

SANY[®]

QUALITY CHANGES THE WORLD



ELECTRIC TERMINAL TRACTOR

SANY MARINE

CONTENTS



As a key division of SANY International, SANY Marine operates from Zhuhai, Guangdong Province, specializes in MPM (RS, ECH), port crane (RTG, RMG, STS, Jib Crane, MHC and SC), and logistics equipment (material handlers, heavy-duty forklifts, ETT, and TH)

SM2500	▶ 08
STT4500E3	▶ 10
STT4501E	▶ 12
SIGV8850E	▶ 14
Construction Cases	▶ 16

SANY Marine launched its first electric terminal tractor in 2018, with total sales over 2,000 units.

Two platforms with six electric tractor models:

Electric tractors: 4x2 battery charge, 4x2 battery swap, 4x2 saddle-lift, and 6x4 charge versions.

Autonomous tractors: IGV unmanned flatbed, unmanned tractor heads.



Electric Terminal Tractor
SM2500



Electric Terminal Tractor
STT4500E3



Electric Terminal Tractor
STT4501E



Intelligent Guided Vehicle (IGV)
SIGV8850E

SM2500



▪ 90% fast charge in 1 hour

▪ Air suspension seat for comfort

▪ Direct-drive motor, high torque at low speed

▪ Thermal + regen system cuts energy use by 15%

▪ Remote monitoring and smart charging

▶ Product Parameters

Technical Parameter			Configuration Parameter			
ITEM	UNIT	SM2500	CONFIGURATION	UNIT	SM2500	
Model/Driving Type	-	4×2	Traction battery	Type	- Charging	
Overall Dimensions	mm	5800×2550×3380		Capacity	kWh	282
Wheelbase	mm	3500	E-motor	Power	kW	120/240
Endurance	km	≥120		Torque	N·m	1400/2800
Weight	t	9	Charging time		min	60 (20%-95%)
Max. Traction Capacity	t	70	Front axle/rear axle		t	9/30
Max. Gradeability	%	≥6	The fifth wheel		-	Fixed
Max. Speed	km/h	40	Tire		-	12R22.5-18PR
Min. Turning Radius	m	7				
0~30km/H Accelerate Time	s	≤20				



↓ The cost per TEU for electric tractors is 73.1% less than for fuel tractors

Brand	Cost Per TEU	Unit Price of Energy (USD)	Annual Work Volume (10k TEU)	Annual Energy Cost (10k USD)	Annual Consumption	Equals (Per Ton Standard Coal)
Sany ETT	1.9kWh	0.7	3.6	4.79	72,000kWh	8.85
Fuel TT of Other Brand	0.85L	6.5	3.6	19.87	27.23t	39.48

Note: The energy consumption of each TEU is quoted from the real operation data of a port in South China. Due to the differences in port working conditions, the fluctuation of electricity price and oil price and other factors, the relevant data may vary. The above is for reference only.

STT4500E3



- Battery swap in under 2 minutes
- Air suspension seat
- Direct-drive, efficient power delivery
- 15% lower energy use
- Remote diagnostics and smart ops

▶ Product Parameters

Technical Parameter			Configuration Parameter			
ITEM	UNIT	STT4500E3	CONFIGURATION	UNIT	STT4500E3	
Model/Driving Type	-	4×2	Traction Battery	Type	-	Battery Swapping
Overall Dimensions	mm	6370×2550×3690		Capacity	kWh	141/210/282/350
Wheelbase	mm	4000	E-Motor	Power	kW	120/240
Endurance	km	≥120 (282kWh)		Torque	N·m	1400/2800
Self Weight	t	9	Battery Swapping	min	5	
Max. Traction Capacity	t	70	Front Axle/Rear Axle	t	9/30	
Max. Gradeability	%	≥6	Suspension System	-	Fixed	
Max. Speed	km/h	40	Tire	-	12R22.5-18PR	
Min. Turning Radius	m	7				
0~30km/H Accelerate Time	s	≤20				

▶ Battery Swapping Station



STT4501E



- New ergonomic cab with wide view
- 75t towing, optional rear air suspension
- Efficient at 10–30 km/h, low maintenance
- Smart charging and remote diagnostics
- 15% energy savings

▶ Product Parameters

Technical Parameter		
ITEM	UNIT	STT4501E
Model/Driving Type	-	4×2
Overall Dimensions	mm	5805×2550×3200
Wheelbase	mm	3500
Endurance	km	≥120
Self Weight	t	10
Max. Traction Capacity	t	75
Max. Gradeability	%	≥6
Max. Speed	km/h	40
Min. Turning Radius	m	7
0~30km/H Accelerate Time	s	≤20

Configuration Parameter			
CONFIGURATION		UNIT	STT4501E
Traction Battery	Type	-	Charging
	Capacity	kWh	282
E-Motor	Power	kW	120/240
	Torque	N·m	1400/2800
Charging Time		min	60 (20%-95%)
Front Axle/Rear Axle		t	9/30
The Fifth Wheel	Structure	-	Lifting
	Heights	mm	1180-1530
Tire		-	12R22.5-18PR
Suspension System		-	Fixed/Air (option)

