

SANY[®]

QUALITY CHANGES THE WORLD



EMPTY CONTAINER HANDLER

SANY MARINE



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)

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- ▶ SANY Marine launched its first empty container handler in 2005, with total sales over 5,000 units.

The machines serve over 70 countries, achieving a 35% global share, with electric models capturing 80%.

The product line includes diesel, electric, battery-swap, and 25t to 45t heavy container models.



SDCE90K7E2 (Charge)



Ultra-Low Energy Consumption

- Energy recovery cuts usage by 15%
- 12h operation under medium-high load

Safety & Reliability

- 360° safety system
- Dynamic anti-rollover protection

Smart & Efficient

- 10" touchscreen, Gen-3 controller
- Response time ≤400ms
- Up to 45 containers/hour

Easy Maintenance

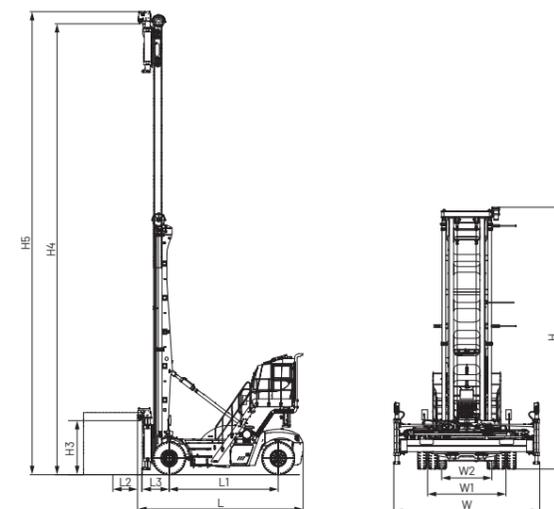
- 60+ diagnostic points, remote fault check
- Large engine bay for easy access

Product Parameters

Technical Parameter			Configuration Parameter			
ITEM	UNIT	SDCE90K7E2	CONFIGURATION	UNIT	SDCE90K7E2	
Overall Weight	t	40.5	Battery Type	-	LFP	
Rated Load	t	9	Electric Motor	-	PMSM	
Stack Layer	-	7	Charging Time	min	70(20%~95%)	
Max. Lifting Speed (0/full load)	mm/s	600/550	Endurance Time	h	12(Medium load)	
Max. Lowering Speed (0/full load)	mm/s	550/600	Lithium Battery	kwh	350	
Max. Traveling Speed (0/full load)	km/h	23/20	Noise In Cab	dB	≤70	
Gradeability (0/full load)	%	25/20	0~20km/h Accelerate Time	s	≤8	
Overall Length (L)	mm	6925	Model	-	SDJ90	
Wheel Base (L1)	mm	4550		Spreader	Lateral Move	mm
Rated Load Center Distance (L2)	mm	1220	Suitable For		mm	ISO20'/40'container
Front Overhang (L3)	mm	1140	Tires	-	14.00-24 28PR	
Overall Height H (retract/extend)	mm	10870/19240				
Min. Ground Clearance (H1)	mm	285				
Min. Locktip Ground Clearance (H3)	mm	2250				
Max. Mast Lifting Height (H4)	mm	18750				
Overall Width (W)	mm	6110~12242				
Front Gauge (W1)	mm	3280				
Rear Gauge (W2)	mm	2085				
Mast Tilt Angle (forw.α /backw. β)	°	2/4				
Min. Turning Radius	mm	6000				
Width For 20' container	mm	10000				
Width For 40' container	mm	14500				

Note: K6/K8 are optional

Dimensions



SDCE90K7E3 (battery-swap)



Flexible Charging Options

- 70min fast charge or 8min battery swap

Easy Maintenance

- External battery, no engine/transmission
- Saves \$4,500/year in servicing

Cloud-Based Smart Management

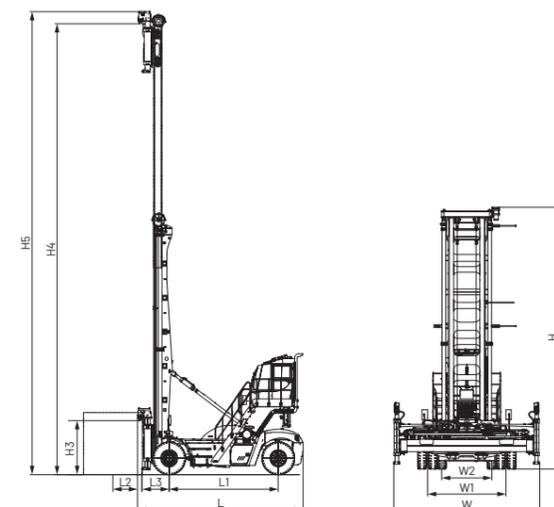
- Real-time monitoring
- Intelligent battery swap scheduling

