



Quality Changes The World

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• High efficiency and Low carbon • Easy to use and Economical • Intelligent and Safe

## SCPC6 SERIES

HIGH VOLTAGE LITHIUM BATTERY  
FORKLIFT TRUCK

SANY ROBOTICS TECHNOLOGY CO., LTD

# Intelligent Forklift Truck

## LED BY SANY



### High Efficiency And Low Carbon

Equipped the new generation of automotive grade high-voltage permanent magnet synchronous electric drive motor with forced water-cooling system, Sany forklift truck continuously provides strong power that with full load the driving speed exceed 20 km/h and the climbing ability exceed 20%. Sany forklift truck not only has an advantage with low-carbon and zero emission, but also surpasses Internal combustion forklift truck in performance.

### Easy To Use And Economical

Equipped the new generation of vehicle control architecture, the controller has the same computing power as new energy vehicles, with a millisecond grade response speed and more precise control, bringing an excellent driving experience. Products have been widely applied in heavy industries working condition, such as ceramics industry, casting industry, paper industry, Plate and sheet industry, and have been tested by the market for a long time. The golden power combination of high-voltage lithium battery and high-voltage permanent magnet synchronous drive motor and controller realizes higher efficiency and lower energy consumption.

### Intelligent And Safe

Forklifts are real-time online, remotely monitored and diagnosed for faults, and can be intelligently managed on Sany Cloud. Options with Driver identification, DMS monitoring systems, 360-degree imaging and AI visual assistance shall ensure truck safety in all aspects. Adopting automotive safety standards, all high-voltage connectors are protected by IP67, with real-time insulation monitoring and detection, which is far exceeding the safety requirements of ordinary electrical truck.

# Cover all Application Scenarios for 2-5t forklift truck

The SCPC6 series intelligent counter balanced forklift trucks were forward developed based on the new energy lithium battery, adopting advanced AC permanent magnet synchronous motor control technology and lithium battery quick charging technology in the industry, and equipped with comprehensive intelligent protection and remote monitoring service. The motor, electrical controller and battery have a 5-year or 10000-hour ultra long warranty, which is more energy-efficient and easy to operate compared to traditional IC forklift truck. Also it is wider environmental adaptability and more powerful compared to ordinary electrical forklift truck. Sany defined a new concept of electrical forklift truck.

Plate and sheet industry



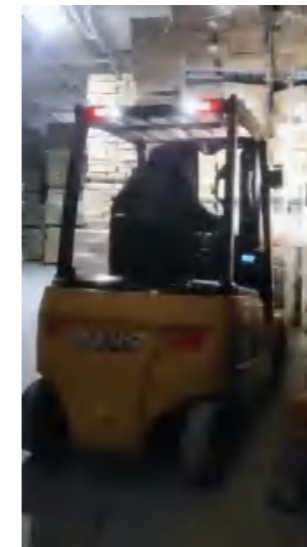
Waste paper packaging industry



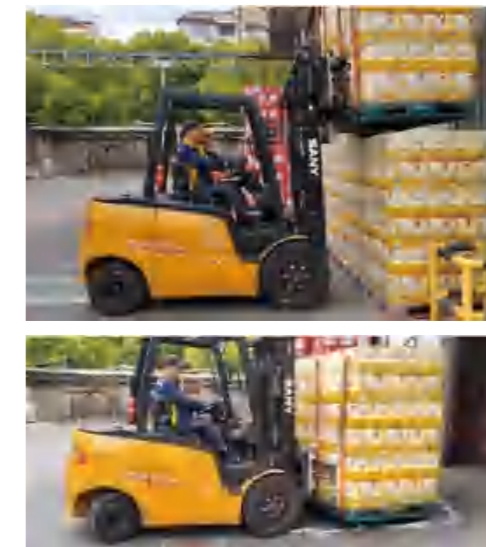
Household electrical appliance logistics industry



