

ESS15-Li STRADDLE



TRITON LITHIUM PEDESTRIAN STACKER

Lifting Height: 3500 mm / Load Capacity: 1500 kg

midland
pallet trucks



Variable Speed
Control



Intelligent & Efficient



Rugged & Durable



Easy & Comfortable

Variable Speed Control on Lifting & Lowering

Comfortable and efficient thanks to patented intelligent handle and control system, ideal for replacing manual & semi-electric stackers, for light use in narrow warehouse environments with efficient and easy pallet stacking.

The proportional lowering brings high efficiency for exact pallet placement and more precise control when compared to the normal fixed speed of lifting & lowering.

Variable speed control by proportional control knob, keeps lifting and lowering smooth, stable, safe and energy saving.



Precise Control

■ Proportional lifting & lowering

The variable speed control ensures the stacker goes up and down smoothly, minimizing the mechanical shock and vibration, ensuring fragile loads are gently placed on racking or the floor, and reducing the impact of noise and vibration on operators.

■ Lowering buffering

Automatic lowering speed descent with soft buffering when the fork height is lowered to around 10cm from the ground, effectively protects the safety of the cargo, low noise and small vibration.

■ High efficiency

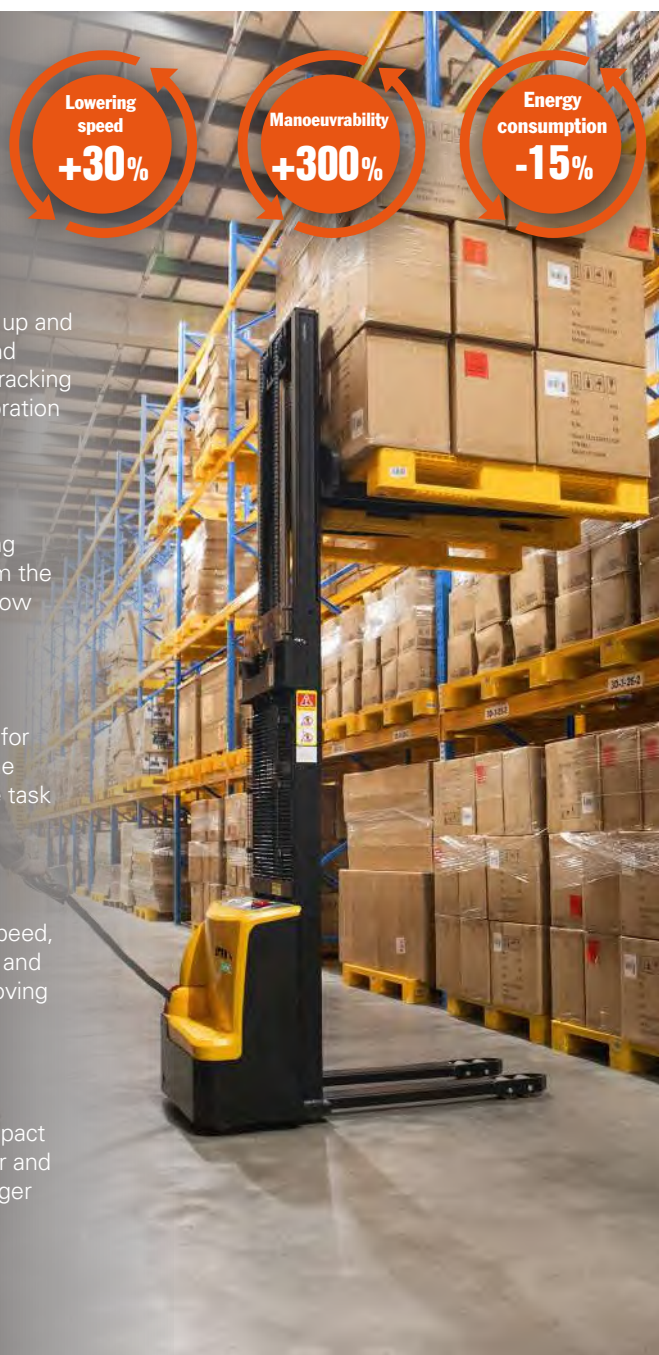
The variable speed control brings accurate response for adjusting the lifting & lowering speed according to the actual situation, the operator can easily complete the task and improve the working efficiency.

■ Energy saving

Compared to the traditional fixed lifting & lowering speed, variable speed can be adjusted according to the load and height by operator, reducing energy waste and improving energy utilization rate.