▶ Product Parameters

Technical Parameter			Configuration Parameter			
ITEM	UNIT	SDC90K7E3	CONFIGURATION	UNIT	SDC90K7E3	
Overall Weight	t	41.5	Battery Type	-	LFP	
Rated Load	t	9	Electric Motor	-	PMSM	
Stack Layer	-	7	Charging/Swapping Time	min	70/8	
Max. Lifting Speed (0/full load)	mm/s	600/550	Endurance Time	h	9(Medium load)	
Max. Lowering Speed (0/full load)	mm/s	550/600	Lithium Battery	kWh	282	
Max. Traveling Speed (0/full load)	km/h	23/20	Noise In Cab	dB	≤70	
Gradeability (0/full load)	%	25/20	0~20km/h Accelerate Time	s	≤8	
Overall Length (L)	mm	6925	Spreader	Model	-	SDJ90
Wheel Base (L1)	mm	4550		Lateral Move	mm	±600 mm
Rated Load Center Distance (L2)	mm	1220	Suitable For	mm	ISO20'/40'container	
Front Overhang (L3)	mm	1140	Tires	-	14.00-24 28PR	
Overall Height H (retract/extend)	mm	10870/19240				
Min. Ground Clearance (H1)	mm	285				
Min. Locktip Ground Clearance (H3)	mm	2250				
Max. Mast Lifting Height (H4)	mm	18750				
Overall Width (W)	mm	6110~12242				
Front Gauge (W1)	mm	3280				
Rear Gauge (W2)	mm	2085				
Mast Tilt Angle (forw.α /backw.β)	°	2/4				
Min. Turning Radius	mm	6000				
Width For 20' container	mm	10000				
Width For 40' container	mm	14500				

note: K6/K8 are optional

▶ Dimensions



SDCE90K7E5 (Charge)



Ultra-Low Energy Use

- Dual recovery system, 15% less energy
- 10h runtime under load

Safety & Compliance

- Multi-level safety alerts
- CE & EMC certified

High Efficiency

- 95% motor efficiency
- Response time $\leq 400\text{ms}$
- 45 containers/hour

Easy Maintenance

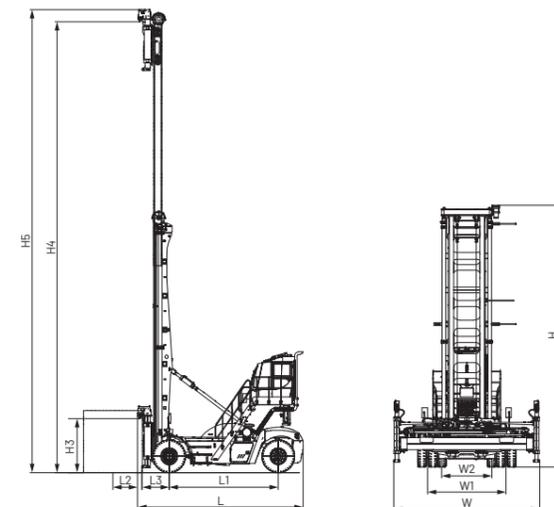
- 60+ smart diagnostics
- Remote troubleshooting

