Features

Truck	Standard	Options
Lithium iron phosphate battery	●	
Large integral rubber pedal pads	●	
High-power AC drive system	●	
Fully hydraulic steering system	●	
Vacuum assisted hydraulic braking (35-60t)	●	
Standard traction pin	●	
Dual drive tyres (90t)	●	
OPS		○
Traction pin height scheme		○
Dual drive tyres (70/80t)		○
Solid tyre		○
Non-mark white solid tyre		○
Cab		
Boarding handle	●	
Steering wheel adjusting device	●	
Standard seat	●	
Front wiper	●	
Reflective mirror	●	
Fully enclosed cab	●	
Sunshade	●	
Semi-enclosed cab		○
Heater		○
Suspended seat		○
USB interface		○
No cab		○
Air conditioner		○
Wiper with water spray		○
Controls and instruments		
Multi-function instrument cluster	●	
Electric horn	●	
Fault indicator	●	
Jog switch	●	
Integrated electrical box	●	
Charge prompt	●	
Reversing video		○
Monitoring equipment		○
Speed limit		○
Safety		
Reverse buzzer	●	
Air-over-Hydraulic Braking (70-90t) System	●	
Fire extinguisher		○
Remote braking and signal output (70-90t)		○
Lights		
LED headlights (high-beam and low-beam)	●	
Turn signal lights	●	
Combination real LED operating light	●	
Ceiling light	●	
Other		
Battery charger		○

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ISO45001:2018

ISO14001:2015

ISO9001:2015

HANGCHA trucks conform to the European Safety Requirements.

X SERIES

HIGH VOLTAGE LITHIUM BATTERY TOW TRACTOR

with capacity of 35,000 to 90,000kg

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X SERIES

HIGH VOLTAGE LITHIUM BATTERY TOW TRACTOR

RUGGED ON THE OUTSIDE

With a streamlined integral steel structure, a vivid stylish profile formed by a combination of large arcs and streamlined curved surfaces and a centered driving position, the vehicle is suitable for pushing operations.

ENVIRONMENTAL PROTECTION

- Silence, no pollution, energy saving and other advantages meet the environmental protection requirements.
- Asbestos-free materials are used for the vehicle.

LI-ION TECHNOLOGY | **6 YEARS WARRANTY**

HANGCHA provides Li-ion battery (LiFePO4) with 6 years or 12000 hours warranty.

HIGH-VOLTAGE

100kWh

Battery capacity

DESIGNED AROUND THE DRIVER

SAFETY

- Electric Vacuum Assisted Braking（35-60t）\ Air-over-Hydraulic Braking (70-90t) System:The double-chamber and double-pipeline all-wheel braking systems with front and rear proportional partial pressure control performs safe, stable and reliable braking. The large-capacity vacuum cylinder designed can reliably assist braking to enable higher safety when the vehicle is not powered.
- ELECTRICAL MAIN SWITCH： With the electrical main switch to perform emergency shut-off and ensure the safety of the vehicle.
- DUAL-SOURCE STEERING PUMP MOTOR:The dual-source steering pump motor adopted ensures good high-low voltage performance, and safe and reliable steering.
- DOUBLE SAFETY HOOK OPERATION:The pull rod is equipped with a safety device to prevent mis-operation of the pull rod, simple but reliable and highly safe.

Remote braking and signal output (70-90t), with the rear flatbed truck also equipped with braking and lighting warning, the safe of the towed train is enhanced.

COMFORT

- The wide-view cab with an integral frame constituted by profiled steel pipes is flexibly connected to the body and has good sealing, sound insulation, vibration isolation and heat insulation, etc., so that the driver's comfort is improved. The large operating space and low boarding steps allow the operator to very easily get on and off the vehicle.

IPX5 WATERPROOF

The water resistance level of the vehicle is IPX5. Key parts (for electric control, etc.) are placed in the high position of the vehicle body to prevent road surface water from entering and ensure strong wading ability, safety and reliability.

HIGH-VOLTAGE PERMANENT MAGNET SYNCHRONOUS CONTROL SYSTEM:

Ensures stable and accurate driving, good performance of electronic control matching the motor, and with the functions.

1. Stable starting
2. Regenerative braking
3. Reverse braking
4. Anti-sliding on ramps
5. Energy-saving
6. Highly safe

- With the human-machine interaction system that consists of compact and reliable novel digital multi-functional instruments and a combination rocker switch, the operations of the vehicle can be shown clearly.
- The entire cab is fully suspended, with good sealing and less vibration, plus a suspended seat for great operating comfort.
- The chassis elastic suspension technology and the long wheelbase design enable a great ride comfort.
- The forward and backward inclination angles of the hand wheel is adjustable and the seat can be adjusted by 150mm backwards and forwards, so that the operator can choose the best driving position.

The permanent magnet synchronous power system provides strong power and has more precise speed regulation performance, making the complete appliance very efficient.

RATED CAPACITY
90
TONNE

TRAVEL SPEED
32
KM/H

ADVANCEMENT

- High-efficiency power system and high-performance lithium iron phosphate battery: The lithium battery is installed horizontally.
- The LED-screen instruments have the functions of battery display, timer and fault self-diagnosis, without a handheld unit, maintenance and changing of the vehicle performance can be completed through the instruments. Faults are indicated in the form of a combination of codes and text, which are clearer and easier to read.
- There are operating switches at the rear of the vehicle: front and rear Micro-switches and an emergency shut-off switch.

