



# A Series Lithium-ion Industrial Walkie Straddle Stacker

with capacities of 2,500 to 4,000lbs

*The World of Hangcha*  
SINCE 1956





LI-ION BATTERY  
HANGCHA

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# Industrial Walkie Stacker Series

The Industrial Walkie Straddle, Reach, and Counterbalance Stacker make up a series of industrial walkie stackers that can handle dock-to-stock and everything in between. Hangcha's Industrial Walkie Stacker product line offer advantageous head-length and a multi-function control handle with Electric Power Steering (EPS). This system, combined with the standard creep speed feature, gives the operator incredible load handling control with excellent maneuverability. The Industrial Walkie Stacker Series excels in the most demanding operational environments to bring your materials handling capabilities to their full potential.



# A Series Lithium-ion Industrial Walkie Straddle Stacker

The A Series Lithium-ion Industrial Walkie Straddle Stacker is a part of a new generation of products that are developed especially for the North American market. We took our existing lead-acid line of Industrial stackers and redesigned them with our new lithium-ion technology. The result is a series of high performance and energy efficient industrial stackers that are durable enough to meet the demands of the North American market. The AC drive control technology provides advanced performance, comfortable operation, safety and reliability, low maintenance costs. It can be used for loading and unloading in warehouses, supermarkets, and workshops.

## Environmental Efficiency Economy

### Appearance

- / The A Series Walkie Straddle Stacker Pallet Truck has a smooth vivid profile and was designed to be ergonomic. The exterior of this forklift is powder coated in a durable, easy to see, green finish that designates it as a lithium-ion powered pallet truck.
- / This pallet truck uses stamped steel plates and injection molded parts. This creates a robust and durable product that is able to successfully take on the wear and tear of a warehouse environment.



## High Performance

- / The truck uses stepless speed regulation for more accurate lifting and lowering of goods.
- / The Electric Power Steering system makes maneuvering and load handling extremely easy.
- / The brushless AC travel motor features excellent acceleration, outstanding climbing ability, low heat emission, and is maintenance-free.
- / The latest CURTIS AC control system is highly efficient thanks to its accurate and stable control.
- / The CANBUS structure makes communication between all of the machine's functions faster and more reliable.
- / The truck's regenerative braking prevents it from sliding on a grade.
- / The tiller, switches, plug connectors, meters, and other components are all of world-renowned brands to ensure reliability, performance, and ease of service.

## Comfort

- / Thanks to the tiller's design, all operations can be completed with one hand.
- / The straddle stacker's design provides the operator with a wide field of view allowing them to easily enter and withdraw from a pallet.
- / The compact design of the straddle stacker and large rounded corners make the truck suitable for operation in narrow operational spaces.
- / The optional battery side roll out provides the operator with an easy way to install or replace the battery.

## Reliability

- / The three-support points, low center of gravity, and the high-strength steel framed design feature a large residual load capacity, durability, and a long service life.
- / All wires and cables are protected to significantly increase the reliability of the straddle stacker's electrical system.
- / The non-contact proximity switch is reliable and features a long service life.
- / The low noise and vibration hydraulic power unit provides the straddle stacker with stable and reliable mast movement.
- / The mast is made of H-shaped steel channels to give it better stability and rigidity.
- / The power plug is fastened to the straddle stacker's body to prevent damaging the plug when installing the battery.

## Safety

- / Travel speed is lowered automatically when the fork is lifted to/past a specific height.
- / As the truck's steering angle increases, the truck's speed decreases. This is a standard safety feature.
- / The straddle stacker features three types of braking functions, release braking, reverse braking, and emergency braking, for safe operation.
- / The anti-sliding function on a grade ensures a safe operational workspace.
- / The emergency reversing button at top of the tiller protects the operator from being injured in case of an emergency during the backward operation of the truck.
- / The soft landing function reduces the mast's lowering speed automatically when the forks are lowered to a height less than 3.9" from the ground. This is designed to protect the goods from hitting the ground too hard.