Product Parameters

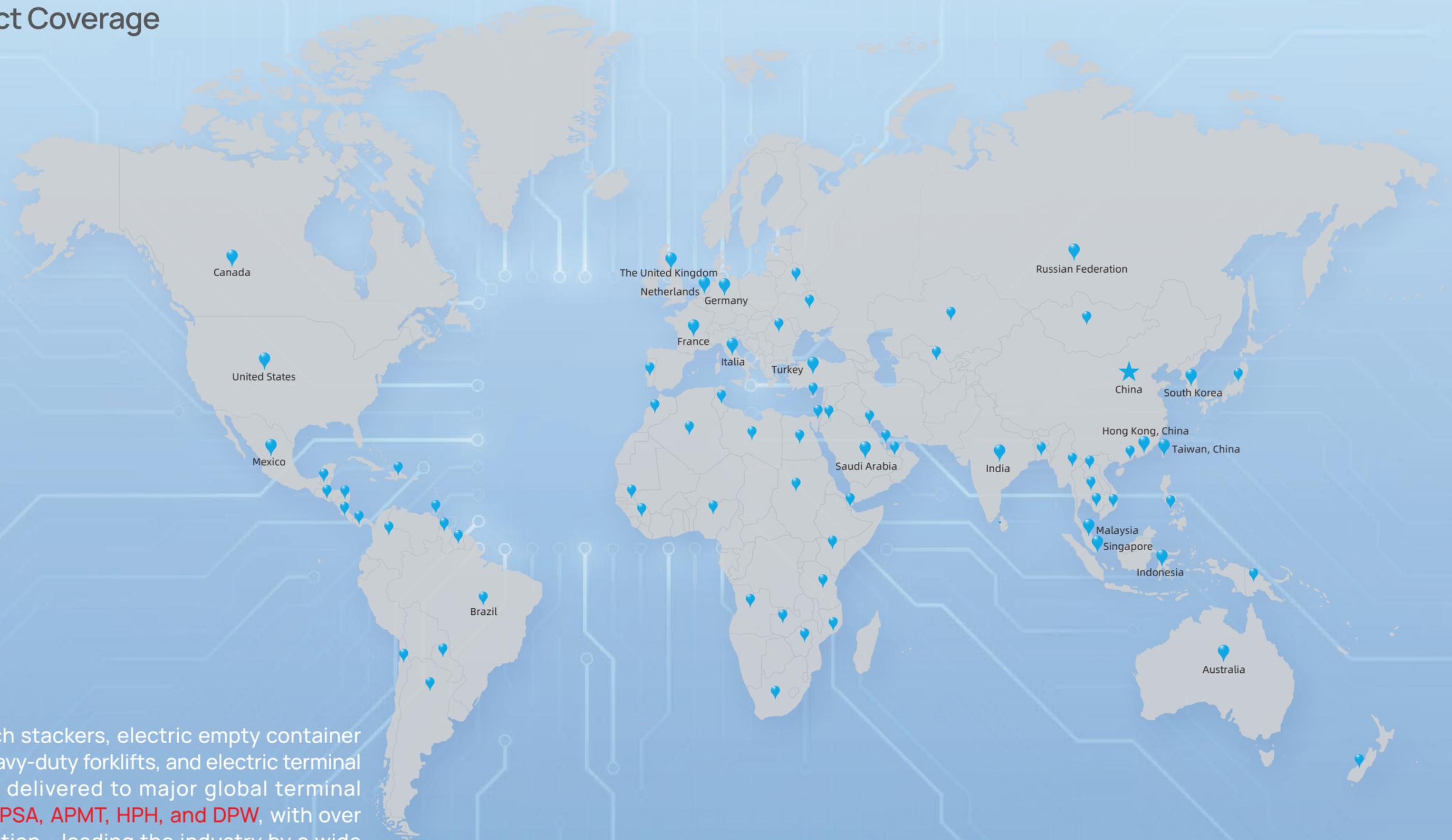
Technical Parameter			Configuration Parameter			
ITEM	UNIT	SDCE90K7E5	CONFIGURATION	UNIT	SDCE90K7E5	
Overall Weight	t	41.5	Battery Type	-	LFP	
Rated Load	t	9	Charging/Battery-Swaptime	min	70(20%~95%)	
Stack Layer	-	7	Endurance Time	h	≥ 10	
Max. Lifting Speed (0/full load)	mm/s	600/550	Lithium Battery	kwh	350	
Max. Lowering Speed (0/full load)	mm/s	550/600	Noise In Cab	dB	≤ 70	
Max. Traveling Speed (0/full load)	km/h	23/20	0~20km/h Accelerate Time	s	≤ 8	
Gradeability (0/full load)	%	25/20	Main Pump	-	Parker	
Overall Length (L)	mm	6925	Spreader	Model	-	SDJ90E
Wheel Base (L1)	mm	4550		Lateral Move	mm	± 600 mm
Rated Load Center Distance (L2)	mm	1220	Suitable For	mm	ISO20'/30'/40'container	
Front Overhang (L3)	mm	1140	Tires	-	14.00-24 28PR	
Overall Height H (retract/extend)	mm	10870/19240				
Min. Ground Clearance (H1)	mm	285				
Min. Locktip Ground Clearance (H3)	mm	2250				
Max. Mast Lifting Height (H4)	mm	18750				
Overall Width (W)	mm	6110-12242				
Front Gauge (W1)	mm	3280				
Rear Gauge (W2)	mm	2085				
Mast Tilt Angle (forw.a /backw. β)	$^{\circ}$	2/4				
Min. Turning Radius	mm	6200				
Width For 20' container	mm	10000				
Width For 40' container	mm	14500				

Note: K6/K8 are optional

Dimensions



▶ Electric Product Coverage



- ▶ SANY's electric reach stackers, electric empty container handlers, electric heavy-duty forklifts, and electric terminal tractors have been delivered to major global terminal operators including **PSA, APMT, HPH, and DPW**, with over **2,500** units in operation—leading the industry by a wide margin.