- For the standard feature, the vehicle is equipped with LED lights and integrated high-beam and low-beam headlights.

The electric parts of the vehicle are designed to be waterproof and forced water cooling is provided for electric control, where the functions of heat dissipation, ventilation, dust resistance and water resistance.

MAINTAINABILITY

- The electric components such as the electric controller, contactor, instruments and accelerators are all renowned brands and have high reliability.
- An permanent magnet synchronous power system is used for driving and steering, and the motor is maintenance-free.
- The wide-opened front hood, the easy-to-dismount electric controller hood plate, etc. make maintenance and commissioning very convenient.
- The easy-to-dismount electric controller hood plate and the rear hood plate make the maintenance and commissioning of drive and electric control very convenient.

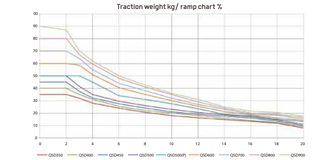
CONVENIENT MAINTENANCE

Technical data

Distinguishing mark	1.1	Manufacturer		HANGCHA GROUP CO.,LTD.							
	1.2	Manufacturer's type designition		QSD350-XY2-MIH	QSD400-XY2-MIH	QSD450-XY2-MIH	QSD500-XY2-MIH	QSD500-XY2-MIHP	QSD600-XY2-MIH	QSD700-XL2-MIH	QSD800-XL2-MIH	QSD900-XL2-MIH
	1.5	Rated capacity/rated load	Q (kg)	35000	40000	45000	50000	50000	60000	70000	80000	90000
	1.9	Wheelbase	y (mm)	2230	2230	2230	2230	2230	2230	2290	2290	2290
Weight	2.1	Service weight	kg	4580	4800	5080	5220	5750	6400	7130	7660	8465
	2.3	Axle loading, unladen front/rear	kg	1330/3250	1350/3450	1300/3780	1155/4065	1350/4400	1300/5100	1245/5885	1225/6435	1230/7235
Tyres,chassis	3.2	Tyre size, front		7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR
	3.3	Tyre size, rear		250-15-15PR	250-15-15PR	250-15-15PR	250-15-15PR	250-15-15PR	250-15-15PR	300-15-18PR	300-15-18PR	7.50-16-14PR
	3.5	Wheels, number front/rear (x = driven wheels)		2/2x	2/2x	2/2x	2/2x	2/2x	2/2x	2/2x	2/2x	2/4x
	3.6	Tread, front	b10 (mm)	1345	1345	1345	1345	1345	1345	1360	1360	1360
	3.7	Tread, rear	b11 (mm)	1480	1480	1480	1480	1480	1480	1640	1640	1737
Dimensions	4.7	Height of cabin	h6 (mm)	2130	2130	2130	2130	2130	2130	2180	2180	2180
	4.12	Coupling height	h10 (mm)	450	450	450	450	450	450	470	470	470
	4.19	Overall length	l1 (mm)	3448	3448	3448	3448	3553	3553	3705	3705	3705
	4.21	Overall width	b1/b2 (mm)	1746	1746	1746	1746	1746	1746	1950	1950	2190
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	200	200	200	200	200	200	200	200	200
	4.35	Turning radius	Wa (mm)	3200	3200	3200	3200	3200	3200	3350	3350	3350
Performance data	5.1	Travel speed, laden/unladen	km/h	-/32	-/32	-/32	-/32	-/32	-/32	-/22	-/22	-/22
	5.6	Max. drawbar pull, laden/unladen	N	31500	34000	37000	40000	43000	50000	53000	58000	64000
	5.7	Gradeability, laden/unladen	%	-/33	-/33	-/33	-/33	-/33	-/33	-/33	-/33	-/33
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic			
Electric engine	6.1	Drive motor rating S2 60 min	kW	45	45	45	45	60	60	70	70	70
	6.4	Battery voltage/nominal capacity K5	V/Ah	405.7/173	405.7/173	405.7/173	405.7/173	412.18/228	412.18/228	580/173	580/173	580/173

Lithium battery	Model \ Battery	Capacity (Ah) /voltage (V)					
		173/405.75	268/386.4	228/412.16	302/412.16	173/579.6	200/579.6
	QSD350-XY2-MIH	●	○				
	QSD400-XY2-MIH	●	○				
	QSD450-XY2-MIH	●	○				
	QSD500-XY2-MIH	●	○				
	QSD500-XY2-MIHP			●	○		
	QSD600-XY2-MIH			●	○		
	QSD700-XL2-MIH					●	○
	QSD800-XL2-MIH					●	○
	QSD900-XL2-MIH					●	○

Note: ● Standard battery capacity; ○ Optional battery capacity. Battery water cooling. Battery air cooling



The maximum drawbar pull in the table is measured on a dry and compact concrete surface (with a coefficient of 0.8). It will also change with the road surface. The towing mass refers to the total mass of the tractor, including the tractor itself and the cargo, etc., it is also a theoretical value obtained on a dry and compact concrete surface with a rolling resistance coefficient of 0.015-0.018. The towing mass will also change with the road surface, rolling resistance coefficient, etc."