



HANGCHA

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A Series Electric Stand-Up Tow Tractor

with a capacity of 10,000lbs

Making Material Handling Easier
SINCE 1956



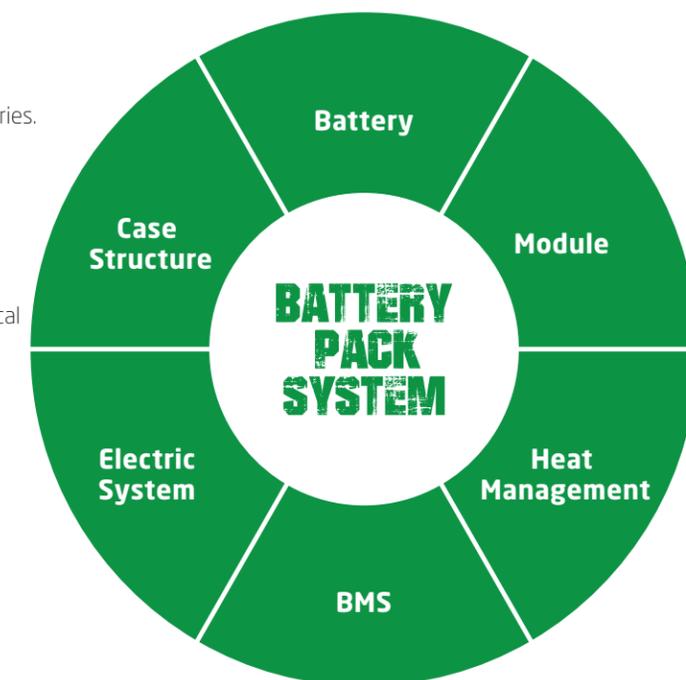
LET THE LITHIUM POWER BE REEL



INNOVATIVE SOLUTIONS NEW POWER NOW

Lithium-ion technology (Lithium Iron Phosphate), was developed jointly by HANGCHA and CATL for use in material handling equipment applications. These innovative and reliable battery cells and modules are manufactured to the highest standard by CATL exclusively for HANGCHA's forklift line.

- / **Battery Technology:** We use square lithium iron phosphate batteries. These are the same type of batteries used in new electric vehicles.
- / **Design:** The module uses a sturdy and lightweight aluminum alloy frame. It is also designed to provide excellent heat dissipation.
- / **Safe and Effective:** Charging efficiency as high as 98% and the thermal runaway temperature is at 600 °C and above.
- / **Adapted to Low Temperatures:** Comes standard with an electrical heating feature, ensuring normal operation in low temperatures.
- / **Efficient:** Can use opportunity charging to allow for continuous use in multi-shift operations.
- / **Long-Lasting:** 4000 charging cycles with a capacity retention greater than 80%.
- / **Maintenance-Free:** Lithium-ion batteries do not require manual maintenance such as watering.
- / **Green and clean:** The batteries are pollution-free, release zero emissions, and are recyclable.



Rapid charging and opportunity charging ensure continuous availability of material handling equipment

This technology allows for fast full charging or boost charging. They are maintenance-free and do not require a battery change when used in multi-shift operations.



HANGCHA PROVIDES UP TO A
5 YEAR OR 10000 HOUR GUARANTEE
ON THE LITHIUM-ION BATTERY PACKS.



**5 YEAR
WARRANTY**

A NEW DIMENSION OF PERFORMANCE

The A Series Electric Stand-Up Tow Tractor is a logistics handling device developed by Hangcha Group for the high-intensity operating conditions of the North American market. With the AC drive technology, it offers high performance and low maintenance costs. It is also safe, reliable, and can be easily operated. The A Series Electric Stand-Up Tow Tractor is an ideal tool for moving materials throughout a workshop, warehouse, or manufacturing facility.



Appearance

- / The A Series Electric Stand-Up Tow Tractor 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 or red finish.
- / This tow tractor 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 workshop, warehouse, or manufacturing facility.

Color Designation



Lithium-ion Powered
Stand-up Tow Tractor



Lead Acid Powered
Stand-up Tow Tractor

High Performance

- / The electric power steering system helps operators to easily maneuver the tow tractor.
- / The maintenance-free, high-power, brushless AC traction motor has excellent acceleration, performance, good climbing ability, and low heat generation.
- / The CURTIS control system provides accurate, stable, and more efficient control of the AC traction motor.
- / The CANBUS structure makes the communication between the different parts on the truck faster and more reliable.
- / The tow tractor uses the regenerative braking system to prevent it from sliding down a ramp.
- / The switches, controller, connectors, and battery plug are all parts from industry known suppliers to ensure reliability, performance, and ease of service.

Comfort

- / The larger operating compartment, double pedal cushion, and ergonomic backrest provides a comfortable workspace for the user.
- / Thanks to the tiller's design, all operations can be completed with one hand.
- / When in turtle mode, the truck can be driven slow easily, and more accurately.
- / The tow tractor is designed to provide excellent visibility while it is being operated.
- / The operator is able to get on and off the tow tractor with ease thanks to how the operator platform is designed.