## Maintenance

- / The brushless AC drive motor is maintenance-free. This significantly reduces the operating costs of the straddle stacker.
- / The integrated battery indicator, hour meter, and self-diagnostic instrument are all easy to use.
- / The maintenance hatch opens to allow for easy access to all of the truck's components.

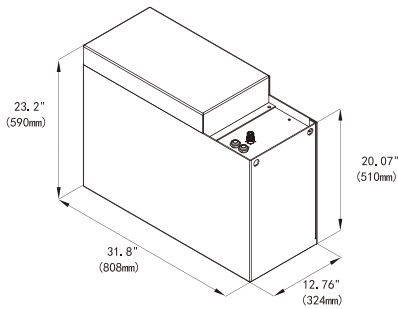




# CATL Lithium Iron Phosphate Battery Pack

- / Integrated Battery Management System (BMS) continually monitors energy management and ensures reliable operation.
- / HANGCHA provides these Lithium Iron Phosphate (LiFePO4) battery packs with a 5 year or 10,000 hour warranty.
- / See warranty certificate for specific warranty information on the Lithium Iron Phosphate battery packs.

Model	WSS11Li	WSS14Li WSS18Li
<b>Battery Capacity (V/Ah) (kW-h)</b>	<b>24V/125Ah 3.00kW-h</b>	<b>24V/404Ah 9.70kW-h</b>
<b>Charger</b>	<b>Built-in (24V/50Ah)</b>	<b>External (24V/200Ah)</b>



## Standard Specification

- / AC Drive Motor
- / CURTIS AC Drive & Oil Pump Motor Controller
- / Electric Power Steering System
- / Automatic Deceleration at Turns
- / Proportional Speed Regulation for all Fork Operations
- / Multi-Function Battery Condition Meter
- / High-Performance Load Wheels
- / 42" Fork Length
- / 8.3-31.1" Range for the Adjustable Outer Distance of Forks
- / 106.3" Limited Free Lift 2 Stage Mast
- / Soft Landing Feature
- / Multi-Function Tiller
- / Horn
- / Key Switch
- / Creep Speed Function
- / Emergency Reverse Feature
- / Wire Mesh Mast Screen

## Options

- / Various Fork Lengths
- / 48" Load Backrest
- / Side Battery Extraction
- / Sideshifter
- / Freezer
- / Various Mast Heights



The unique creep speed driving function allows the truck can be driven slow easily, and more accurately.



Outrigger lengths can vary between 38"-50"



The truck uses stepless speed regulation for more accurate lifting and lowering of goods.



The rotary load wheel structure gives the stacker better maneuverability.

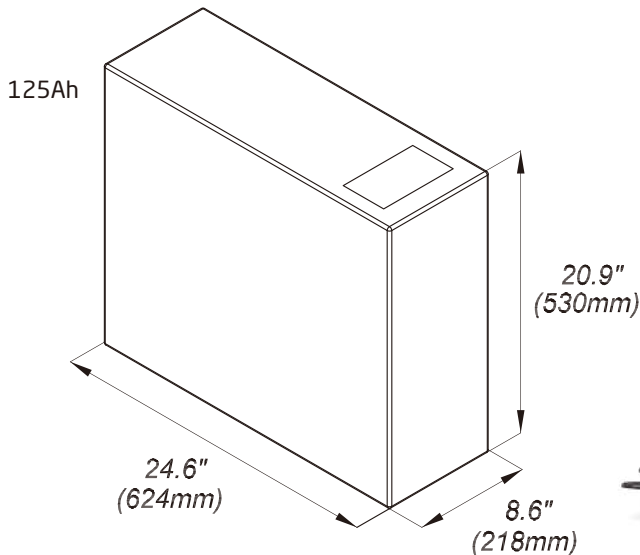
# A Series Lithium-ion Walkie Straddle Stacker Specification

