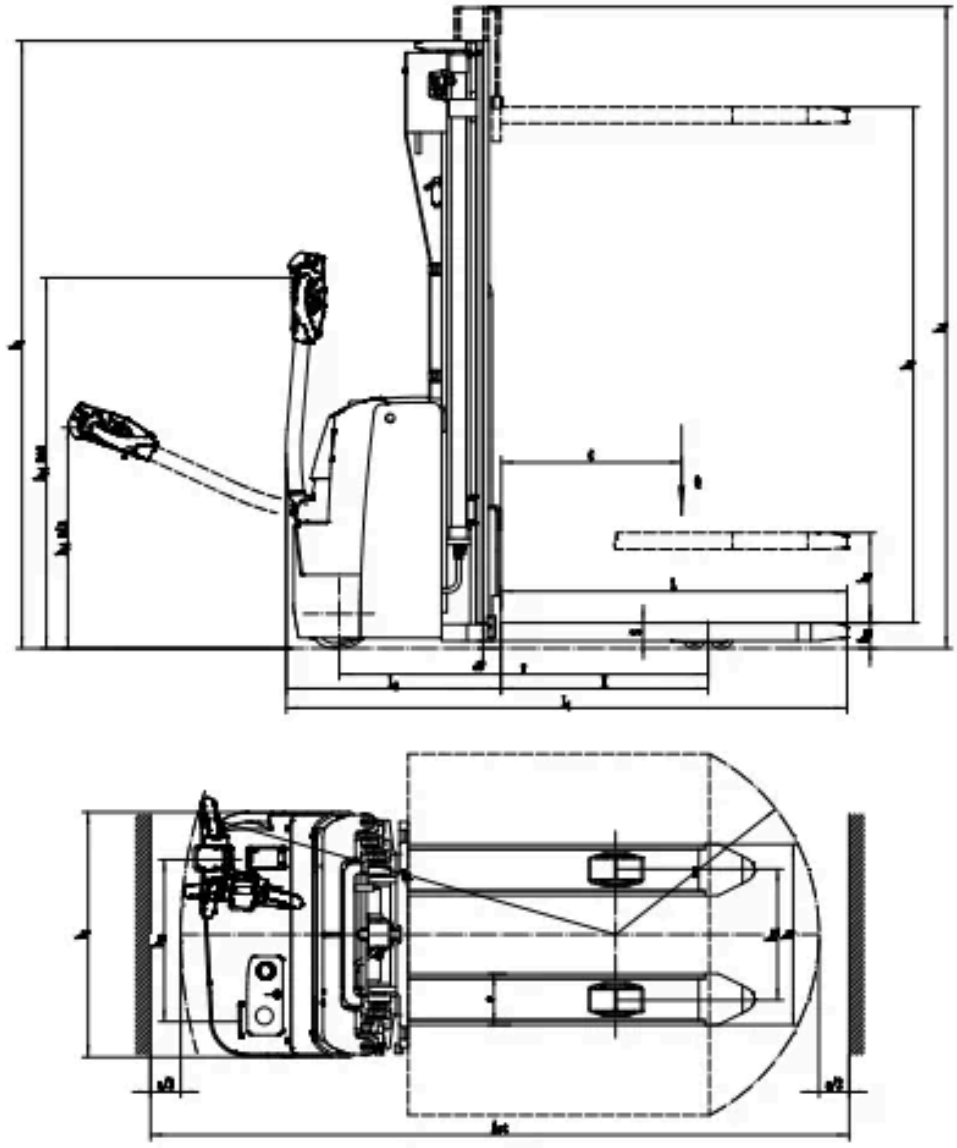
	SPECIFICATION	REF	UNIT	VALUE
1.4	Operator type			Pedestrian
1.5	Load capacity	Q	kg	1200
1.6	Load centre distance	c	mm	600
1.8	Load distance, centre of drive axle to fork		mm	690
1.9	Wheelbase		mm	1196
2.1	Service weight		kg	955
2.2	Axle loading, laden front/rear		kg	715/1440
2.3	Axle loading, unladen front/rear		kg	645/310
3.1	Tyre type			Polyurethane
3.2	Tyre size, front		mm	230×75
3.3	Tyre size, rear		mm	85×70
3.4	Additional wheels (castor wheels)		mm	130×55
3.5	Wheels, number front/rear (x=drive wheels)			1x，1/4
3.6.1	Tread width, front	b_{10}	mm	538
3.7.1	Tread width, rear	b_{11}	mm	406
4.0	Max lift height	H	mm	4800
4.15	Lowered height			90
4.19	Overall length		mm	1864
4.2	Retracted mast height	h_1	mm	1970
4.20	Length to face of forks	l2	mm	714
4.21	Overall width	b_1/b_2	mm	810
4.22	Fork dimensions	s/e/l	mm	65×170×1150
4.24	Fork carriage width		mm	750
4.25	Distance between fork-arms			750
4.3	Free lift		mm	\
4.31	Ground clearance, laden, below mast		mm	25
4.32	Ground clearance, centre of wheelbase		mm	25
4.34.1	Aisle width for pallets 1000×1200 crossways		Ast	2323
4.34.2	Aisle width for pallets 800×1200 lengthways		Ast	2296
4.35	Turning radius		Wa	1446
4.4	Lift height	h_3	mm	2915
4.5	Height, mast extended	h_4	mm	3425

