

FORX

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X Series Electric Tow Tractor

with capacities of 20,000 to 32,000kg

FORX



Exterior

- / 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.

Safety

- / An advanced AC control system (80v system) —the high-frequency integrated IMOTION controller ensures stable and accurate driving, good performance of electronic control matching the motor, and with the functions of stable starting, regenerative braking, reverse braking and anti-sliding on ramps, etc., is energy-saving and is highly safe and reliable.
- / Electric vacuum assisted braking: the double-chamber and double-pipeline all-wheel braking systems with front and rear dynamic proportional partial pressure control performs safe, stable and reliable braking. The large-capacity vacuum cylinder designed can reliably assist braking (by pumping the pedal six times) to enable higher safety when the vehicle is not powered.
- / With the electrical main switch to perform emergency shut-off and ensure the safety of the vehicle.
- / The S-EPS (Electric Power Steering) synchronous steering system and the synchronous steering axle operate according to road conditions to ensure straight driving 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.
- / 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.

Comfort

- / With the human-machine interaction system that consists of compact and reliable novel digital multifunctional instruments and a combination rocker switch, the operations of the vehicle can be shown clearly.
- / The entire cab (console) 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 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.
- / 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.



Advancement

- / The AC power system provides strong power and has more precise speed regulation performance.
- / High-efficiency power system and high-performance lithium iron phosphate battery: the lithium battery is installed vertically, different capacity batteries are optional, A standard 80.5V456A.h battery is provided for the standard configuration. The battery can last for a long time.
- / The LED-screen 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 jog switches and an emergency shut-off switch.
- / For the standard configuration, 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 water-proof and forced air cooling is provided for electric control, where the functions of heat dissipation, ventilation, dust resistance and water resistance.



Standard Specification

- / LED headlights (high-beam and low-beam)
- / Turn signal lights
- / Combination real LED operating light
- / Multi-function instrument cluster
- / Electric horn
- / Reverse buzzer
- / Ceiling light
- / USB interface
- / Boarding handle
- / Steering wheel adjusting device
- / Standard seat
- / Front wiper
- / Lithium iron phosphate battery
- / Reflective mirror
- / Jog switch
- / Large integral rubber pedal pads
- / Electric power-assisted synchronous steering system
- / Vacuum assisted hydraulic braking
- / Sunshade
- / Standard traction pin
- / Fully enclosed cab

Options

- / Semi-enclosed cab
- / Heater
- / Suspended seat
- / OPS
- / Traction pin height scheme
- / Rear platform rail
- / Turning deceleration
- / Reversing video
- / Air conditioner
- / Battery charger
- / Fire extinguisher
- / Speed limit
- / Monitoring equipment

Environmental protection

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

Maintainability

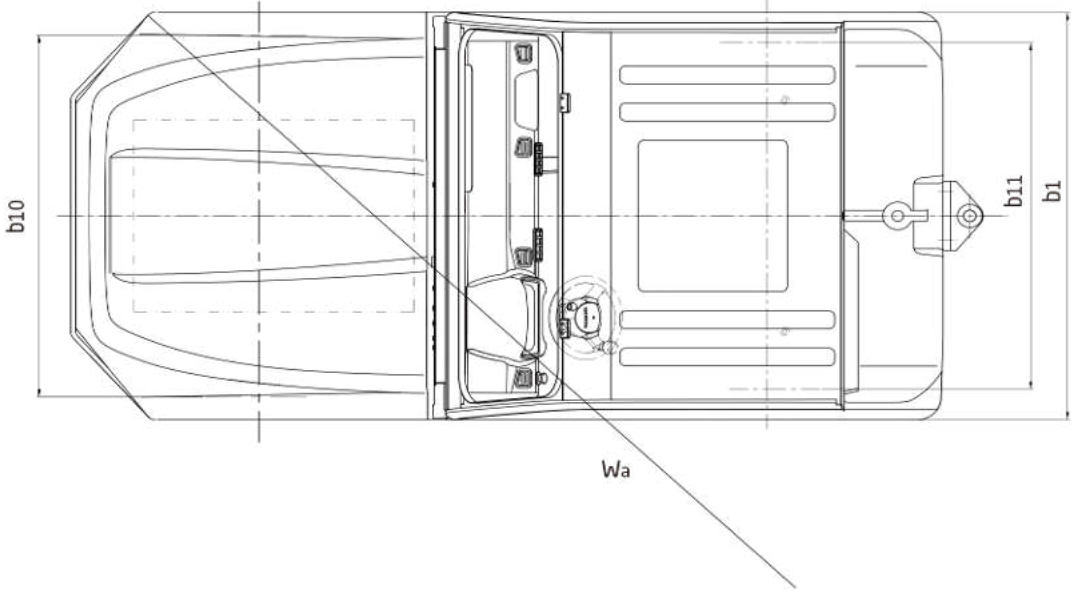
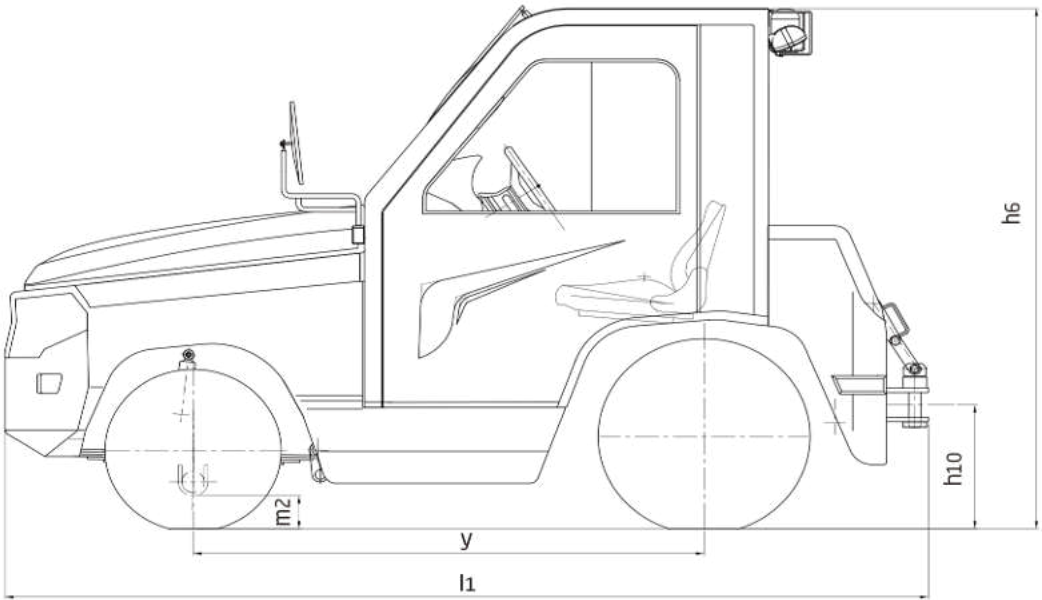
- / The wide-opened front hood, the easy-to-dismount electric controller hood plate, etc. make maintenance and commissioning very convenient.
- / The easy-to-dismount electric controller hood plate and the rear hood plate make the maintenance and commissioning of drive and electric control very convenient.