Distinguishing Marks	1.1	Manufacturer	HANGCHA GROUP CO.,LTD.				
			HCFA Model	WSS11Li	WSS14Li	WSS18Li	
	1.2	Manufacturer's Type Designation	CTD11-AC1-NAI	CTD14-AC1-NAI	CTD18-AC1-NAI		
	1.3	Drive: electric(battery or mains), diesel, petrol, fuel gas	Electric	Electric	Electric		
	1.4	Operator Type: hand, pedestrian, standing, seated, order-picker	Walkie	Walkie	Walkie		
	1.5	Rated Capacity/Rated Load	Q (lb/kg)	2500/1100	3000/1400	4000/1800	
	1.6	Load Centre Distance	c(in/mm)	24/600	24/600	24/600	
	1.8	Load Distance, centre of drive axle to fork	x(in/mm)	22.3/567	21.5/546.5	21.5/546.5	
	1.9	Wheelbase	y(in/mm)	51.0/1295	55.3/1405	55.3/1405	
Weights	2.1	Service Weight Without Battery	lb/kg	2381/1080	2465/1118	2520/1143	
Wheels & Chassis	3.1	Tires: solid rubber, superelastic, pneumatic, polyurethane		PU	PU	PU	
	3.2	Tire Size, front	in/mm	φ250×80	φ250×80	φ250×80	
	3.3	Tire Size, rear	in/mm	φ100×70	φ100×70	φ100×70	
	3.5	Wheels, number front / rear (x = driven wheels)		1×/4	1×/4	1×/4	
	3.6	Tread, front	b11 (in/mm)	41.9/1065	41.9/1065	41.9/1065	
Basic Dimensions	4.2	Height, mast lowered	h1 (in/mm)	74.3/1887	74.3/1887	74.3/1887	
	4.4	Lift	h3 (in/mm)	106.3/2700	106.3/2700	106.3/2700	
	4.5	Height, mast extended	h4 (in/mm)	126.3/3207	126.3/3207	130.4/3312	
	4.9	Height of Tiller in Drive Position Min./Max.	h14 (in/mm)	31.1/58.3 (790/1480)	31.1/58.3 (790/1480)	31.1/58.3 (790/1480)	
	4.10	Height of Wheel Arms	h8 (in/mm)	5.1/130	5.1/130	5.1/130	
	4.15	Height, lowered	h13 (in/mm)	2.0/50	2.0/50	2.4/60	
	4.19	Overall Length	l1 (in/mm)	79.4 <sup>1)</sup> /2016 <sup>1)</sup>	83.7 <sup>1)</sup> /2126 <sup>1)</sup>	84.5 <sup>1)</sup> /2146 <sup>1)</sup>	
	4.20	Length to Face of Forks	l2 (in/mm)	37.2 <sup>1)</sup> /946 <sup>1)</sup>	41.6 <sup>1)</sup> /1056 <sup>1)</sup>	42.4 <sup>1)</sup> /1076 <sup>1)</sup>	
	4.21	Overall Width	b1/b2 (in/mm)	34.3/46 (870/1170)	34.3/46 (870/1170)	34.3/46 (870/1170)	
	4.22	Fork Dimensions	s/e/l (in/mm)	1.4/3.9/42.1 (35/100/1070)	1.4/3.9/42.1 (35/100/1070)	1.8/3.9/42.1 (45/100/1070)	
	4.24	Fork-Carriage Width	b3 (in/mm)	32.5/825	32.5/825	32.5/825	
	4.25	Distance Between Fork-Arms	b5 (in/mm)	8.3~31.1 (210~790)	8.3~31.1 (210~790)	8.3~31.1 (210~790)	
	4.26	Distance Between Wheel Arms	b4 (in/mm)	38~50 (970~1270) <sup>2)</sup>	38~50 (970~1270) <sup>2)</sup>	38~50 (970~1270) <sup>2)</sup>	
	4.32	Ground Clearance, centre of wheelbase	m2 (in/mm)	2.8/70	2.8/70	2.8/70	
	4.35	Turning Radius	Wa (in/mm)	58.9/1495	63.2/1605	63.2/1605	
	4.37	Length Across Wheel Arms	l7 (in/mm)	64.6/1640	68.9/1750	68.9/1750	
			Battery Compartment Width	l8 (in/mm)	9.0/230	13.4/340	13.4/340
			Battery Compartment Length	b6 (in/mm)	32.2/817	32.2/817	32.2/817
			Grade Clearance	D(%)	39.8	39.8	39.8
			Top Vertical Braking Arc	Q(°)	15	15	15
		Bottom Braking Arc	M(°)	10	10	10	
		Handle Operating Arc	S(°)	65	65	65	
Performance Data	5.1	Travel Speed, laden/unladen	mph (kph)	3.4/3.4 (5.5/5.5)	3.4/3.4 (5.5/5.5)	3.4/3.4 (5.5/5.5)	
	5.2	Lift Speed, laden/unladen	ft/min (m/s)	17.7/38.39 (0.090/0.195)	26.18/47.83 (0.133/0.243)	25/42.13 (0.127/0.214)	
	5.3	Lowering Speed, laden/unladen	ft/min (m/s)	57.09/70.87 (0.290/0.360)	58.07/68.90 (0.295/0.350)	39.37/47.24 (0.200/0.240)	
	5.8	Max. Gradeability, laden/unladen	%	8/16	7/14	6/14	
	5.10	Service Brake		Electromagnetic Braking	Electromagnetic Braking	Electromagnetic Braking	
Electric Motor	6.1	Drive Motor Rating at S2 60 min.	hp/kW	2.0/1.5	2.0/1.5	2.0/1.5	
	6.2	Lift Motor Rating at S3 15%	hp/kW	2.95/2.2	4.29/3.2	4.29/3.2	
	6.4	Battery Voltage/Nominal Capacity K5	V/Ah	24/125	24/404	24/404	
		Minimum Battery Weight	lb/kg	110/50	330/150	330/150	
		Maximum Vattery Weight	lb/kg	507/230	1102/500	1102/500	
Others	8.1	Type of Drive Control		AC CURTIS	AC CURTIS	AC CURTIS	
	10.5	Steering Design		Electric Power Steering	Electric Power Steering	Electric Power Steering	
	10.7	Sound Pressure Level at the Driver's Seat	dB(A)	70	70	70	