SDCY90K7V5B



Strong Performance

- Key parts from top global brands

Safe & Reliable

- Anti-rollover system
- Spreader life >30,000h

Operator Comfort

- 10" touchscreen, ≤400ms response
- Air suspension seat, climate control

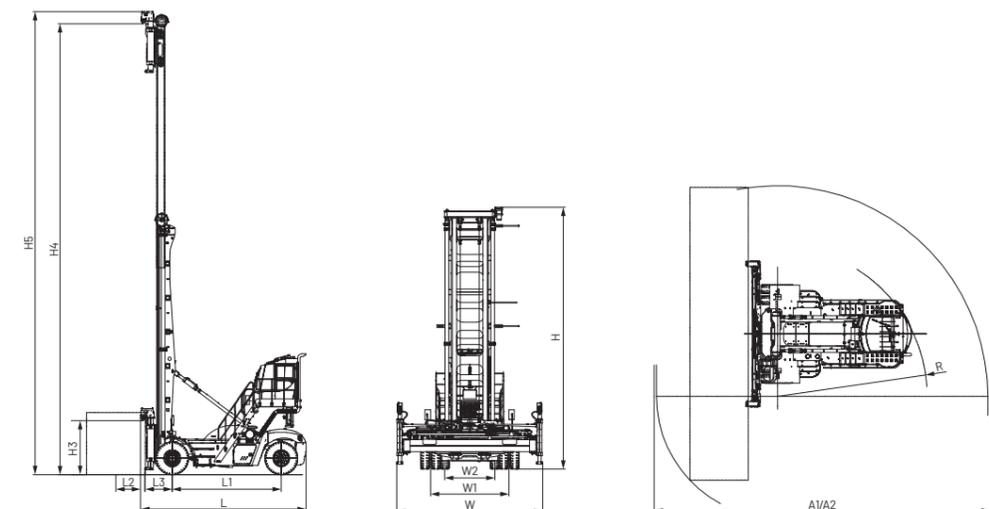
Excellent Performance

- Intelligent Viscous Fan with Superior Cooling
- Smooth-Shifting Smart Transmission

▶ Product Parameters

Technical Parameter			Configuration Parameter			
ITEM	UNIT	SDCY90K7V5B	CONFIGURATION	UNIT	SDCY90K7V5B	
Overall Weight	t	39	Engine	Model	-	Volvo TAD881VE
Rated Load	t	9		Rated Power	kW/rpm	185/2200
Stack Layer	-	7		Max. Torque	Nm/rpm	1160/1350
Max. Lifting Speed (0/full load)	mm/s	600/550		Emission	-	Stage 4/EU 5
Max. Lowering Speed (0/full load)	mm/s	550/600		Gearbox Model	-	DANA 340TE17312
Max. Traveling Speed (0/full load)	km/h	28/26	Main Pump	-	Parker	
Gradeability (0/full load)	%	35/25		Model	-	SDJ90
Overall Length (L)	mm	6900	Spreader	Lateral Move	mm	±600 mm
Wheel Base (L1)	mm	4550		Suitable For	mm	ISO20'/40'container
Rated Load Center Distance (L2)	mm	1220	Tires	-	14.00-24 28PR	
Front Overhang (L3)	mm	1140				
Overall Height H (retract/extend)	mm	10870/19240				
Min. Ground Clearance (H1)	mm	280				
Min. Locktip Ground Clearance (H3)	mm	2250				
Max. Mast Lifting Height (H4)	mm	18750				
Overall Width (W)	mm	6110-12242				
Front Gauge (W1)	mm	3280				
Rear Gauge (W2)	mm	2085				
Mast Tilt Angle (forw.α /backw.β)	°	2/4				
Min. Turning Radius (R)	mm	6000				
Width for 20'container (A1)	mm	10000				
Width for 40'container (A2)	mm	14500				

▶ Dimensions



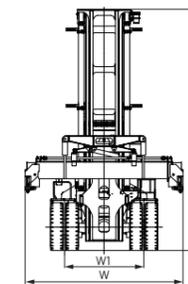
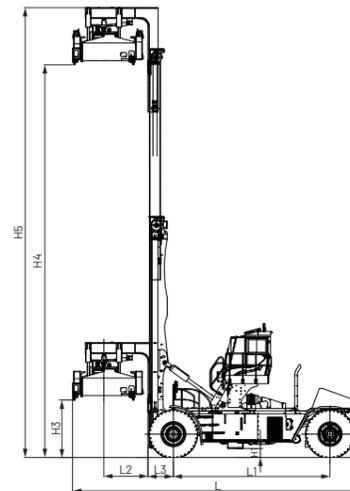
SDCY410K5H5



► Product Parameters

Technical Parameter			Configuration Parameter			
ITEM	UNIT	SDCY410K5H5	CONFIGURATION	UNIT	SDCY410K5H5	
Overall Weight	t	76	Engine	Model	-	CUMMINS QSL9
Rated Load	t	41		Rated Power	kW/rpm	248/2100
Stack Layer	-	5		Max. Torque	Nm/rpm	1424/1500
Max. Lifting Speed (0/full load)	mm/s	300/220		Emission	-	Tier 4F
Max. Lowering Speed (0/full load)	mm/s	250/300	Gearbox Model	-	DANA 36000	
Max. Traveling Speed (0/full load)	km/h	25/22		Main Pump	-	Parker
Gradeability (0/full load)	%	25/22	Spreader		Model	-
Overall Length (L)	mm	11139		Lateral Move	mm	±300 mm
Wheel Base (L1)	mm	6000		Self-Weight	t	11.5
Rated Load Center Distance (L2)	mm	1700		Suitable For	mm	ISO20'/40' container
Front Overhang (L3)	mm	970	Tires	-	18.00-33 36PR	
Overall Height H (retract/extend)	mm	9270/17186				
Min. Ground Clearance (H1)	mm	348				
Min. Locktip Ground Clearance (H3)	mm	2200				
Max. Mast Lifting Height (H4)	mm	15000				
Overall Width (W)	mm	6053-12185				
Front Gauge (W1)	mm	3033				
Rear Gauge (W2)	mm	2790				
Mast Tilt Angle (forw.α /backw.β)	°	2/10				
Min. Turning Radius (R)	mm	8100				
Width for 20'container (A1)	mm	12160				
Width for 40'container (A2)	mm	15110				

