# SANY HEAVY DUTY FORKLIFT TRUCKS COMMITMENT TO PROFESSIONAL QUALITY

#### **Advanced Research and Development Methods**

Based on the Finite Element Analysis (FEA), SANY uses kinematic and dynamic simulation analysis and calculations to obtain the precise data for the foundation of the machine's design. This guarantees the sound structure, excellent performance, and as well as the stability and reliability of the machine.

#### **Leading Manufacturing Process**

The welding of the box frame chassis is applied using gas shielded welding technology. Our machine can withstand stringent tests showing that every key weld has passed with 100% grade non-destructive testing and flaw inspection.

#### **Advanced Testing and Quality Control System**

SANY R&D teams, strictly test the overall performance of every unit of port machinery. Various parameter tests (stress strain, pressure, displacement, speed, acceleration, torque, and power) as well as malfunction detection (fatigue, vibratory, control, and power consumption performance) are performed on each unit. Only after the product passed all levels can it be put on the production line and launched into the market.

SANY adheres to the service philosophy of creating value for customers and focusing on customers'needs, aiming to provide our customers with more efficient, reliable and satisfactory services.



**Quality Changes the World** 

### We are dedicated to providing faster and more reliable service







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## Quality Changes the World



## SANY HEAVY DUTY FORKLIFT TRUCKS



## **Core Technologies**

#### ■ Patented Movable Cabin

The patented movable cabin creates optimal visibility for the operator and the improvement of cargo handling efficiency. It also assists with the overhauling and maintenance in the engine located underneath cabin.

#### ■ Intelligent Rollover Protection System

Real-time monitoring system provides the SANY Heavy Capacity Forklift Truck with intelligent torque protection and anti-rollover device that ensures stable and safe performance.

#### CAN-BUS Communication Technology

Equipped with CAN communication technology, all of signals concerning the machine are transmitted with real-time data which has the advantages of long transmission life, quick response, high anti-interference ability, stable network system, and strong extension ability.

#### ■ BUS Throttle Control Technology

The BUS Throttle Control Technology allows for the SANY Heavy Duty Forklift Truck to work seamlessly under various working conditions by signally the engine to adjust according to the changes in environment, thus protecting the engine and overall saving energy.

#### Advanced Hydraulic Load Sensing Technology

When load condition changes the proportional reversing valve signals the load sensing valve mounted on the variable piston pump to control the oil output, which controls the engine output to save energy.

#### Flow Amplifying Technology

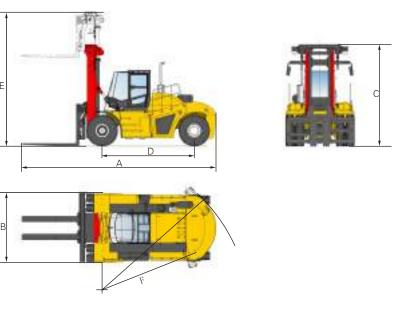
The Flow Amplifying Technology controls for the precise oil flow through the steering cylinder allowing the light and flexible operation for rapid response speed.

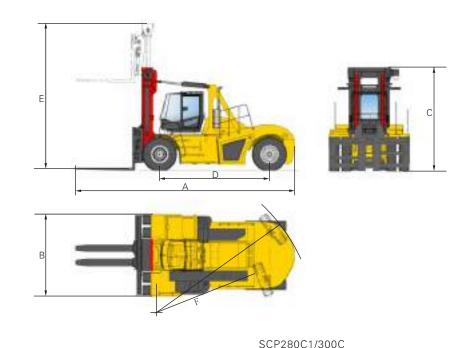
#### Finite Element Analysis and Dynamic Simulation Technology

With the application of advanced finite element analysis and the kinematic simulation method, the overall design of the machine can assure the durable structure of the boom and frame, the excellent performance and the extraordinary stability and reliability of the entire machine.