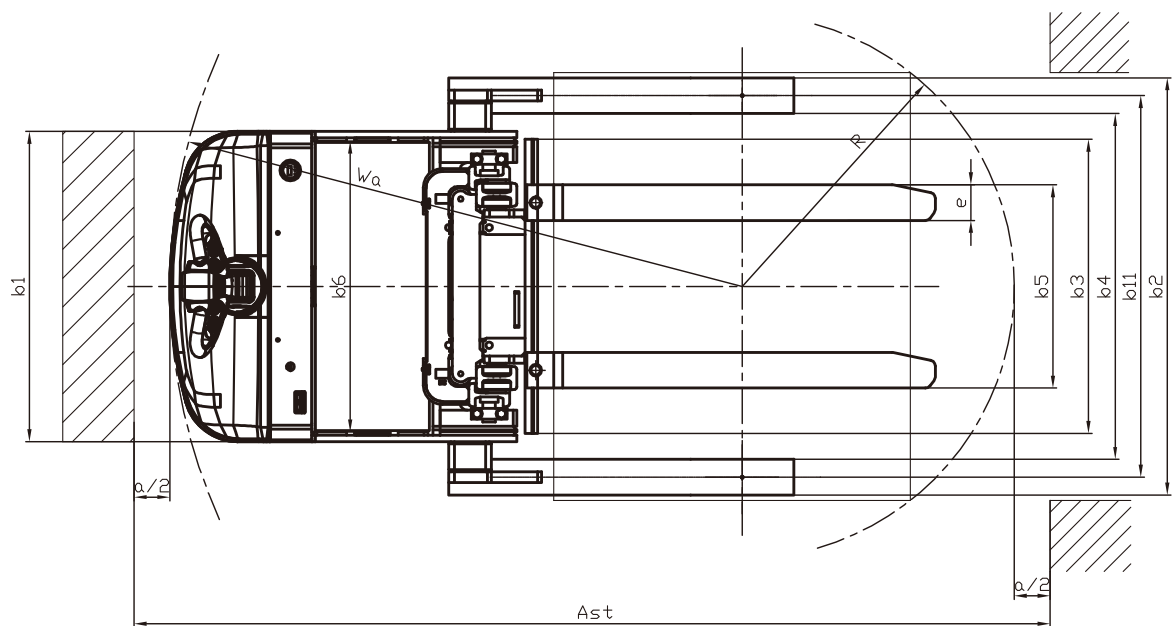
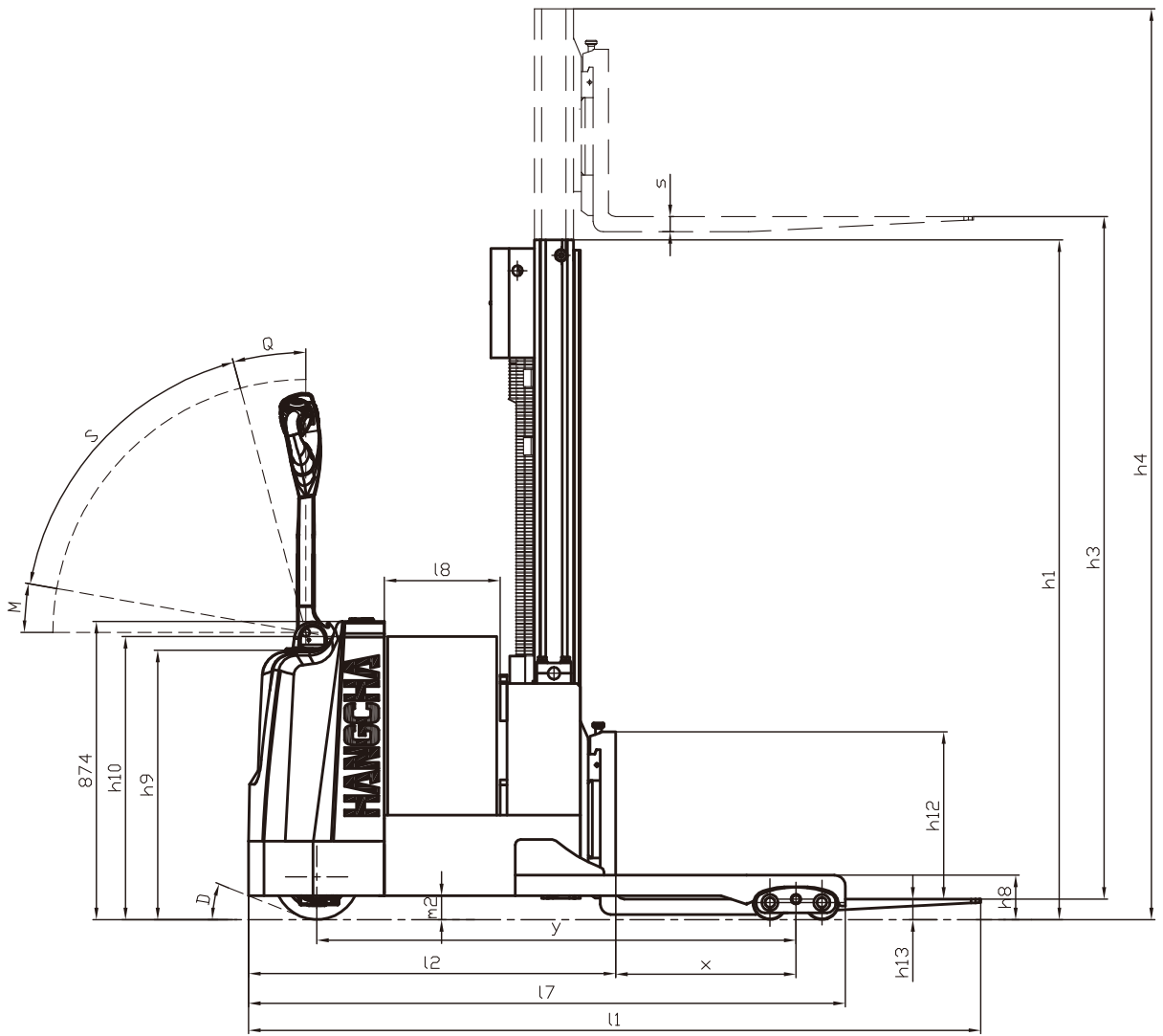
Note:1). Triplex mast +21mm(0.83in)