SIGV8850E

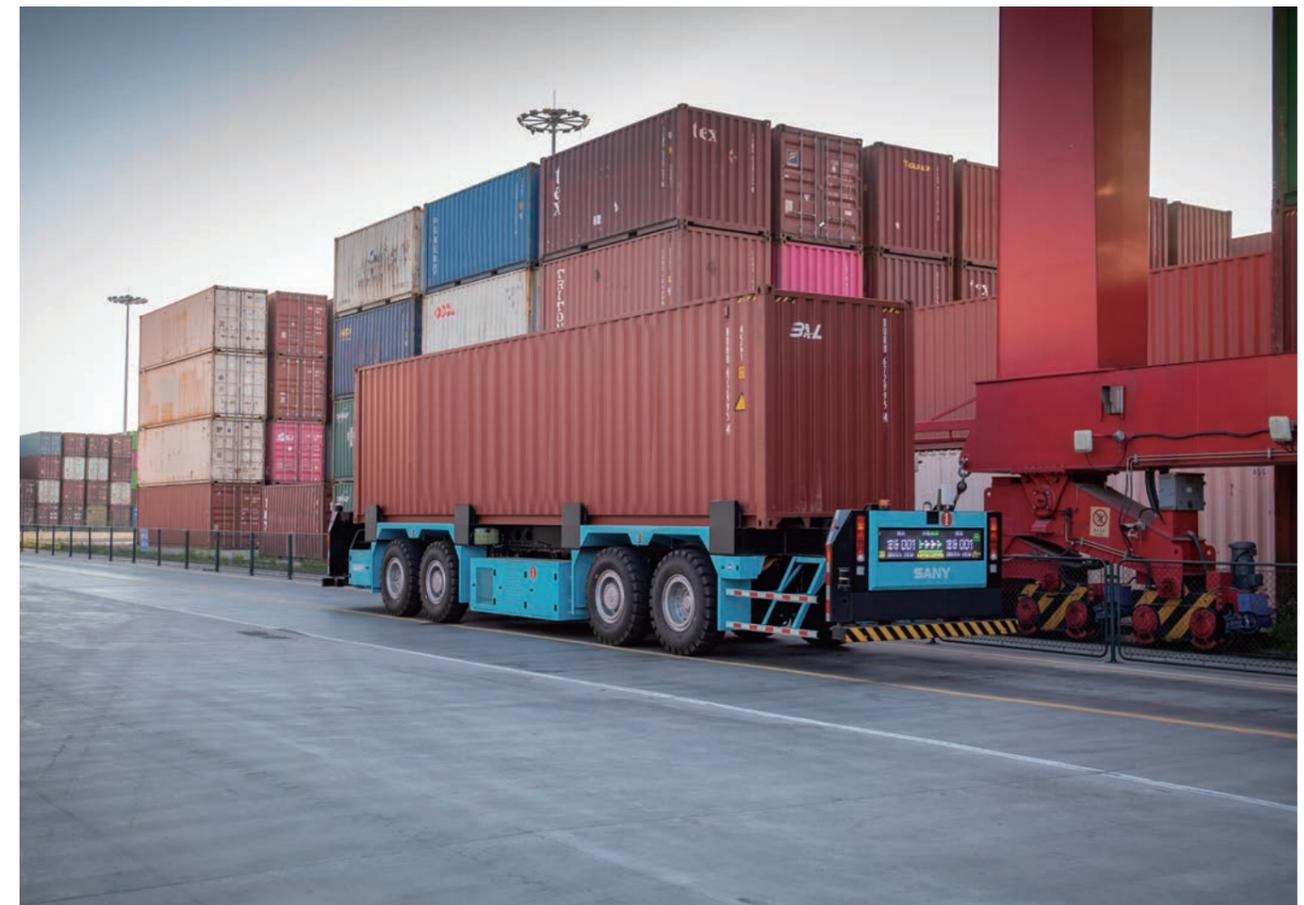


- Auto/manual charging + swap (<3 min)
- ±5cm parking accuracy, 360° perception
- 8×4 steering, crabwalk & dual-mode driving
- Box-beam frame, L2 safety, crash protection
- 120 km range, >10% regen efficiency

▶ Product Parameters

Technical Parameter			Configuration Parameter			
ITEM	UNIT	SIGV8850E	CONFIGURATION	UNIT	SIGV8850E	
Model/Driving Type	-	8×4	Traction Battery	Type	-	Charging / Battery Swapping / Self-Charging
Overall Dimensions	mm	15000×2700×1800		Capacity	kWh	210/282
Wheelbase	mm	1600/5700/1600	E-Motor	Power	kW	2×120/185
Endurance	km	≥120		Torque	N·m	2×500/1300
Self Weight	t	21	Charging Time		min	60 (20%-95%)
Max. Traction Capacity	t	65	Tire		-	14R24-28PR
Max. Gradeability	%	≥7				
Max. Speed	km/h	38/30				
Min. Turning Radius	m	8.2				
0~30km/H Accelerate Time	s	≤20				

▶ Workflow Diagram



► Cases



Cases



Hainan-China



Zhejiang-China



Guangxi-China



Shenzhen-China

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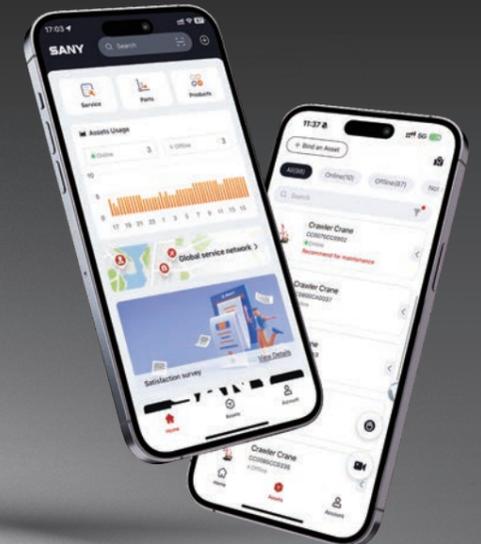
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