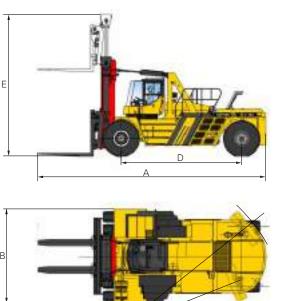
## TECHNICAL PARAMETERS

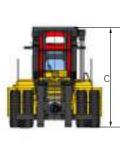
	Qualification	SCP160C	SCP180C2	SCP220C	SCP250C	SCP280C1	SCP300C	SCP320C1	SCP350C	SCP380C	SCP420C	SCP4604
Engine	Model	CUMMINS QSB6.7	CUMMINS QSB6.7	VOLVO TAD720VE	VOLVO TAD720VE	VOLVO TAD760VE	VOLVO TAD760VE	VOLVO TAD760VE	VOLVO TAD760VE	VOLVO TAD1340VE	VOLVO TAD1340VE	VOLVO TAD1340VE
	Rated power	164kw/2300rpm	164kw/2300rpm	174kw/2300rpm	174kw/2300rpm	181kw/2300rpm	181kw/2300rpm	181kw/2300rpm	181kw/2300rpm	256kw/2100rpm	256kw/2100rpm	256kw/2100rpm
	Emission standard	EU Stage III	EU Stage III	EU Stage II	EU Stage II	EU Stage III	EU Stage III	EU Stage III	EU Stage III	EU Stage II	EU Stage II	EU Stage II
Tra	nsmission	DANA										
Driv	re axle	KESSLER-D81	KESSLER-D81	KESSLER-D91	KESSLER-D91	KESSLER-D91	KESSLER-D91	KESSLER-D91	KESSLER-D91	KESSLER-D102	KESSLER-D102	KESSLER-D102
Fork	Dimension(L $\times$ W $\times$ T)	2400 × 200 × 100mm	2400 × 200 × 100mm	2400 × 250 × 110mm	2400 × 250 × 110mm	2400 × 300 × 110mm	2400 × 300 × 110 mm	2400 × 300 × 125 mm	2400 × 300 × 125 mm	2400 × 300 × 140 mm	2400 × 300 × 140 mm	2400 × 300 × 140 mm
	Shift distance	700~2310mm	700~2310mm	786~2776mm	786~2776mm	920~2850mm	920~2850mm	920~2850mm	920~2850mm	1550~3150mm	1550~3150mm	1550~3150mm
Tire	type(Front/Rear)	12.00-24 24PR	12.00-24 24PR	14.00-24 32PR	14.00-24 32PR	16.00-25 32PR	16.00-25 32PR	16.00-25 32PR	16.00-25 32PR	18.00-25 40PR	18.00-25 40PR	18.00-25 40PR
Mast	Max. lift height	4000mm	5000mm									
	Tilt angle (Front/Rear)	5° /10°	5° /10°	5° /10°	5° /10°	5° /10°	5° /10°	5° /10°	5° /10°	5° /10°	5° /10°	5° /10°
Overall parameters	Overall weight	24.4t	32t	35t	36t	39t	42.5t	43t	45t	47t	54t	56t
	Rated capacity	16t	18t	22t	25t	28t	30t	32t	35t	38t	42t	46t
	Max. Traction	138 kN	138 kN	160kN	160kN	186kN	186kN	186kN	186kN	310kN	310kN	310kN
	Max. lift speed	Full load:350mm/s No load:400mm/s	Full load:350mm/s No load:400mm/s	Full load:250mm/s No load:300mm/s	Full load:250mm/s No load:300mm/s	Full load:300mm/s No load:400mm/s	Full load:300mm/s No load:400mm/s	Full load:300mm/s No load:400mm/s	Full load:300mm/s No load:400mm/s	Full load:250mm/s No load:300mm/s	Full load:250mm/s No load:300mm/s	Full load:250mm/s No load:300mm/s
	Max. lowering speed	Full load:450mm/s No load:400mm/s	Full load:450mm/s No load:400mm/s	Full load:400mm/s No load:350mm/s								
	Max. travel speed	Full load:28km/h No load:30km/h	Full load:28km/h No load:30km/h	Full load:26km/h No load:30km/h	Full load:22km/h No load:25km/h	Full load:22km/h No load:25km/h	Full load:22km/h No load:25km/h					
	Gradeability	Full load:30% No load:40%	Full load:22% No load:36%	Full load:20% No load:34%	Full load:18% No load:33%	Full load:20% No load:36%	Full load:18% No load:33%	Full load:17% No load:33%	Full load:16% No load:30%	Full load:22% No load:40%	Full load:21% No load:38%	Full load:20% No load:35%
	Cab noise	≤72dB										
	A (Overall Length)	8070mm	8070mm	8800mm	8800mm	9288mm	9288mm	9587mm	9587mm	10400mm	10400mm	10400mm
	B (Overall width)	2675mm	2675mm	3100mm	3100mm	3450mm	3450mm	3450mm	3450mm	4300mm	4300mm	4300mm
	C (Overall height)	3760mm	3760mm	3950mm	3950mm	4400mm	4400mm	4400mm	4400mm	4500mm	4500mm	5000mm
	D (Wheel base)	3750mm	3750mm	4000mm	4300mm	4500mm	4500mm	4800mm	4800mm	5000mm	5500mm	5500mm
	E (Max. height)	5710mm	5710mm	5895mm	5895mm	6345mm	6345mm	6345mm	6345mm	6430mm	6430mm	7430mm
	F(Min. turning radius)	5100mm	5100mm	5600mm	6000mm	6600mm	6600mm	6800mm	6800mm	7600mm	7600mm	7600mm





SCP320C1/350C





SCP380C/420C/4604

SCP160C/180C2 SCP220C/250C