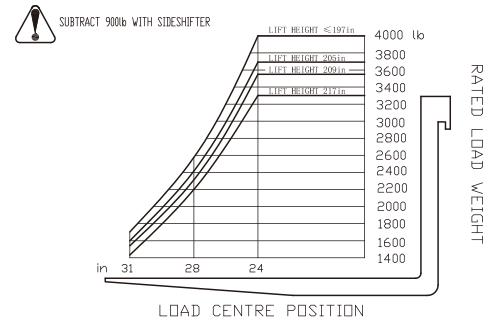
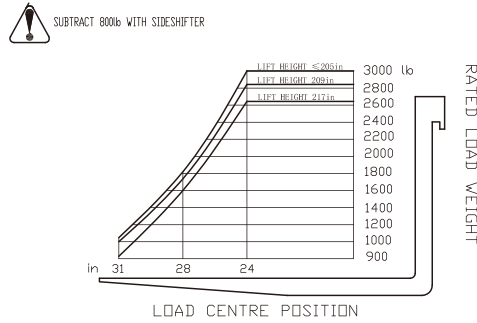
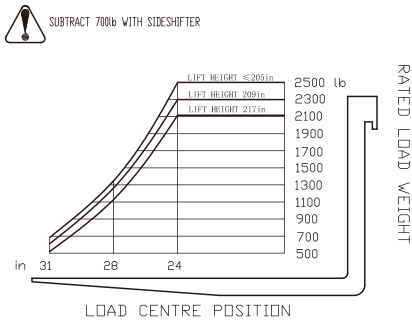
2). 100mm(4in) increments