■ Longer service life

Variable speed control can reduce the mechanical impact and friction during lifting & lowering, reduce the wear and tear on the chassis, mast, bearings, and enable a longer service life.



Easy & Comfortable

Lithium Battery vs. Lead-Acid Battery

- Longer cycle life**

Lithium batteries typically have a cycle life of over 2000 cycles, whereas lead-acid batteries usually last around 300-400 cycles, lowering replacement and maintenance costs.

- Faster charging**

Lithium batteries support rapid charging, allowing them to be fully charged in a shorter period, reducing downtime and increasing efficiency.

- Low self-discharge rate**

Lithium batteries have a low self-discharge rate, resulting in minimal energy loss when not in use, making storage more convenient.

- Wider Operating Temperature Range**

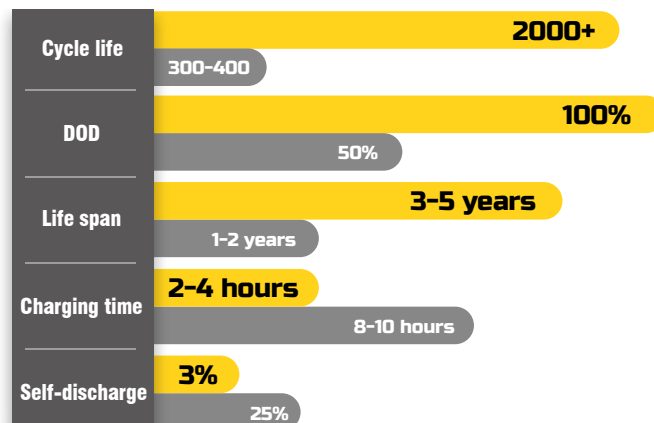
Lithium batteries perform better across a wider range of temperatures, providing greater adaptability.

- No Memory Effect**

Lithium batteries can be charged at any state of charge, which reduces concerns about deep discharge.



VS.



- Effortless, easy to operate**

Low-mounted longer tiller reduces steering force required.

- The steering angle is designed to be above 180 degrees**

Small turning radius.

- Easy to recharge**

Built-in charger and an external charging cable storage box for convenient charging.

- Low mast static height**

Easy to operate in containers and elevators with less than 3.3m lifting height.

- Reasonable design of the balancing wheel eccentric distance**

Flexible direction commutation.

- Excellent maneuverability**

Precise and maneuverable operating, high safety and efficiency.

- Adjustment of support legs and forks**

The adjustable straddle leg design accommodates different pallet sizes and improves stability. The low silhouette straddle design allows for a lower bottom beam, maximizing storage space in the facility.

The support legs are fixed with three screws per side outside the truck's body, allowing for easy adjustment to achieve inner widths of 970mm, 1110mm, and 1250mm. Forged forks with adjustable widths from 200mm to 800mm, ensure durability and versatility. The truck includes a standard load backrest (LBR) for enhanced safety during material handling.



Intelligent & Efficient

Patented multifunctional intelligent tiller handle is unique design for quick fault diagnosis, enabling an easier service, shorter service time and lowered labor costs.



Multifunctional intelligent tiller handle



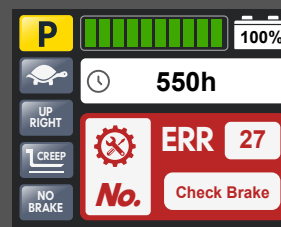
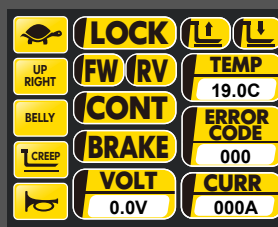
Easy Maintenance

Serial communication technology

Single wiring harness communication from tiller handle to controller system. Simple, Durable and Stable.

UART

- ✓ Low after-sales service cost
- ✓ Quick & easy fault diagnosis
- ✓ Everyone can be an expert



Operation status & fault diagnosis are integrated onto the tiller handle display for easy troubleshooting.

Operator Preferred

Turtle Speed

01



Enable operator to choose different speed modes based on their experience and the specific work environment.

Up-Right Drive

02



Easily maneuvered with the handle in the vertical position by pressing the turtle-speed button.

Engineering Mode (Brake Release)

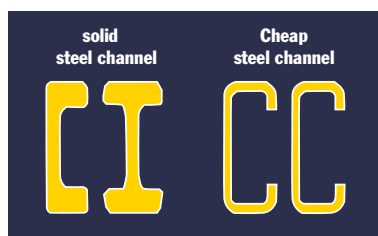
03



When truck is down, release the brake to move the unit manually.