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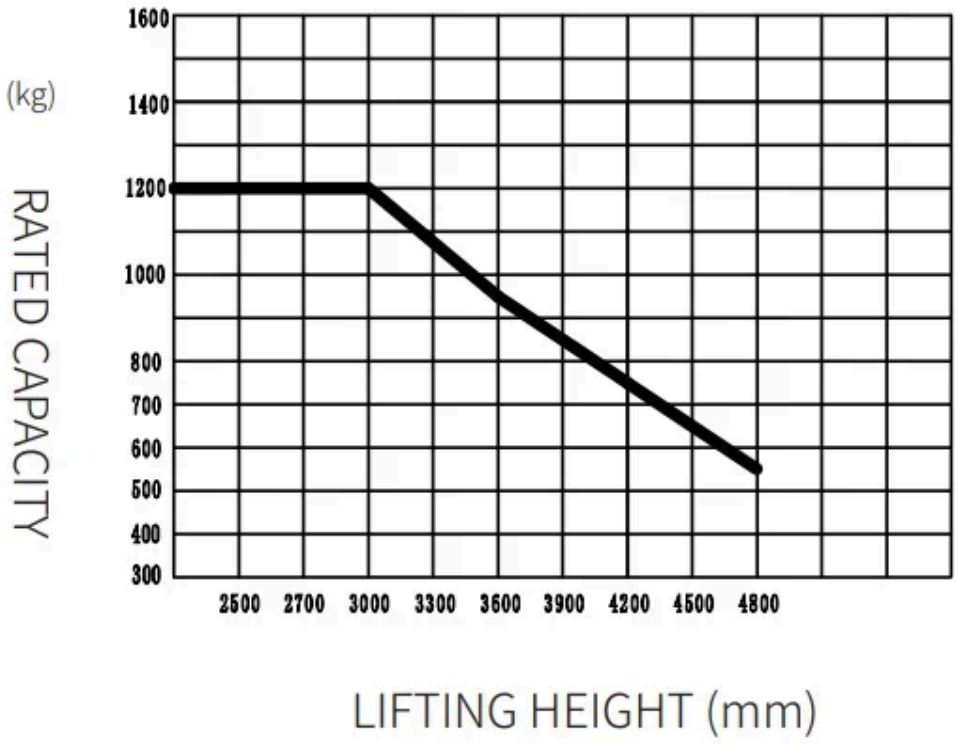
	SPECIFICATION	REF	UNIT	VALUE
4.6	Initial lift		mm	90
4.8	Seat height/standing height		mm	715/1200
4.9	Height of tiller handle in drive position min./max.			715/1200
5.1	Travel speed, laden/unladen		km/h	5/5.5
5.10	Service brake			Electromagnetic
5.11	Parking brake			Electromagnetic
5.2	Lifting speed, laden/unladen		m/s	0.23/0.3
5.3	Lowering speed, laden/unladen		m/s	0.4/0.36
5.8	Max. gradeability, laden/unladen		%	8/16
6.1	Drive motor rating S2 60 min		kW	1.6
6.2	Lift motor rating at S3 15%		kW	4.5
6.4	Battery nominal capacity		Ah	100
6.4	Battery voltage		V	24
6.4.1	Battery type			Li-Ion
6.5	Battery weight		kg	40
6.6	Energy consumption according to DIN EN 16796		kWh/h	0.79 [1)]
6.7	Turnover output according to VDI 2198			64
6.8	Turnover efficiency according to VDI 2198			46.24
8.1	Type of drive control			AC
10.5	Steering design			Mechanical
10.7	Sound pressure level at the drivers ear		dB(A)	74
15.1	Charger output current		A	30

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VDI Drawing



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Mast Options

MAST TYPE	LIFT HEIGHT (H3, MM)	MAST LOWERED HEIGHT (H1, MM)	MAST EXTENDED HEIGHT, NO BACKREST (H4, MM)	FREE LIFT HEIGHT, NO BACKREST (H2, MM)
2-Stage Single Cylinder Mast	2500	1720	2935	
2-Stage Single Cylinder Mast	2700	1820	3135	
2-Stage Single Cylinder Mast	3000	1970	3435	
2-Stage Single Cylinder Mast	3300	2120	3735	
2-Stage Single Cylinder Mast	3600	2270	4035	
2-Stage Single Cylinder Mast	3900	2420	4335	
2-Free Mast	2650	1815	3118	1320
2-Free Mast	2950	1962	3412	1470
2-Free Mast	3250	2115	3718	1620
3-Free Mast	4000	1820	4445	1345
3-Free Mast	4500	2020	4945	1545
3-Free Mast	4800	2115	5245	1645

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Options

ITEM	OPTIONS (optional items marked in yellow)
Fork dimension	1150*570 | 1150*685
Fork lowered height	90
Fork carriage width option	750
Backrest height	388
Load wheel type	Double
Load wheel material	PU
Drive wheel material	PU | Trace PU | Rubber
Battery capacity	100Ah Li-ion
Charger	24V-30 internal (Li-ion)
Battery display indicator (BDI)	With time (bluetooth)
Area warning lamp	No | Yes and not customized
Rearview mirror	No | Yes and not customized
Buzzer	No | Yes and not customized
Turtle speed	Yes and not customized
Telematics	No | Yes and not customized
Charging interlock-UK standard	No | Yes and not customized
USB outlet	Yes and not customized
Castor wheels	Yes and not customized
Water auto-filling system	No
Warning lamp	No | Yes and not customized
Battery side pull function	No
Cold storage	No
Proportional lift system	Yes and not customized
Keypad option	No | Yes and not customized

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