Specifications are subject to change without notice.









## Aisle Requirement for a Right Angle Stack with the WSS11Li

Aisle Requirement for a Right Angle Stack <sup>①</sup>		Load Length				
Load Width	36(915)	in(mm)	36(915)	40(1016)	42(1067)	48(1220)
	40(1016)	in(mm)	81.9(2081)	84.6(2149)	86.1(2186)	90.8(2307)
	42(1067)	in(mm)	83.5(2121)	86.0(2185)	87.4(2221)	92.0(2337)
	48(1220)	in(mm)	84.3(2142)	86.8(2204)	88.1(2239)	92.6(2352)
		in(mm)	86.7(2206)	89.1(2263)	90.4(2295)	94.6(2402)

<sup>①</sup>Add a minimum of 12in (300mm) for maneuverability.

## Aisle Requirement for a Right Angle Stack with the WSS14Li

Aisle Requirement for a Right Angle Stack <sup>①</sup>		Load Length				
Load Width	36(915)	in(mm)	36(915)	40(1016)	42(1067)	48(1220)
	40(1016)	in(mm)	86.2(2191)	88.9(2259)	90.4(2296)	95.2(2417)
	42(1067)	in(mm)	87.8(2231)	90.4(2295)	91.8(2331)	96.3(2447)
	48(1220)	in(mm)	88.7(2252)	91.1(2314)	92.5(2349)	96.9(2462)
		in(mm)	91.2(2316)	93.4(2373)	94.7(2405)	98.9(2512)

<sup>①</sup>Add a minimum of 12in (300mm) for maneuverability.