Cold storage industry



Brewery industry



Ceramic industry



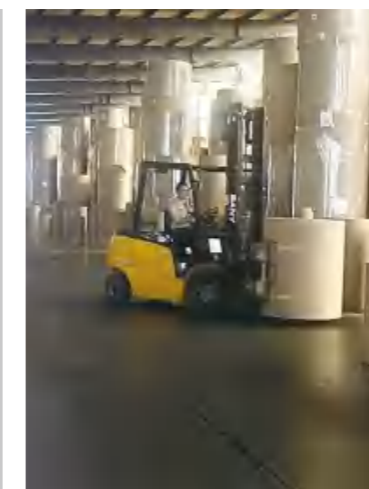
Mold industry



Logistics industry



Paper industry



## Compact Drive Axle

### High rotational speed and low noise

Equipped a silent motor with a rotational speed over 10000rpm

### High transmission ratio

The maximum transmission ratio up to 50

### Small size

The gearbox size is reduced by 50% compared to the conventional one

### Strong power

Climbing ability with full load >20%



### Large load capacity

- Integrated casting steering axle
- The kingpin structure adopts large tapered roller bearings

### Large turning angle

Small turning radius

### High reliability

Design lifetime exceed 20000h



## Integrated Lithium Battery

# UN38.3



### High Safety

With automotive grade power cells (lithium iron phosphate) and electrical components, the battery management system is capable of real-time fault detection, transmitting to dashboard and intelligent cloud for safety protection.

### Quick Charging

Adopting national charging standard, be compatible with car charging stations, 1C Quick charging, on-demand charging, Quick charging mode is suitable for multi-shift operations.

### Long Life Cycles

5-year or 10000-hour ultra long warranty with reliable use.

### Strong Environmental Adaptability

Truck is suitable for working in rainy and snowy condition with IP67 protection level and capable of normal operation in low ambient temperature with heating function as standard configuration.

### Economic

Lithium batteries is free of manual maintenance, so it shall lower overall costs of truck operating.

### High Efficiency

High voltage lithium battery with water-cooling system has low heat loss, high electrical energy conversion rate and is capable of high discharging rate and strong power.

# Comprehensive Intelligent Upgrade

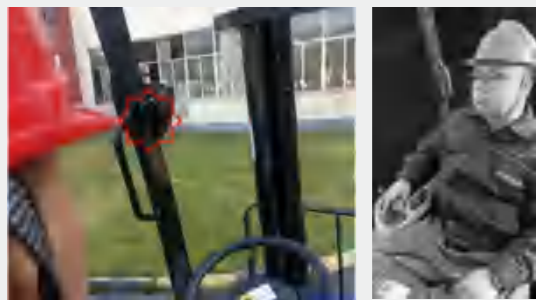
## Newly Upgraded Multifunctional

Full function, equipped with functions such as fault diagnosis, I/O information display, speed parameter modification, and optional function with integrated card swiping power on.



## Intelligent Face Recognition And Dms Monitoring Color Display

Using infrared cameras and intelligent algorithms based on AI image processing, the truck can be powered on with face recognition; It can provide warnings for various driving irregularities, regulate driver behavior, and prevent potential problems.



## 360-degree Panoramic Image



Installed multiple cameras to achieve 360-degree surround view monitoring and equipped with two cameras on the mast for effectively improving the front view, the truck is capable of blind spots reduction during operation and accident prevention.

## Intelligent assisted security technology panel

Using AI image recognition technology to detect pedestrians within the driving path, the truck is capable of issuing alarms for different areas, prompting drivers and pedestrians to actively avoid each other and carrying out active deceleration or braking based on the warning signal when reversing.



# Reliable Quality **Matching Severe Environment**

- Core components protection level with IP67 •Structure Stable Safe and Reliable
- Entire truck waterproof level with IPX4



Full score passed the high-strength rain test

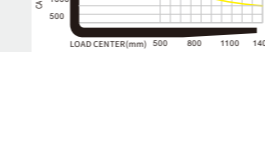
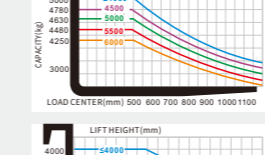
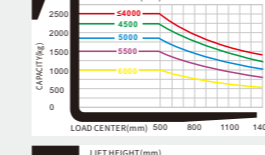
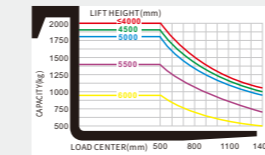
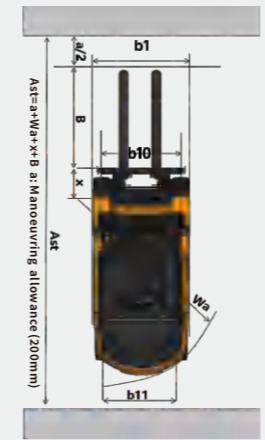
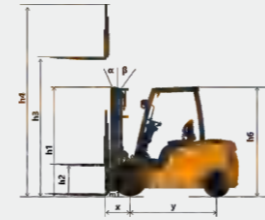
Full score passed the wading test