► Dimensions



Strong Performance

- Premium powertrain components

Lower Fuel Use

- Load-sensing hydraulic pump
- Smart flow adjustment

Safe & Reliable

- Anti-rollover + automatic fire suppression

Easy Maintenance

- Centralized lubrication system

V Series

SDCY90K7-V3 SDCY90K7-C3
SDCY90K7-C4



Powerful Performance

- International-brand key components

Safety & Reliability

- Anti-rollover system
- 30,000h spreader fatigue life

Operator Comfort

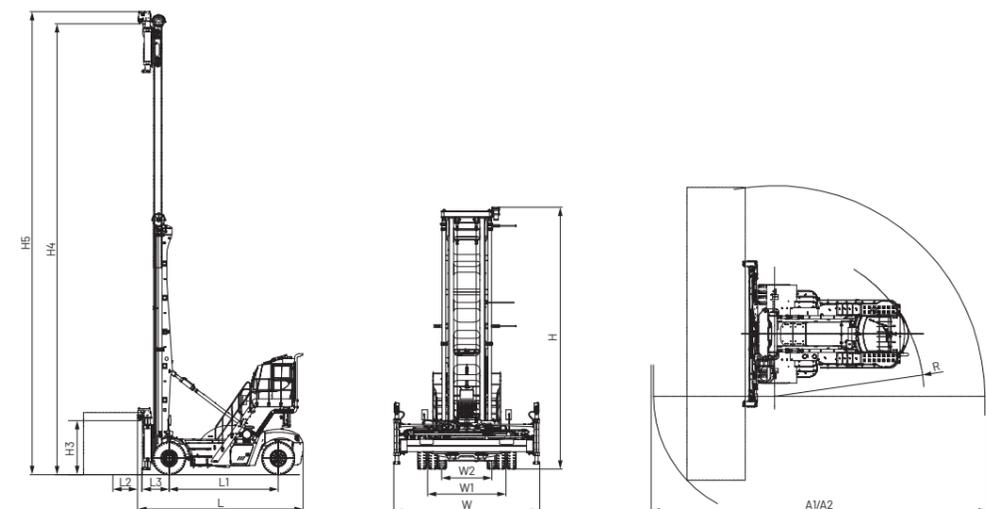
- 10" screen, ≤400ms response
- Suspension seat with HVAC

Product Parameters

Technical Parameter			Configuration Parameter		
ITEM	UNIT	V Series	CONFIGURATION	UNIT	V Series
Overall Weight	t	39	Model	-	SDJ90
Rated Load	t	9			
Stack Layer	-	7			
Max. Lifting Speed (0/full load)	mm/s	600/550			
Max. Lowering Speed (0/full load)	mm/s	550/600	Lateralmove	mm	±600 mm
Max. Traveling Speed (0/full load)	km/h	28/26			
Gradeability (0/full load)	%	35/25			
Overall Length (L)	mm	6925			
Wheel Base (L1)	mm	4550	Spreader	Self-weight	t
Rated Load Center Distance (L2)	mm	1220			
Front Overhang (L3)	mm	1140	Suitable fo	mm	ISO20'/40'container
Overall Height H (retract/extend)	mm	10870/19240			
Min. Ground Clearance (H1)	mm	300	Tires	-	14.00-24 28PR
Min. Locktip Ground Clearance (H3)	mm	2250			
Max. Mast Lifting Height (H4)	mm	18750			
Overall Width (W)	mm	6110-12242			
Front Gauge (W1)	mm	3280			
Rear Gauge (W2)	mm	2085			
Mast Tilt Angle (forw.α /backw.β)	°	2/4			
Min. Turning Radius (R)	mm	6000			
Width for 20'container (A1)	mm	10000			
Width for 40'container (A2)	mm	14500			