## Aisle Requirement for a Right Angle Stack with the WSS18Li

Aisle Requirement for a Right Angle Stack <sup>①</sup>		Load Length				
Load Width	36(915)	in(mm)	36(915)	40(1016)	42(1067)	48(1220)
	40(1016)	in(mm)	86.3(2204)	89.5(2273)	91.0(2311)	95.8(2434)
	42(1067)	in(mm)	88.3(2243)	90.9(2309)	92.3(2345)	97.0(2463)
	48(1220)	in(mm)	89.1(2263)	91.6(2327)	93.0(2363)	97.6(2478)
		in(mm)	91.6(2327)	93.9(2386)	95.2(2418)	99.5(2527)

<sup>①</sup>Add a minimum of 12in (300mm) for maneuverability.

## 2,500-3,000lb Mast Specification

Type	Fork Lift Height $h_3$		Max. Fork Height $(h_3+h_{13})$		Mast Lowered $h_1$		Mast Extended $h_4$		Free Lift		Capacity Load Capacity at 24in/600mm			
	in	mm	in	mm	in	mm	in	mm	in	mm	WSS11Li		WSS14Li	
											lb	kg	lb	kg
Limited Free Lift 2 Stage Mast	78.7	2000	80.7	2050	60.5	1537	98.7	2507	4.3	110	2500	1134	3000	1361
	98.4	2500	100.4	2550	70.4	1787	118.4	3007	4.3	110	2500	1134	3000	1361
	106.3	2700	108.3	2750	74.3	1887	126.3	3207	4.3	110	2500	1134	3000	1361
	118.1	3000	120.1	3050	80.2	2037	138.1	3507	4.3	110	2500	1134	3000	1361
	129.9	3300	131.9	3350	86.1	2187	149.9	3807	4.3	110	2500	1134	3000	1361
	137.8	3500	139.8	3550	88.1	2237	157.8	4007	4.3	110	2500	1134	3000	1361
	141.7	3600	143.7	3650	92.0	2337	161.7	4107	4.3	110	2500	1134	3000	1361
	145.7	3700	147.6	3750	94.0	2387	165.6	4207	4.3	110	2500	1134	3000	1361
	149.6	3800	151.6	3850	95.9	2437	169.6	4307	4.3	110	2500	1134	3000	1361
	157.5	4000	159.4	4050	103.8	2637	181.4	4607	4.3	110	2500	1134	3000	1361
169.3	4300	171.3	4350	109.7	2787	193.2	4907	4.3	110	2500	1134	3000	1361	
177.2	4500	179.1	4550	113.7	2887	201.1	5107	4.3	110	2500	1134	3000	1361	
Full Free Lift 2 Stage Mast	78.7	2000	80.7	2050	62.8	1595	102.2	2595	41.3	1050	2500	1134	3000	1361
	98.4	2500	100.4	2550	72.6	1845	121.9	3095	51.2	1300	2500	1134	3000	1361
	106.3	2700	108.3	2750	76.6	1945	129.7	3295	55.1	1400	2500	1134	3000	1361
	118.1	3000	120.1	3050	82.5	2095	141.5	3595	61.0	1550	2500	1134	3000	1361
	129.9	3300	131.9	3350	88.4	2245	153.3	3895	66.9	1700	2500	1134	3000	1361
	137.8	3500	139.8	3550	92.3	2345	161.2	4095	70.9	1800	2500	1134	3000	1361
	141.7	3600	143.7	3650	94.3	2395	165.2	4195	72.8	1850	2500	1134	3000	1361
Full Free Lift 3 Stage Mast	137.8	3500	139.8	3550	72.6	1844	165.9	4214	46.5	1180	2500	1134	3000	1361
	145.7	3700	147.6	3750	75.2	1909	173.6	4409	48.8	1240	2500	1134	3000	1361
	157.5	4000	159.4	4050	79.1	2009	185.4	4709	52.8	1340	2500	1134	3000	1361
	169.3	4300	171.3	4350	83.0	2109	197.2	5009	56.7	1440	2500	1134	3000	1361
	177.2	4500	179.1	4550	85.0	2159	203.1	5159	60.6	1540	2500	1134	3000	1361
	185.0	4700	187.0	4750	88.9	2259	214.9	5459	60.6	1540	2500	1134	3000	1361
	196.9	5000	198.8	5050	92.7	2354	226.1	5744	69.3	1760	2500	1134	3000	1361
	204.7	5200	206.7	5250	94.8	2409	232.6	5909	68.5	1740	2500	1134	3000	1361
216.5	5500	218.5	5550	98.8	2509	244.4	6209	72.8	1850	2120	962	2650	1202	