Over Head Guard full score passed impact test

**TECHNICAL DATA**

Item	Unit	Data									
		SCP20C6	SCP25C6	SCP20C6(200V)	SCP25C6(200V)	SCP30C6(200V)	SCP30C6	SCP35C6	SCP40C6	SCP50C6	
Distinguishing mark	Product type designation	/	SCP20C6	SCP25C6	SCP20C6(200V)	SCP25C6(200V)	SCP30C6(200V)	SCP30C6	SCP35C6	SCP40C6	SCP50C6
	Rated Load	Q(kg)	2000	2500	2000	2500	3000	3000	3500	4000	5000
	Load centre distance	c(mm)	500	500	500	500	500	500	500	500	500
	Load distance, centre of drive axle to fork	x(mm)	450	450	450	450	500	500	500	515	560
	Wheelbase	y(mm)	1650	1650	1650	1650	1750	1750	1750	1850	2000
Weight	Service weight	kg	3650	3950	3550	3850	4620	4620	4860	5855	7300
	Axle loading, laden front/rear	kg	4950/700	5650/800	4900/750	5600/750	6810/810	6810/810	7430/930	8675/1180	10800/1500
	Axle loading, unladen front/rear	kg	1770/1880	1900/2050	1750/1800	1750/2100	2140/2480	2140/2480	2100/2760	2100/2760	3200/4100
Tyres	Tyres	/	Solid tyre	Solid tyre	Solid tyre	Solid tyre	Solid tyre	Solid tyre	Solid tyre	Solid tyre	Solid tyre
	Tyre size, front	/	7.00-12	7.00-12	7.00-12	7.00-12	28 x 9-15	28 x 9-15	28 x 9-15	250-15	28 x 12.5-15
	Tyre size, rear	/	18 x 7-8	18 x 7-8	18 x 7-8	18 x 7-8	21 x 8-9	21 x 8-9	21 x 8-9	21 x 8-9	23 x 9-10
	Tread, front	b10(mm)	1040	1040	1040	1040	1020	1020	1020	1050	1200
	Tread, rear	b11(mm)	980	980	980	980	1000	1000	1000	1000	1120
Dimensions	Tilt of mast, forward/backward	$\alpha/\beta(^{\circ})$	6/12	6/12	6/12	6/12	6/12	6/12	6/12	6/10	6/10
	Height, mast lowered	h1(mm)	2000	2000	2160	2160	2180	2180	2180	2180	2190
	Free lift	h2(mm)	120	120	120	120	120	120	120	120	110
	Lift height, standard mast	h3(mm)	3000	3000	3000	3000	3000	3000	3000	3000	3000
	Height, mast extended	h4(mm)	4100	4100	4100	4100	4100	4100	4100	4150	4200
	Height of overhead guard(cabin)	h6(mm)	2170	2170	2170	2170	2190	2190	2190	2210	2170
	Overall length	L2(mm)	2400	2400	2410	2410	2695	2695	2695	2860	3150
	Overall width	b1(mm)	1230	1230	1230	1230	1250	1250	1250	1310	1500
	Fork dimensions ISO 2331	s x e x l(mm)	40 x 122 x 1070	40 x 122 x 1070	40 x 122 x 1070	40 x 122 x 1070	45 x 122 x 1070	45 x 122 x 1070	50 x 122 x 1070	50 x 122 x 1070	50 x 150 x 1070
	Distance between fork-arms	mm	250-1100	250-1100	250-1100	250-1100	247-1100	247-1100	247-1100	247-1100	350-1360
	Ground clearance, laden, below mast	m1(mm)	140	140	140	140	180	180	180	180	140
	Ground clearance, laden, centre of wheelbase	m2(mm)	130	130	130	130	150	150	150	150	140
	Aisle width for pallets 1000x1200 crossways	Ast(mm)	3730	3730	3730	3730	4050	4050	4050	4200	4586
Aisle width for pallets 800x1200 lengthways	Ast(mm)	3930	3930	3940	3930	4250	4250	4250	4400	4786	
Turning radius	Wa(mm)	2090	2090	2090	2090	2350	2350	2350	2450	2756	
Performance data	Max travel speed, laden/unladen	km/h	16/16	16/16	20/20	20/20	16/16	22/22	22/22	20/20	22/22
	Max lifting speed, laden/unladen	mm/s	480/500	480/500	500/550	500/550	385/450	440/500	440/500	380/410	450/470
	Lowering speed, laden/unladen	mm/s	450/460	450/460	450/460	450/460	420/405	420/405	420/405	430/340	450/480
	Drawbar pull, laden/unladen	N	13000	13000	15000	15000	14500	16800	16800	21000	25000
	Gradeability, laden/unladen	%	16/20	16/20	20/20	20/20	16/18	20/22	20/20	20/20	20/22
	Parking brake	/	Mechanic	Mechanic	Mechanic	Mechanic	Mechanic	Mechanic	Mechanic	Mechanic	Mechanic
Electric-engine	Drive motor (S2 60 min)	kW	16	16	20	20	20	32	32	32	46
	Lift motor (S3 15%)	kW	21	21	25	25	25	25	25	32	46
	Battery voltage/Nominal capacity	V/kWh	96/15.4	96/15.4	192/20.4	192/20.4	192/20.4	288/30.5	288/30.5	384/40.8	336/50.4
	Battery weight(±5%)	kg	180	180	190	190	210	210	210	325	400
Controller	Type of drive control	PMSM	PMSM	PMSM	PMSM	PMSM	PMSM	PMSM	PMSM	PMSM	PMSM
	Working pressure for attachments	MPa	17	17	17	17	19.5	19.5	19.5	19.5	18