Note: k6/k8 are optional

Dimensions



G Series SDCY90K6G5 SDCY90K7G5



Efficient Powertrain

- Euro V compliant
- Strong load and impact capacity

Easy Operation

- Mast cushioning
- Electronic transmission

Reduced Energy Use

- Variable piston pump

High Safety

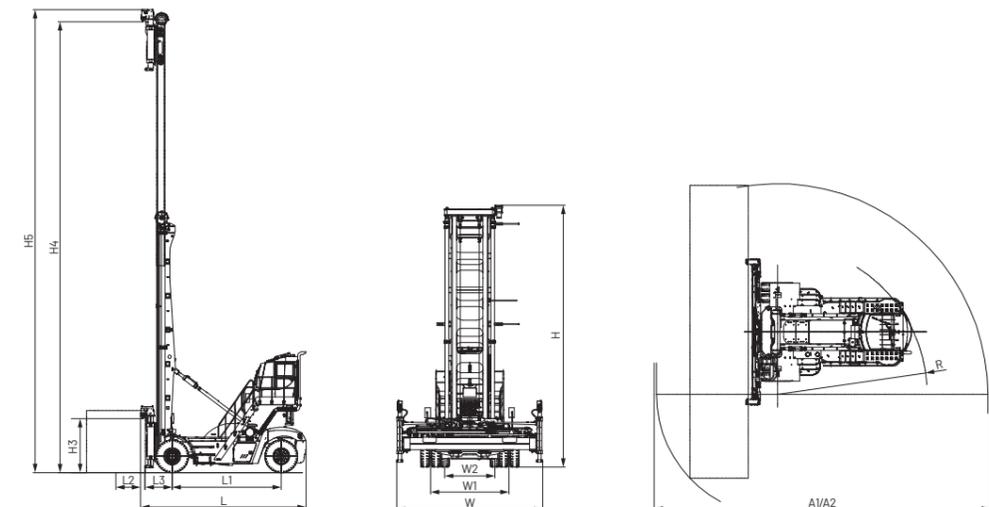
- CE Certified

Product Parameters

Technical Parameter				Configuration Parameter		
ITEM	UNIT	SDCY90K6G5	SDCY90K7G5	CONFIGURATION	UNIT	SDCY90K6G5/ SDCY90K7G5
Overall Weight	t	38	39	Model	-	Volvo TAD881VE
Rated Load	t	9	9	Rated Power	kW/rpm	185/2200
Stack Layer	-	6	7	Max. Torque	Nm/rpm	1160/1350
Max. Lifting Speed (0/full load)	mm/s	600/550	600/550	Emission	-	Europe Stage V
Max. Lowering Speed (0/full load)	mm/s	550/600	550/600	Gearbox Model	-	DANA TE17
Max. Traveling Speed (0/full load)	km/h	28/26	28/26	Main Pump	-	Parker
Gradeability (0/full load)	%	35/25	35/25	Model	-	SDJ90E
Overall Length (L)	mm	6925	6925	Lateral Move	mm	±600 mm
Wheel Base (L1)	mm	4550	4550	Self-Weight	t	4.4
Rated Load Center Distance (L2)	mm	1220	1220	Suitable For	mm	ISO20'/30'/40' container
Front Overhang (L3)	mm	1140	1140	Tires	-	14.00-24 28PR
Overall Height H (retract/extend)	mm	9520/16540	10870/19240			
Min. Ground Clearance (H1)	mm	280	280			
Min. Locktip Ground Clearance (H3)	mm	2250	2250			
Max. Mast Lifting Height (H4)	mm	16050	18750			
Overall Width (W)	mm	6110-12242	6110-12242			
Front Gauge (W1)	mm	3280	3280			
Rear Gauge (W2)	mm	2085	2085			
Mast Tilt Angle (forw.α /backw.β)	°	2/4	2/4			
Min. Turning Radius (R)	mm	6000	6000			
Width for 20' container (A1)	mm	10000	10000			
Width for 40' container (A2)	mm	14500	14500			

Note: k6/k8 are optional

Dimensions



▶ SANY Spreader

▶ Single-Box Lifting Spreader

The SANY SDJ90 series lifting gear is designed for 20' and 40' container stacking, loading, and unloading with empty container stackers. It offers reliable performance and meets the operational needs of major ports and terminals, earning high customer praise.

SANY Classic Lifting Spreader

SDJ90F

▪ Rated Lifting Capacity	9t
▪ Self-Weight	4.4t
▪ Applicable Container Types	ISO20'/40'Containers
▪ Side Shift Distance	±600mm
▪ Detection Device	Sensor Detection
▪ Lock Pin Type	ISO Floating Lock Pin

The SANY spreader is designed for both standard and wide containers,accommodating a wider range of operational conditions with easy handling.

SDJ90F-B

▪ Rated Lifting Capacity	9t
▪ Self-Weight	4.6t
▪ Applicable Container Types	ISO、WTP20'/40'Containers
▪ Side Shift Distance	±600mm
▪ Detection Device	Sensor Detection
▪ Lock Pin Type	ISO Floating Lock Pin

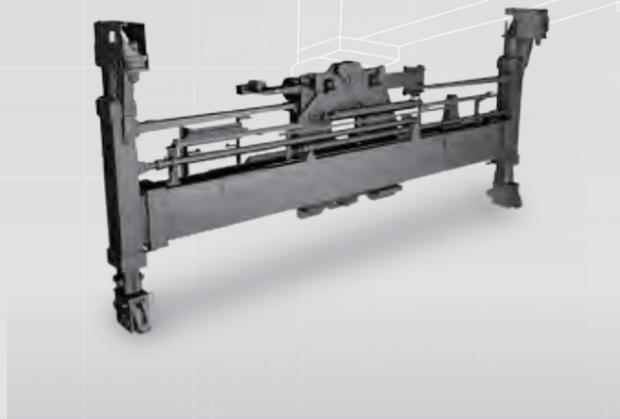
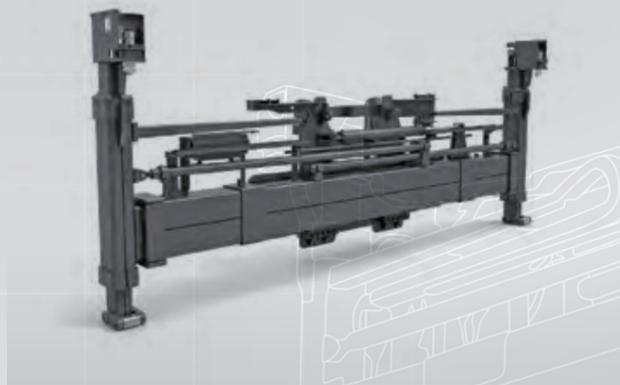
▶ Cross-bar Spreader

The SANY spreader is a specialized lifting device for handling containers transported by flatbed trailers.SANY has independently developed single-box and double-box spreader series, effectively addressing the unique needs of this operation and meeting diverse customer requirements.

