# 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.

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


**Quality Changes the World**

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SANY

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.

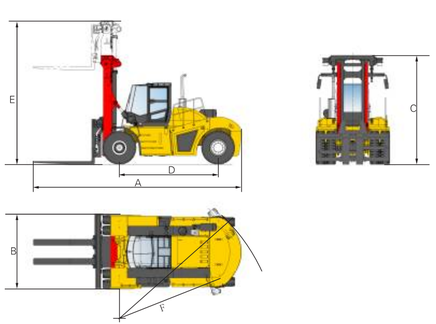
- **Advanced Hydraulic Load Sensing Technology**
  When load condition changes the proportional reversing valve signals the load sensing valve mounted on the variable piston pump to control the oil output, which controls the engine output to save energy.

- **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.

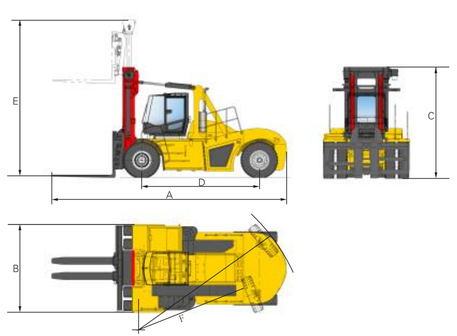
- **Finite Element Analysis and Dynamic Simulation Technology**
  With the application of advanced finite element analysis and the kinematic simulation method, the overall design of the machine can assure the durable structure of the boom and frame, the excellent performance and the extraordinary stability and reliability of the entire machine.

# TECHNICAL PARAMETERS

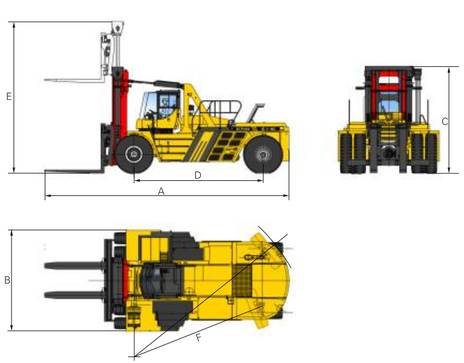
| | Qualification | SCP160C2 | SCP180C2 | SCP200C2 | SCP220C | SCP250C | SCP300C | SCP320C1 | SCP350C | SCP380C | SCP420C | SCP4604 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engine | Model | CUMMINS QSB6.7 | CUMMINS QSB6.7 | CUMMINS QSB6.7 | VOLVO TAD720VE | VOLVO TAD720VE | VOLVO TAD760VE | VOLVO TAD760VE | VOLVO TAD760VE | VOLVO TAD1340VE | VOLVO TAD1340VE | VOLVO TAD1340VE |
| | Rated power | 164kw/2300rpm | 164kw/2300rpm | 164kw/2300rpm | 174kw/2300rpm | 174kw/2300rpm | 181kw/2300rpm | 181kw/2300rpm | 181kw/2300rpm | 256kw/2100rpm | 256kw/2100rpm | 256kw/2100rpm |
| | Emission standard | EU Stage Ⅲ | EU Stage Ⅲ | EU Stage Ⅲ | EU Stage Ⅱ | EU Stage Ⅱ | EU Stage Ⅲ | EU Stage Ⅲ | EU Stage Ⅲ | EU Stage Ⅱ | EU Stage Ⅱ | EU Stage Ⅱ |
| Transmission | | DANA | DANA | DANA | DANA | DANA | DANA | DANA | DANA | DANA | DANA | DANA |
| Drive axle | | KESSLER–D81 | KESSLER–D81 | KESSLER–D81 | KESSLER–D91 | KESSLER–D91 | KESSLER–D91 | KESSLER–D91 | KESSLER–D91 | KESSLER–D102 | KESSLER–D102 | KESSLER–D102 |
| Fork | Dimension(L × W × T) | 2400 × 200 × 100mm | 2400 × 200 × 100mm | 2400 × 250 × 105mm | 2400 × 250 × 110mm | 2400 × 250 × 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 | 786~2776mm | 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 28PR | 14.00–24 32PR | 14.00–24 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 | 4000mm | 4000mm | 4000mm | 4000mm | 4000mm | 4000mm | 4000mm | 4000mm | 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 | 30t | 30.6t | 35t | 36t | 42.5t | 43t | 45t | 47t | 54t | 56t |
| | Rated capacity | 16t | 18t | 20t | 22t | 25t | 30t | 32t | 35t | 38t | 42t | 46t |
| | Load center | 1200mm | 1200mm | 1200mm | 1200mm | 1200mm | 1200mm | 1200mm | 1200mm | 1200mm | 1200mm | 1200mm |
| | 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: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: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:400mm/s No load:400mm/s | Full load:400mm/s No load:400mm/s | Full load:400mm/s No load:350mm/s | Full load:400mm/s No load:350mm/s | Full load:400mm/s No load:350mm/s | Full load:400mm/s No load:350mm/s | Full load:400mm/s No load:350mm/s | Full load:400mm/s No load:350mm/s | Full load:400mm/s No load:350mm/s | Full load:400mm/s No load:350mm/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:26km/h No load:30km/h | Full load:26km/h No load:30km/h | Full load:26km/h No load:30km/h | Full load:26km/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:22% No load:36% | Full load:20% No load:34% | Full load:18% No load:33% | 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 | ⩽72dB | ⩽72dB | ⩽72dB | ⩽72dB | ⩽72dB | ⩽72dB | ⩽72dB | ⩽72dB | ⩽72dB | ⩽72dB |
| | A (Overall Length) | 8070mm | 8070mm | 8580mm | 8800mm | 8800mm | 9288mm | 9587mm | 9587mm | 10400mm | 10400mm | 10400mm |
| | B (Overall width) | 2675mm | 3100mm | 3100mm | 3100mm | 3100mm | 3450mm | 3450mm | 3450mm | 4300mm | 4300mm | 4300mm |
| | C (Overall height) | 3760mm | 3950mm | 3950mm | 3950mm | 3950mm | 4400mm | 4400mm | 4400mm | 4500mm | 4500mm | 5000mm |
| | D (Wheel base) | 3750mm | 3750mm | 4050mm | 4300mm | 4300mm | 4500mm | 4800mm | 4800mm | 5000mm | 5500mm | 5500mm |
| | E (Max. height) | 5710mm | 5895mm | 5895mm | 5895mm | 5895mm | 6345mm | 6345mm | 6345mm | 6430mm | 6430mm | 7430mm |
| | F(Min. turning radius) | 5100mm | 5100mm | 5750mm | 6000mm | 6000mm | 6600mm | 6800mm | 6800mm | 7600mm | 7600mm | 7600mm |




SCP160C2/180C2/200C2
SCP220C/250C




SCP280C1/300C
SCP320C1/350C

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