**OPTIONS**

● Standard, ○ Optional, - Not available.

SCP series	20/25C6	20/25C6(200V)	30C6(200V)	30/35C6	40C6	50C6
Tyre	Pneumatic tyre	○	○	○	○	-
	Solid tyre	●	●	●	●	●
	Markless tyre	○	○	○	○	○
Seat	Standard seat	●	●	●	●	-
	Standard wrapped seat	○	○	○	○	○
	Advanced Suspended seat	○	○	○	○	○
Control Valve	OPS 2-way mechanical valve	●	●	●	●	●
	OPS 3-way mechanical valve	○	○	○	○	○
	OPS 4-way mechanical valve	○	○	○	○	○
	2-way OPS solenoid valve	○	○	○	○	○
	3-way OPS solenoid valve	○	○	○	○	○
Intelligent terminal	4-way OPS solenoid valve	○	○	○	○	○
	2-way finger control	○	○	○	○	○
	3-way finger control	○	○	○	○	○
	4-way finger control	○	○	○	○	○
Mast	Remote diagnostic function	●	●	●	●	●
	Intelligent cornering deceleration	○	○	○	○	○
	Standard mast 3m	●	●	●	●	●
	Standard mast 3.5m	○	○	○	○	○
	Standard mast 4m	○	○	○	○	○
	Standard mast 4.5m	○	○	○	○	○
	Standard mast 5m	○	○	○	○	○
	duplex full free 3m	○	○	○	○	○
	Triplex full free 4.5m	○	○	○	○	○
	Triplex full free 5m	○	○	○	○	○
Hydraulic hose line	Triplex full free 5.5m	○	○	○	○	○
	Triplex full free 6m	○	○	○	○	○
	Single auxiliary hose line (Standard mast)	○	○	○	○	○
	Twin auxiliary hose line (Standard mast)	○	○	○	○	○
	Single auxiliary hose line (Duplex mast)	○	○	○	○	○
	Twin auxiliary hose line (Duplex mast)	○	○	○	○	○
Fork	Single auxiliary hose line (Triplex mast)	○	○	○	○	○
	Twin auxiliary hose line (Triplex mast)	○	○	○	○	○
	1070mm	●	●	●	●	●
	Fork not needed	○	○	○	○	○
	1220mm	○	○	○	○	○
	1370mm	○	○	○	○	○
	1520mm	○	○	○	○	○
Lamp	1670mm	○	○	○	○	○
	1820mm	○	○	○	○	○
	2000mm	○	○	○	○	○
	Standard lighting	●	●	●	●	●
	Strobe warning light (yellow)	○	○	○	○	○
Cabin	Strobe warning light (blue)	○	○	○	○	○
	Rear lighting	○	○	○	○	○
	Blue warning light	○	○	○	○	○
	Borderline warning light(blue)	○	○	○	○	○
	Borderline warning light(red)	○	○	○	○	○
Battery	Standard OHG	●	●	●	●	●
	Front windshield+PC board roof Wiper, Water spray bottle+Fan	○	○	○	○	○
	Full cabin +Fan	○	○	○	○	○
	Full cabin+Fan+Electrical heater	○	○	○	○	○
Charger	Full cabin+Fan+Air condition	○	○	○	○	○
	15kwh	●	-	-	-	-
	20kwh	○	●	●	●	-
	30kwh	○	-	-	-	-
	40kwh	-	-	-	○	●
	50kwh	-	-	-	-	○
	70kwh	-	-	-	-	○
	80kwh	-	-	-	-	○
Attachments	7kw(AC 22V, output 20A)	○	○	○	○	-
	50A(AC 380V)	○	-	-	-	-
	100A(AC 380V)	○	-	-	-	-
	200A(AC 380V)	○	-	-	-	-
	20kw(AC 380V)	-	○	○	○	○
	30kw(AC 380V)	-	-	○	○	○
Charger	60kw single port (AC 380V)	-	-	-	-	○
	60kw twin port (AC 380V)	-	-	-	-	○
	80kw single port (AC 380V)	-	-	-	-	○
	External sideshift	○	○	○	○	○