Specialized lifting device for flatbed trailer container handling

SDJ90C1

▪ Rated Lifting Capacity	9t
▪ Self-Weight	5t
▪ Applicable Container Types	ISO20'/40'Containers
▪ Side Shift Distance	±600mm
▪ Detection Device	Sensor Detection
▪ Lock Pin Type	ISO Floating Lock Pin



▶ Dual-box Lifting Spreader

The SANY dual-box lifting spreader is designed for empty container stackers to handle 20' or 40' containers, either in single or double box configurations. It offers clear visibility, convenient container handling, and high efficiency, ensuring safety and stability during operations.

Convenient handling, safe and efficient

SDJT100

▪ Rated Lifting Capacity	10t
▪ Self-Weight	5t
▪ Applicable Container Types	ISO20'/40'Containers
▪ Side Shift Distance	±300mm
▪ Detection Device	Sensor Detection
▪ Lock Pin Type	Front lock hook with dual-side auxiliary hooks

Suitable for double-box spreader operations, meeting specific customer requirements

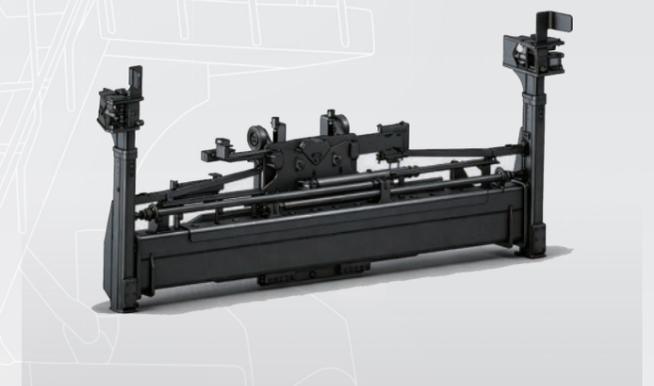
SDJT100H

▪ Rated Lifting Capacity	10t
▪ Self-Weight	6.2t
▪ Applicable Container Types	20'High-Cube/20'/40'Containers
▪ Side Shift Distance	±300mm
▪ Detection Device	Sensor Detection
▪ Lock Pin Type	Front lock hook with dual-side auxiliary hooks