Rugged & Durable

Due to a high-strength frame and mast design and solid materials used, the deformation of the frame, mast, and forks is small.



Longer service life

Mast: Standard C+H channel steel
Frame: Steel plate thickness of 5mm
Frame bottom plate: 30mm integrated steel plate.



Double-chain design

Compared with single-chain design, it has higher strength, safer and more stable.

Small deformation of forks and masts, stable and durable

More stable when lifting & lowering with loads.

Full coverage protection on mast

Standard equipped with cylinder explosion-proof valve

It can prevent accidents such as uncontrolled descent caused by unexpected rupture of oil pipes, ensuring stable descent of the load and personal safety, and preventing damage to equipment.

Safe operation

Emergency reverse switch

In case of an emergency, it protects the operator and the surrounding personnel from harm.

Safety travel speed limit

When the fork is lifted to above 500mm, the driving speed automatically reduces to 2km/h to ensure the safety of operating at a high position in case of any misoperation.



Built-in charger

Hidden charging plug, high safety, the whole vehicle is powered off during charging, reducing safety hazards.

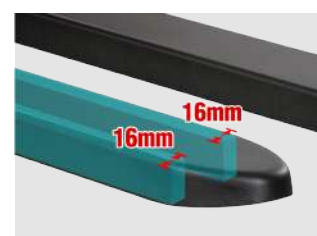
High lateral and longitudinal stability

Wider wheelbase and longer axle distance.

Adjustable balance wheel

Improved stability and maneuverability, suitable for different working scenarios.

The low ground clearance of 30 mm helps to reduce the risk of foot injuries



High-strength forks

16mm flat iron on both sides of fork. High strength and small deformation even under heavy loads.

The battery is fixed at the bottom of the frame

Improved stability.

Battery low voltage protection

Effectively avoid battery over-discharge, ensuring a longer battery life.

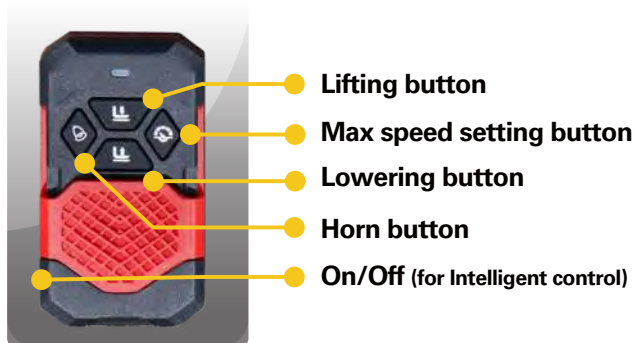


Optional Configuration

• Intelligent control

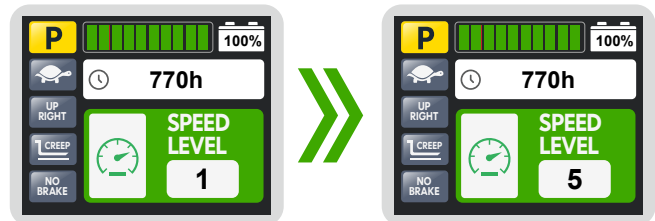
Unique in the market and very suitable for sorting operations on trucks.

With a dedicated remote control device, the operator can control the forks to lift to the appropriate working height and carry out sorting operations, thus avoiding the need to use the handle buttons and bend over to pick up goods, improving operational efficiency and comfort.