**MASK TECHNICAL DATA**

Mast type	Mast model	Lift height	SCP20C6						SCP20/25C6(200V)						SCP30/35C6						SCP40C6						SCP50C6					
			Load capacity (load centre 500mm)		Height mast lowered	Height mast extended	Free lift	Mast tilting	Load capacity (load centre 500mm)		Height mast lowered	Height mast extended	Free lift	Mast tilting	Load capacity (load centre 500mm)		Height mast lowered	Height mast extended	Free lift	Mast tilting	Load capacity (load centre 500mm)	Height mast lowered	Height mast extended	Free lift	Mast tilting	Load capacity (load centre 500mm)	Height mast lowered	Height mast extended	Free lift	Mast tilting		
			2.0t	2.5t					2.0t	2.5t					3.0t	3.5t															4.0t	5.0t
mm	kg	kg	mm	mm	mm	°	kg	kg	mm	mm	mm	°	kg	kg	mm	mm	mm	°	kg	mm	mm	mm	°	kg	mm	mm	mm	°				
Duplex wide view mast	S30	3000	2000	2500	2000	3620/4090	120	6/12	2000	2500	2160	3650/4100	120	6/12	30 00	3500	2180	3700/4200	120	6/12	4000	2180	3710/4150	120	6/10	5000	2190	3850/4180	110	6/10		
	S35	3500	2000	2500	2250	4120/4590	120	6/12	2000	2500	2380	4150/4600	120	6/12	30 00	3500	2430	4200/4700	120	6/12	4000	2180	4210/4650	120	6/10	5000	2440	4350/4680	110	6/10		
	S40	4000	2000	2500	2500	4620/5090	120	6/12	2000	2500	2630	4650/5100	120	6/12	30 00	3500	2680	4700/5200	120	6/12	4000	2680	4710/5150	120	6/10	5000	2690	4850/5180	110	6/10		
	S45	4500	1850	2350	2750	5120/5590	120	6/6	1800	2250	2880	5150/5600	120	6/6	27 00	3150	2930	5200/5700	120	6/6	3850	2930	5210/5650	120	6/10	4700	2940	5350/5680	110	6/6		
	S50	5000	1700	2200	3000	5620/6090	120	6/6	1550	1980	3130	5650/6100	120	6/6	23 50	2750	3180	5700/6200	120	6/6	3500	3180	5710/6150	120	6/6	4600	3190	5850/6180	110	6/6		
Triplex full free mast	D30	3000	2000	2500	2050	3620/4090	1450/980	6/12	2000	2500	2180	3690/4110	1448/1025	6/12	30 00	3500	2180	3640/4200	1415/1020	6/12	4000	2180	3710/4150	1470/1030	6/10	5000	2190	3890/4200	1340/1030	6/10		
Triplex full free mast	T45	4500	1850	2300	2050	5120/5590	1450/980	6/6	1670	2100	2220	5300/5700	1408/1013	6/6	25 00	2900	2220	5300/5700	1408/1013	6/6	3800	2220	5210/5650	1470/1030	6/10	4770	2340	5440/5700	1445/1185	6/6		
	T50	5000	1600	2000	2220	5620/6090	1620/1150	6/6	1400	1790	2390	5800/6200	1578/1183	6/6	21 00	2500	2390	5800/6200	1578/1183	6/6	3400	2390	5710/6150	1640/1200	6/6	4620	2510	5940/6200	1615/1355	6/6		
	T55	5500	1250	1500	2435	6120/6590	1835/1365	3/3	1150	1450	2605	6300/6700	1793/1398	3/6	17 00	2000	2605	6300/6700	1793/1398	3/6	3250	2605	6210/6650	1855/1415	3/6	4460	2670	6440/6700	1775/1515	3/6		
	T60	6000	950	1100	2600	6620/7090	2000/1530	3/3	800	1050	2770	6800/7200	1958/1563	3/6	12 00	1500	2770	6800/7200	1958/1563	3/6	3100	2770	6710/7150	2020/1580	3/6	4300	2840	6940/7200	1945/1685	3/6		