11t Twin-Lift Spreader, Greater Lifting Capacity

SDJ110G

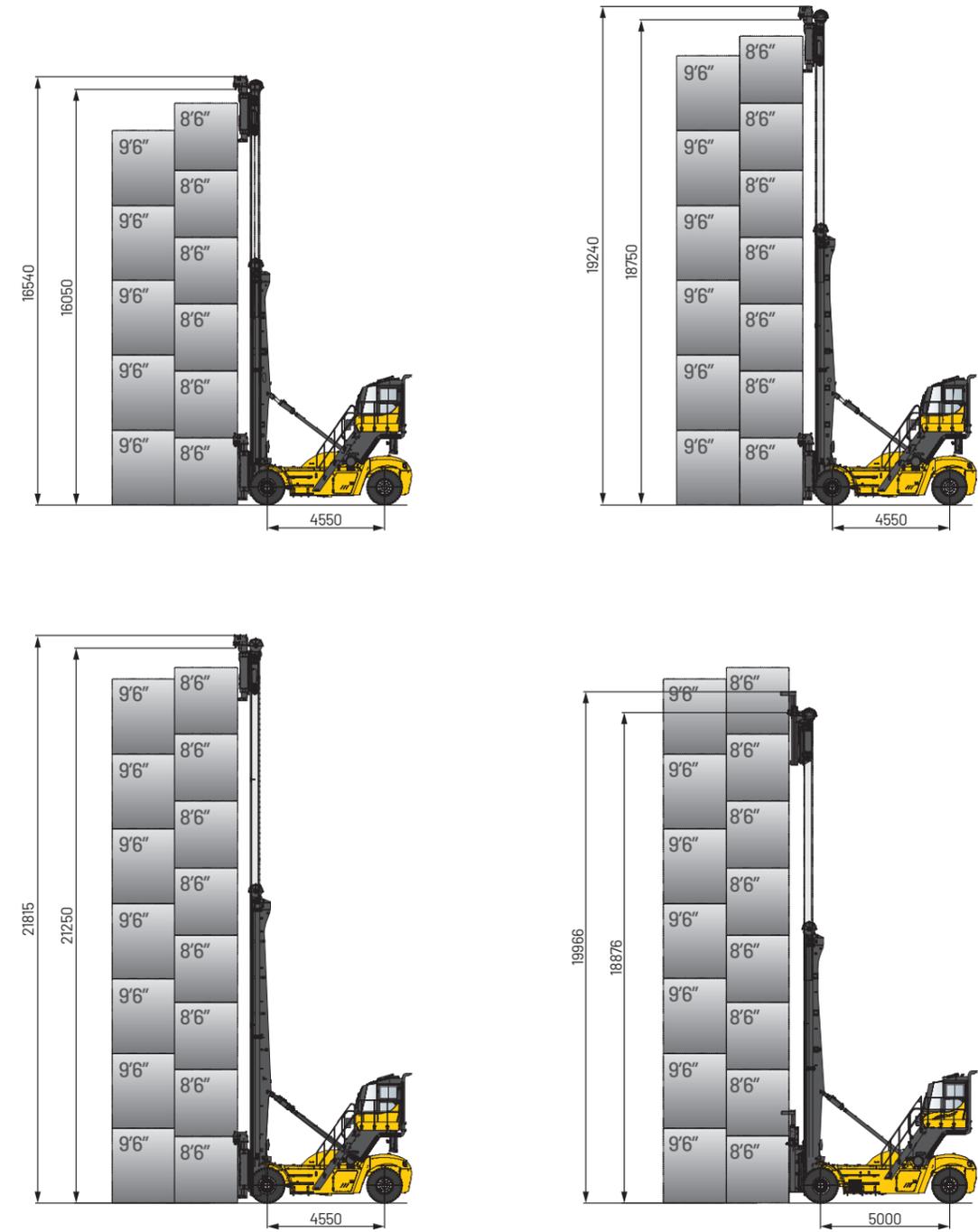
▪ Rated Lifting Capacity	11t
▪ Self-Weight	5.9t
▪ Applicable Container Types	ISO 20'/30'/40' Containers
▪ Side Shift Distance	±600mm
▪ Detection Device	Sensor Detection
▪ Lock Pin Type	Front lock hooks with bilateral auxiliary latch hooks



► Accessory List

Optional Function	Optional Instructions	Star rating
Insulation system for extreme cold regions	Recommended for regions with temperatures below -15° C, such as North America, Russia, and Europe; mandatory below -30° C.	
Automatic centralized lubrication system	Electric lubrication pump for automatic lubrication of chassis and gantry.	★★★
Co-driver seat in the cab	Co-driver seat in the cabin.	
Cab overhead protective frame	Cab protection to prevent driver injury from box drops.	★★★
Automatic lubrication system for spreaders	Electric lubrication pump for lifting attachment.	★★★
5-meter visible reversing radar system	Reversing camera with 5-meter radar displayed on the cabin screen.	
Amplified alarm system	Loudspeaker and alarm system included.	
Tire pressure monitoring system	Real-time tire pressure monitoring with alarm.	★★★
Three-color spreader indicator light in the cab	Three-color light in the cabin indicating lifting attachment status.	
Rear counterweight warning light	Warning light on rear counterweight.	
Air suspension seat	Air-suspension shock-absorbing seat.	★★★
Safety indicator lights	Safety warning line lights on both sides and rear.	
Drive recorder	Records interior and exterior footage during operation.	★★★
Intercom	Wireless communication.	
Spreader camera system	Wireless camera on lifting attachment for easy box positioning.	
Radio	Radio, horn, and antenna included.	
Terminal mounting bracket	Wireless terminal mounting device.	
Reversing pedestrian detection system	System for warning or automatic braking based on pedestrian location.	★★★
TreeRoot connectivity	Real-time equipment status monitoring.	
ABC dry powder fire extinguisher (2kg)	ABC dry powder fire extinguisher (2kg).	
Rim protection plate	Rim bolt protection to prevent breakage.	

► Load Diagram



► Construction Cases



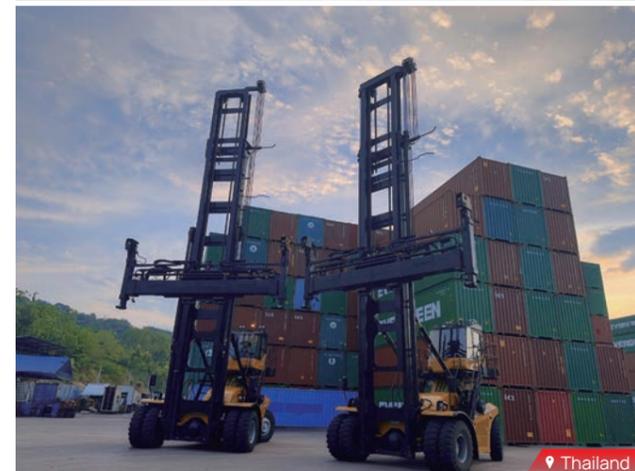
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APMT



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Considering the continuous progress and update of SANY Marine technology, the technical parameters and configuration of products are modified and adjusted at any time, so this brochure is for reference only.

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