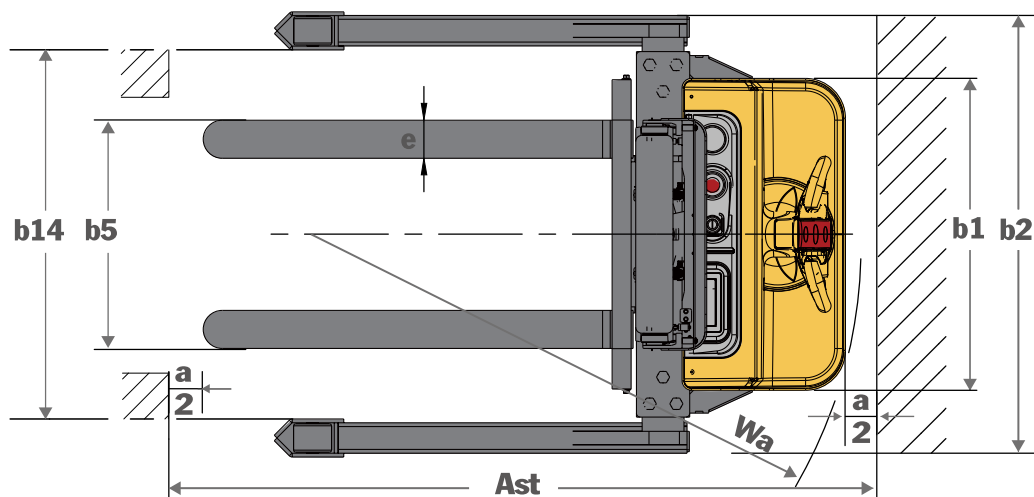
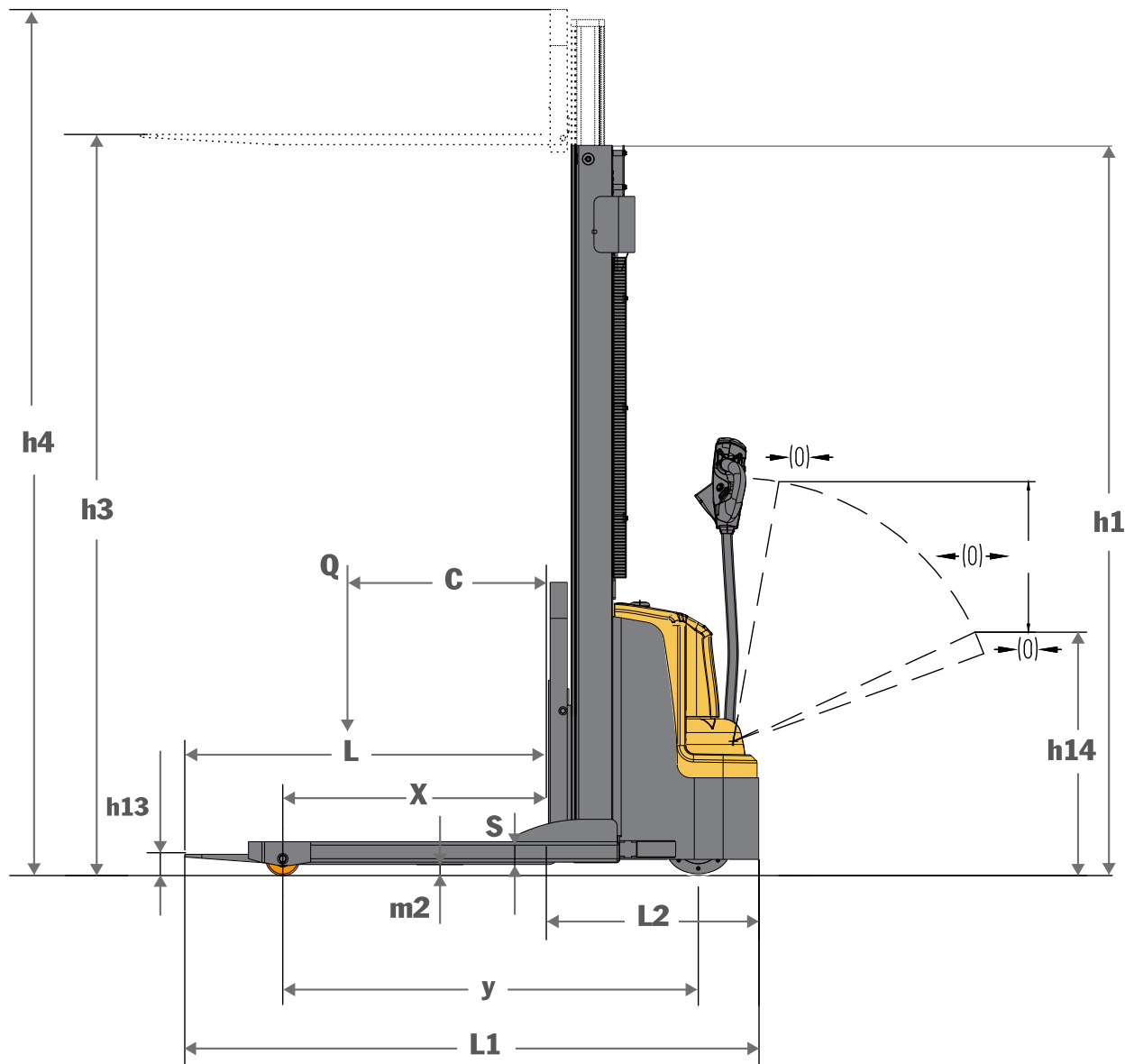


With the remote control device, you can easily set the speed suitable for the work, from level 1 speed to level 5 speed.

Such speed transitions allow you to move the truck with controlled operation at ease.