**External Side Shifter**



Rated load: 2.5t, 3.5t, 4t, 5t  
Safety grade: 2A, 3a  
Application: used for fork side shift condition.

**Side Shift Distance Adjuster**



Rated load: 2.5t, 3.5t, 4t, 5t  
Safety grade: 2A, 3A  
Application: used for fork side shift and lateral distance adjustment.

**Rotator**



Rated load: 2.5t, 3.5t, 4t, 5t  
Safety grade: 2A, 3A  
Application: used for goods need to be flipped and tilted condition.

**Single And Double Pallet Forks**



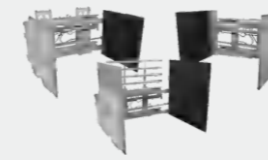
Rated load: 2.5t, 3.5t, 4t, 5t  
Safety grade: 2A, 3A  
Application: Used for handling double pallets, mostly used in breweries.

**Paper Roll Clamp**



Rated load: 2.5t, 3.5t, 4t, 5t  
Safety grade: 2A, 3A  
Application: used for handling paper rolls in paper industry.

**Carton Clamp**



Rated load: 2.5t, 3.5t, 4t, 5t  
Safety grade: 2A, 3A  
Application: used for handling the carton.

**Push-pulls**

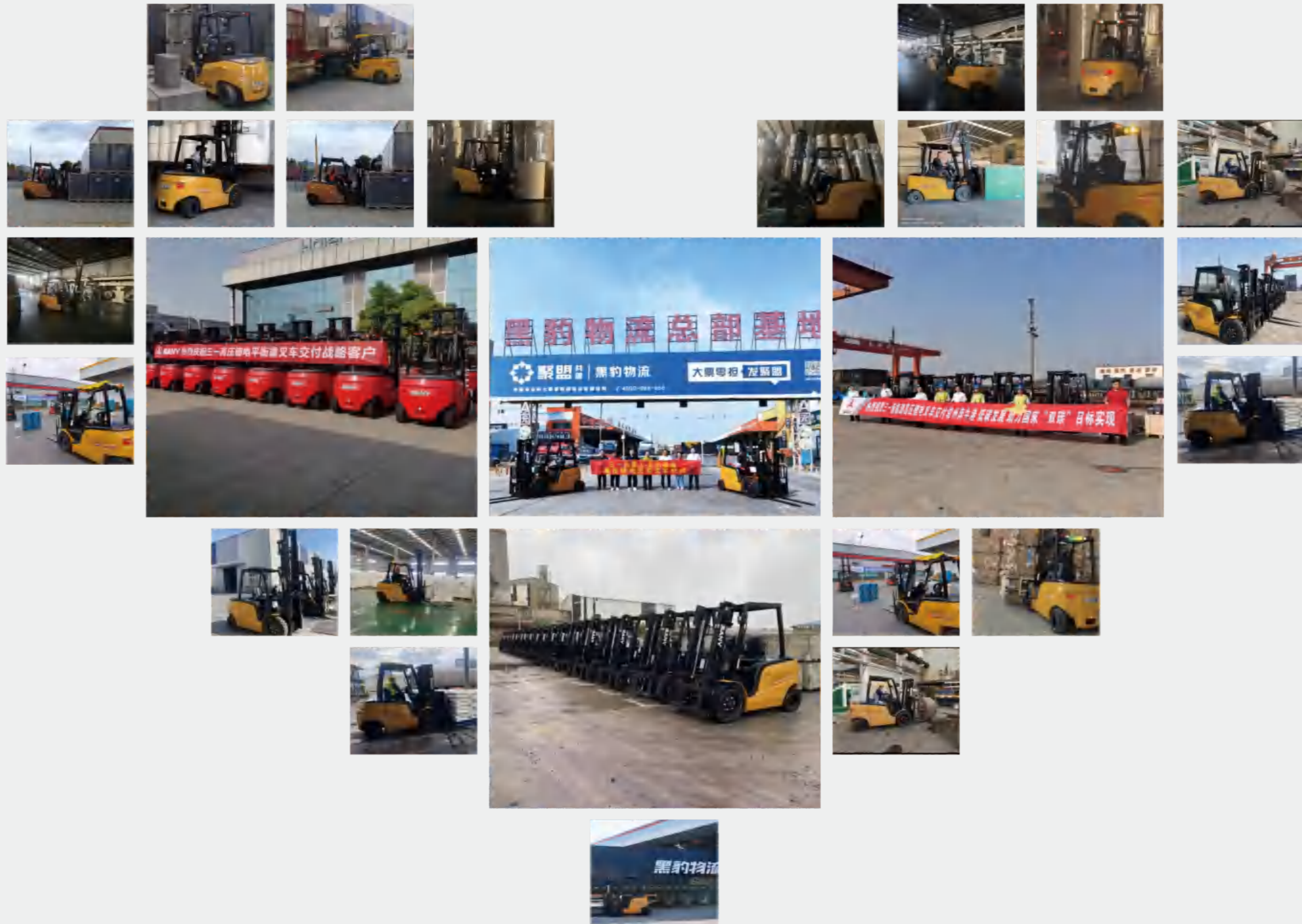


Rated load: 2.5t, 3.5t, 4t, 5t  
Safety grade: 2A, 3A  
Application: used for handling boxes or bags condition.