## 4,000lb Mast Specification

Type	Fork Lift Height $h_3$		Max. Fork Height $(h_3+h_{13})$		Mast Lowered $h_1$		Mast Extended $h_4$		Free Lift		Capacity Load Capacity at 24in/600mm	
	in	mm	in	mm	in	mm	in	mm	in	mm	WSS18Li	
											lb	kg
Limited Free Lift 2 Stage Mast	78.7	2000	81.1	2060	64.6	1642	142.2	3612	4.7	120	4000	1814
	98.4	2500	100.8	2560	74.5	1892	122.5	3112	4.7	120	4000	1814
	106.3	2700	108.7	2760	78.4	1992	130.4	3312	4.7	120	4000	1814
	118.1	3000	120.5	3060	84.3	2142	142.2	3612	4.7	120	4000	1814
	129.9	3300	132.3	3360	90.2	2292	154.0	3912	4.7	120	4000	1814
	137.8	3500	140.2	3560	94.2	2392	161.9	4112	4.7	120	4000	1814
	141.7	3600	144.1	3660	96.1	2442	165.8	4212	4.7	120	4000	1814
	145.7	3700	148.0	3760	98.1	2492	169.8	4312	4.7	120	4000	1814
	149.6	3800	152.0	3860	100.1	2542	173.7	4412	4.7	120	4000	1814
	157.5	4000	159.8	4060	108.0	2742	185.5	4712	4.7	120	4000	1814
169.3	4300	171.7	4360	113.9	2892	197.3	5012	4.7	120	4000	1814	
177.2	4500	179.5	4560	117.8	2992	205.2	5212	4.7	120	4000	1814	
Full Free Lift 2 Stage Mast	78.7	2000	81.1	2060	66.9	1700	106.3	2700	41.7	1060	4000	1814
	98.4	2500	100.8	2560	76.8	1950	126.0	3200	51.6	1310	4000	1814
	106.3	2700	108.7	2760	80.7	2050	133.9	3400	55.5	1410	4000	1814
	118.1	3000	120.5	3060	86.6	2200	145.7	3700	61.4	1560	4000	1814
	129.9	3300	132.3	3360	92.5	2350	157.5	4000	67.3	1710	4000	1814
	137.8	3500	140.2	3560	96.5	2450	165.4	4200	71.3	1810	4000	1814
	141.7	3600	144.1	3660	98.4	2500	169.3	4300	73.2	1860	4000	1814
Full Free Lift 3 Stage Mast	137.8	3500	140.2	3560	76.5	1944	169.8	4314	42.1	1070	4000	1814
	145.7	3700	148.0	3760	79.1	2009	177.5	4509	45.7	1160	4000	1814
	157.5	4000	159.8	4060	83.0	2109	189.3	4809	49.6	1260	4000	1814
	169.3	4300	171.7	4360	87.0	2209	201.1	5109	53.5	1360	4000	1814
	177.2	4500	179.5	4560	88.9	2259	207.0	5259	57.5	1460	4000	1814
	185.0	4700	187.4	4760	92.9	2359	218.9	5559	57.5	1460	4000	1814
	196.9	5000	199.2	5060	96.6	2454	230.1	5844	61.8	1570	4000	1814
	204.7	5200	207.1	5260	98.8	2509	236.6	6009	65.4	1660	3700	1678
216.5	5500	218.9	5560	102.7	2609	248.4	6309	69.3	1760	3300	1497	



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