Dimensions

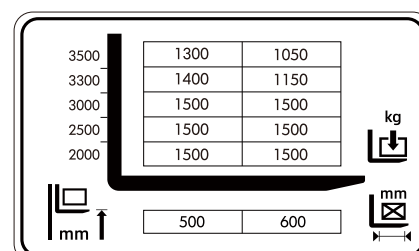


Specifications

MODEL				ESS15-Li-Straddle
DISTINGUISHING MARKS				
1.3	Drive			Lithium Battery
1.4	Operator type			Pedestrian
1.5	Load capacity/rated load	Q	kg	1500
1.6	Load centre distance	c	mm	600
1.8	Load distance, centre of drive axle to fork	x	mm	768
1.9	Wheelbase	y	mm	1218
WEIGHT				
2.1	Service weight (without battery)		kg	702.6
2.2	Service weight (with battery 71Ah or 60Ah Li-battery)		kg	719.6
2.3	Service weight (with battery 89Ah r 100Ah Li-battery)		kg	726.6
2.4	Axle loading, laden front/rear (2.5m lifting height)		kg	636.6/1485
2.5	Axle loading, unladen front/rear (2.5m lifting height)		kg	466/155.6
TYRES / CHASSIS				
3.1	Wheels	Ø x width	mm	Polyurethane
3.2	Wheel size, front	Ø x width	mm	Ø210 x 70
3.3	Wheel size, rear			φ100x64
3.5	Wheels, number front/rear (x = driven wheels)		mm	1x +0 /2
3.7	Tread, rear			1060/1200/1340
DIMENSIONS				
4.2	Lowered mast height	h3	mm	2270
4.4	Lift height	h4	mm	3500
4.5	Extended mast height	h14	mm	4020
4.9	Height of tiller in driving position, min./max.	h13	mm	910/1290
4.15	Height, lowered	l1	mm	60±2
4.19	Overall length	l2	mm	1698
4.20	Length to face of forks	b1	mm	628
4.21.1	Overall width across chassis	b2	mm	820
4.21.2	Overall width across all/Outer width straddle	b14	mm	1150/1290/1430
4.21.5	Inner width straddle	s/e/l	mm	970/1110/1250
4.22	Fork dimensions	b5	mm	40X100X1070
4.25	Width over forks	m2	mm	200-800
4.32	Ground clearance, centre of wheelbase	Ast	mm	40
4.34.1	Aisle width for pallets 1000 × 1200 crossways	Ast	mm	2290
4.34.2	Aisle width for pallets 800 × 1200 lengthways	Wa	mm	2217
4.35	Turning radius			1455
PERFORMANCE DATA				
5.1	Travel speed, with/without load		mm/s	4/4.5
5.2	Lift speed, without load		mm/s	0-185
	Lift speed, with load		mm/s	0-101
5.3	Lowering speed, without load		mm/s	21.7-208
	Lowering speed, with load		%	25.6-137
5.8	Max. gradeability, with/without load			5/10
5.10	Service brake			Electromagnetic
ELECTRIC-ENGINE				
6.1	Drive motor rating S2 60 min		kW	0.75
6.2	Lift motor rating at S3 15%		V/Ah	2.5
6.4	Battery voltage/nominal capacity K5		kg	• 24V/60Ah Li-battery
6.5	Battery weight +/- 5%		kWh	• 17(60Ah)
6.6	Energy consumption according to EN 16796			0.42
ADDITION DATA				
8.1	Type of drive control		dB(A)	DC speed control
8.4	Sound level at the driver's ear according to EN 12053			<75
	Controller			P1201

Note: 1kgs=2.2lbs, 25.4mm=1inch

MAST DIMENSIONS				
ESS15H-Li			Duplex Mast	
h1	Lowered mast height	mm	2270	
h3	Lift height	mm	3500	
h4	Extended mast height	mm	4020	



Easy, Safe and Efficient

Feature

- Proportional speed control for lifting and lowering, fast or slow, as you wish; Easy, safe and efficient
- High efficiency, fast lifting and lowering speeds
- Compact size in narrow warehouse environments with efficient and easy pallet stacking
- Intelligent and efficient
- Sturdy, robust, and durable

Option

■ Intelligent Control



- Lifting button
- Lowering button
- Max speed setting button
- Horn button
- On/Off (for Intelligent control)

ESS15-Li



Capacity:

1500kg

Lift Height:

3500mm

Fork size:

40x100x1070
(1150/1200/1220)

Battery :

24V 60Ah

Charger :

30A charger



| **MAKE** **YOUR JOB** **EASIER!**

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