**Soft Bag Clamp**



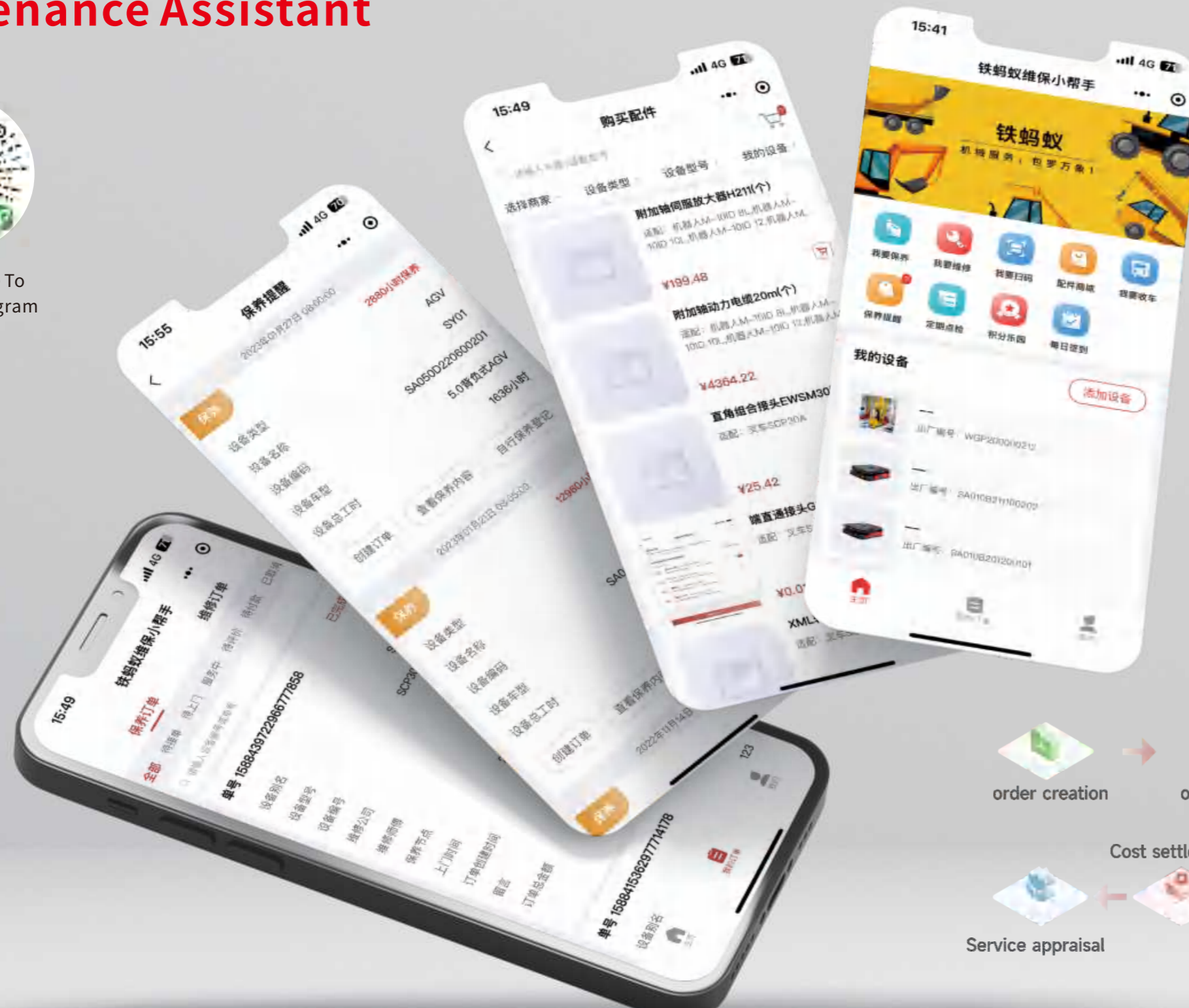
Rated load: 2.5t, 3.5t, 4t, 5t  
Safety grade: 2A, 3A  
Application: Used for the handling of waste recycling materials, waste paper, soft bags, textiles, etc.



# Iron Ant Maintenance Assistant



Scan Qr Code To  
Enter Mini Program



### •Service Request and Track

Customers shall submit maintenance or repair requests by just one click, track order, pay and make evaluation online.

### •Service support

Service engineers shall receive customer service orders in real-time and quickly respond to the malfunction.

Inquiry troubleshooting solutions in Multi directions.

### •Device Reminder

Proactive reminders for device Maintenance, inspection, and malfunction.

Ensure Device maintenance in time.

Iron Ant Maintenance Assistant provides on-site services and closed-loop management throughout the entire process. With the one-click service in Iron Ant program, service engineers can provide home visit services and try their best to repair and maintain the device. Lifecycle management, malfunction diagnosis, malfunction analysis, device operation monitoring at anytime and anywhere, device management easily, and helping customers achieve optimal productivity conversion of device.