X Series Electric Tow Tractor Specification

Distinguishing mark	1.1	Manufacturer		FORX		
	1.2	Manufacturer's type designation		QSD200-XD3-MI*	QSD250-XD3-MI*	QSD320-XD3-MI*
	1.5	Rated capacity/rated load	Q (kg)	20000	25000	32000
	1.7	Rated drawbar pull	F (N)	10000	11000	12000
	1.9	Wheelbase	y (mm)	1710	1710	1710
Weight	2.1	Service Weight	kg	3400	3600	3780
	2.2	Axle loading, front/rear	kg	930/2470	1010/2590	960/2820
Tyres, chassis	3.2	Tyre size, front		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.3	Tyre size, rear		7.00-12-12PR	7.00-12-12PR	28×9-15-14PR
	3.5	Wheels, number front / rear (x = driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b ₁₀ (mm)	1322	1322	1322
	3.7	Tread, rear	b ₁₁ (mm)	1280	1280	1260
Dimensions	4.7	Height of overhead guard	h ₆ (mm)	1895	1895	1895
	4.12	Coupling height	h ₁₀ (mm)	450	450	450
	4.19	Overall length	l ₁ (mm)	3090	3090	3090
	4.21	Overall width	b ₁ (mm)	1480	1480	1480
	4.32	Ground clearance, centre of wheelbase	m ₂ (mm)	120	120	120
	4.35	Turning radius	W _a (mm)	3350	3350	3350
Performance data	5.1	Travel speed, laden/unladen	km/h	- / 25	- / 25	- / 25
	5.5	Drawbar pull at 60 minute rating	N	10000	11000	12000
	5.7	Gradeability, laden/unladen	%	- / 33%	- / 33%	- / 33%
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic
Electric-engine	6.1	Drive motor rating S2 60 min	kW	23	30	30
	6.4	Battery voltage, nominal capacity K5	V/Ah	80.5/456	80.5/456	80.5/456
	6.5	Battery weight	kg	380	380	380

Note: * CE model



X Series High-voltage Lithium Battery Tow Tractor Specification

Distinguishing mark	1.1	Manufacturer		HANGCHA GROUP CO.,LTD.		
	1.2	Manufacturer's type designation		QSD200-XS1-MIH	QSD250-XS1-MIH	QSD320-XS1-MIH
	1.5	Rated capacity/rated load	Q (kg)	20000	25000	32000
	1.7	Rated drawbar pull	F (N)	10000	11000	12000
	1.9	Wheelbase	y (mm)	1710	1710	1710
Weight	2.1	Service Weight	kg	3700	3840	4040
	2.2	Axle loading, front/rear	kg	1200/2500	1190/2650	1140/2900
Tyres, chassis	3.2	Tyre size, front		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.3	Tyre size, rear		7.00-12-12PR	7.00-12-12PR	28×9-15-14PR
	3.5	Wheels, number front / rear (x = driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b ₁₀ (mm)	1322	1322	1322
	3.7	Tread, rear	b ₁₁ (mm)	1260	1260	1260
Dimensions	4.7	Height of overhead guard	h ₆ (mm)	1895	1895	1895
	4.12	Coupling height	h ₁₀ (mm)	450	450	450
	4.19	Overall length	l ₁ (mm)	3090	3090	3090
	4.21	Overall width	b ₁ (mm)	1480	1480	1480
	4.32	Ground clearance, centre of wheelbase	m ₂ (mm)	120	120	120
	4.35	Turning radius	W _a (mm)	3350	3350	3350
Performance data	5.1	Travel speed, laden/unladen	km/h	- / 25	- / 25	- / 25
	5.5	Drawbar pull at 60 minute rating	N	10000	11000	12000
	5.7	Gradeability, laden/unladen	%	- / 33%	- / 33%	- / 33%
	5.10	Service brake		Hydraulic	Hydraulic	Hydraulic
Electric-engine	6.1	Drive motor rating S2 60 min	kW	30	30	30
	6.4	Battery voltage, nominal capacity K5	V/Ah	305.9/228	305.9/228	305.9/228
	6.5	Battery weight	kg	380	380	380