Reliability

- / With a high-strength steel frame structure, the truck's frame has a large residual load capacity and a long service life.
- / The auxiliary wheel uses a shock absorber-torsion bar structure to ensure that the forklift has good stability.
- / The electrical system uses waterproof connectors and protection on the wires and cables to improve the electronic's reliability.



Battery Side Roll Out



The tiller and instrument display can be moved sideways to allow for more room when changing the battery.



Different tow hook assemblies can be attached to the tiller tractor.



The buttons on the backrest greatly improve the convenience of operation.



Safety

- / The tow tractor features both release and emergency brakes to ensure safe driving.
- / Regenerative braking prevents the tiller tractor from sliding down ramps for operational safety.
- / The red brake button on the head of the tiller causes the pallet truck to brake when pressed. This prevents the operator from being injured.
- / When the operator releases the pedal while driving, the truck will automatically reduce its travel speed and steering angle.
- / The truck also disables the lifting and lowering functions to ensure operator safety.
- / When the "rabbit" switch is turned on, the driver automatically reduces the maximum steering angle to avoid the danger of sudden large-angle turns at high speed.

Maintenance

- / The brushless AC drive motor is maintenance-free. This significantly reduces the operating costs of the pallet truck.
- / The multi-functional, large screen instrument display includes the battery display, real-time speed, and self-diagnostic functions to facilitate maintenance and operation.
- / The maintenance hatch opens to allow for easy access to all of the truck's components.
- / The spindles are equipped with lubricated sleeves and oil cups to facilitate maintenance and promote a long service life.

Standard Specification

- / AC Drive Motor
- / AC Curtis Controller
- / Standard Tow Pin
- / Multi-Functional Instrument Display
- / Electric Power Steering System
- / Key Switch
- / Caster Wheel
- / PU Drive Wheel
- / Rubber Load Wheel
- / Battery Side Extraction
- / Horn

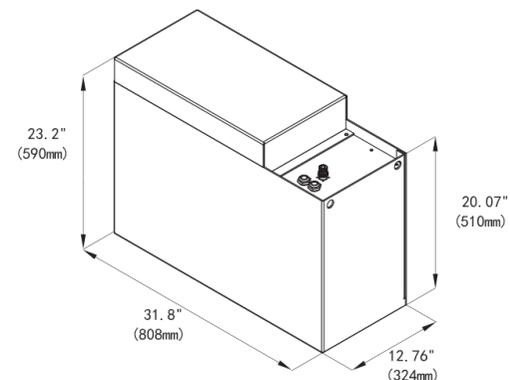
Options

- / Different Tow Hook Options
- / Adjustable Height Tiller Head
- / Large Storage Tote
- / Blue Light
- / Operator Fan
- / Packaging Film Holder

CATL Lithium Iron Phosphate Battery Packs

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

Standard Battery Capacity	
Battery Capacity (V/Ah) (kW-h)	24V/404Ah 9.70kW-h



A Series Electric Stand-Up Tow Tractor Specification

		HANGCHA GROUP CO.,LTD.			
Distinguishing Marks	1.1	Manufacturer	BT45Li	BT45	
		HCHA's Type Designation	QDD45-ASC1-NAI	QDD45-ASC1-NA	
	1.2	Manufacturer's Type Designation	Electric Lithium-ion Model	Electric Lead Acid Model	
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Rider	Rider	
	1.4	Operator Type	10000/4500	10000/4500	
	1.5	Rated Capacity/Rated Load	1078/250	1078/250	
	1.6	Rated Drawbar Pull	y(in/mm)	37.8/960	
	1.7	Wheelbase			
	1.8				
Weight	2.1	Service Weight (Including battery)	lb/kg	2490/1130	2524/1145
	3.2	Tire Size, front		Φ310×110	Φ310×110
	3.3	Tire Size, rear		Φ200×100	Φ200×100
	3.5	Wheels, number front/rear		1××2/2	1××2/2
Tires & Chassis	3.6	Tread, front	bz(in/mm)	24/600	24/600
	3.7	Tread, rear	bn(in/mm)	29.7/754	29.7/754
	4.19	Overall Length	l(in/mm)	61.7/1567	61.7/1567
	4.21	Overall Width	b(in/mm)	33.9/860	33.9/860
Dimensions	4.32	Ground Clearance, centre of wheelbase	mz(in/mm)	3.15/80	3.15/80
	4.35	Turning Radius	Wa(in/mm)	47/1193	47/1193
	5.1	Travel Speed, laden/unladen	mph(kph)	5.6/8.7(9/14)	5.6/8.7(9/14)
	5.5	Drawbar Pull	N/lbf	1078/250	1078/250
Performance Data	5.6	Max Drawbar Pull	N/lbf	3332/750	3332/750
	5.7	Gradeability (laden)	%	5	5
	5.10	Service Break		Electromagnetic	Electromagnetic
	6.1	Drive Motor Rating S2 at 60 min	hp/kW	5.4/4	5.4/4
Electric Motor	6.4	Battery Voltage, nominal capacity K5	V/Ah	24/404	24/400
	8.1	Type of Drive Control		AC	AC
	9.1	Manufacturer		Curtis	Curtis