# Service Is The Core Competitiveness Of Sany



**Service Outlets All Over The Country  
All Together With Our Customer Anytime Anywhere**

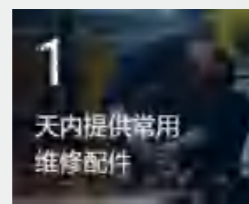
- More than **500** service points within group
- Own **4** directly affiliated service centers
- **100+** service engineers as "Special Forces"
- **7x24h** hotline service
- **365-day** emergency case response and service
- **Exceed customer expectations:** By providing excellent services to our customers, we will maximize the device value of each customer.
- **Exceed industry standards:** By implementing the highest industry service standards, we will achieve the highest customer satisfaction.



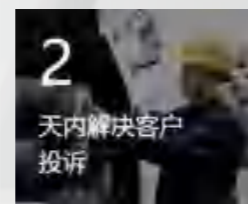
Reply to Customer **in 15 minutes**



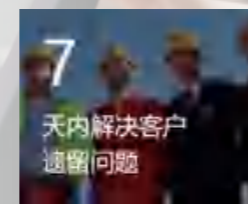
Reach the main service area **in 2 hours**



Provide frequently-used spare parts **in 1 day**



Solve customer complaints **within 2 days**



Solve customer issues remained **within 7 days**